

## 1 System requirements

### 1.1 Client and single place installation

	Recommended configuration	Minimum configuration
Processor	Intel Core i5 or comparable	Intel Core Duo or comparable
RAM	>=4 GB	2 GB
Free hard disk space	>10 GB	10 GB
Monitor	22" 1980 x 1050	19" 1280 x 1024
Operating system	Windows 7 Professional	Windows 7 SP1
Network	Gigabit LAN	100MBit TCP/IP LAN

### 1.2 Server

The optimal configuration of the server is dependent on the amount of users and on the size of the database. To reach an optimal performance individual coordination is necessary. The following table is oriented on a database size of 2 GB, running on a MS SQL Server 2019, with 2 - 5 users, that are working simultaneously with ingenious.

	Recommended configuration	Minimum configuration
Computer	x64 Processor 2.0 GHz or faster	x64 Processor 1,4 GHz
RAM	>= 4 GB In order to work smoothly, the main memory should be at least as large as half the database.	2 GB
free disk space	> 20 GB We recommend using an SSD for smooth work.	10 GB
Monitor	19" 1280 x 1024	19" 1280 x 1024
Operating system	Windows Server 2016 or higher	Windows 10 TH1 1507 or higher
Options	USV, external disk system for backup, DSL internet line	Disk for backup, DSL internet line
Network	Gigabit LAN	100MBit TCP/IP - LAN

## 2 Login

### 2.1 Local database

Login can be made to a local application. This is presetted for a single place installation. For server installation it can additionally be chosen.



### 2.2 Server database

#### Login

To log in to an ingenious database in a client/server installation, you must select the desired database. The connection options are opened using the small arrow at the bottom left of the login mask.

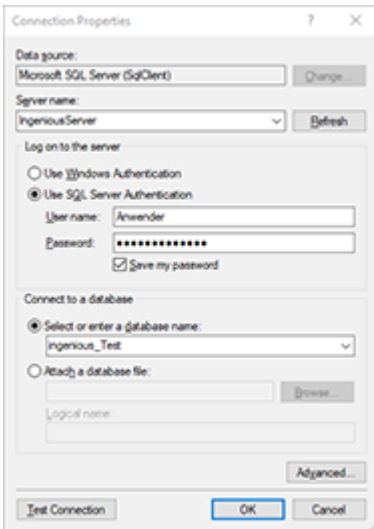


In the appearing Window all connection properties are to be set. The server name can be chosen from drop-down or entered manually.

For login SQL Server authentication is used.



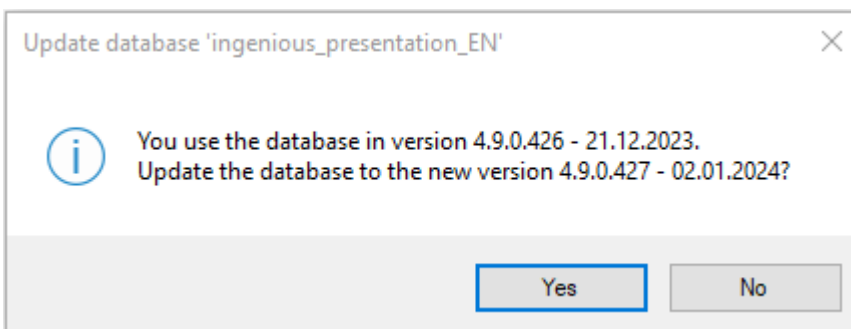
Within a server installation more than one databases can be created. An existing one can be selected from drop-down. These connection settings will be chosen for all future logins, until the settings are changed again.



## Database update

If a new release of the ingenious software has been installed and the database is started with this version for the first time, the database will be updated to the new version.

Before the update, there is a security query that the user must confirm or reject.



## 2.3 Login

Within the software single functions are secured by user rights to prevent unauthorized persons from getting access to sensitive data.

When starting the software user name and password are requested. Also the language can be chosen (actual German, English, Dutch and Slovenian).

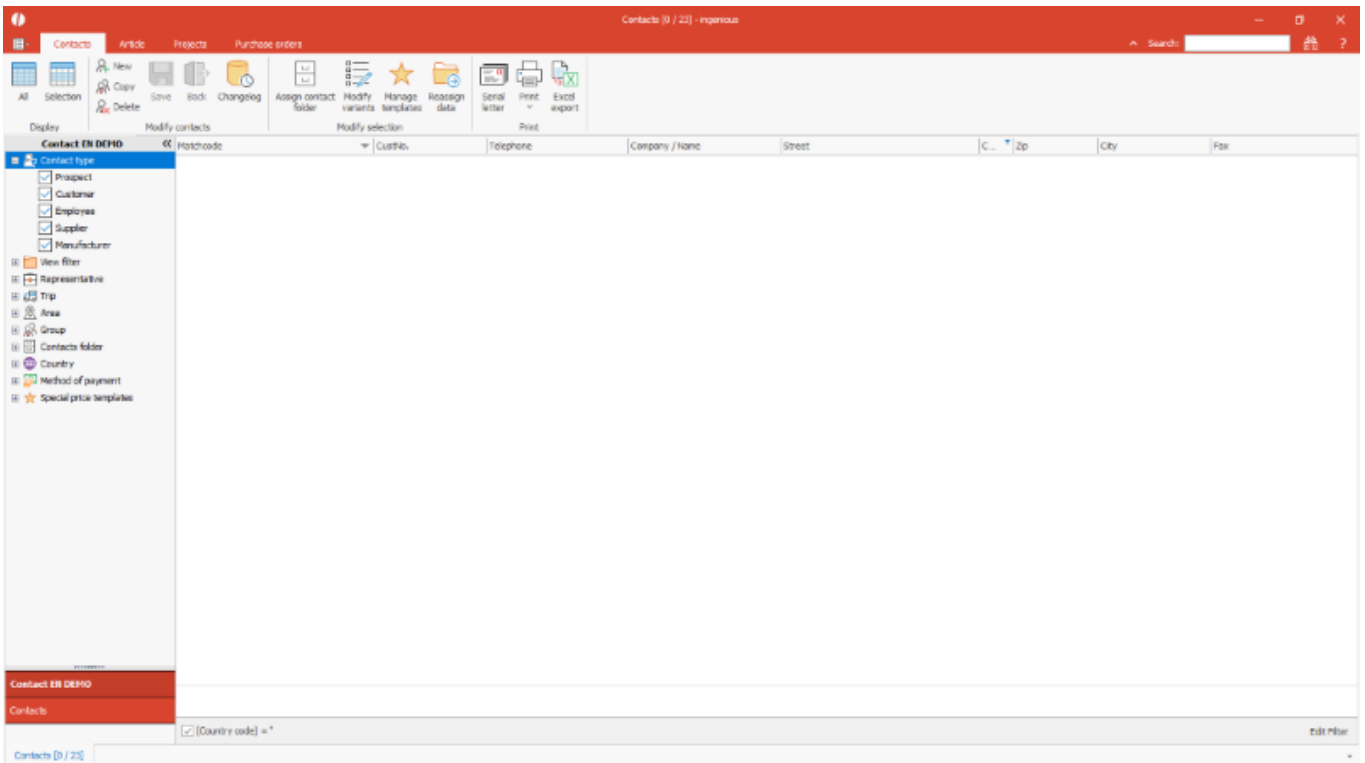


## 3 User interface

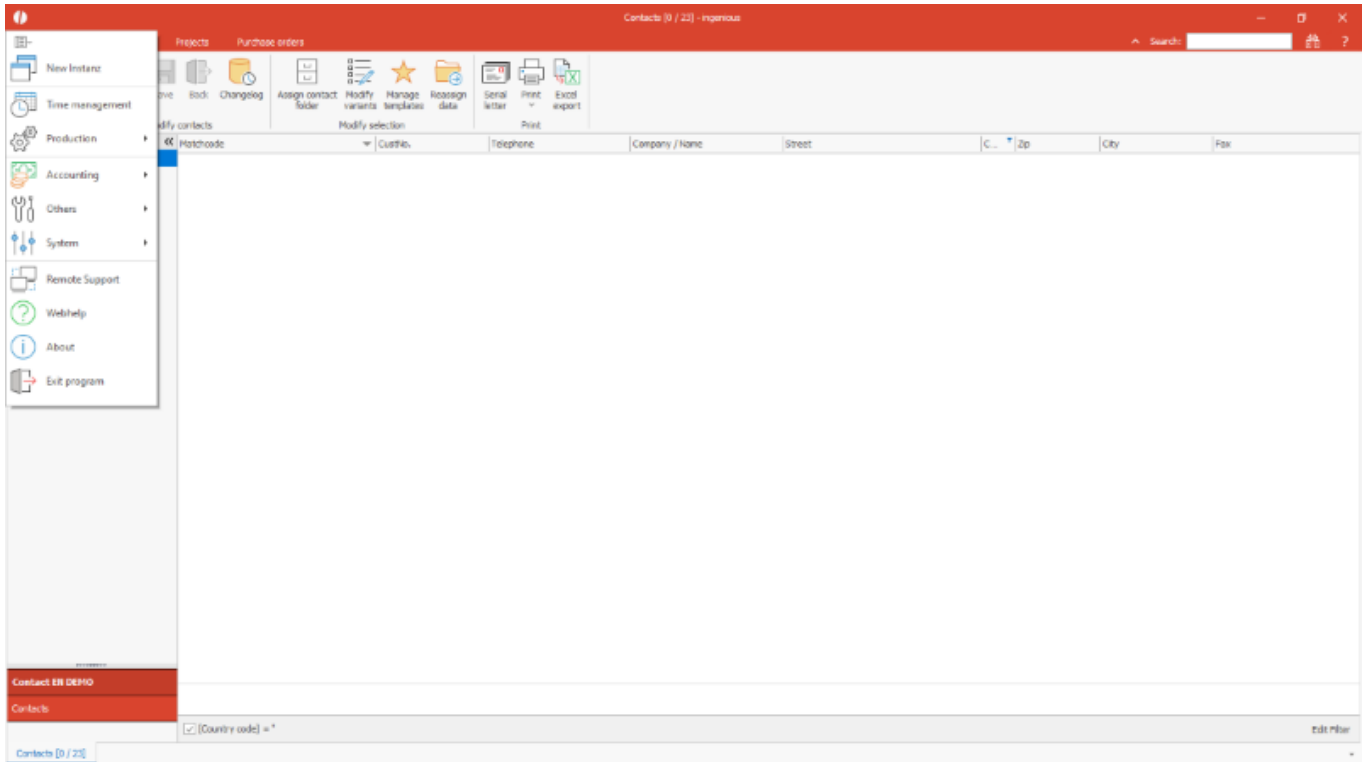
### 3.1 Main menu and working area

ingenious starts in full screen mode and automatically adjusts to the resolution of the screen.

The main modules "Contacts", "Items", "Projects" and "Purchase orders" are immediately present and accessible with the tabs above the icon bar. The active module is highlighted.



Additional modules can be selected from start button.



Additional opened modules will be additionally held in the tab line. So a quick change between the modules is possible.

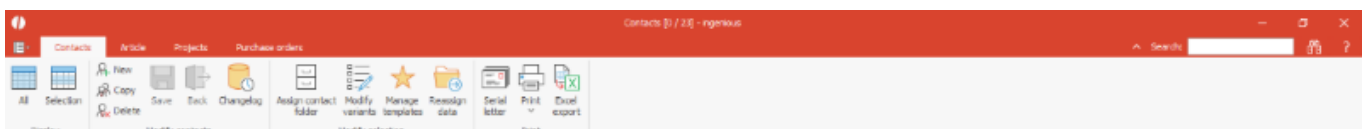


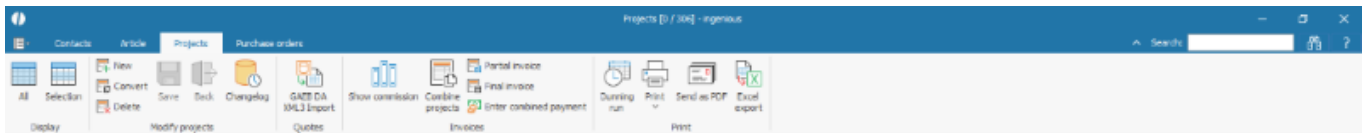
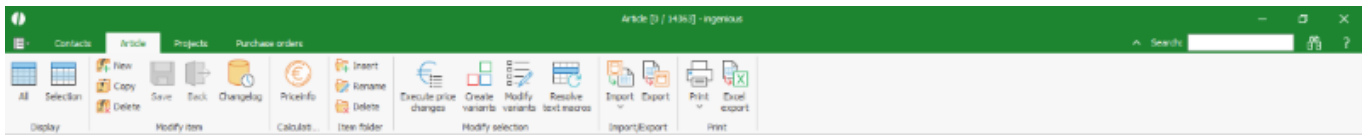
## 3.2 The module windows

Each module window of ingenious has its own icon bar with module related buttons and a search function. The buttons has self-explanatory icons. Additionally tool-tips will be displayed for each button.

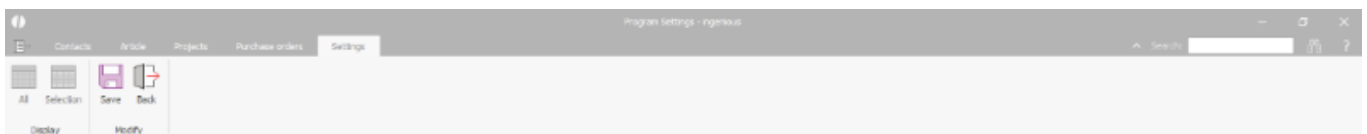
The main modules of ingenious are highlighted with different colors.

Contacts	red
Article	green
Projects	blue
Purchase orders	yellow





Additional modules and program-wide administration tools are designed with grey background.



The identification colors of the modules are consequently set in the whole program. This simple colored structure provides an orientation guide for navigation in ingenious. This is why notably the work with multiple windows becomes comfortable. Each window can be identified by the colored characteristics fast and without problems at first view.

### 3.3 Quick search

With the quick search field you can search for data records with known abbreviation. An abbreviation for example is the matchcode or customer number of contacts, matchcode or item number for items or document number for projects and purchase orders... Is only a part of the abbreviation known or more than one datasets with equal parts of words should be displayed, the known part can be enhanced with a wildcard (\*).

Examples for customer matchcode:

John Q. Public -> searches for one contact with exact matchcode "John Q. Public"

John\* -> searches for all contacts with matchcode starting with "John", possible results: John Q. Public, John Smith, John White,...

\*Public\* -> searches for all contacts with matchcode that contains "public", possible results: John Q. Public, Public School of London, John's Publicity Agency,...

### 3.4 The list views

In this view divers data records are displayed tabularly. Each list view consists of two parts, first the selection area, with

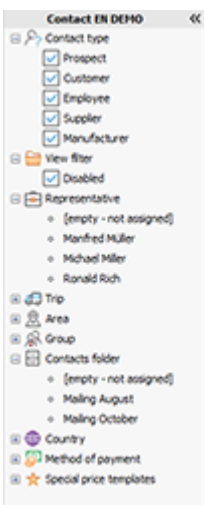
that different filters can be used to control the selection and second the list area where the data records will be displayed in.

## Selection area

Within the selection area filters are predefined with that data records can be selected and displayed in the list area. The filters are differed by permanent filters, e.g. contact types, and instant filters like the assigned sales representants within the contacts list.

Permanent filters are set by checkboxes or by date selection and are valid for each following selection (e.g. by button "View all" or by clicking on any instant filter)

Instant filters select the data records in the moment when the filter is clicked.



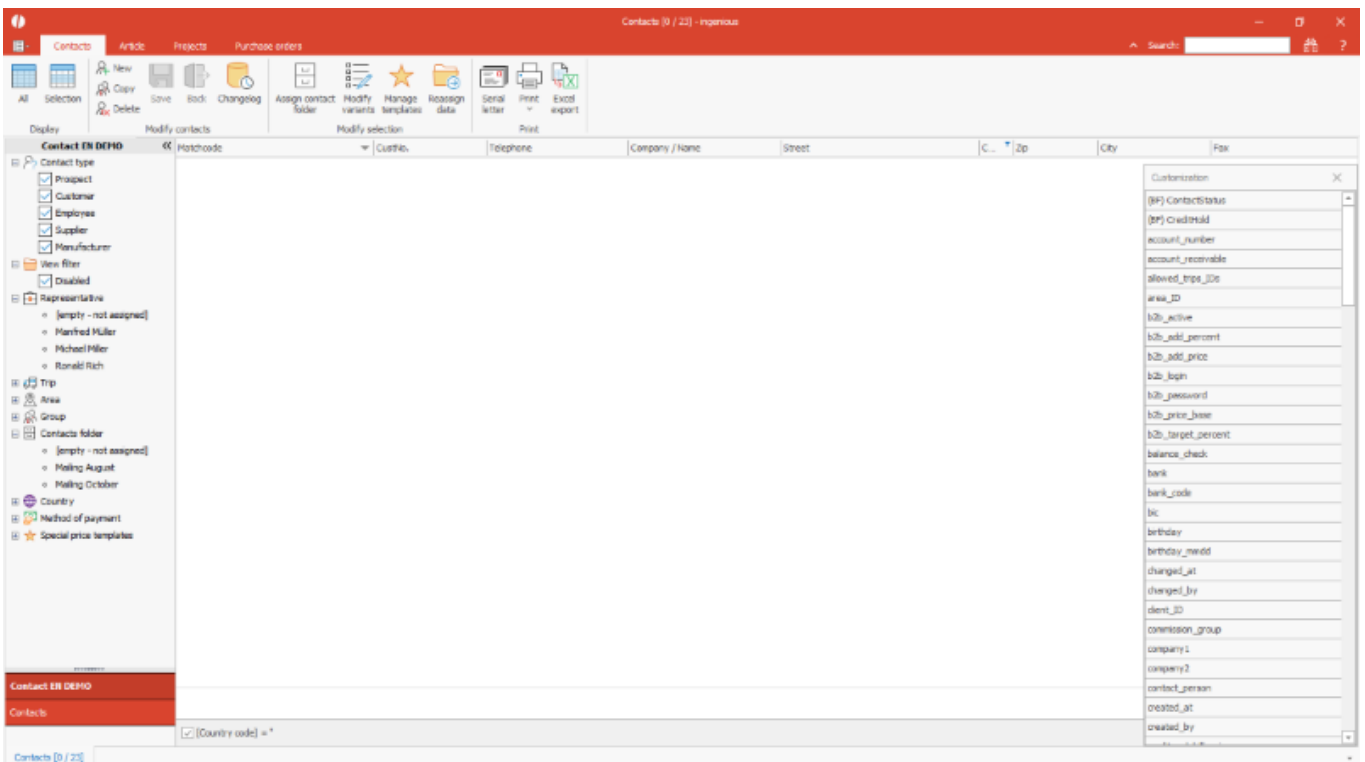
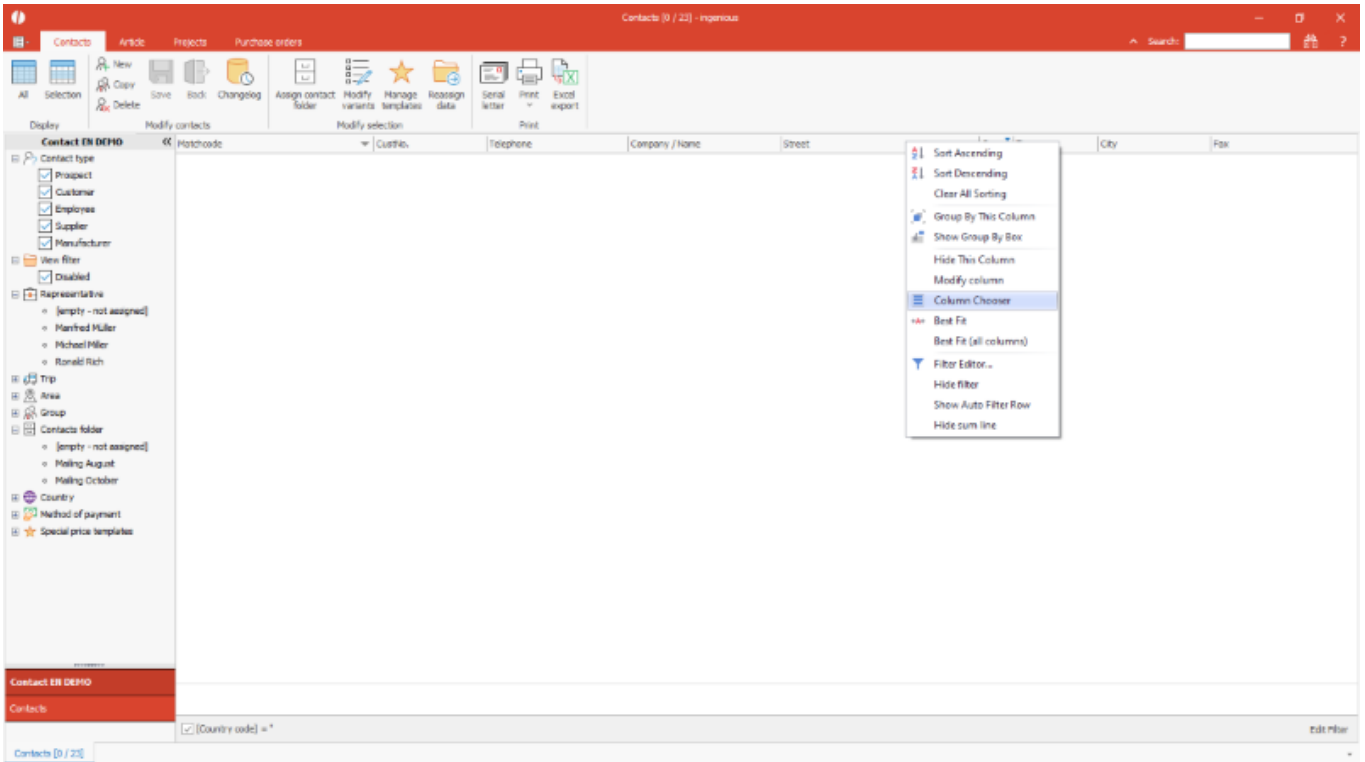
## List area

Within the list area all data records are displayed depending on the search or filter configuration. With click on the column headers the data records will be sorted by that column.

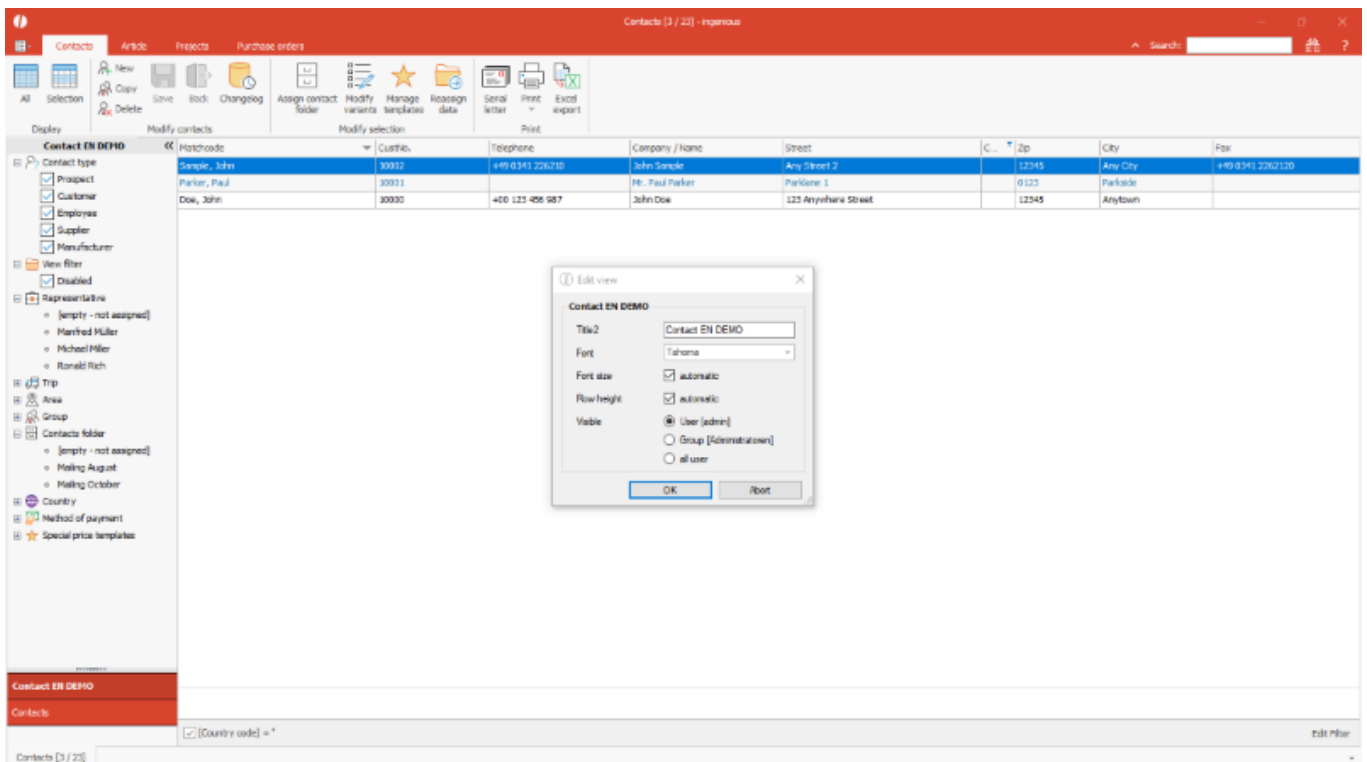
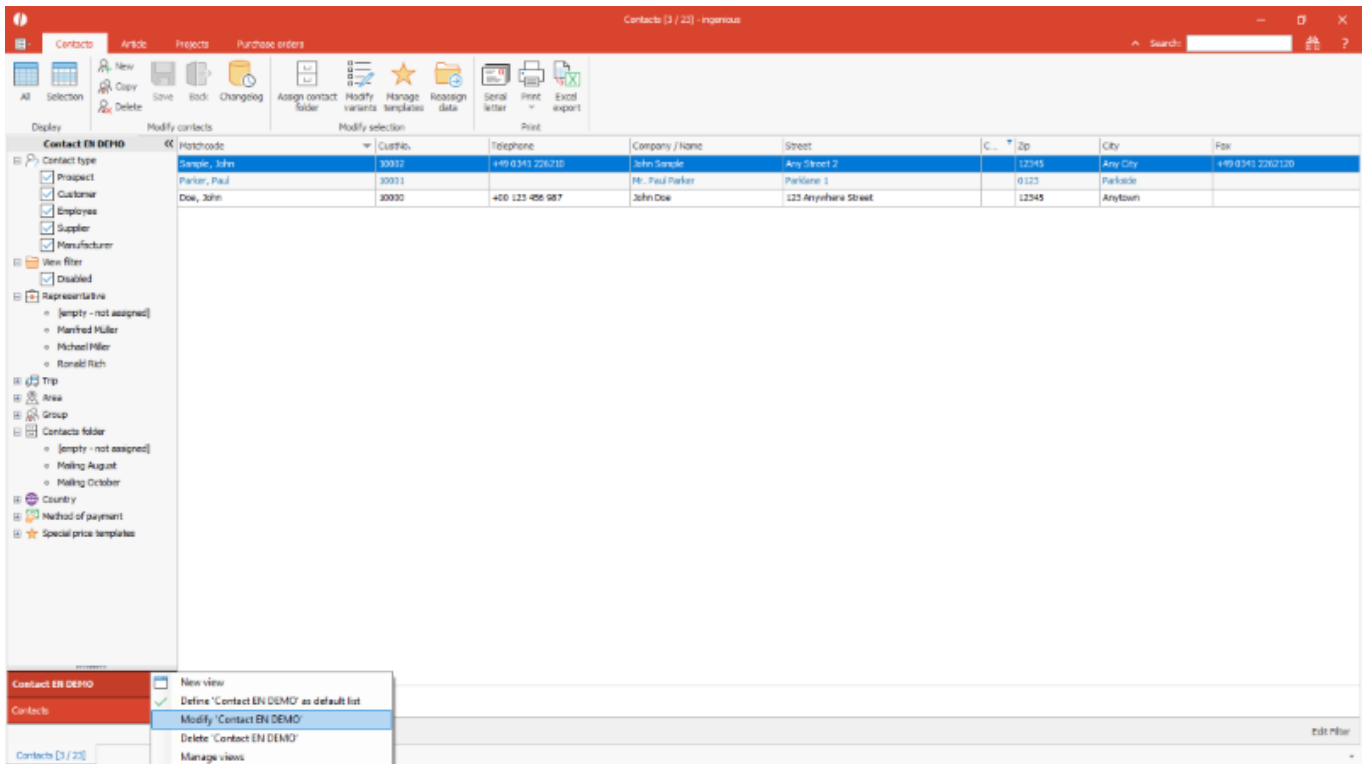
The default list view contains the most important details of the data records. The list can freely be modified. Also additional list views can be defined and stored.

## 3.5 Administration of list views

Within the list views nearly every detail of each data record can be displayed. The default columns can be expanded or replaced by additional columns. With a right click on the column header a menu appears where the column chooser can be selected from. The appearing columns can be put to the list by drag&drop at this place where they should be displayed. Columns that are not needed can be deleted from the list by simply dragging them out of the header.

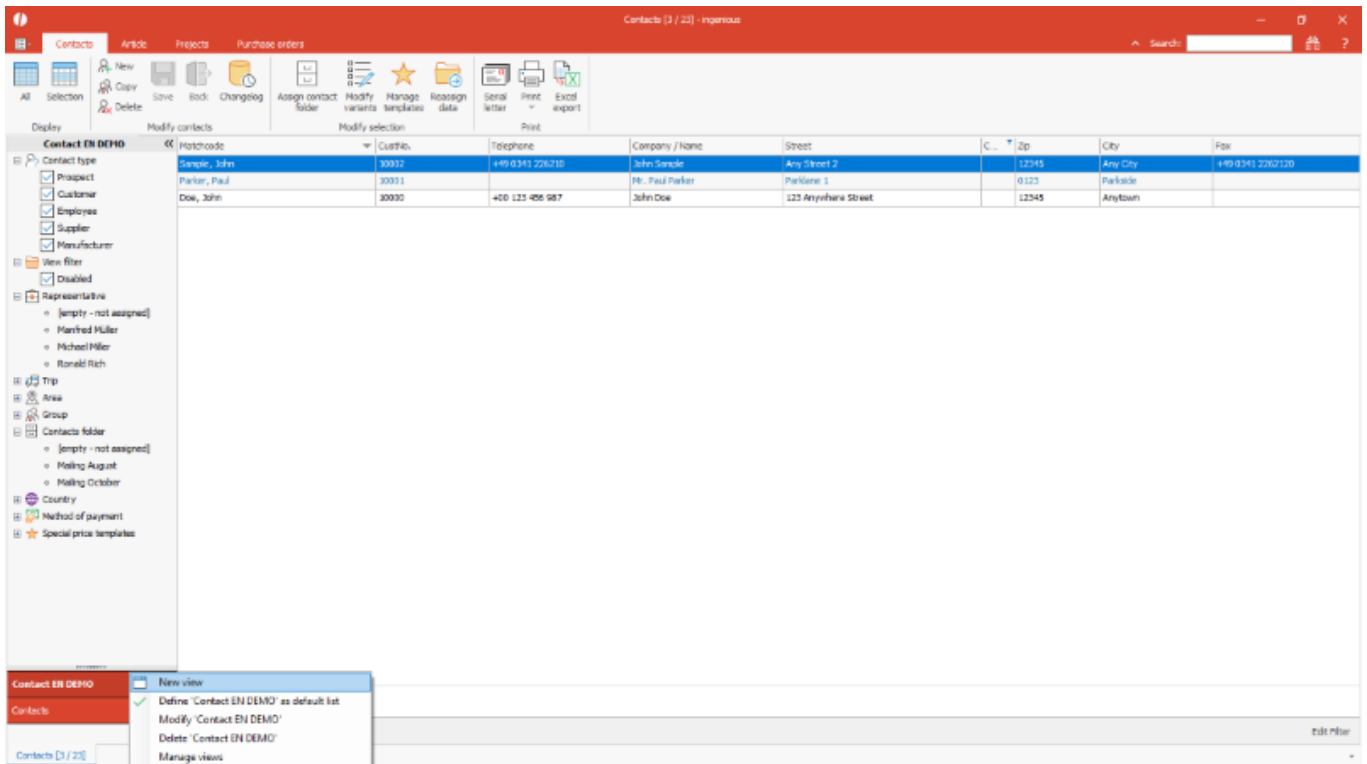


For changing the font type, line height or to define which user should be able to display the list view, it can be modified.

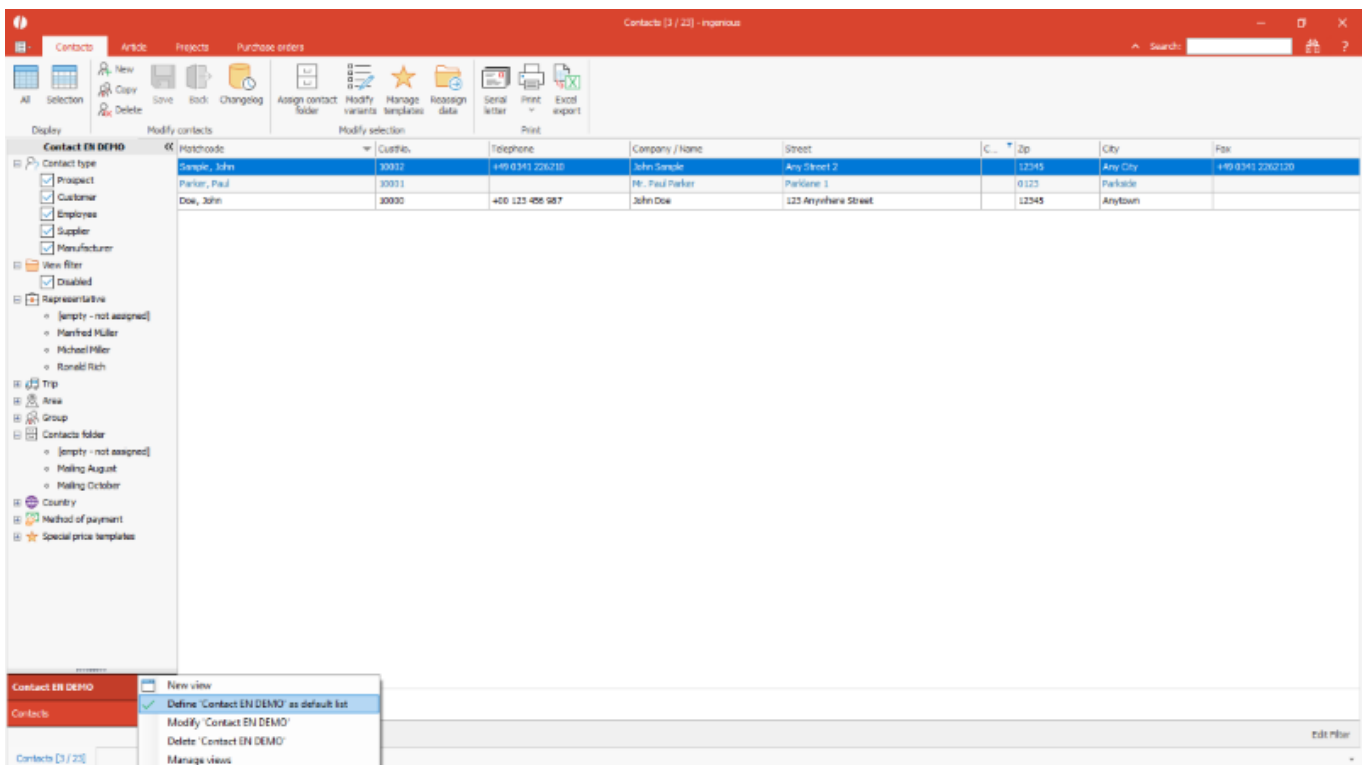


A new list view can be created with right click in the selection area. The list view can freely be named. A new list view contains the default columns and default format but can individually be changed.

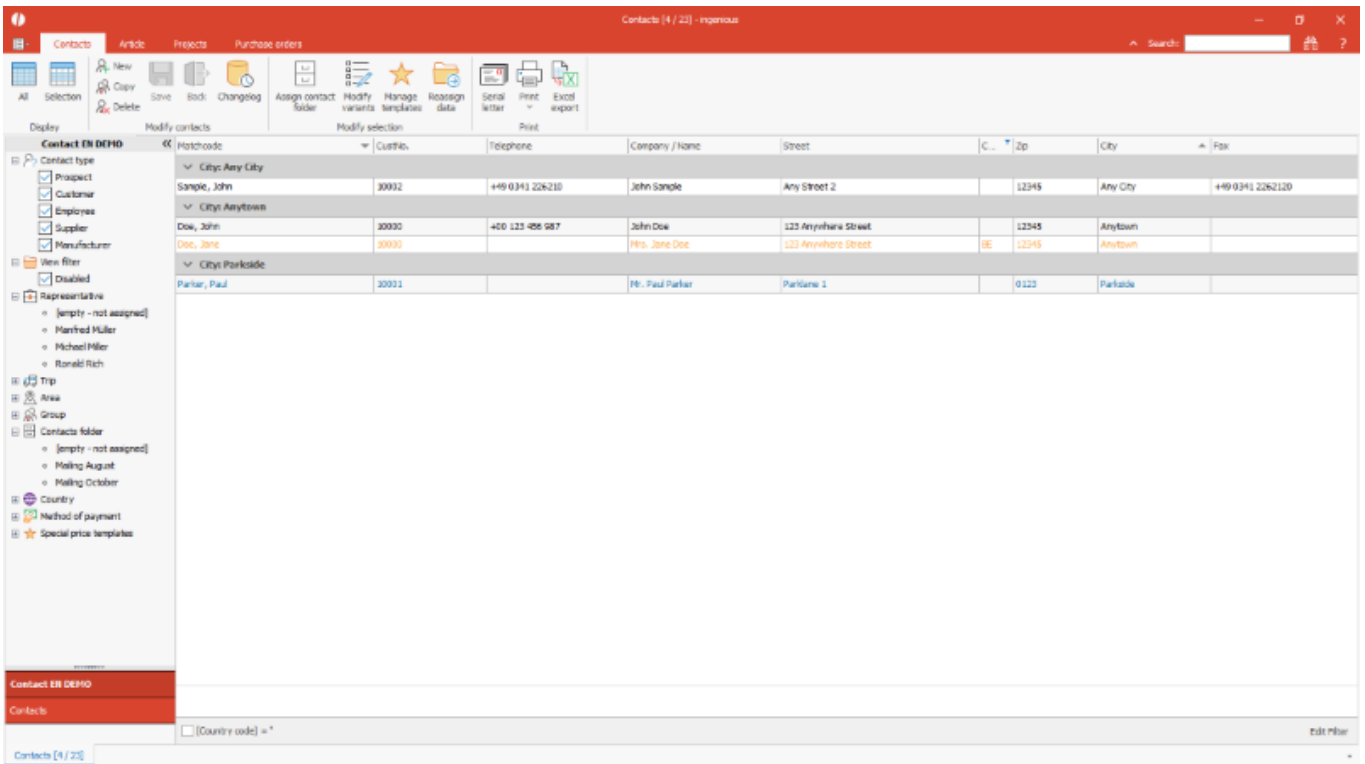
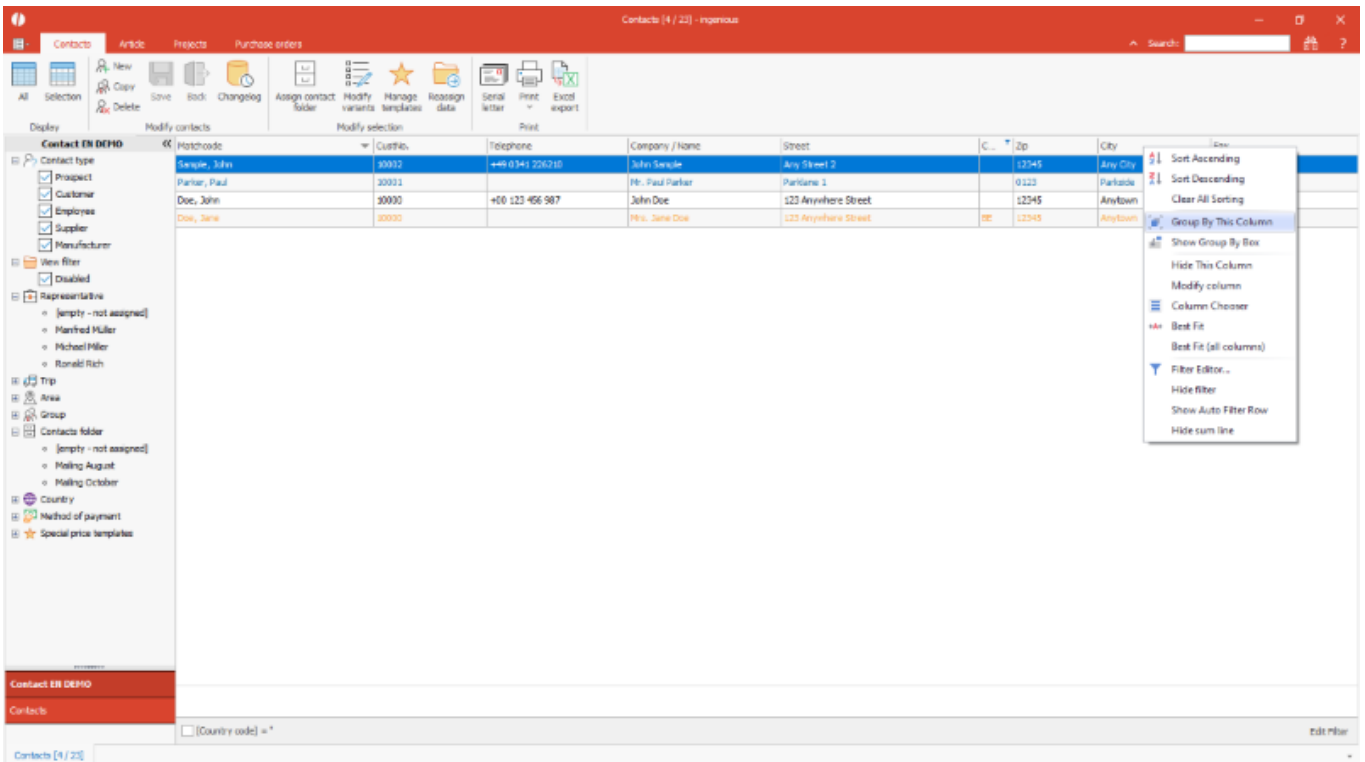




Also with right click on a list view it can be defined which view should be the default one when opening the module.



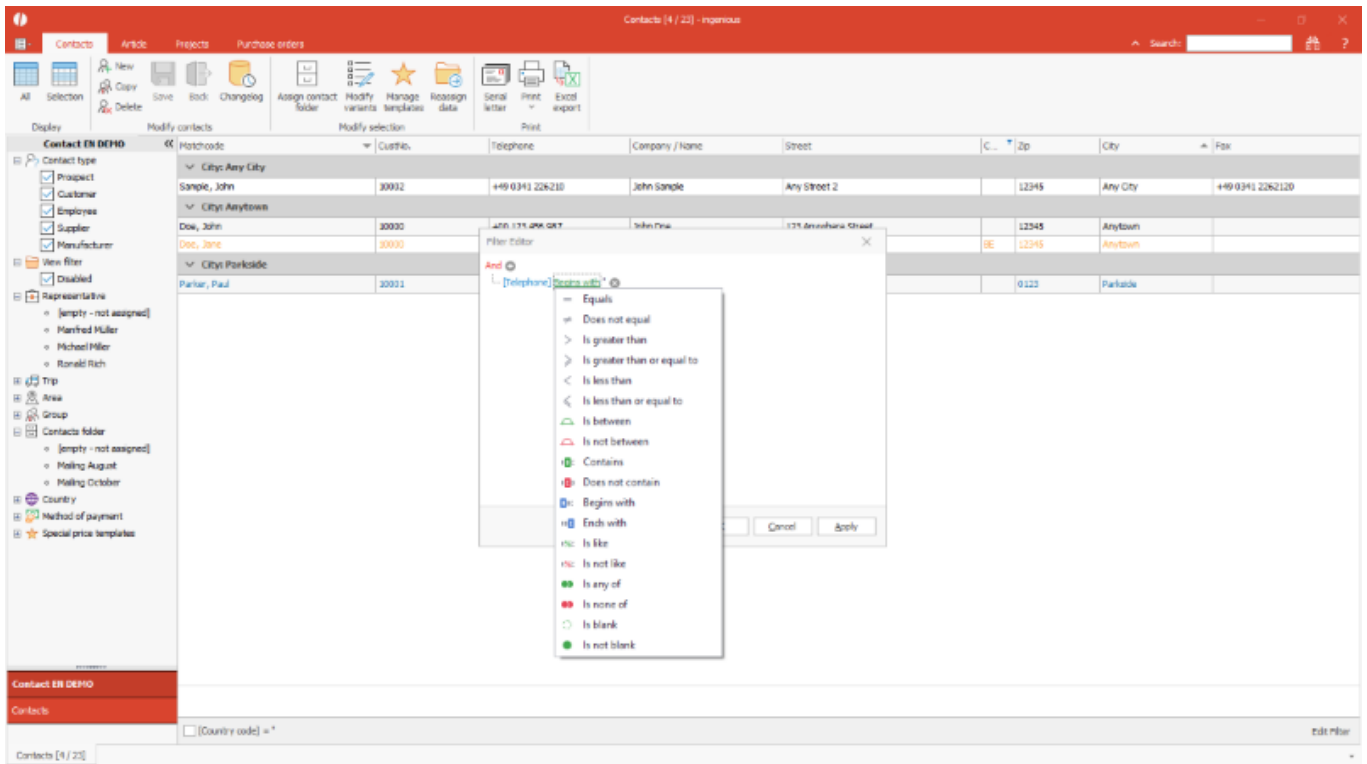
The list views offer additional possibilities to isolate data records. The shown data records can be grouped by the single fields. With right click on the needed column you can choose "Group by this column" from the menu.



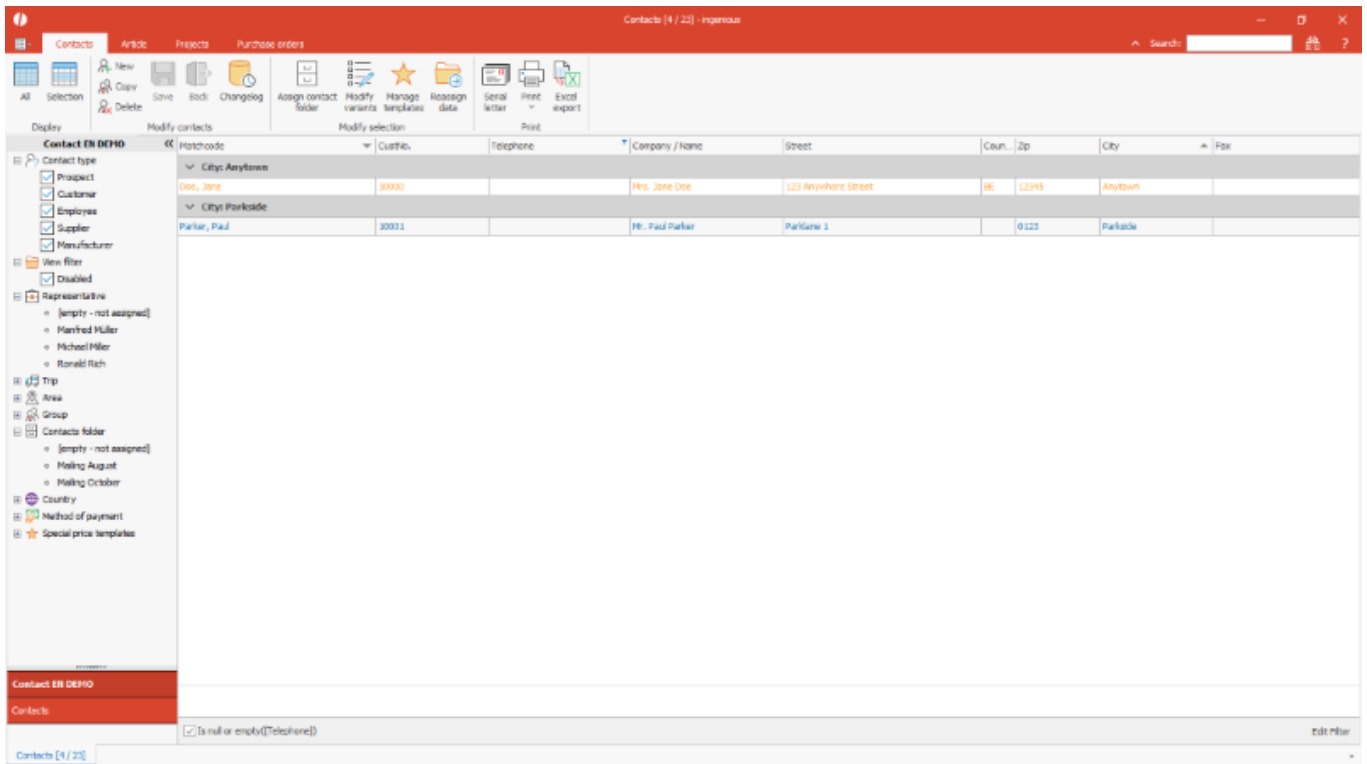
Beside the quick default filters within the selection area also complex integrated filters can be used. These will be applied directly for the preselected data records.

## Modify complex filters

With right click on the list header the "Filter editor" can be selected. Within the appearing window every field of the module can be filtered for. The filter can be composed with predefined operators. Different filters can be combine here. Additional filter lines will be added with the "+".

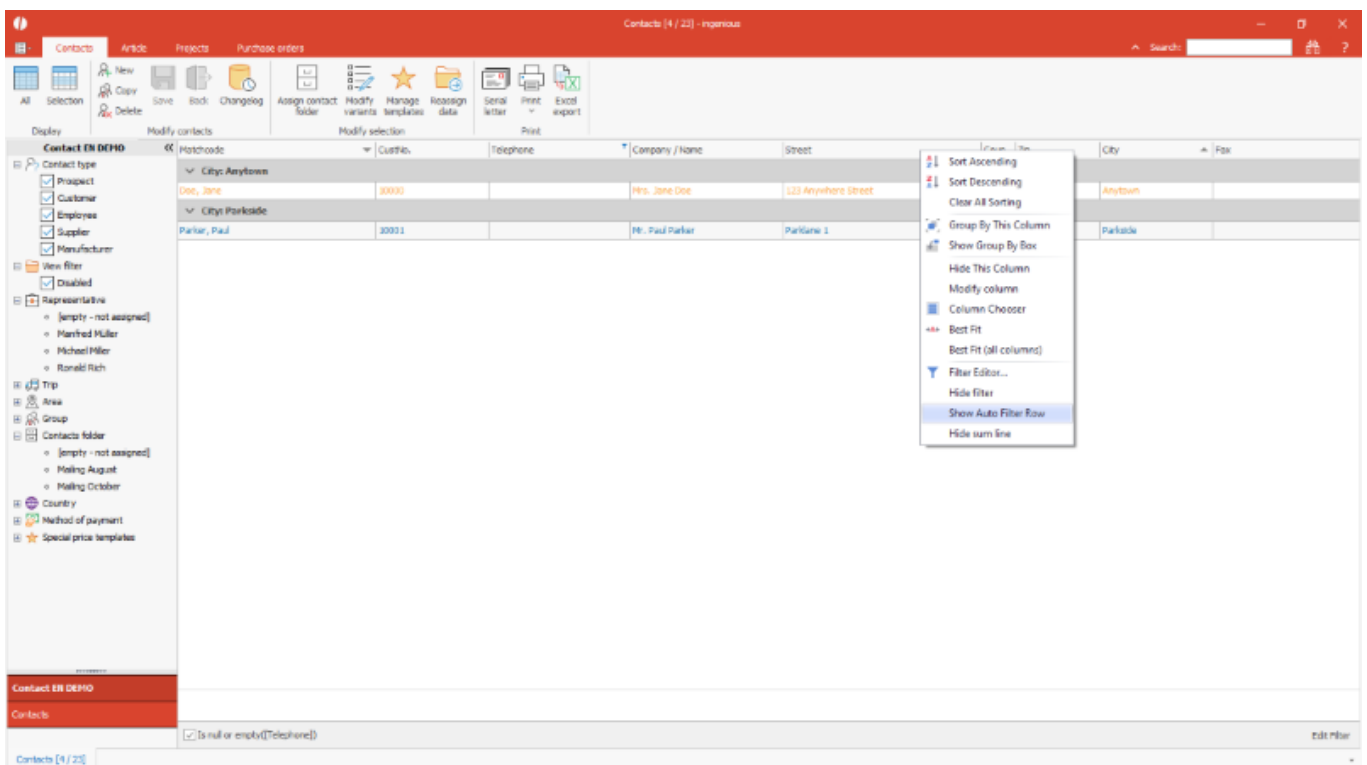


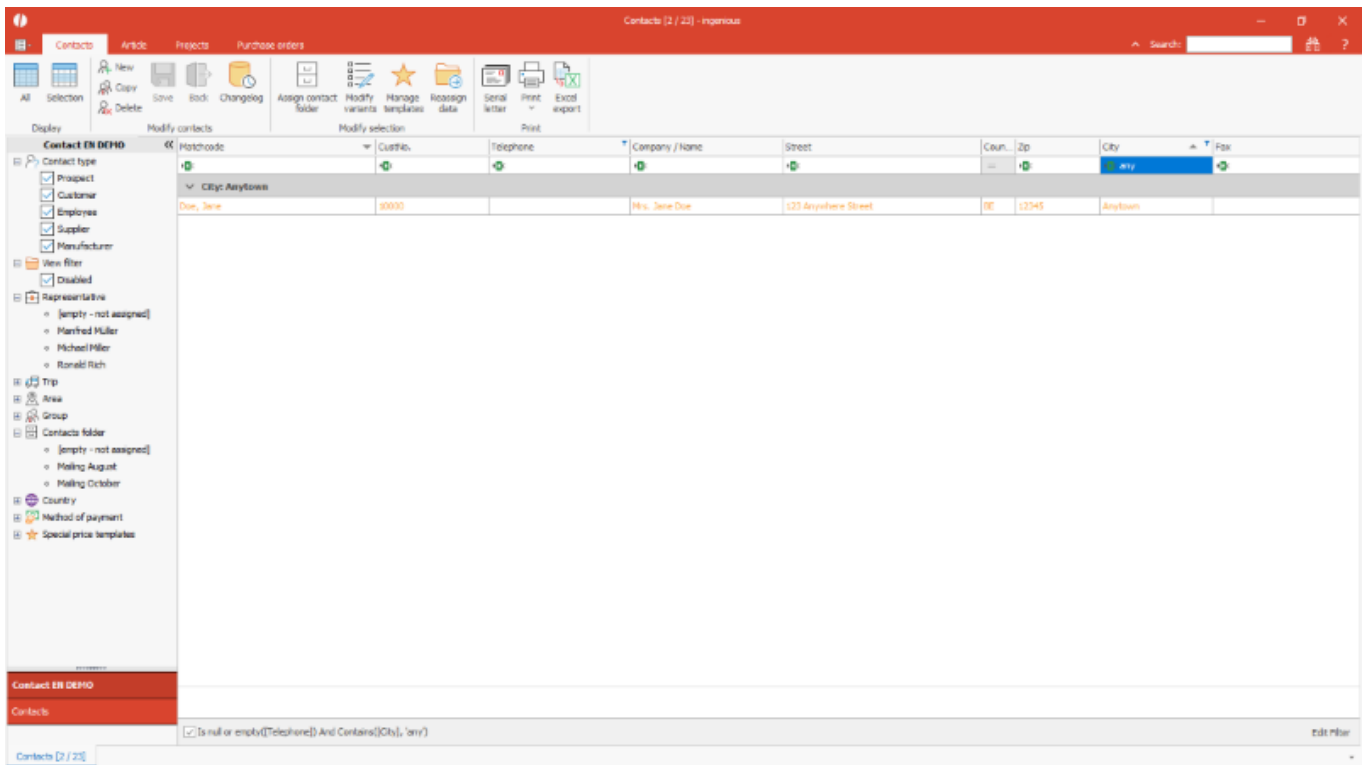
The defined filter can be modified again at any time or it can be deactivated.



## 2. Auto filter row

With right click on the list header a auto filter row can be displayed, within you can filter for single columns.



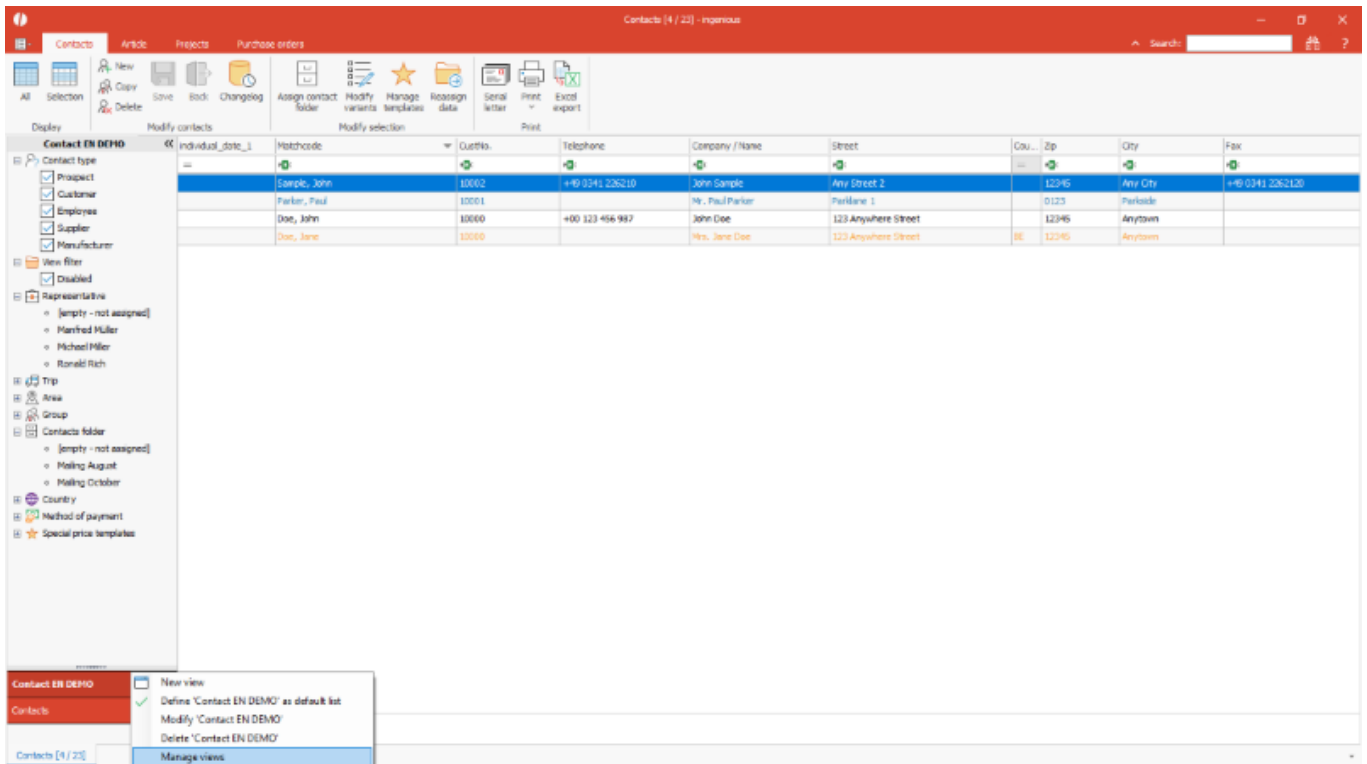


### Copy list views for other users

Each user can design the list views of the modules in the way he needs for his work. He can choose the displayed columns/fields and can change the formatting as he like.

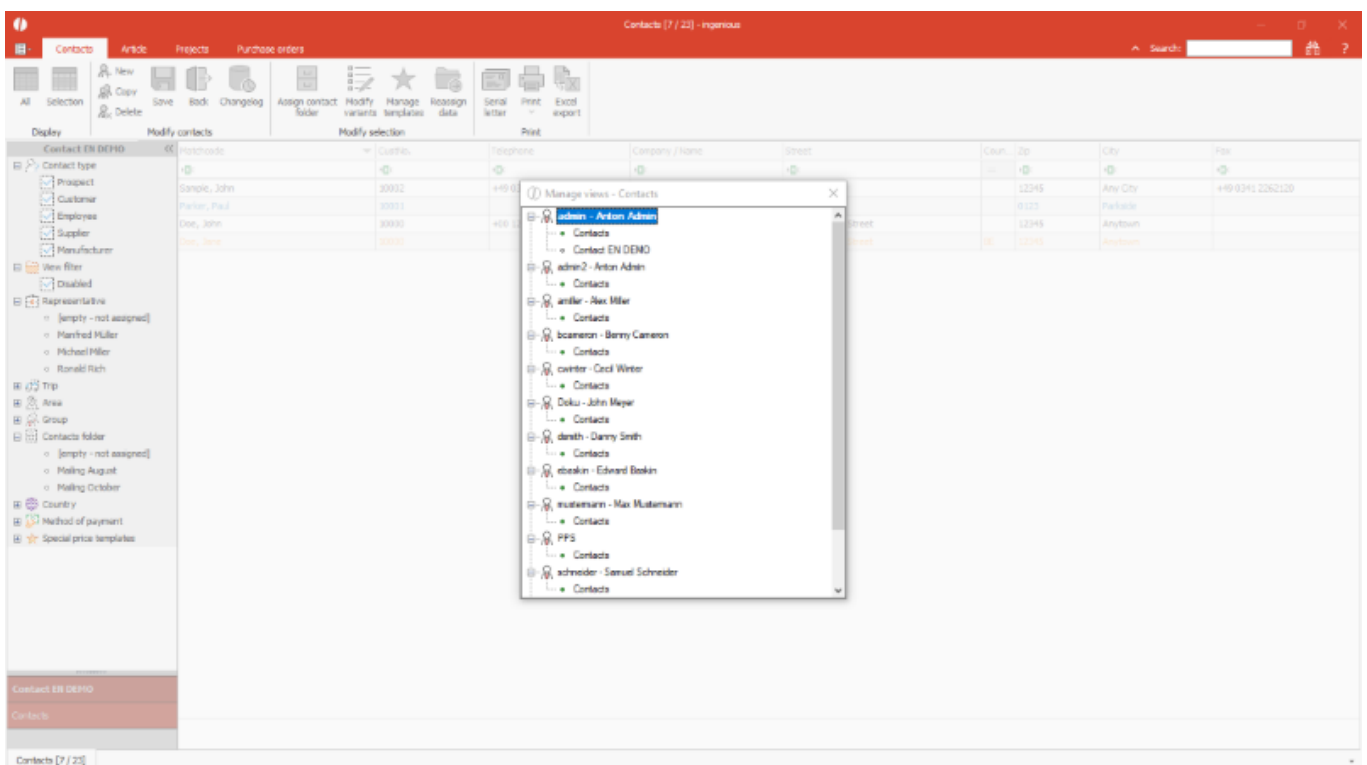
If different users should get the same view, this can be configured in the list view administration.

This list view administration can be opened by right click the mouse on an existing list view of the active module.



In the appearing windows the lists can be dragged from one user to another. The original user keeps its list view, the view is copied for the new user.

Default lists are identified by a green bullet, all other lists are grey. A view can be deleted from one user by doubleclick on the name of the list.

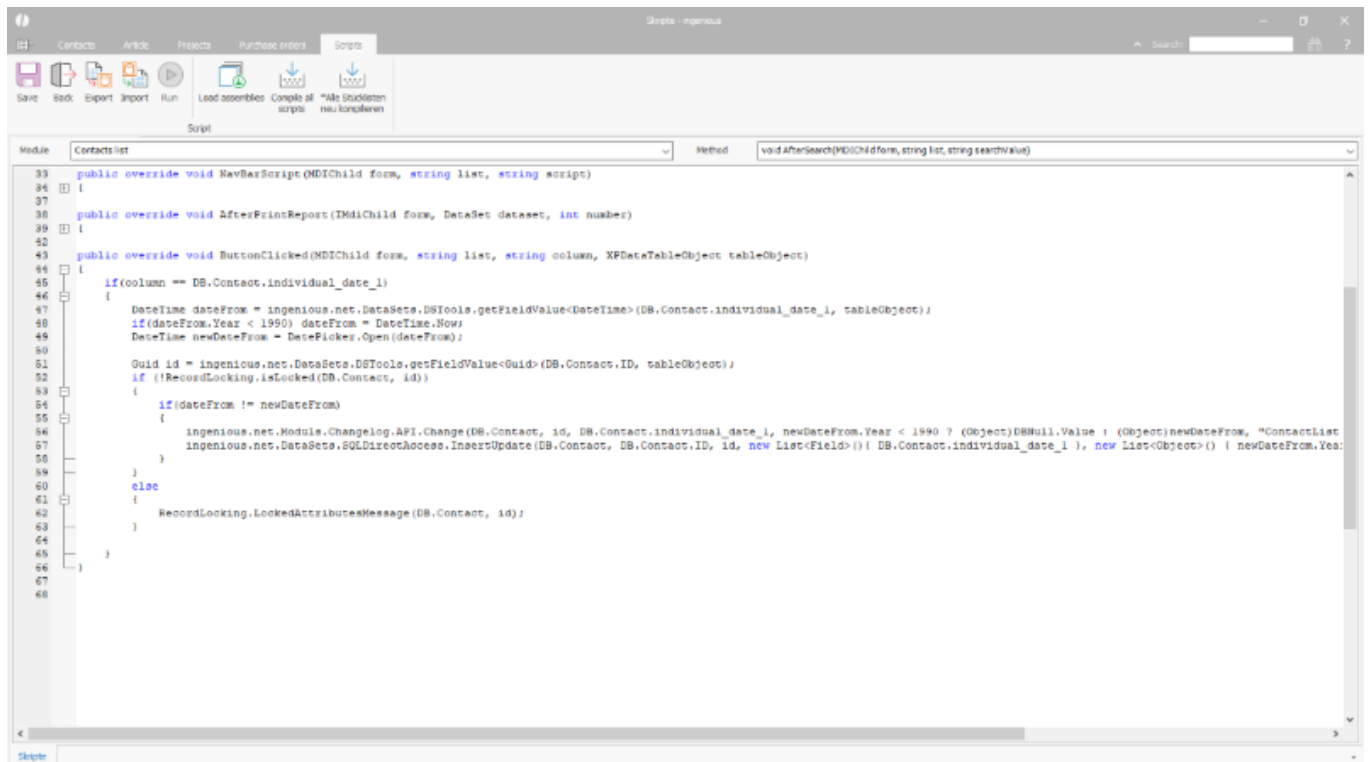


## Buttons on main modules lists

The content of all database fields are basically only changeable in the single detail views. In list views usually the values only are displayed.

In the main modules contacts, Articles, projects and purchase orders can values be set by button click via scripts, e.g. a date with a calendar, a predefined text by selection list or similar. Also other actions are possible, that shall be executed by button.

For the integration of a button, a new script is to be created for the list of the desired module in the script administration within the method "ButtonClicked".



```

33 public override void NavBarScript(MDICHild form, string list, string script)
34 {
35 }
36 public override void AfterPrintReport(MDICHild form, DataSet dataset, int number)
37 {
38 }
39 public override void ButtonClicked(MDICHild form, string list, string column, XPDataTableObject tableObject)
40 {
41     if(column == DB.Contact.individual_date_1)
42     {
43         DateTime dateFrom = ingenious.net.DataSets.DSTools.getFieldValue<DateTime>(DB.Contact.individual_date_1, tableObject);
44         if(dateFrom.Year < 1990) dateFrom = DateTime.Now;
45         DateTime newDateFrom = DatePickers.Open(dateFrom);
46         Guid id = ingenious.net.DataSets.DSTools.getFieldValue<Guid>(DB.Contact.ID, tableObject);
47         if (!RecordLocking.isLocked(DB.Contact, id))
48         {
49             if(dateFrom != newDateFrom)
50             {
51                 ingenious.net.Moduls.Changelog.API.Change(DB.Contact, id, DB.Contact.individual_date_1, newDateFrom.Year < 1990 ? (Object)DBNull.Value : (Object)newDateFrom, "ContactList");
52                 ingenious.net.DataSets.SQLiteDirectAccess.InsertUpdate(DB.Contact, DB.Contact.ID, id, new List<Field>(){ DB.Contact.individual_date_1 }, new List<Object>(){ newDateFrom.Year
53             }
54             }
55         }
56         RecordLocking.LockedAttributesMessage(DB.Contact, id);
57     }
58 }

```

The example script lets the user set the individual date 1 via button.

### ButtonClicked

```

public override void ButtonClicked(MDICHild form, string list, string column, XPDataTableObject tableObject)
{
    if(column == DB.Contact.individual_date_1)
    {
        DateTime dateFrom = ingenious.net.DataSets.DSTools.getFieldValue<DateTime>(DB.Contact.individual_date_1, tableObject);

```

```

if(dateFrom.Year < 1990) dateFrom = DateTime.Now;
DateTime newDateFrom = DatePicker.Open(dateFrom);

Guid id = ingenious.net.DataSets.DSTools.getFieldValue<Guid>(DB.Contact.ID, tableObject);
if (!RecordLocking.isLocked(DB.Contact, id))
{
    ingenious.net.DataSets.SQLDirectAccess.InsertUpdate(DB.Contact, DB.Contact.ID, id, new List<Field>(){ DB.Contact.individual_date_1 }, new List<Object>() { newDateFrom.Year < 1990 ? (Object)DBNull.Value : (Object)newDateFrom });
}
else
{
    RecordLocking.LockedAttributesMessage(DB.Contact, id);
}
}
}

```

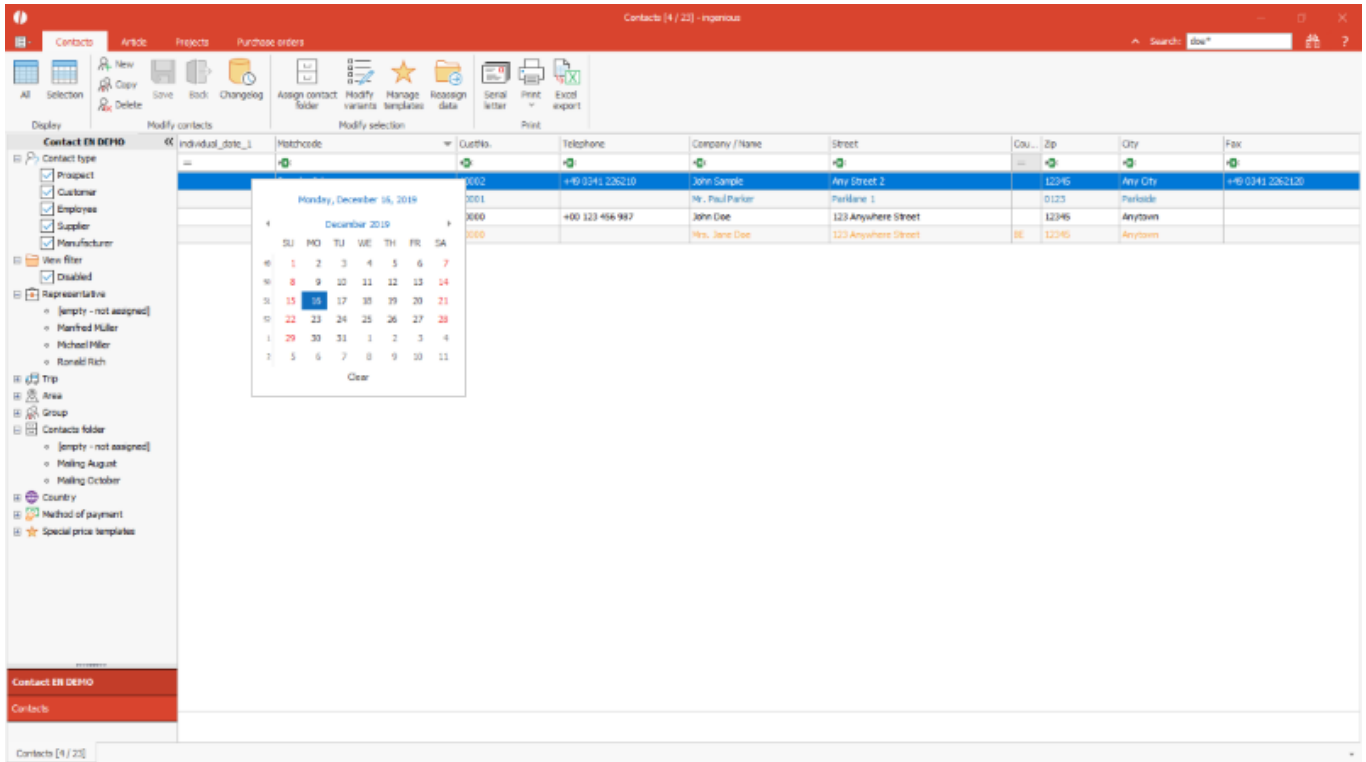
To use the button in a list view, the connected field has to be displayed in the list view. It has to be added to the list from the column selection. With right click on the column header and selection of the option "modify column" the column properties will be opened. For editor "Button" has to be chosen.

The screenshot shows the 'Contacts' application window with a list view. The list has columns for 'individual\_date\_1', 'Matchcode', 'Quettis', 'Telephone', 'Company / Name', 'Street', 'Cou...', 'Zip', 'City', and 'Fax'. A dialog box titled 'Spalte bearbeiten' is open, showing the configuration for the 'individual\_date\_1' column. The 'Editor' dropdown is set to 'Button'. The dialog also includes options for Title2, Formatting, Alignment, Style (Bold, Italic, Underlined), Text color, and Background color.

individual_date_1	Matchcode	Quettis	Telephone	Company / Name	Street	Cou...	Zip	City	Fax
	10002		+49 0341 226210	John Sample	Any Street 2		12345	Any City	+49 0341 2262120
	10001			Mr. Paul Parker	Parklane 1		01234	Parkside	
	10000		+00 123 456 987	John Doe	123 Anywhere Street		12345	Anytown	
	10009			Mrs. Jane Doe	123 Anywhere Street	DE	12345	Anytown	

By hovering over a button cell, the button is displayed, with that the action defined in the script can be executed. In the example a calendar is opened to select a date.





## 3.6 The detail views

The detail view of a single data record is mostly splitted in several areas, to group specific data. In the selection area / navigation on the left side the single details will be selected.

In the detail area on the right side the single values of the data record are shown and can be modified.

### The detail area contains:

Protected input fields	Those fields with a blue title are protected from accidental changes. These fields are for clear identification or are relevant for accounting. For aware changing of the values a double click on the field name is necessary. Protected fields are additionally secured by user rights.
Simple input fields	Single or multi line fields for entry of text and/or numbers and/or special characters.
Selection lists	Predefined values can be selected from a drop down list. With the predefined values it is simpler to fill the fields and to allow filtering and grouping of data records because of equal values. The values of the selection lists can freely be defined within the global program settings.
Check boxes	With a check box options can be activated or deactivated
Visual check boxes	Visual check boxes are a special kind of check boxes. They can also have status activated or deactivated, but this is not displayed with a box and a check mark, but with little icons. A coloured icon means option is activated, a grey icon means the option is deactivated.

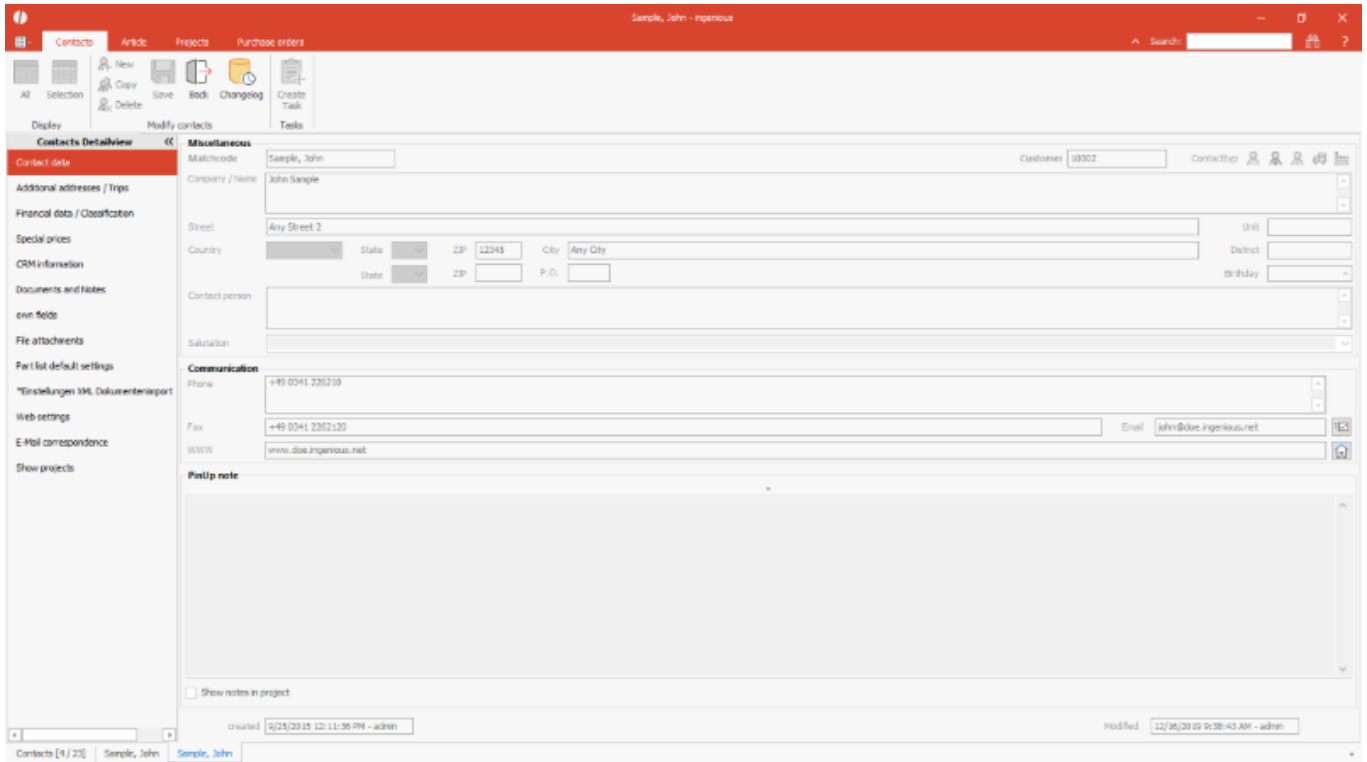
The screenshot displays the 'Contacts Detailview' window in the ingenious application. The window title is 'Sample, John - ingenious'. The interface is divided into several sections:

- Navigation Bar:** Includes 'Contacts', 'Arbeits', 'Projects', and 'Purchase orders' tabs. A search bar is located on the right.
- Toolbar:** Contains icons for 'All', 'Selection', 'New', 'Copy', 'Delete', 'Save', 'Back', 'ChangeLog', and 'Create Task'.
- Left Sidebar:** Lists various data categories such as 'Contact data', 'Additional addresses / Trips', 'Financial data / Classification', 'Special prices', 'CRM information', 'Documents and notes', 'own fields', 'File attachments', 'Part list default settings', '\*Einstellungen 3M, Dokumentenreport', 'Web settings', 'E-Mail correspondence', and 'Show projects'.
- Main Content Area:**
  - Miscellaneous:** Fields for 'Matr.no.' (Sample, John), 'Company / Name' (John Sample), 'Street' (Any Street 2), 'Country', 'State', 'ZIP' (12345), 'City' (Any City), 'Unit', 'District', and 'Birthday'.
  - Contact person:** A field for the contact person's name.
  - Salutation:** A dropdown menu.
  - Communication:** Fields for 'Phone' (+49 0041 2362 130), 'Fax' (+49 0041 2362 130), 'Email' (john@doe.ingenious.net), and 'WWW' (www.doe.ingenious.net).
  - Pin/Up note:** A large text area for notes.
  - Show notes in project:** A checkbox.
- Footer:** Shows 'created' (9/25/2015 12:11:36 PM - admin) and 'modified' (2/20/2019 9:23:40 AM - admin) timestamps.

## Read-Only views

To grant process stability each data set can only be opened once at the same time. At this moment when the data set is tried to open a second time while its in modification by another user, the second user will get a message that the data set is blocked by another user with the name of the user. The data set can be opened for the second user in a read-only view, where he can't change any data. Alternatively the user can cancel the opening of the read-only view.

The read-only view is identified by greyed shown fields and buttons.



Read-only views are available in the main modules contacts, articles, projects, purchase orders and receipt entry. In the other modules the data sets are not opened twice. The second user only gets a message about the blocked data set.

## 4 The main modules

### 4.1 Contacts













#### 4.1.1 Contacts list view

##### 4.1.1.1 The contacts list view

Data records in the contacts list view are colored by their attributive contact type.

black font	contact type customer and/or manufacturer
blue font	contact type supplier
red font	contact type prospective
orange font	contact type staff
grey font	contact is blocked

The following functions are available in the icon bar.

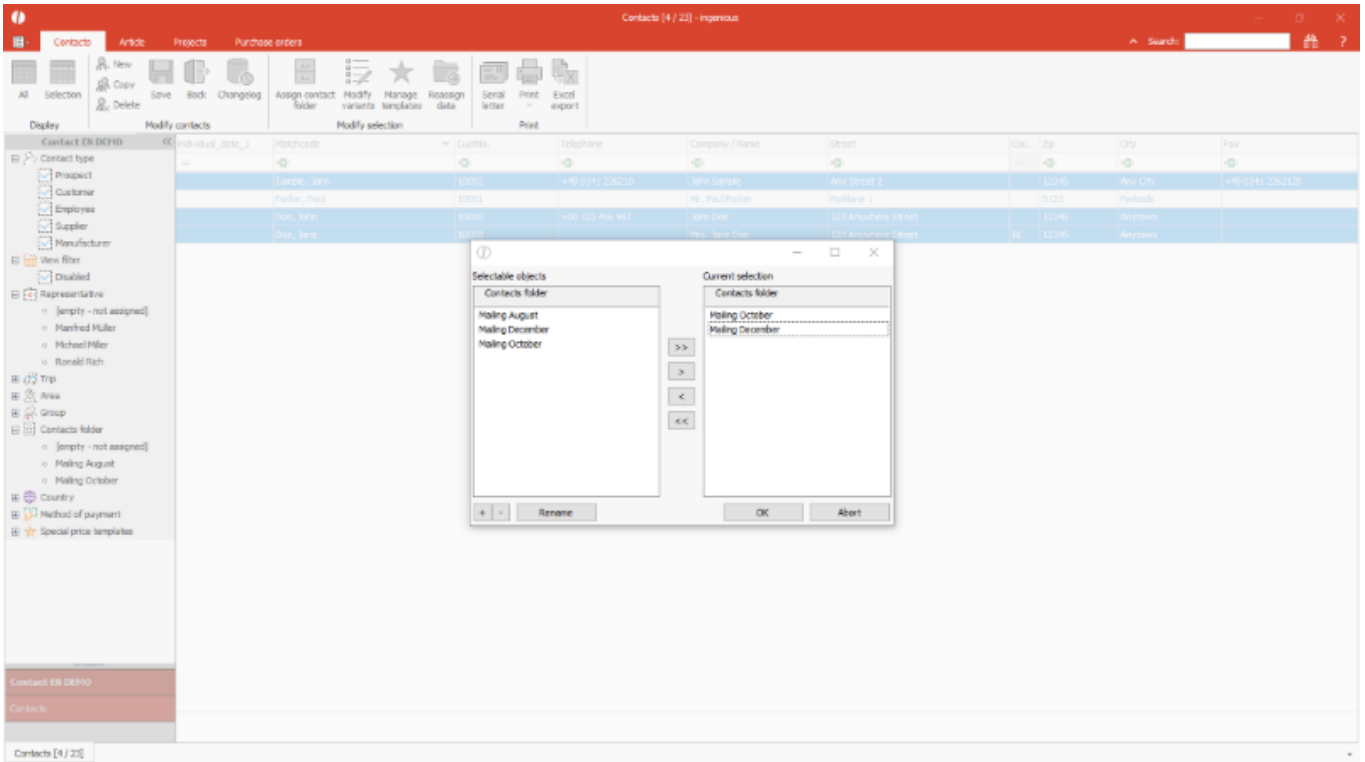
	Show all data records (related to the filters that are set)
	Show only the selected data records
	Add a new contact
	Copy an existing contact
	Delete a contact
	Opens the changelog for administrators (User right required)
	Assign a contact folder
	Set uniform variants (parameters) for a selection of contacts
	Customer special price templates
	Serial mail assistant
	Diveres print reports / Open the print report designer
	Export the list view to Excel

### 4.1.1.2 Contact folders

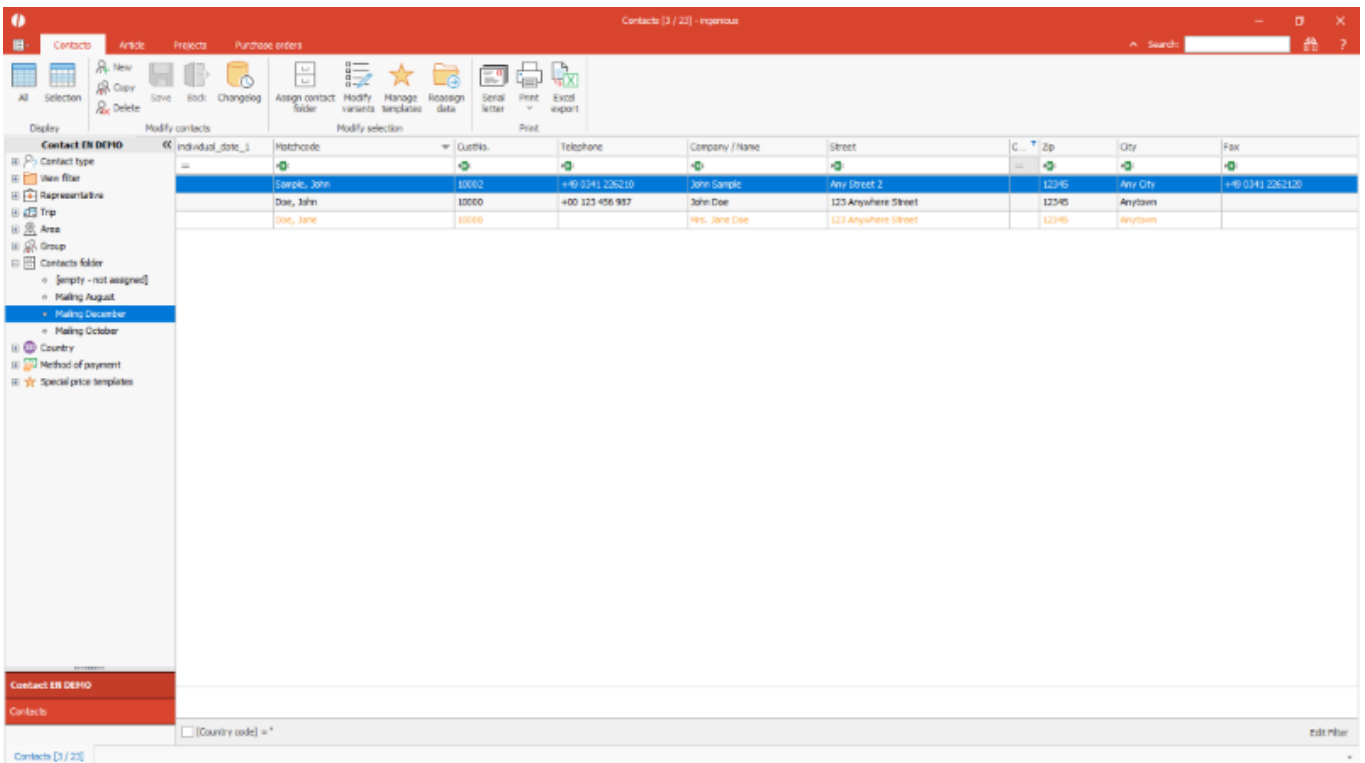
With the function "Assign contact folder" different contacts can be grouped for example for marketing campaigns.

For assigning a selection of contacts to one contact folder they need to be marked and button "Assign contact folder" in symbol bar needs to be clicked on.

In the appearing separate window the needed contact folder will be selected by drag&drop or by using the arrow buttons. With click on Ok the selection is confirmed. A new contact folder can be created with little "+" button, an existing contact folder that is not needed anymore can be deleted with little "-" button. Existing contact folders can also be renamed.



In the contacts list view these grouped contacts can be shown by click on the immediate filter contact folder.

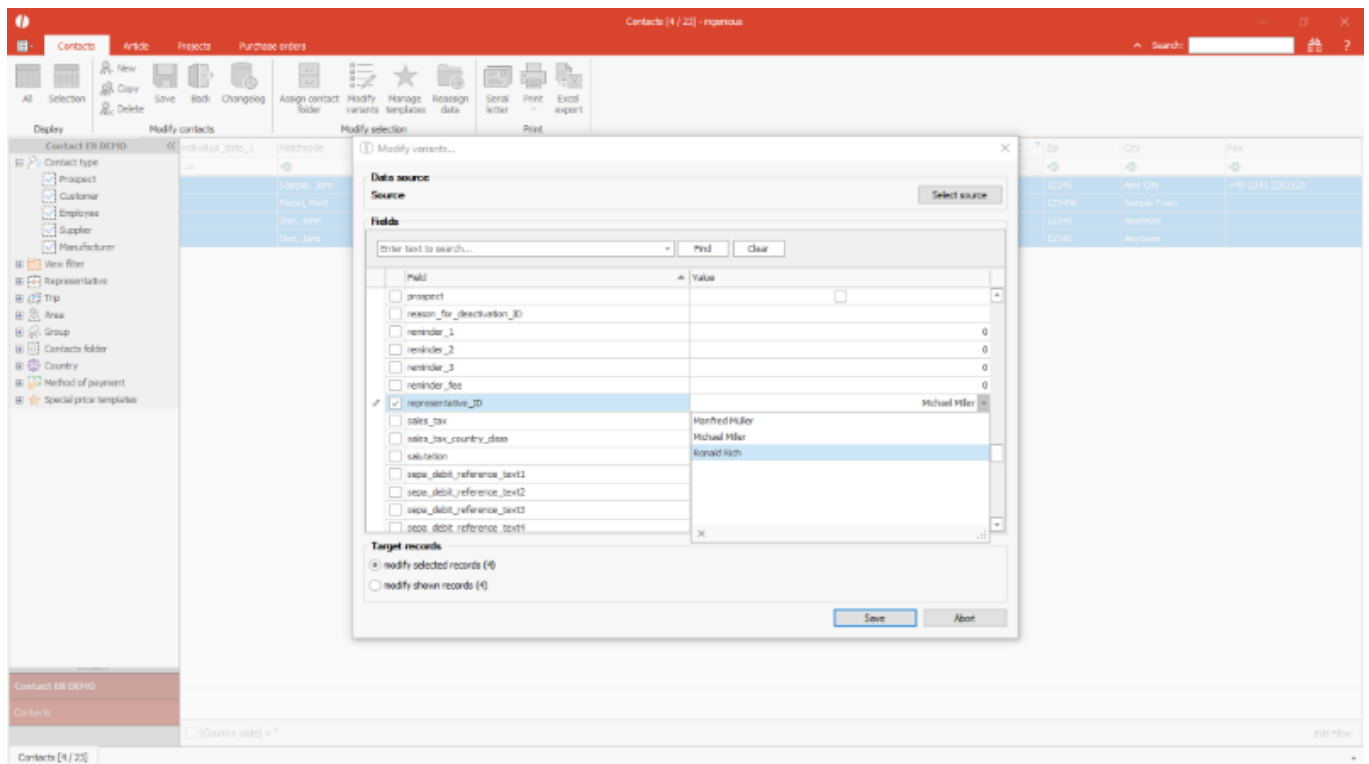


### 4.1.1.3 Modify contacts variants

With the function "Edit variants" single parameters of a selection of contacts can be changed to a uniform value in one step. This is helpful e.g. when a new sales representative shall be assigned to divers contacts.

For the collective editing all affected contacts will be selected and the button "Modify variants" needs to be clicked.

Within the appearing window all contacts data fields are shown. Here the new values for all chosen contacts can be entered. For selection lists, e.g. sales representatives the possible values will be presented in drop down list for selection. All values that are checked in the first column will be overwritten.












When all modifications are made, the change will be executed after click on the button "Save". The final storage is made after the confirmation of the security query.






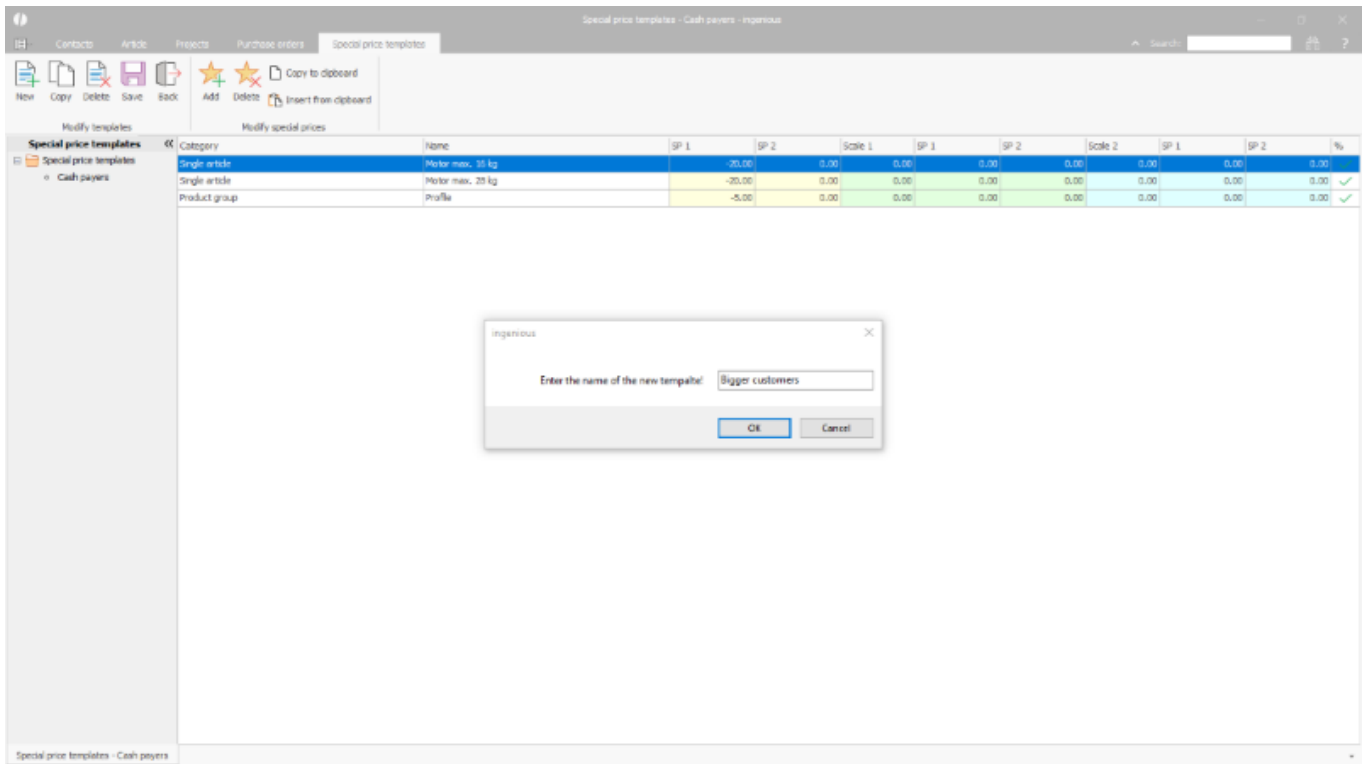



For the administration of the templates and the contained conditions the following functions are available in the ribbon bar:

	Creating a ne special price template
	Duplicating the selected special price template
	Deleting the selected special price template
	Saving the changes of the special price template
	Exit the special price template administration
	Adding a special price to a template
	Deleting the selected special price from the template
	Copying the selected special price template to clipboard
	Pasting a special price template from clipboard

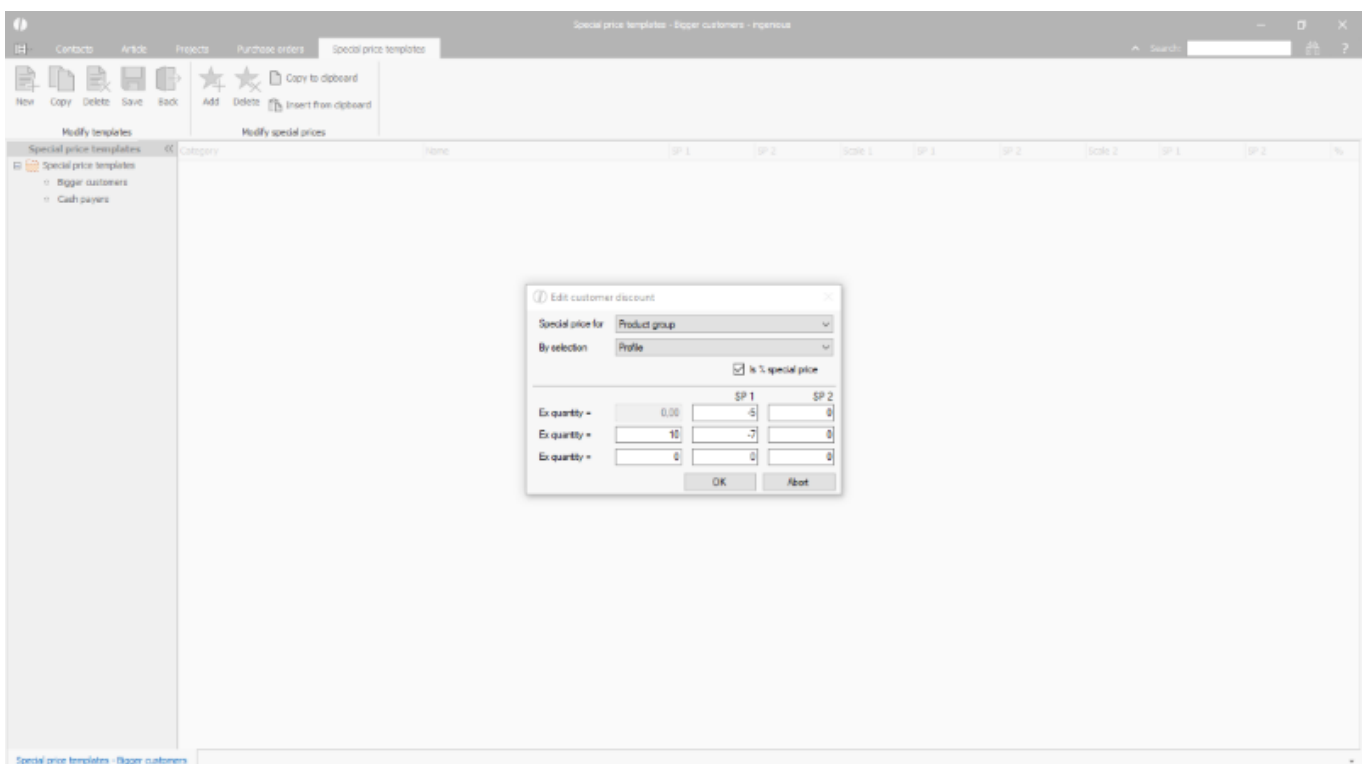
### Creation and modification of a special price template

The creation of a template ist started with button . In the appearing form a unique name for the template has to be given.



Afterwards any special price can be inserted into the template by button .

A special price can be defined for a single article, for a commodity group or for a product group. It can get an absolute or percental value. Special prices can have different values for SP1 and SP2 and can be defined 3-scaled.



With double click on an existing special price its parameters can be changed.

### Assigning a special price template

In the detail view of a customer in the column Special prices a template that should be valid for that customer can be chosen from drop-down list. The special prices that are contained in that template are shown with grey font. Beside these general special prices various other custom related special prices can be created.

If different special prices exist for the same base, e.g. for the same article, this one with the individual condition is preferred to the general one.

A modification of a special price within a template are immediately valid for the contacts, the template is assigned to.

Category	Name	SP 1	SP 2	Scale 1	SP 1	SP 2	Scale 2	SP 1	SP 2	%
Single article	Bottom sket Standard Alu beige	5,50	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Single article	HV Accordon	-15,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Single article	Motor max. 20 kg	-20,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Single article	Motor max. 20 kg	-20,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Single article	Roll Shutter	-10,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Single article	Roll Shutter 2	-15,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Single article	Rolling Shutter	-10,00	0,00	5,00	-20,00	0,00	0,00	0,00	0,00	0,00
Single article	Rolling Shutter inch	-10,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Single article	Zip Tex	-10,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Product group	Profile	-5,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

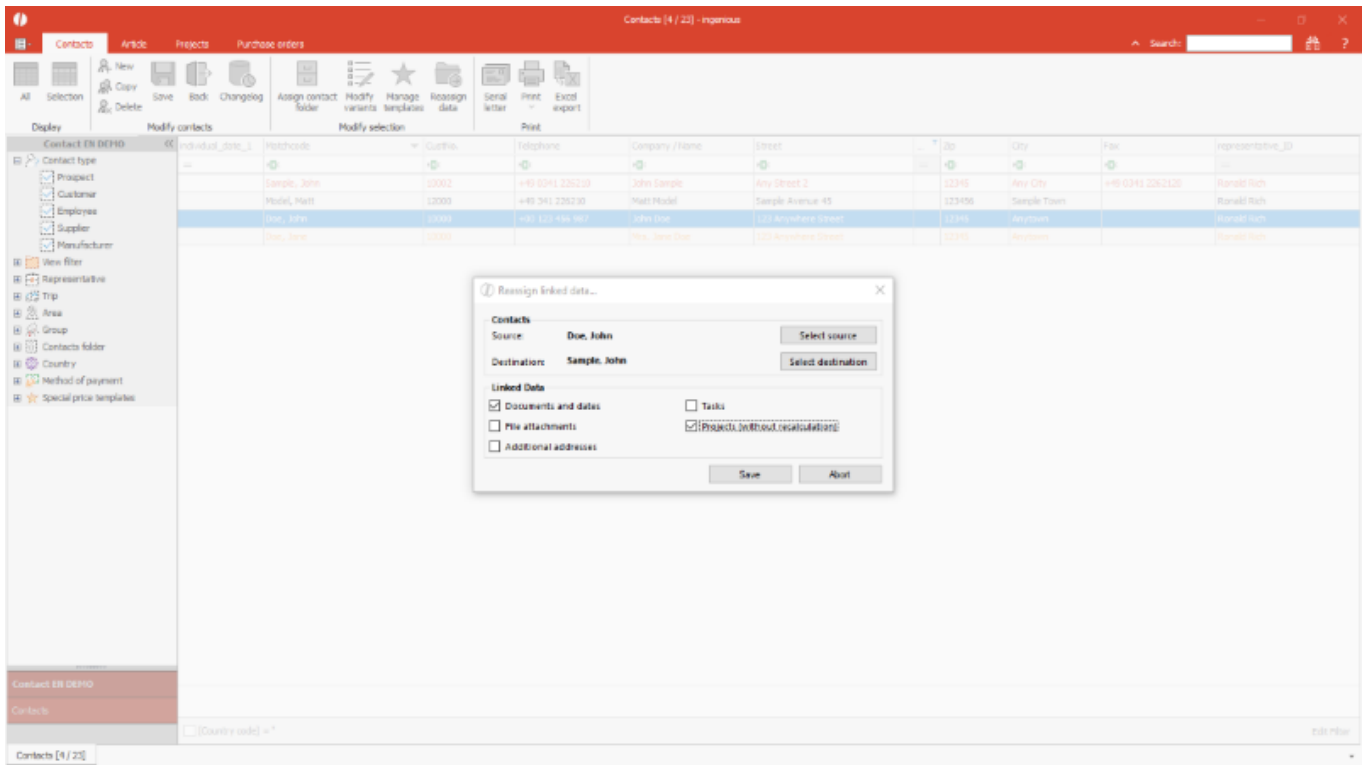
### 4.1.1.5 Reassign contact data

Through the function "reassign data", documents, dates, file attachments, additional addresses, tasks and projects can be reassigned from one contact to another. In practice this is employed, if a contact has been e.g. created multiple times by accidents and the data shall be combined in one of the contacts.

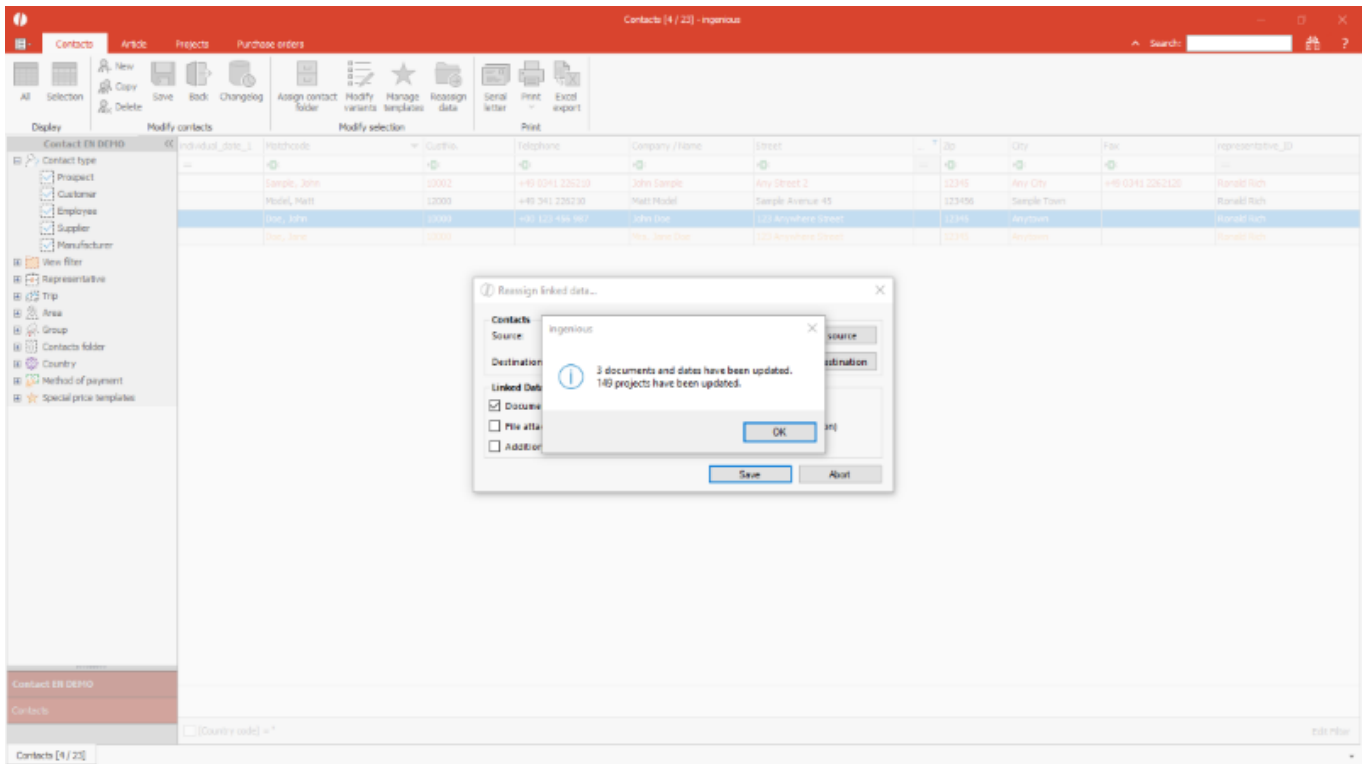
In the appearing form, source contact and destination contact (= the providing contact) and the destination contact (= the receiving contact) are determined. If the already two contacts have been marked in the contact list displayed, or if the list of shown contacts contains exactly two, the contact on top is automatically inserted as source and the other contact as destination.

Subsequently, it is selected which data shall be transferred.

**Note: During reassigning (not copying!) the destination contact receives the data, the source contact loses them.**



After reassignment a confirmation notice appears.

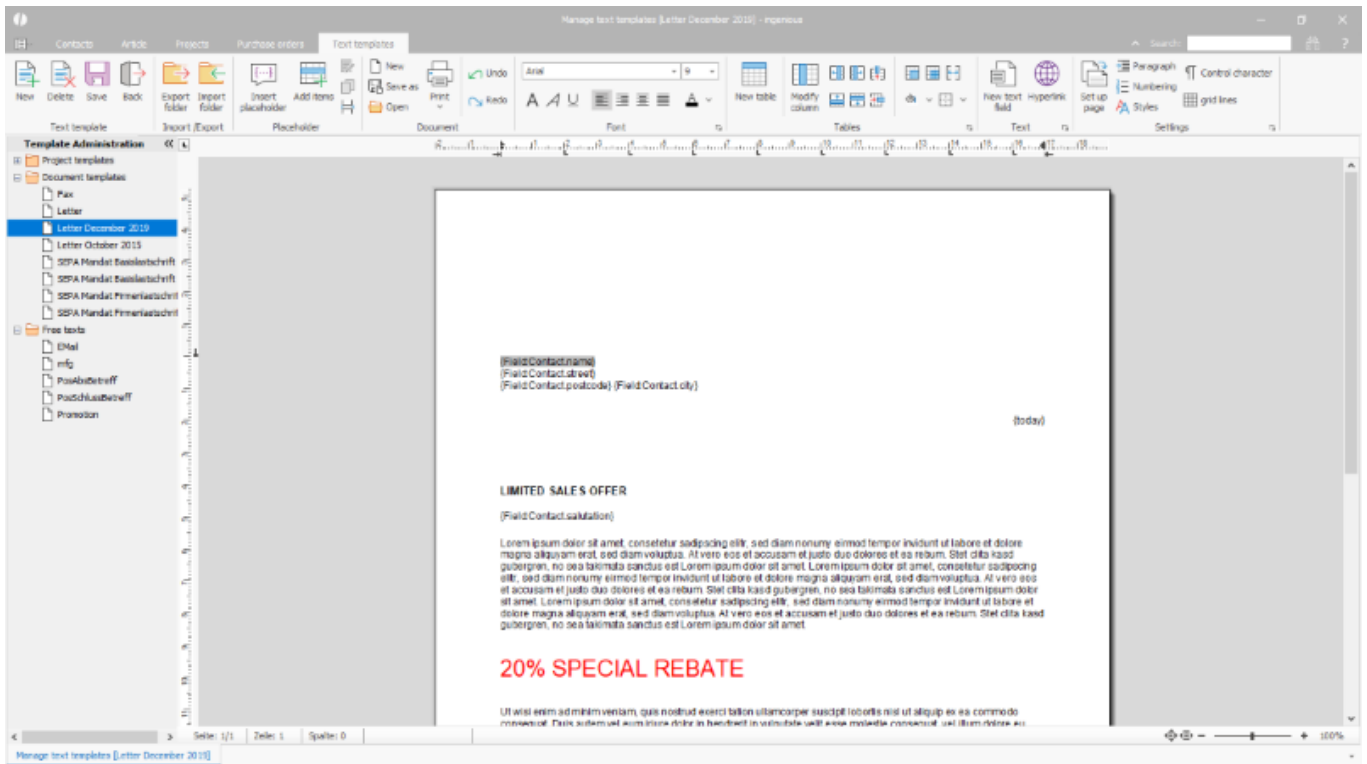


### 4.1.1.6 Serial letter assistant

With the serial letter assistant messages like advertising letters can be automated sent to divers contacts by email or postal mail.

#### 1. Preparation of the letter

First a document template for the letter will be created in the text template administration. With placeholders the address of the contacts will be filled in. The letter can contain static text, pictures, tables,... and can be freely designed. When the template is finalised it has to be saved and the text template administration can be closed.




## 2. Selection of the contacts

Serial letters will be sent to a predefined selection of contacts. The selection can contain:

- All marked contacts in the contact list
- All shown contacts in the contact list
- Contacts of a single group
- Contacts of a single area
- Contacts with same contact type
- Contacts that are grouped in contact folders

When a letter is to be sent to contacts in e.g. different areas, it's recommended to create a contact folder, to group the contacts. Therefore the first contacts will be selected by the filters and they will be assigned to a contact folder. Afterwards the next contacts will be selected and also assigned to that folder as long as all contacts are assigned.

## 3. Start serial letter assistant

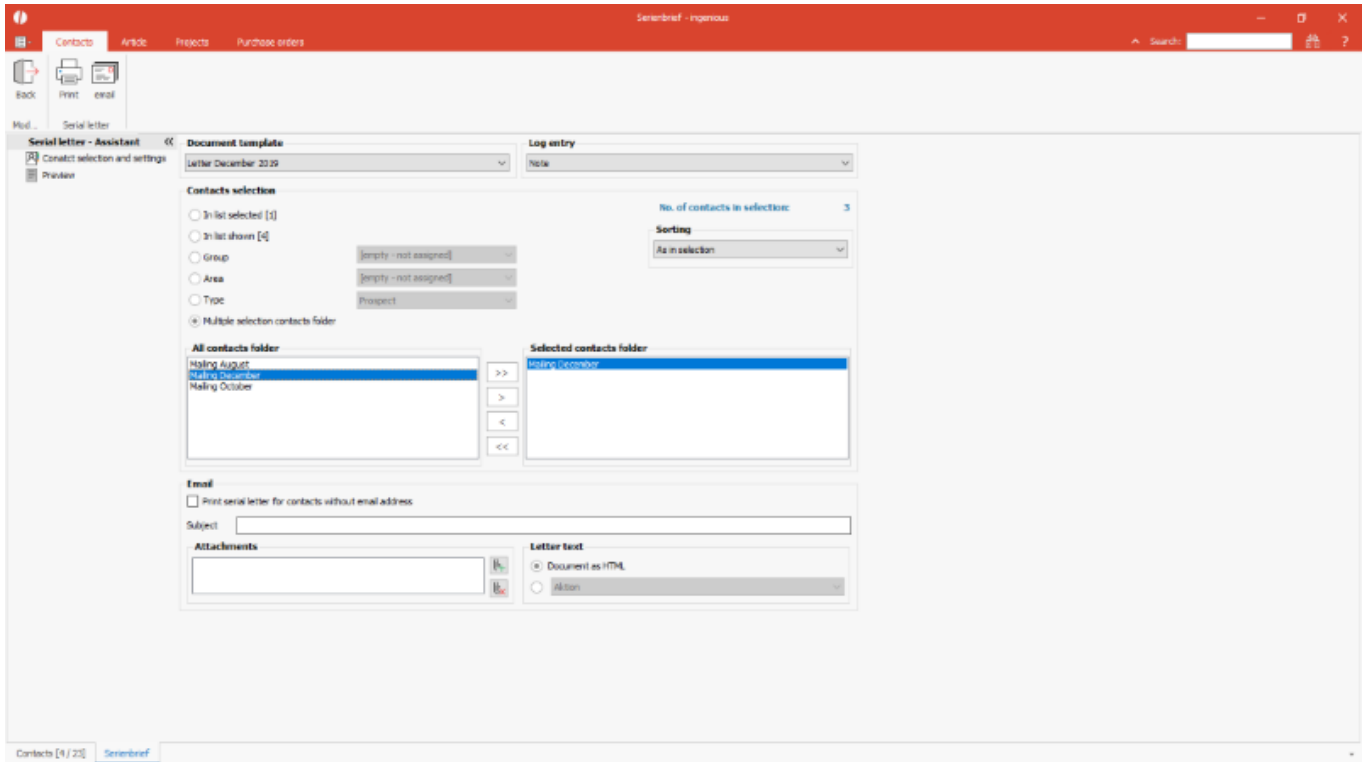
After all is prepared, the serial letter assistant can be started with the button  from icon bar in the contacts list view.

In the appearing window all configuration and the selection of the contacts is made.

Document template	The template that was created for this letter has to be selected from drop-down list.
Log entry	An entry can be set to the "Documents and notes" view of the contacts to retrace in future, if and when a serial letter was sent to the single contact.

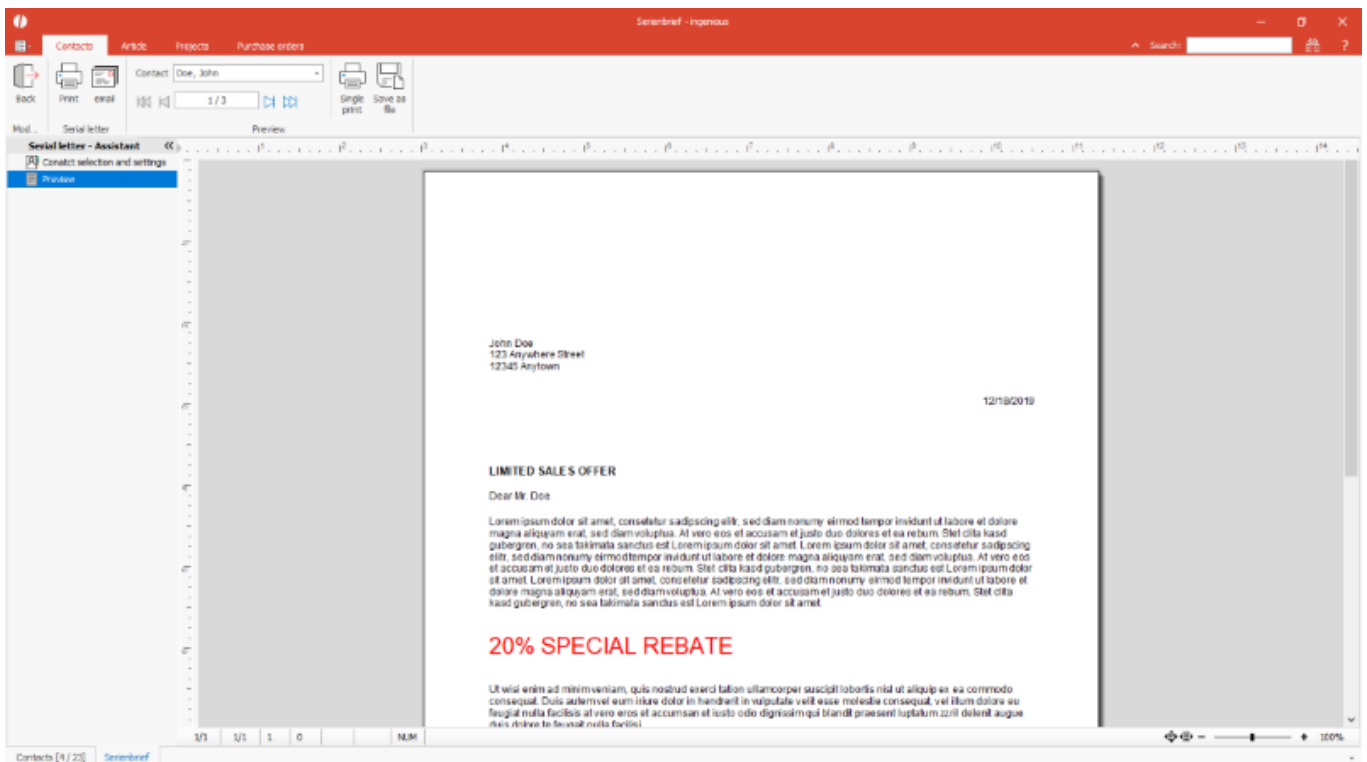
	<table border="1"> <tr> <td>without</td> <td>No entry will be created</td> </tr> <tr> <td>Note</td> <td>A note will be created with name and timestamp of the serial letter.</td> </tr> <tr> <td>Document</td> <td>The document itself will be stored at the contact. (Attention: With a multitude of contacts, with complex letters, e.g. with many pictures, a huge data volume will be created.)</td> </tr> </table>	without	No entry will be created	Note	A note will be created with name and timestamp of the serial letter.	Document	The document itself will be stored at the contact. (Attention: With a multitude of contacts, with complex letters, e.g. with many pictures, a huge data volume will be created.)		
without	No entry will be created								
Note	A note will be created with name and timestamp of the serial letter.								
Document	The document itself will be stored at the contact. (Attention: With a multitude of contacts, with complex letters, e.g. with many pictures, a huge data volume will be created.)								
Contacts selection	<p>Possible selection:</p> <ul style="list-style-type: none"> <li>• All marked contacts in the contact list</li> <li>• All shown contacts in the contact list</li> <li>• Contacts of a single group</li> <li>• Contacts of a single area</li> <li>• Contacts with same contact type</li> <li>• Contacts that are grouped in contact folders</li> </ul>								
Sorting	<p>With the sorting it can be defined in which order the letters will be printed, respectively sent.</p> <table border="1"> <tr> <td>As in selection</td> <td>The sorting is as it is shown in the list view.</td> </tr> <tr> <td>by zip code</td> <td>For huge amounts of advertising letters mail service providers offer low priced marketing products. for some of these products a sorting of the letters by zip code is requested.</td> </tr> <tr> <td>by name</td> <td>The sorting will be ascending by the name of the contacts.</td> </tr> <tr> <td>by matchcode</td> <td>The sorting will be ascending by the matchcode of the contacts.</td> </tr> </table>	As in selection	The sorting is as it is shown in the list view.	by zip code	For huge amounts of advertising letters mail service providers offer low priced marketing products. for some of these products a sorting of the letters by zip code is requested.	by name	The sorting will be ascending by the name of the contacts.	by matchcode	The sorting will be ascending by the matchcode of the contacts.
As in selection	The sorting is as it is shown in the list view.								
by zip code	For huge amounts of advertising letters mail service providers offer low priced marketing products. for some of these products a sorting of the letters by zip code is requested.								
by name	The sorting will be ascending by the name of the contacts.								
by matchcode	The sorting will be ascending by the matchcode of the contacts.								
E-Mail	<p>If the message should be sent to the contacts by email all necessary settings has to be made here. By default the emails will be sent to the address that is stored in the contact details. Contacts, where the email address is missing don't receive the message. Optionally for those contacts the message can be printed to send it with postal mail. For this the checkbox has to be activated.</p> <p>For subject a significant text should be chosen. Attention: emails without subject often are classified as spam and will not be noticed be the receiptent.</p> <p>Attachments like PDF documents can be added to the email.</p> <p>The text can be the selected document template (transferred to HTML) or a free text from text template administration.</p>								





After all configuration is set, the result can be checked by a preview.

In the icon bar you can browse in the single letters or you can choose the preview of a certain contact by selection of his matchcode. This makes sense for a necessary reprint of a letter in case of paper jam of the printer.

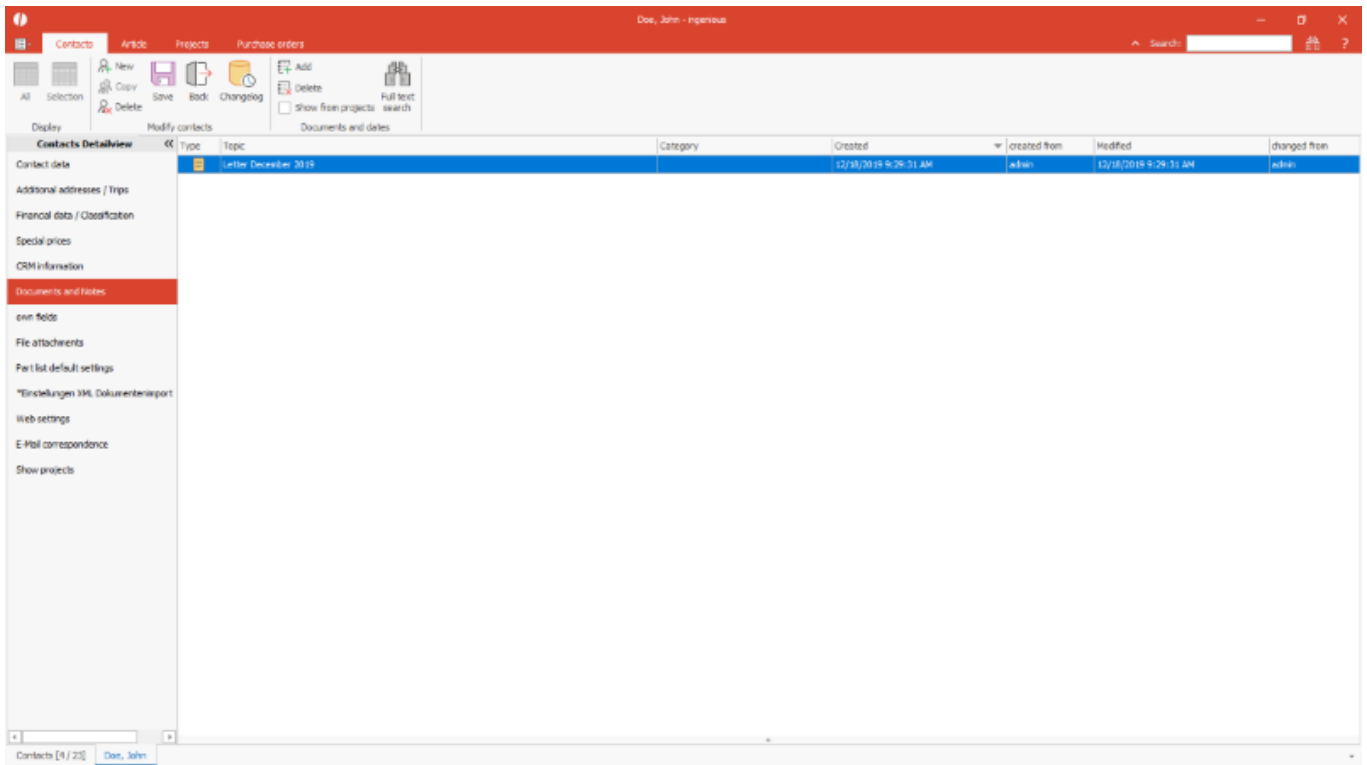


When there are no problems or mistakes are visible in the print preview, the print or email transmission can be started with the buttons in the icon bar.

For print outs a dialogue appears where the printer is to be selected. You can also define from / to which data record the print out shall be executed. A step-by-step printing is recommended for huge print jobs to not block the printer for a long time.

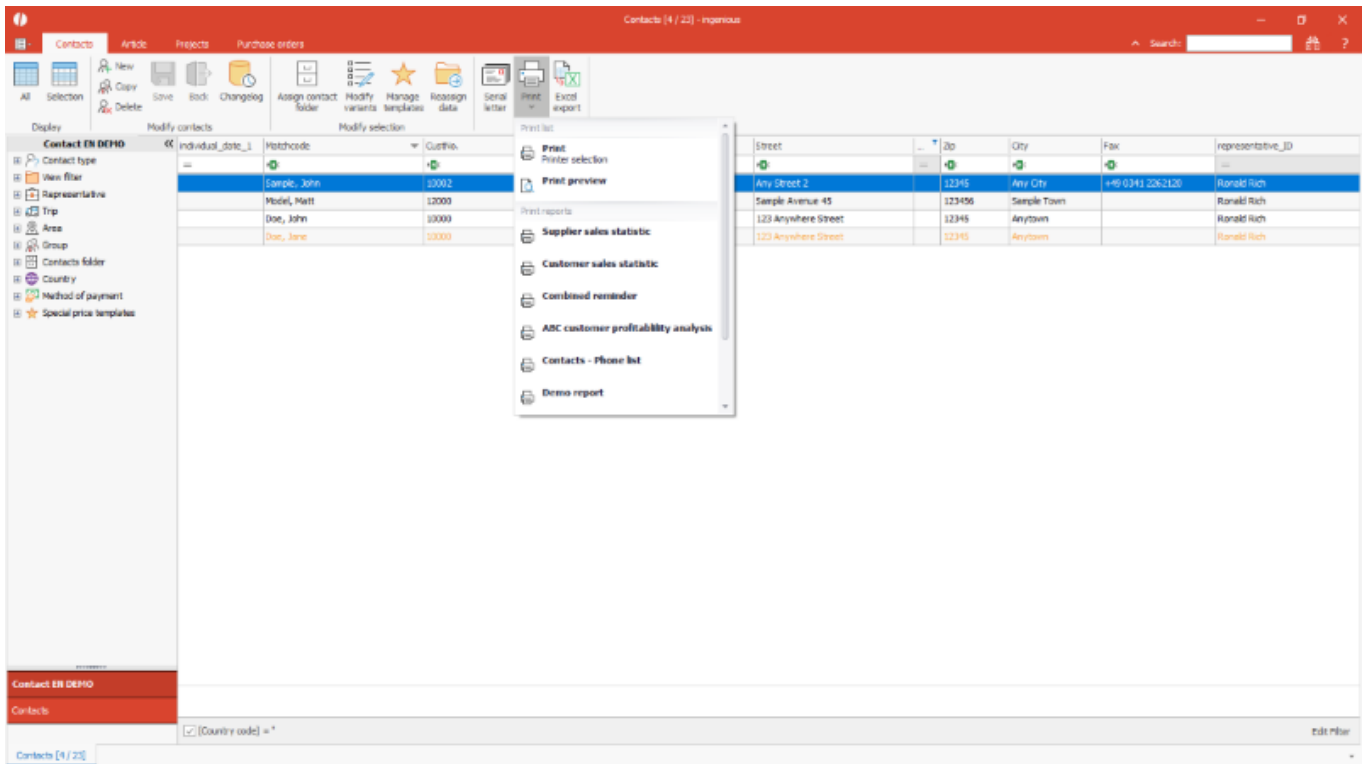
When all messages are printed / sent the serial letter assistant can be closed.

In the single contact data records a log entry is created when defined.



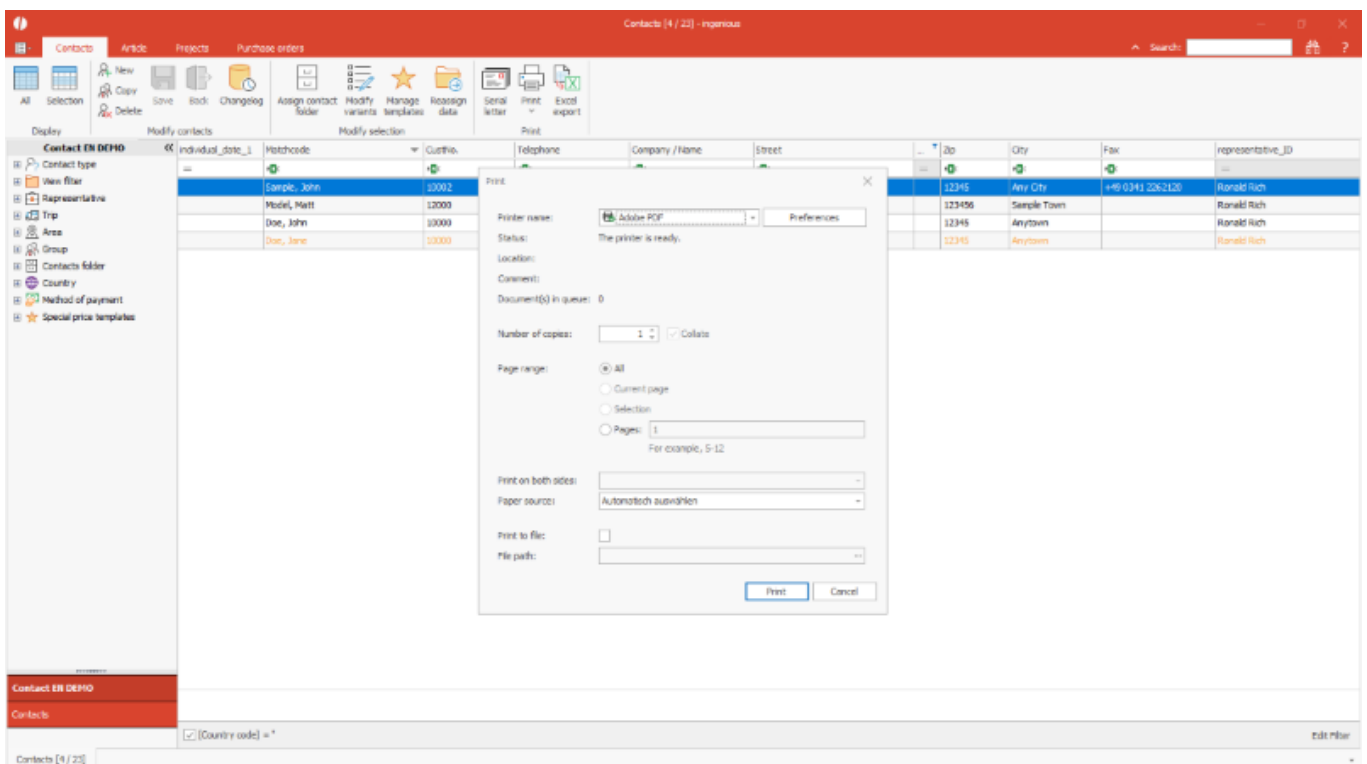
## 4.1.1.7 Printing contacts lists

In the contacts list different possibilities for printing lists and reports are available in the icon bar.



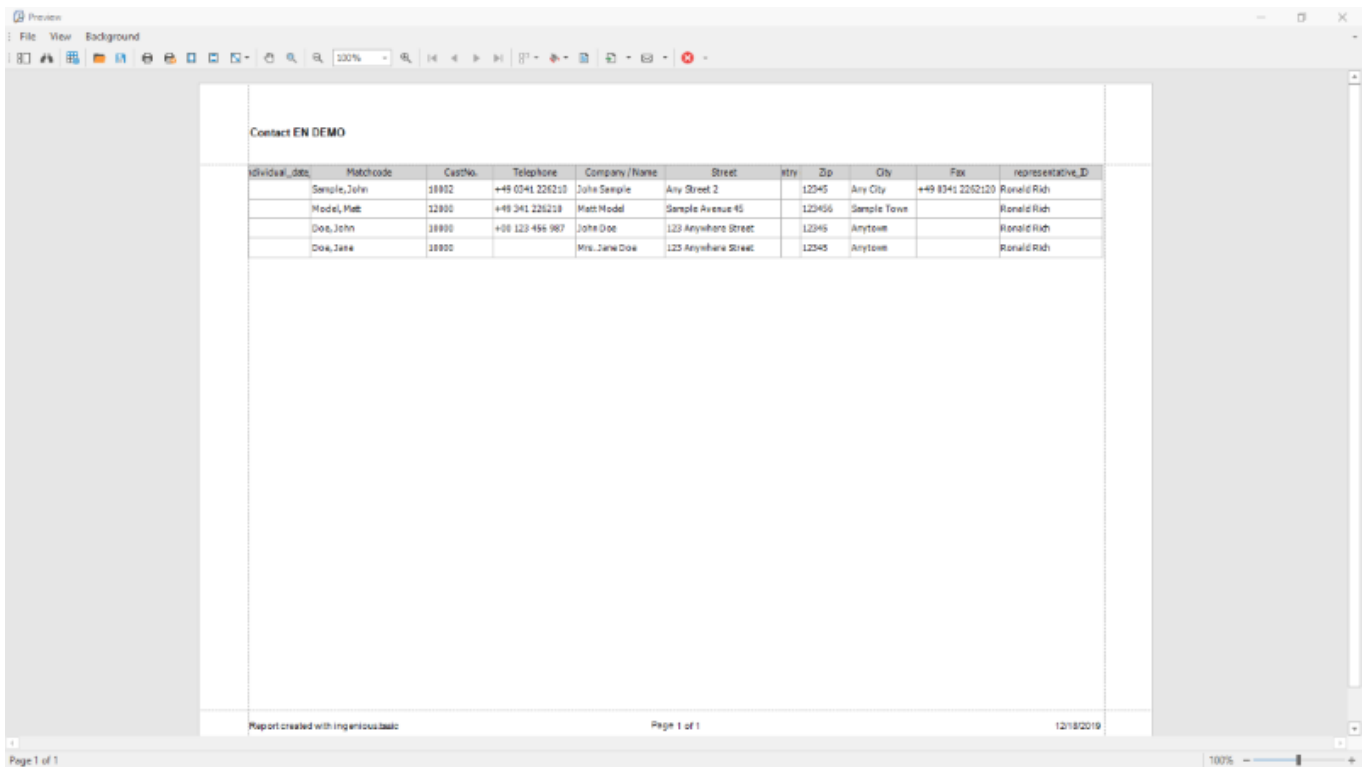
## 1. Print

With button or entry "Print" the displayed contacts list with all selected columns can be printed. After choosing this option the Windows print dialogue appears, where the printer can be selected. Additional settings e.g. duplex print is available depending on the printer model and driver.



## 2. Print preview

With the print preview the displayed contacts list can be printed with all shown columns and content. Before the printout a preview will be shown in a separate window.



The screenshot shows a window titled "Preview" with a menu bar (File, View, Background) and a toolbar. The main content is a table titled "Contact EN DEMO". The table has the following columns: Individual\_idno, Matchcode, CustNo, Telephone, Company / Name, Street, Str, Zip, City, Fax, and representative\_ID. The data rows are:

Individual_idno	Matchcode	CustNo	Telephone	Company / Name	Street	Str	Zip	City	Fax	representative_ID
Sample,John	18902		+49 0341 226210	John Sample	Any Street 2		12345	Any City	+49 0341 226210	Ronald Rich
Model, Matt	12800		+49 341 226210	Matt Model	Sample Avenue 45		123456	Sample Town		Ronald Rich
Doe, John	18900		+00 123 456 987	John Doe	123 Anywhere Street		12345	Anytown		Ronald Rich
Doe, Jane	18900			Mrs. Jane Doe	123 Anywhere Street		12345	Anytown		Ronald Rich

At the bottom of the window, there is a footer: "Report created with ingeniousbasic" on the left, "Page 1 of 1" in the center, and "12/18/2019" on the right. The status bar at the very bottom shows "Page 1 of 1" on the left and "100%" on the right.

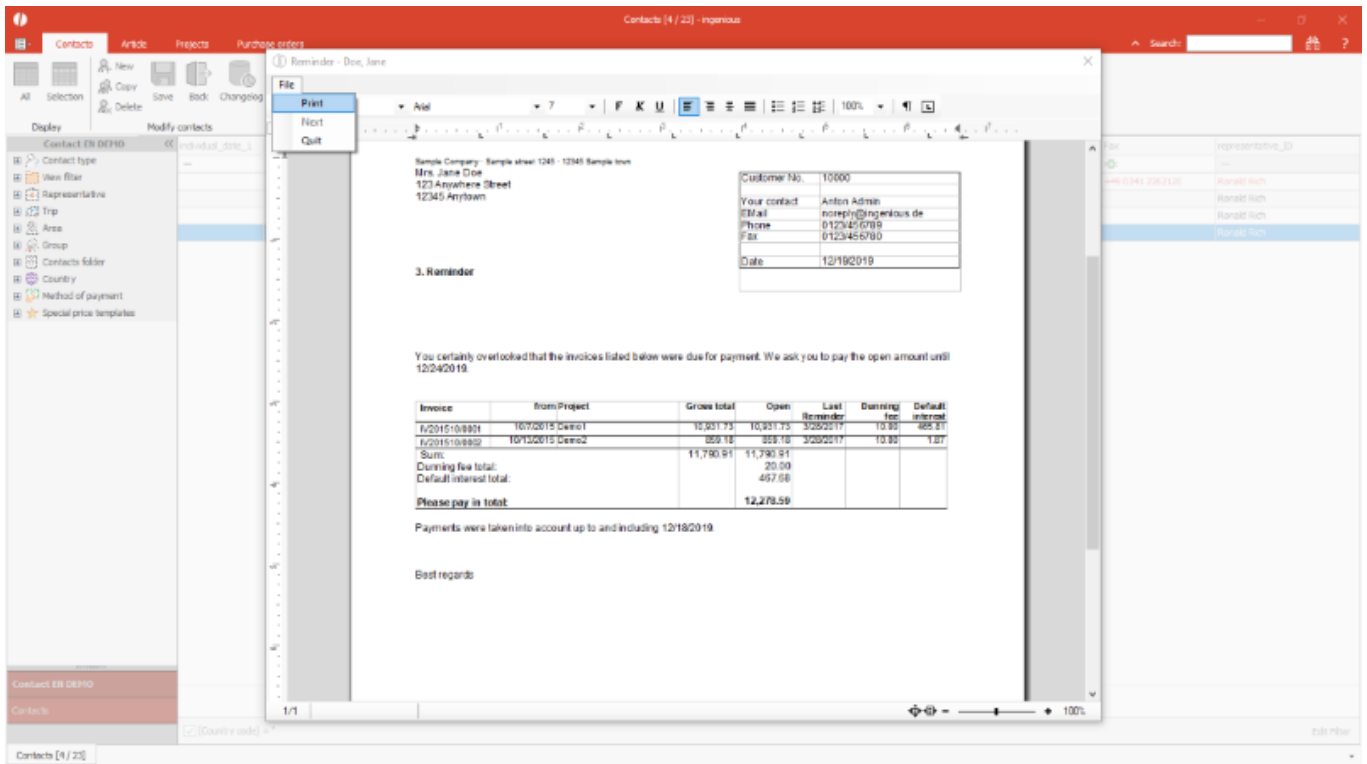
## 3. Combined reminder

In a combined reminder all open invoices of a customer that are overdue are listed in one document. There is no need to intricately search for open invoices. The function collective reminder detects all invoices that has to be dunned for automatically.

The print out of collective reminders will be done for all selected contacts. Each reminder contains all open invoices with their related dunning level. From the second reminder on reminder fees and default interests will be calculated in that height as they are defined in the contacts details.

Content and formatting of the reminder is designed in the project templates of text template administration. In the print preview of the single reminder individual text can be added.

From menu file the printout of the reminder can be started or next reminder can be opened. When the preview of a reminder is closed without printing the document, the reminder applies as not printed. Only the real print process sets the new dunning level in the affected invoices.



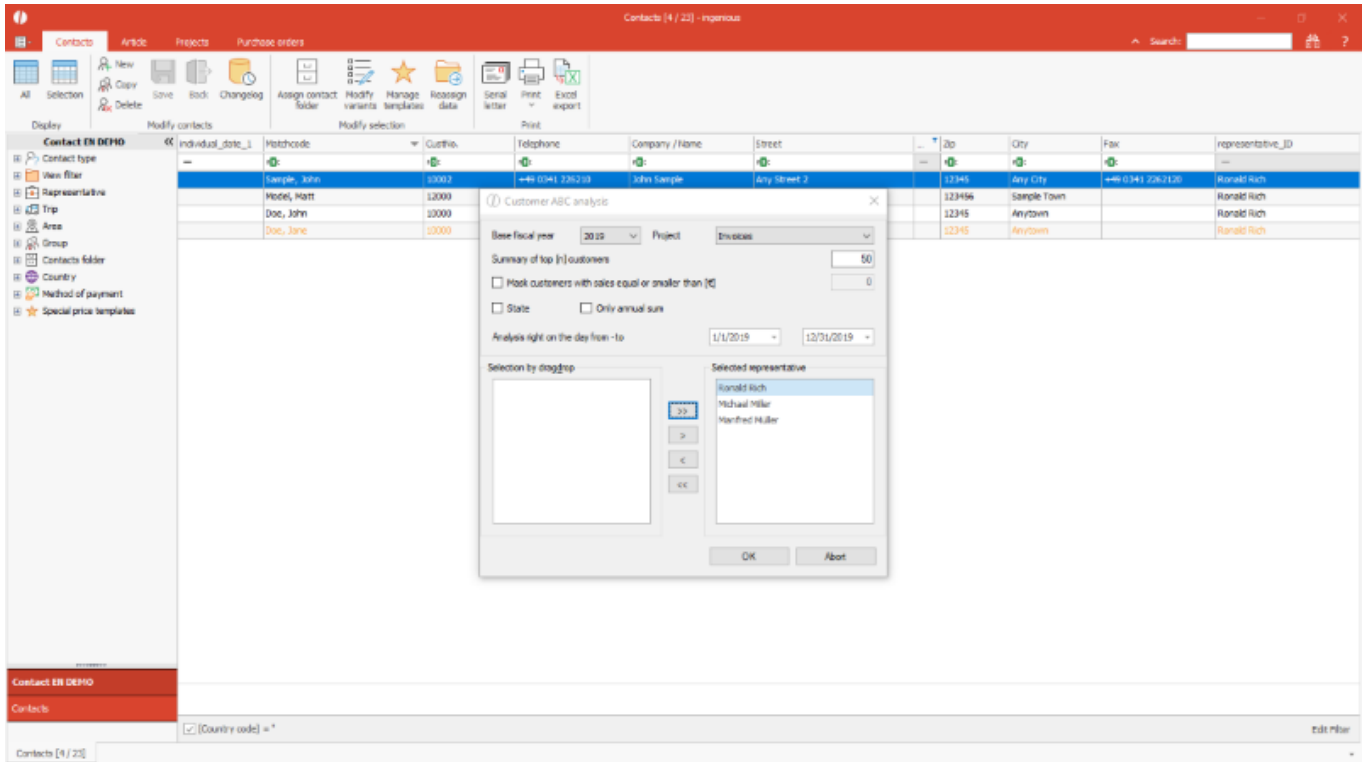
#### 4. ABC - customer analysis

The ABC - customer analysis is a tabular report of the customers with highest sales. The analysis can be done for any fiscal year. Beside the analysis of the sales also customers with most or highest quotes and orders can be determined.

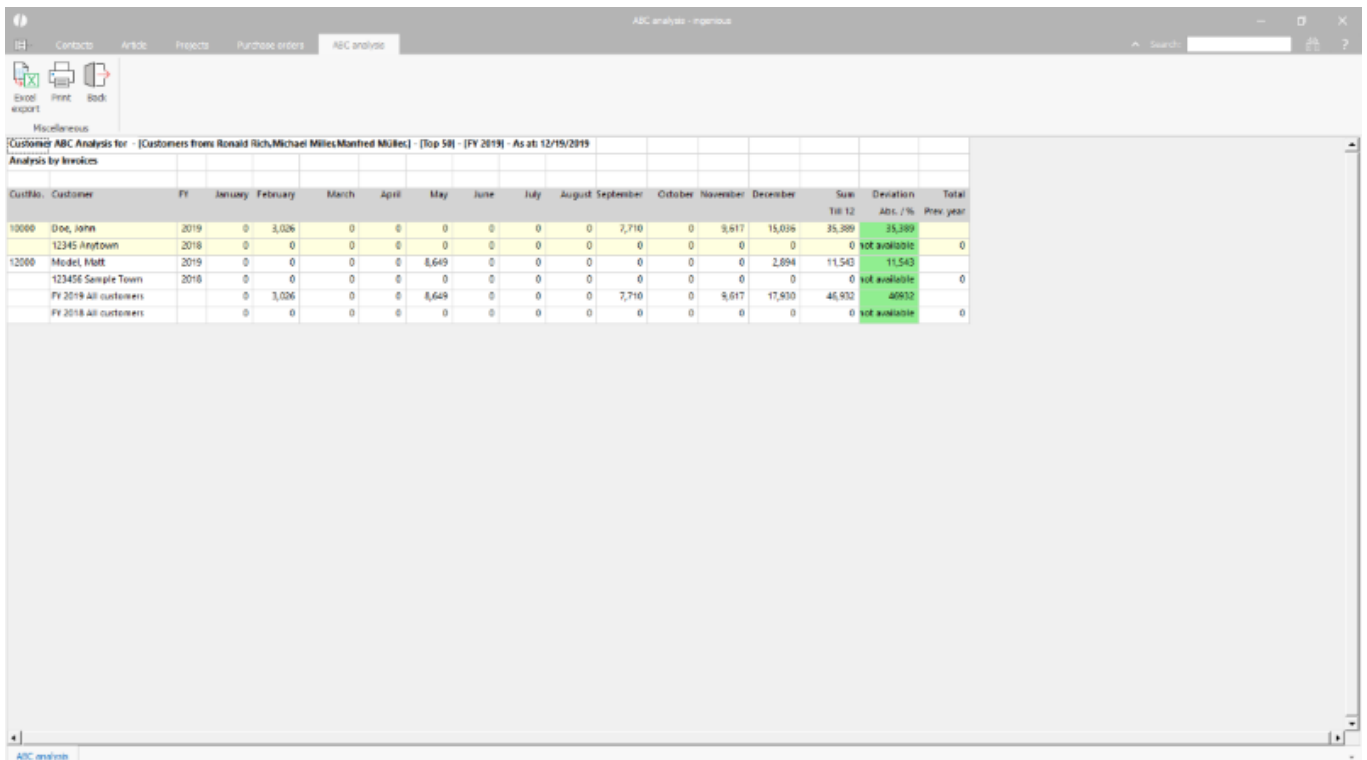
Additional settings can be made:

- Number of the customers that should be analyzed
- Fading out of customers with sales less than the minimum sales that can be defined here
- Grouping by federal state (only relevant for US American customers)
- Only analysis of the annual amounts
- Date selection for analysis exact to the day, e.g. for fiscal years that don't match the calendar year
- Selection of sales representatives; If no sales rep is selected, all customers are included.

After click on OK the report will be created.



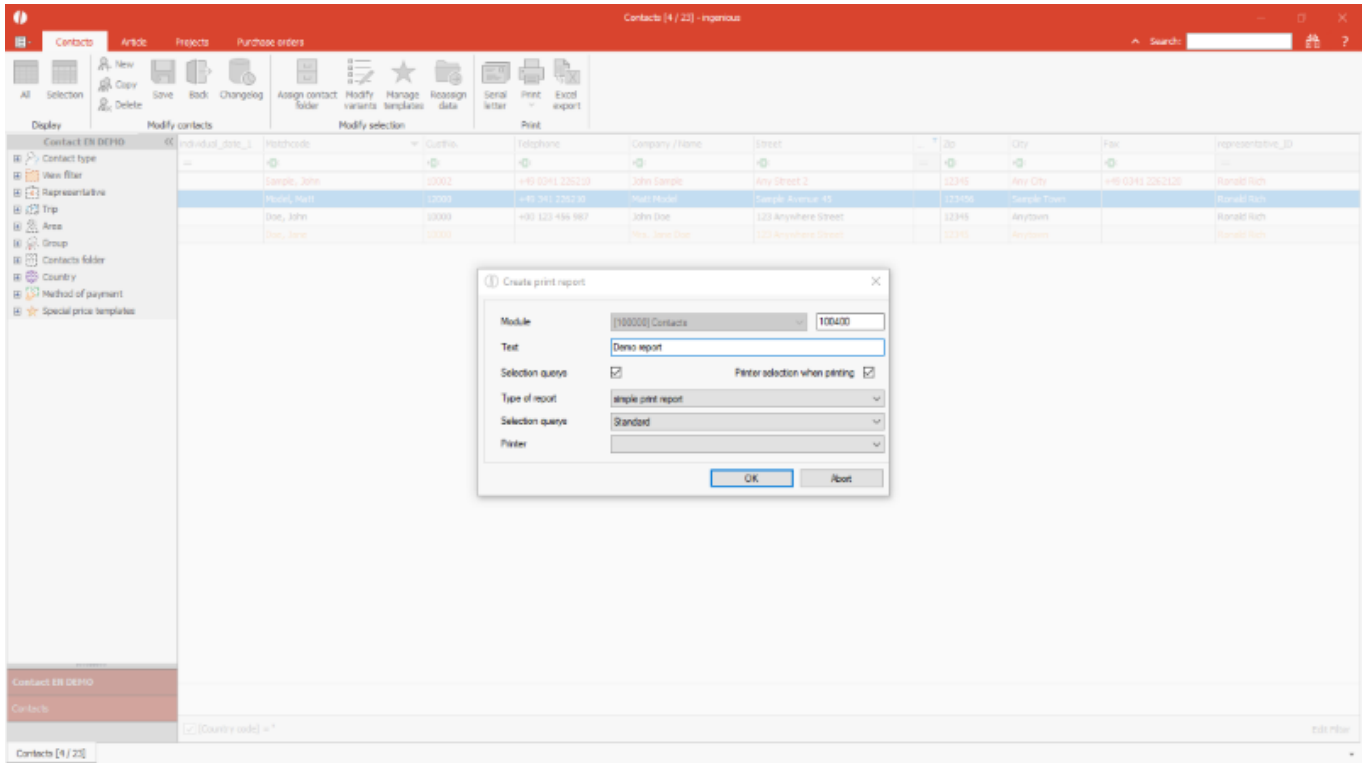
The report can be exported to Microsoft Excel for further processing.



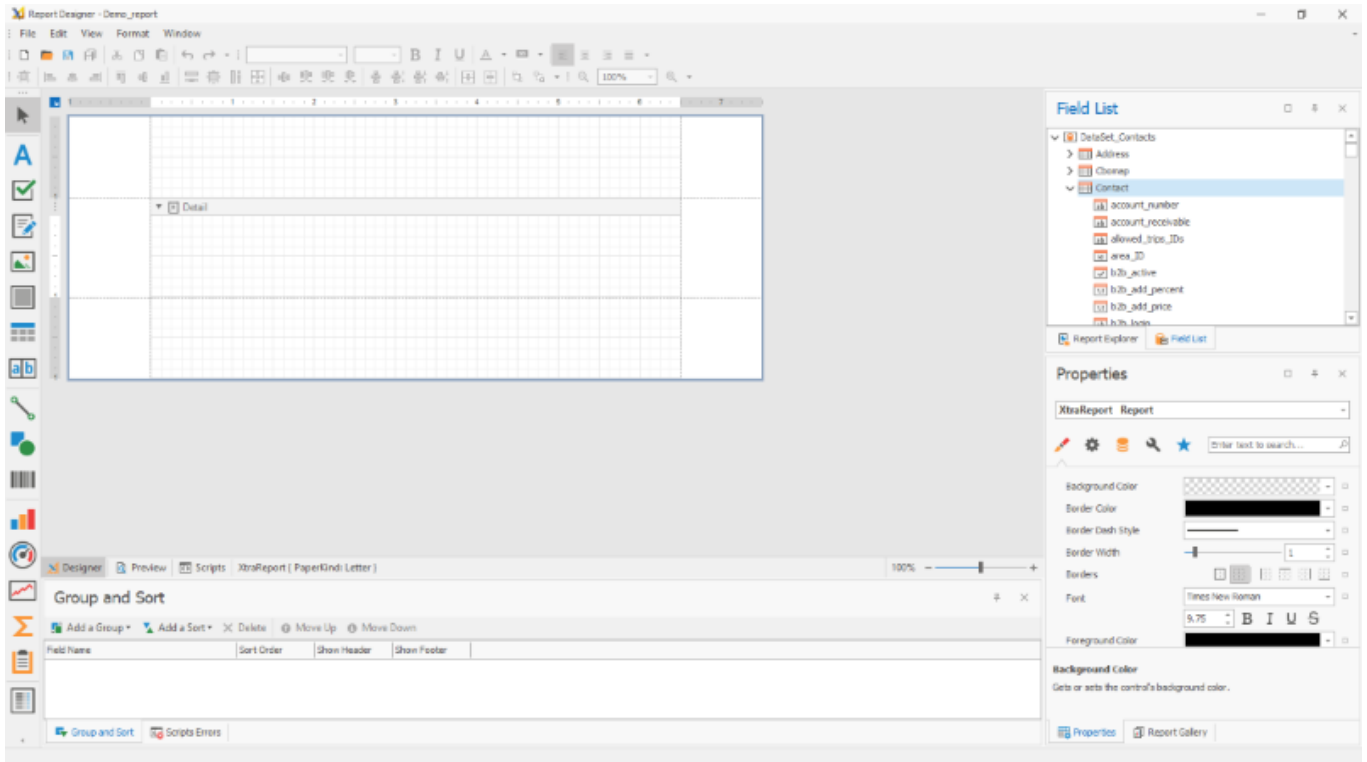
For closing this view the button Back needs to be clicked.

## 5. Create new report

Beside the predefined print reports also own analysis can be created and added. Therefore a print report with individual name is stored in the global settings. In this step already presettings can be done, e.g. the selection of the printer.



Afterwards the print report designer is opened, where the needed fields, own scripts, static texts and more can be added.

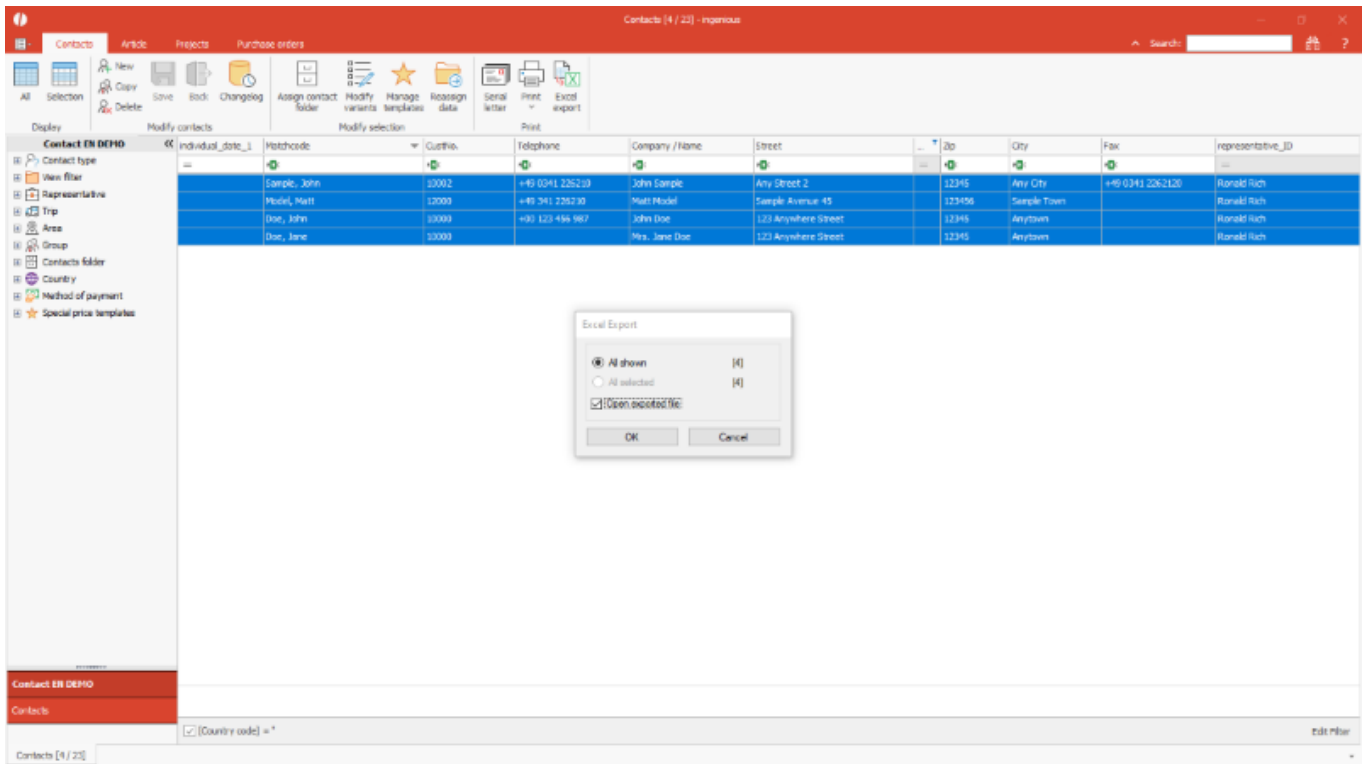


### 4.1.1.8 Contacts Excel export

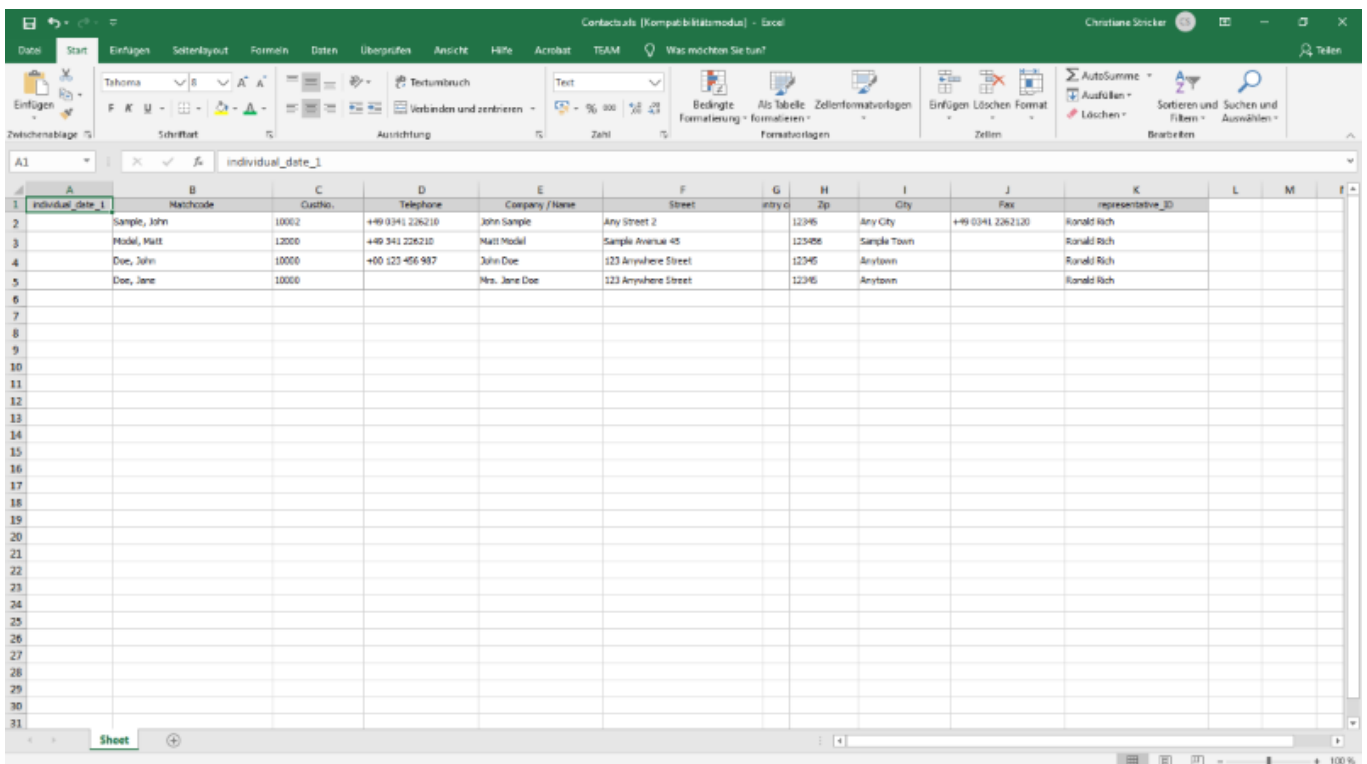
With the Excel export in the contact list view each individual list can be exported to Microsoft Excel file with all contained columns and values for further processing.

The exported file can contain all shown data records or all selected. With presetting the file can be opened automatically after export.





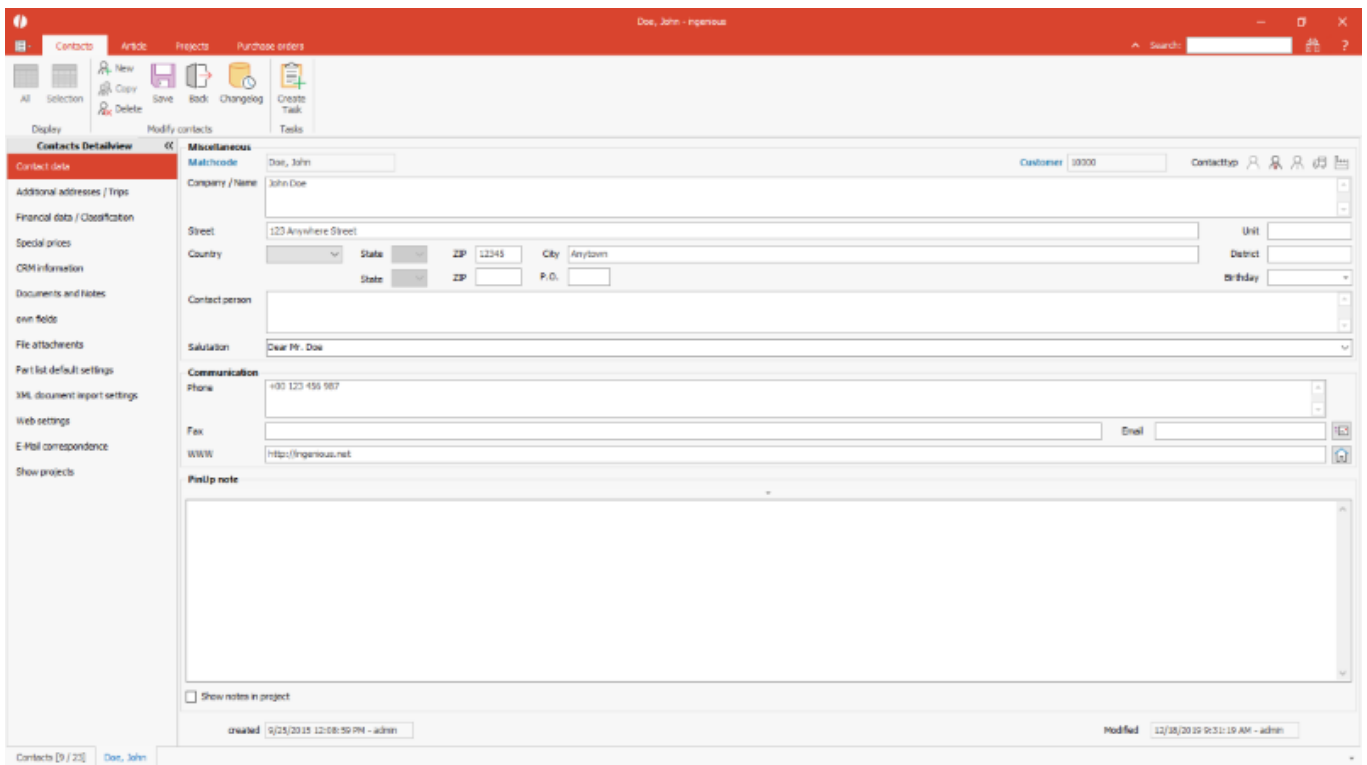
After click on OK the standard Windows dialogue appears to save the file on an individual path. Afterwards the file will/can be opened.










## 4.1.2 Contacts detail view

### 4.1.2.1 The contacts detail view

The contact detail view contains all details of a single contact. The view is structured by the navigation / selection area and the detail area.



In the contact detail view the following functions are available in the ribbon bar.

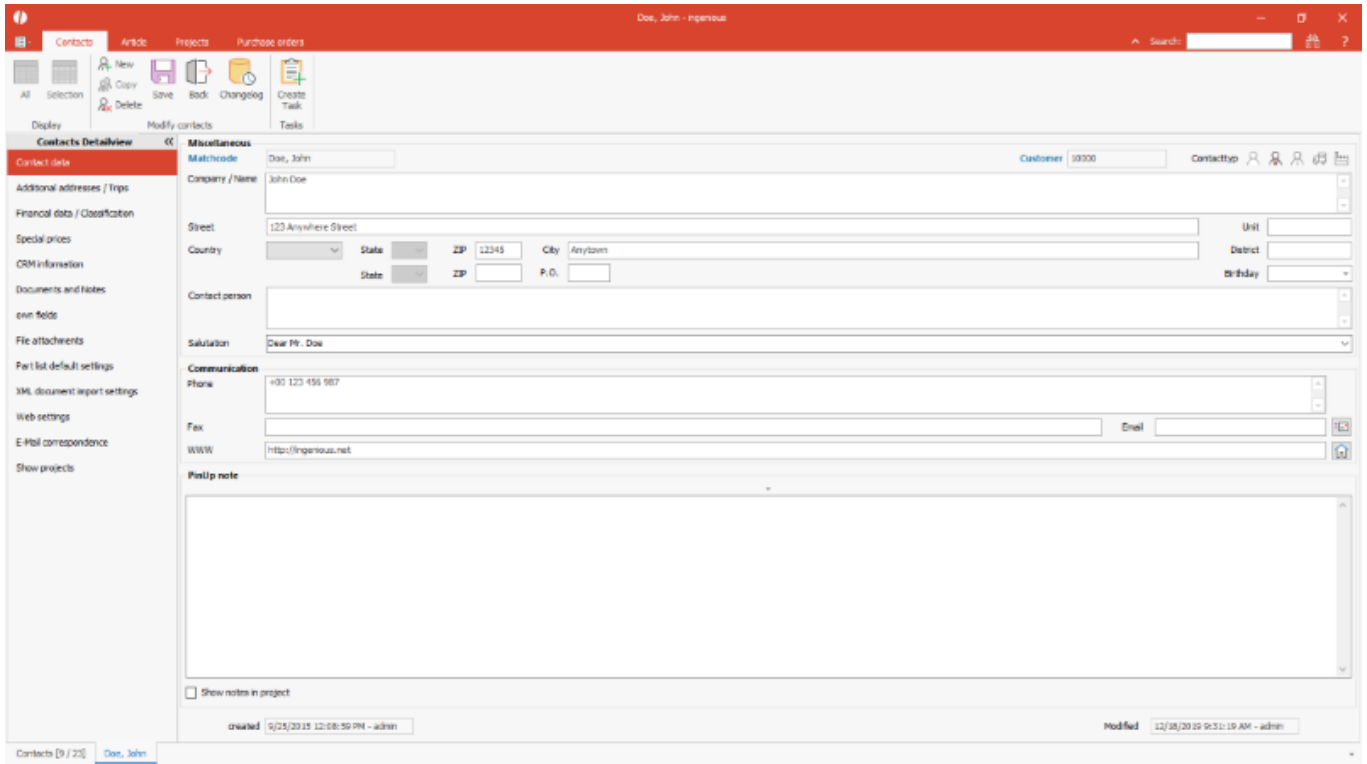
	Add a new contact
	Duplicate an existing contact
	Delete the selected contact
	Save the changes at the contact
	Go back to contacts list view
	Opens the changelog for administrators (user right required)
	Create a new task that is linked to that contact

### 4.1.2.2 General contact data

The contact detail view starts with the general contact data that contains the address and communication data of the single contact.

Matchcode	Protected input field	The matchcode is a clear short name of the contact for quick search and assignment. The matchcode of a contact has to be unique.	
Customer number	Protected input field	The customer number can be any alphanumeric string or a unique number. An automatic counter for the customer number can be activated in the global settings.	
Contact type	Visual check boxes	The contact types serve as a basis for grouping contacts and for their identification in the list view. Furthermore single functions are dependent on the contact type. The visibility of single contact types is secured by user rights.	
		Prospective	Prospectives are coloured red in standard list views.
		Customers	Customers are coloured black in standard list views.
		Employees	Employees are coloured orange in standard list views. The visibility of employees is secured by a user right.
		Supplier	Suppliers are coloured blue in standard list views. Only for contacts of type suppliers purchase orders and receipts can be created. And only for suppliers a datanorm import can be executed. The visibility of suppliers is secured by a user right.
		Manufacturers	Manufacturer are coloured black in standard list views.
Company / Name	Simple input field	In the field Company / Name the complete company name or persons name is to be filled. Alternatively an input in single fields (Title 1, Title, Name, Forename, Company, Company2) is possible. Therefor the extended entry mask has to be activated in global settings.	
Street	Simple input field	Street and house number of the address.	
Country	Selection list	Country where the contact lives, respectively has his office. Which country is available in the drop-down has to be defined in the global settings / selection lists	
State	Selection list	US state of the street address - only active when "US" for country is selected.	
ZIP	Simple input field	ZIP code of the street address	
City	Simple input field	City where the contact lives, respectively has his office..	

State	Selection list	US state of the postal address - only active when "US" for country is selected.
ZIP	Simple input field	ZIP code of the postal address
P.O.	Simple input field	Post office box of the contact
Birthday	Date field	Birthday of the contact
Contact person	Simple input field	Note regarding single contact persons. When contact persons has to be used in the address of project documents, they should be stored as separate address for this contact (see navigation point Additional addresses / Trips)
Salutation	Selection list	Selection of a predefined Salutation, that can be completed or direct input of an individual salutation.
Phone	Simple input field	Entry of divers phone numbers in any formatting. When the tapi feature for connecting to a telephone system should be used, the phone numbers only will be identified correctly when each phone number is in a separate line.
Fax	Simple input field	Entry of the fax number of the contact
WWW	Simple input field	Entry of the web address of the contact. With the button behind the input field the website can directly be opened.
E-Mail	Simple input field	Entry of the email address of the contact. With the button behind the input field a new message can be created in Microsoft Office. Separated by comma multiple email addresses can be added for automatically sending emails to more than one recipient.
PinUp Note	Simple input field	The pinUp note is for collecting important hints and e.g. those that are relevant to payroll. This note can be shown as pop-up when a new project document is created or an existing one is converted. The configuration of the pop-up is done in the global settings.



## 4.1.2.3 Additional addresses and trips

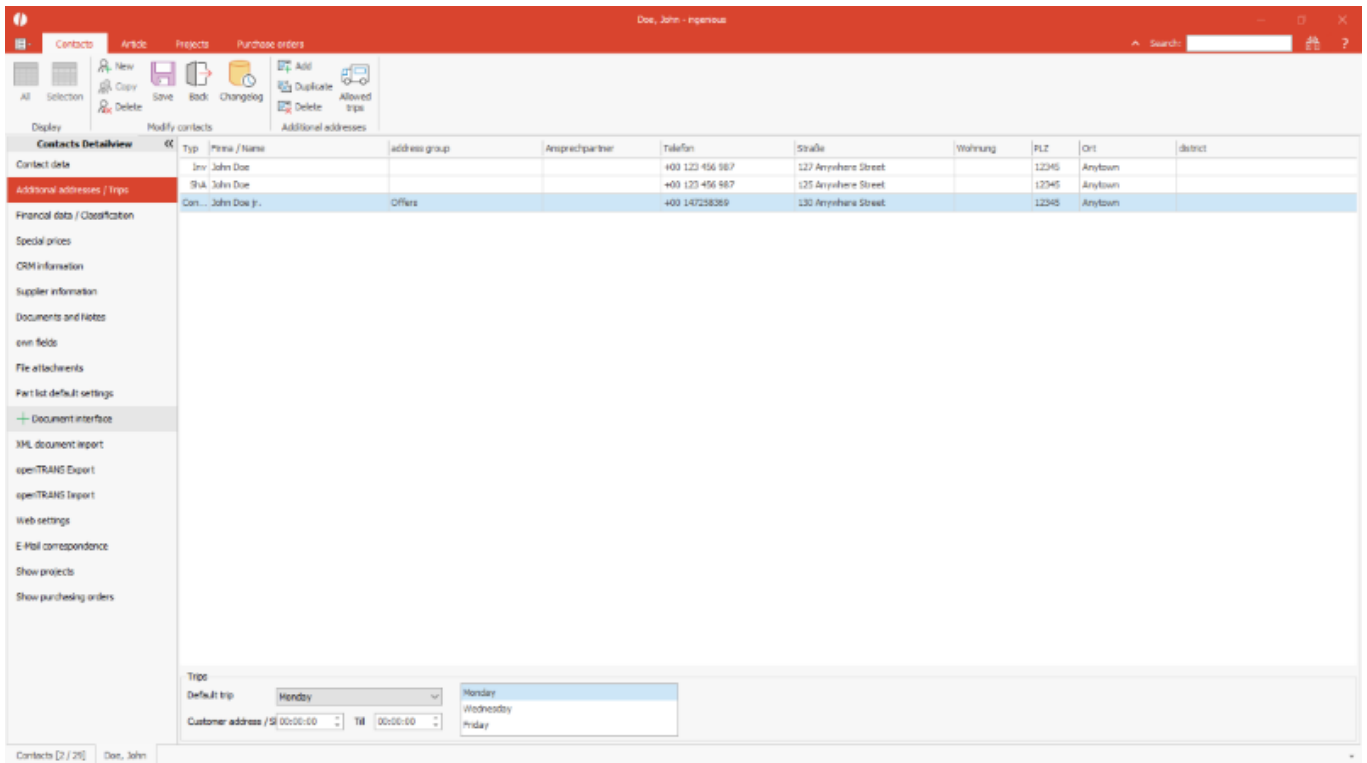
### Additional addresses

Additional address can be differing delivery addresses, differing invoice addresses or communication data of single contact persons of a company.

All additional addresses of a contact are listed in a table. The first column marks the type of the additional address.

ShA	Delivery address, can be used in project documents by placeholders {DeliveryAddress}, {Del...}.
Inv	Billing address, can be used in project documents by placeholder {InvoiceAddress}, {In...}.
A3	Additional address 3, can be used in project documents by placeholders {Address3}, {A3...}.
A4	Additional address 4, can be used in project documents by placeholders {Address4}, {A4...}.
Contact	Contact person, overwrites the single default address when selected. An Additional address of the contact type can be assigned to an individual address group, e.g. as indication to which contact person offers should be sent to. The possible address groups can be defined individually in the <b>selection lists (Section 8.6.4)</b> .

Each additional address can be selected as a different basic address in a project document. E.g. when a differing delivery address is created it will be filled into the document automatically. But when a single order should be delivered to the main address, it can be selected in the document.



For administration of the additional addresses there are additional features available in the ribbon bar.

	Add a new additional address
	Add a new additional address and take over the details from main address or from the selected additional address.
	Delete the selected additional address.
	Opens a dialog for selecting the (delivery) trips allowed for the customer

In an additional address the same fields for address and communication details are available as for the main address.

The screenshot shows the 'Modify additional address' dialog box in the ingenious software. The dialog is overlaid on a contact management interface. The dialog has several sections:

- Miscellaneous:** Address type (Contact person), Group (Others), Default address (checkbox). Fields for Company / Name (John Doe jr.), Street (130 Anywhere Street), Country, State, ZIP (12345), City (Anytown), District, and a Default trip dropdown.
- Communication:** Phone (+00 147258309), Fax, Email, and WWW (http://ingenious.net).
- Settlement:** Sales tax ID, Country class (National), and Sales tax status (checkbox).
- Web settings:** Individual text, Login, Password, Allow B2B access (checkbox), Allow to place orders (checkbox), and Supervisor (checkbox).

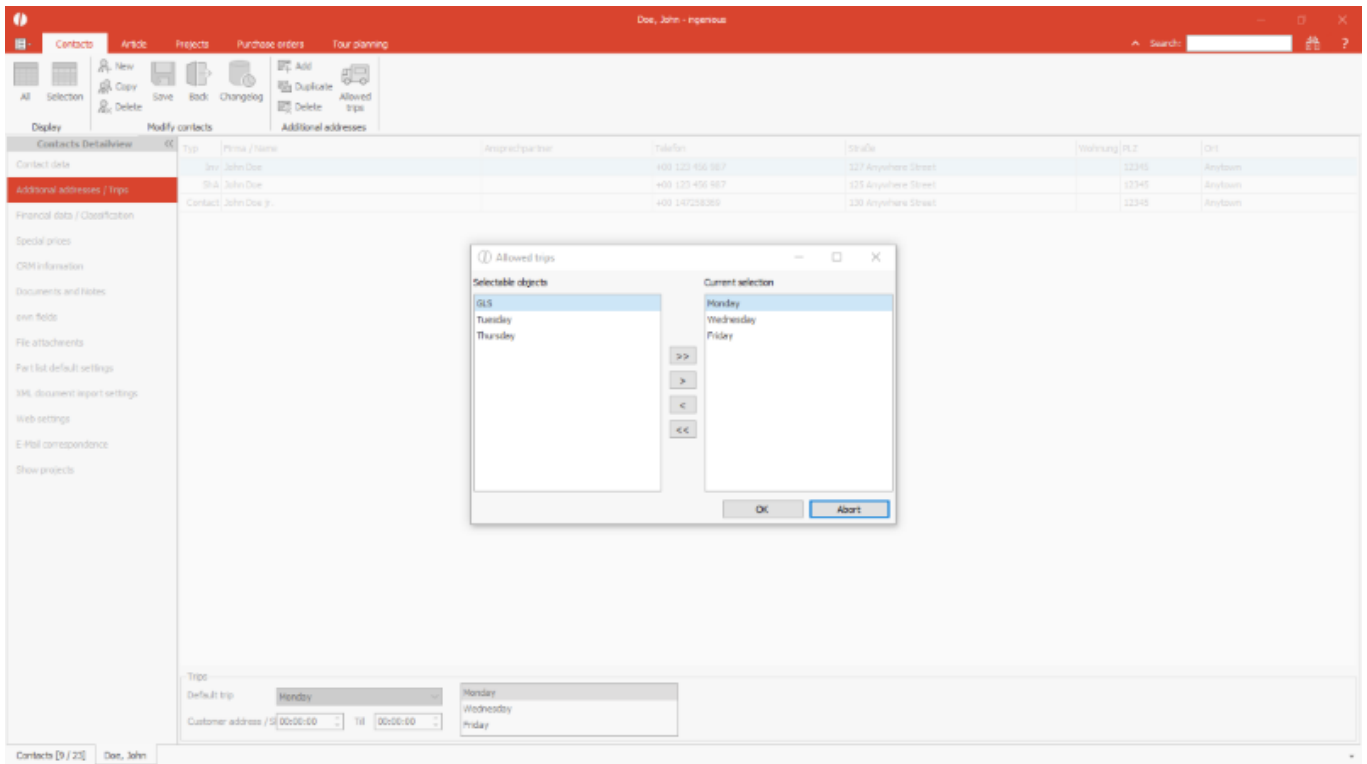
The background interface shows a contact list with columns for 'PLZ', 'City', and 'District'. The contact 'Doe, John' is selected.

## Trips

The default trip is to be set by selection list. The possible values of the selection list can be individually defined in the global settings. The default trip of a contact can be printed on customer documents by placeholder. Customers can be grouped, filtered and searched for by the trip.

Additional routes to deliver the customer are configured via the allowed trips. Only these trips are then available for selection in a project for this customer.

In the fields for delivery time a time frame can be stored when the customer regularly accepts a consignment. This can be used for planning the trip and for printing this information on documents. Furthermore this information can be used for high-precision optimization within a trip planning software. The data can be exchanged by an individual interface.



### 4.1.2.4 Financial data and classification

Under the navigation point "Financial data and classification" accounting details of the contact are stored and the classification of the contact to various groups is done.



The screenshot displays the 'Contacts Detailview' for a contact named 'Doe, John'. The interface is organized into several functional sections:

- Classification:** Fields for Client, Group, Representative, Method of payment, Area, and Commission group.
- Settlement:** Fields for Account receivable, Sales tax ID, Country class, and Currency.
- Method of payment:** Fields for Payment practice, Discount %, Till disc. dead., and Limit check.
- Dunning:** Fields for Dunning run in days and Reminder fee.
- Bank details:** Fields for IBAN, Bank, and Mandate reference.
- Supplier defaults:** Field for terms of delivery.
- Texts bound to document status:** A table with columns for document type and text content.

The following fields are available:

Client	Selection list	Selection of a client e.g. for different district offices
Group	Selection list	Selection of an individual customer group, e.g. private customers, business customers,... Individual customer groups can be defined in global settings.
Representative	Selection list	Selection of the representative that attend to the customer. Representatives can be defined in global settings.
Method of payment	Selection list	Selection of the method of payment Method of payments can be defined in global settings.
Area	Selection list	Selection of an individual defined area Areas can be defined in global settings.
Commission group	Selection list	Classification to a commission group for calculation and reports Commission groups can be defined in global settings.
Account receivable	Protected input field	The account receivable is relevant for individual interfaces to accounting software. The account receivable can be initialized with the customer number. This has to be configured in the global settings.
Currency	Selection list	Selection of the currency in which the customer is billed. Which currencies can be selected is configured in the <b>program settings (Section 8.6.16)</b> . (Module license required)
Sales tax ID	Simple input field	Entry of the sales tax ID of the company
Country class	Selection	Predfined selection for the calculation of sales taxes in project documents and

	list	for allocation of the sales account for accounting.						
		<table border="1"> <tr> <td>National</td> <td>Customer that is located in the same country</td> </tr> <tr> <td>EU-country</td> <td>Customer that is located in another EU country</td> </tr> <tr> <td>Non-EU country</td> <td>Customer that is located outside of the EU</td> </tr> </table>	National	Customer that is located in the same country	EU-country	Customer that is located in another EU country	Non-EU country	Customer that is located outside of the EU
National	Customer that is located in the same country							
EU-country	Customer that is located in another EU country							
Non-EU country	Customer that is located outside of the EU							
Sales tax status	Checkbox	Definition of sales tax liability of the customer						
Firmregisterno.	Simple input field	Entry of the firm register number of the company						
Surcharge %	Simple input field	Percentage <b>surcharge (Section 4.3.3.6)</b> applied to customer's projects, if so configured in the <b>program settings (Section 8.6.11)</b>						
Payment practice	Selection list	Predefined selection to rate the payment practice of the customer <table border="1"> <tr> <td>Very good</td> <td>The customer always pays in time</td> </tr> <tr> <td>OK</td> <td>The customer sometimes pays to late but steadily</td> </tr> <tr> <td>Bad(Limitcheck)</td> <td>The customer always pays to late; loss of receivables It's recommendet to activate the limit check and to define a maximum open balance.</td> </tr> </table>	Very good	The customer always pays in time	OK	The customer sometimes pays to late but steadily	Bad(Limitcheck)	The customer always pays to late; loss of receivables It's recommendet to activate the limit check and to define a maximum open balance.
Very good	The customer always pays in time							
OK	The customer sometimes pays to late but steadily							
Bad(Limitcheck)	The customer always pays to late; loss of receivables It's recommendet to activate the limit check and to define a maximum open balance.							
max. open balance	Simple input field	For customers with bad payment practice a maximum open balance can be defined. Together with the checkbox limit check the open balance is validated when a new project document is created.						
Limit check	Checkbox	When limit check is activated the open balance is checked for that customer when a new project document is created. If the open balance is higher than the defined maximum open balance a warning is shown.						
Discount %	Simple input field	Percentage rate that the customer can reduce an invoice by when paying before the discount deadline. When a new customer is created the field is predefined by the value that is configured in the global settings.						
Till discount deadline[days]	Simple input field	Term within the customer is allowed to reduce the invoice amount by the discount. When a new customer is created the field is predefined by the value that is configured in the global settings.						
Net payment	Simple input field	Term for payment of an invoice without discount. Net payment term has to be longer than discount deadline. When a new customer is created the field is predefined by the value that is configured in the global settings.						
Dunning run in days[1] bis [3]	Simple input fields	Terms when unpaid invoices are included to the automatic dunning run. Term for first reminder must be longer than net payment term, terms for following reminders must be longer than the previous dunning level. When a new customer is created the fields are predefined by the values that are configured in the global settings.						
Reminder fee	Simple input field	Amount of the fee that is calculated in a lump-sum starting with the second reminder. When a new customer is created the field is predefined by the value that is configured in the global settings.						
Default interest %	Simple input	Percentage rate of the default interest that is calculated starting with the second reminder. When a new customer is created the field is predefined by the value that is						

	field	configured in the global settings.
IBAN	Simple input field + button	The international bank account number is mostly relevant for SEPA export. The IBAN entered is validated using the checksum. Incorrect entries are displayed. The IBAN is displayed in blocks for a better overview. When copying the entire IBAN into the first block, it is divided among all blocks. To copy the IBAN as a whole from the blocks, you can use the button next to the field name.
BIC	Simple input field	International code of the bank
Bank	Simple input field	Name of the bank
Direct debit	Checkbox	Checkbox for configuration, whether invoices has to be paid by direct debit for grouping, filtering, searching, printing and for individual reports
Mandat reference	Simple input field	When module SEPA export is used for direct debits, a mandate reference number is mandatory. When selecting a payment term for the customer that is configured for SEPA in the global settings, the mandate reference number is set automatically.
Terms of delivery	Selection list	Individual defined terms of delivery of a supplier
Default form purchase order	Selection list	If a supplier request to use his special order form for purchase orders, an individual project template can be created in the text template administration. This template can be selected as default for the contact.
Texts bound to document status	Special text box	For each project type (quote, order confirmation, delivery note, invoice and credit notes) predefined texts can be stored that need to be printed to the related document, e.g. payment terms. The text bound to document status can be inserted to the template by field special_offer_text.

### 4.1.2.5 Special prices

Special prices are customer related individual prices that can be defined percentual or absolut for single items, product groups and commodity groups. Special prices are taken into account for every project document when project checkbox "Use customer discounts" is activated.

Category	Name	SP 1	SP 2	Scale 1	SP 1	SP 2	Scale 2	SP 1	SP 2	%
Single article	Bottom slot Standard Alu beige	5,50	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Single article	HW Accordon	-15,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Single article	Motor max. 25 kg	-20,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Single article	Motor max. 25 kg	-20,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Single article	Roll Shutter	-10,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Single article	Roll Shutter 2	-15,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Single article	Rolling Shutter	-10,00	0,00	5,00	-20,00	0,00	0,00	0,00	0,00	0,00
Single article	Rolling Shutter inch	-10,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Single article	Zip Tax	-10,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Product group	Profile	-5,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

For special prices the following additional functions are available in the ribbon bar:

	Add a special price
	Delete a special price
	Copy the selected special price to clipboard (To paste it to another contact)
	Insert the special price from clipboard in this contact

When defining a special price first the base has to be chosen. The base can be a single item or a group. The special price can be percentual (for discount the value has to be entered with minus) and is equal to a rebate that is granted to the customer or an absolute price can be entered that is equal to a special price. The special prices can be entered for 3 scales. In the first field the quantity has to be entered from that the special price is valid. In the second field the rebate or special price is to be entered for sales price 1. In the last field a value only has to be entered when with 2 different prices should be worked.



Individual items can be excluded from the special price calculation using the "no rebate" checkbox in the item details (e.g. in the case of a special product group price).

The screenshot displays the 'Special prices' section of the ingenious CRM. The main table lists articles with their respective prices and special prices (SP 1, SP 2) across different scales. A modal window titled 'Edit customer discount' is open, allowing the user to set a special price for a selected article ('Rolling Shutter') by article, with options for percentage and quantity-based discounts.

## 4.1.2.6 CRM information

The CRM information contains divers tabular and graphical reports for sales, open balances and the quote and order backlog of a customer.

The following additional functions are available in the ribbon bar:

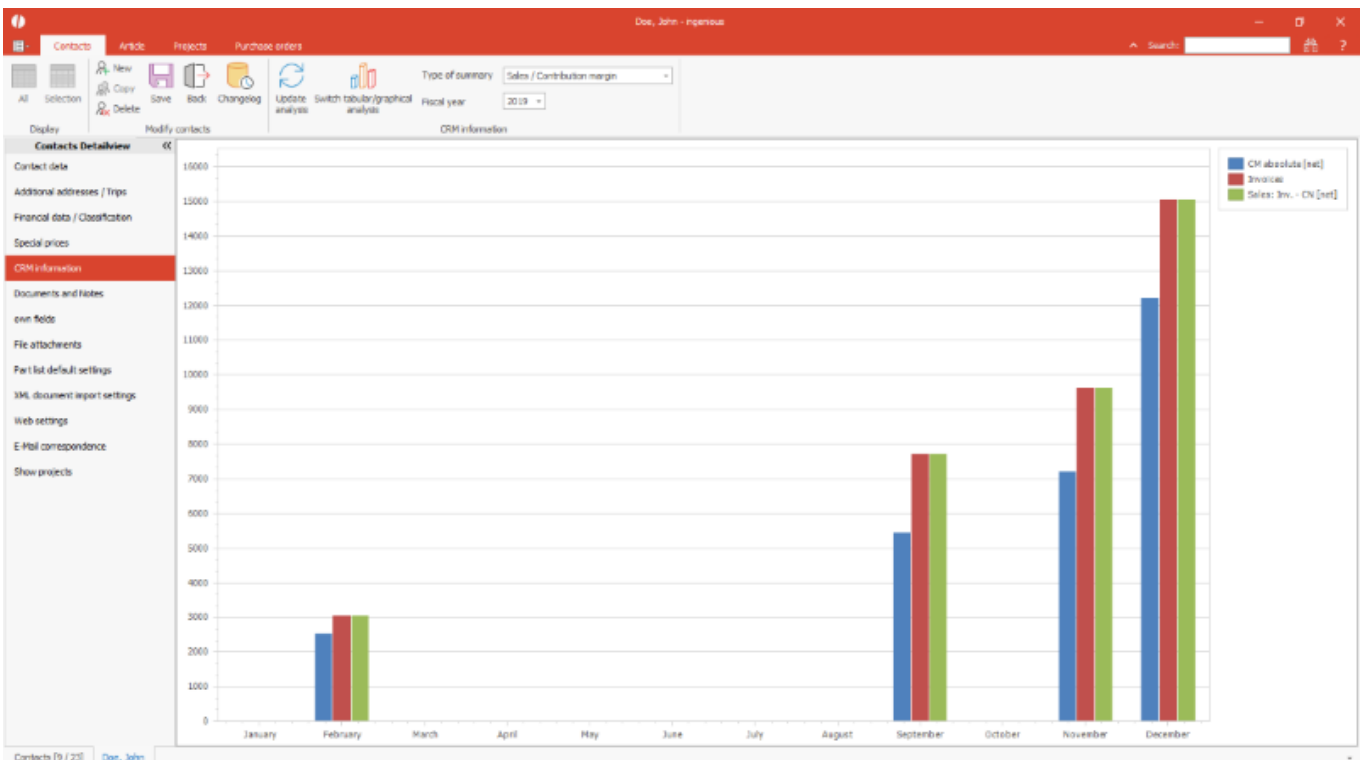
	Refresh of the view
	Change between tabular and graphical view
Type of report	<p>Selection of the report.</p> <p>Tabular report for:</p> <ul style="list-style-type: none"> <li>• Monthly summary fiscal year to date</li> <li>• Total summary by year for all sales of the customer</li> <li>• Receipts - Monthly summary fiscal year to date</li> <li>• Receipts - Total summary by year for all receipts of the supplier</li> </ul> <p>Graphical report for:</p> <p>Sales / contribution margin for last 12 month</p> <p>Quotations / Orders / Invoices of selected fiscal year</p>

	Paid / Open / Reminders of selected fiscal year
Fiscal year	Selection of the year for the report

Contacts [9 / 23] Doe, John - ingenious

Type of summary: Monthly summary FYTD  
Fiscal year: 2019



CRM information		January	February	March	April	May	June	July	August	September	October	November	December	Sum 2019
1	Invoices [net]	\$0	\$2,026	\$0	\$0	\$0	\$0	\$0	\$0	\$7,709	\$0	\$9,636	\$15,036	\$35,389
2	Credit notes [net]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3														
4	Sales [net]	\$0	\$2,026	\$0	\$0	\$0	\$0	\$0	\$0	\$7,709	\$0	\$9,636	\$15,036	\$35,389
5	CM absolute [net]	\$0	\$2,528	\$0	\$0	\$0	\$0	\$0	\$0	\$5,429	\$0	\$7,197	\$12,220	\$27,381
6	CM relative	0.00%	83.55%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	70.56%	0.00%	74.84%	81.27%	77.38%
7														
8	Orders [net]	\$0	\$25,328	\$0	\$0	\$0	\$112,376	\$0	\$0	\$0	\$0	\$0	\$0	\$138,703
9	Quotes [net]	\$0	\$1,360	\$0	\$0	\$0	\$24,507	\$0	\$0	\$0	\$0	\$0	\$0	\$25,867
10														
11	Open [net]	\$25,119	relative	99.24%										
12	Dunning level 1 [net]	\$0	relative	0.00%										
13	Dunning level 2 [net]	\$0	relative	0.00%										
14	Dunning level 3 [net]	\$0	relative	0.00%										



### 4.1.2.7 Supplier information

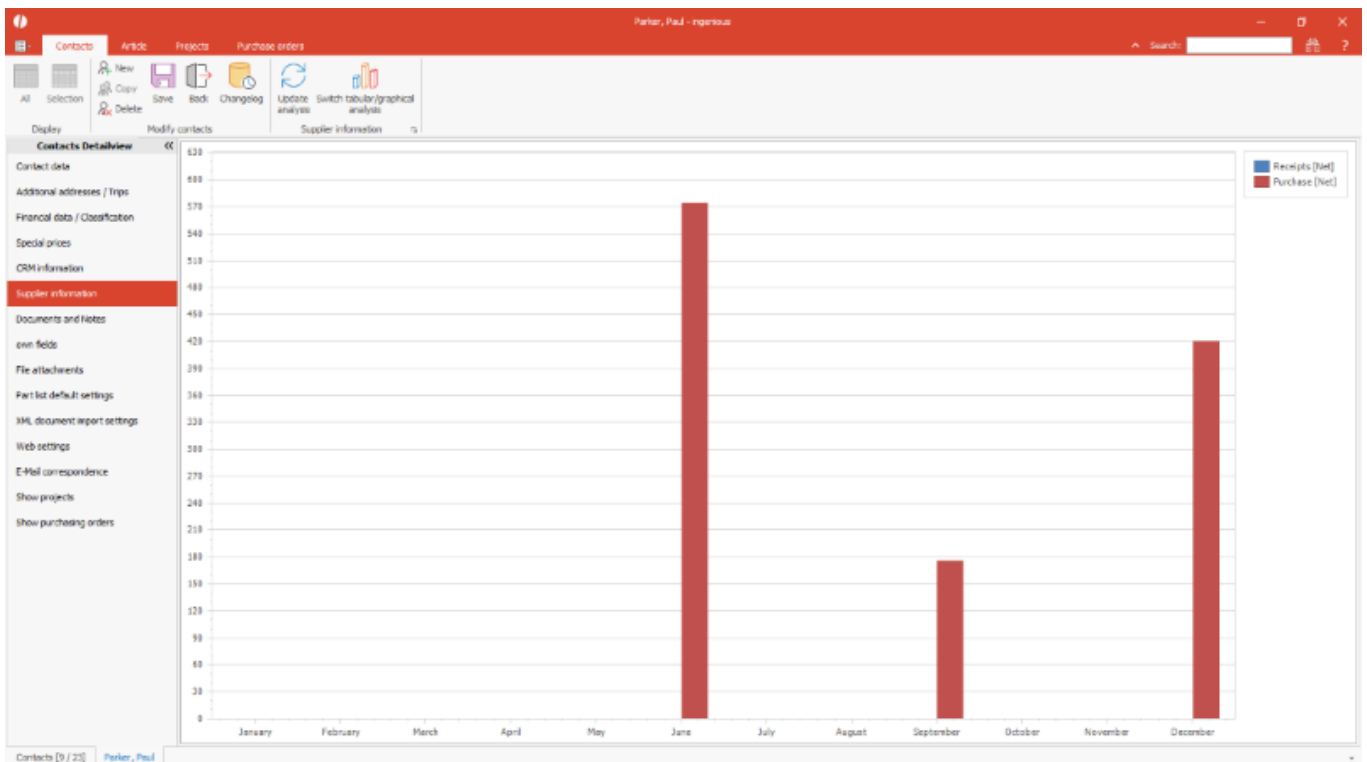
The supplier information contains various tabular and graphical analyses of the orders and incoming invoices (receipts) of a supplier.

The following additional functions / options are available here via the toolbar:

	Refresh the view
	Switch between tabular and graphic view
Type of summary	<p>Selection of the analysis.</p> <p>Tabular analysis for:</p> <p>Monthly summary for the selected fiscal year</p> <p>Total summary per year for all years in which were ordered from the supplier</p> <p>Graphical analysis for:</p> <p>Receipts and orders for the selected fiscal year</p>
Fiscal year	Selection of the year for which the analysis should be done

The screenshot shows the 'Supplier information' tab for 'Parker, Paul'. The table displays financial data for the year 2019, categorized by month and total. The 'Purchase (Net)' and 'Receipts (Net)' rows are highlighted in red.




	January	February	March	April	May	June	July	August	September	October	November	December	Sum 2019
1 Purchase (Net)	\$0	\$0	\$0	\$0	\$0	\$574	\$0	\$0	\$176	\$0	\$0	\$400	\$1,170
2													
3 Receipts (Net)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4 Receipts (Gross)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5 VAT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6													
7 Paid	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8 Open	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9 Open (relative)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%



## 4.1.2.8 Document and notes of contact



In the document and notes general letters, faxes and notes for a contact are created and stored chronologically. The following additional functions are available for this navigation point:

	Create a new document / note
	Delete the selected document / note
Show from projects	Also show documents and notes that are stored at a project document of the contact.
 Full text search	Searches for phrases in the title of all documents of the contact

When creating a new entry a title is to be entered that can be used in subject line of letters and for simple finding in the list view.

The entry can also be assigned to a category.

The categories can be created separately for document and note in the program settings.

The following document types are available: Simple note, note, letter and fax.

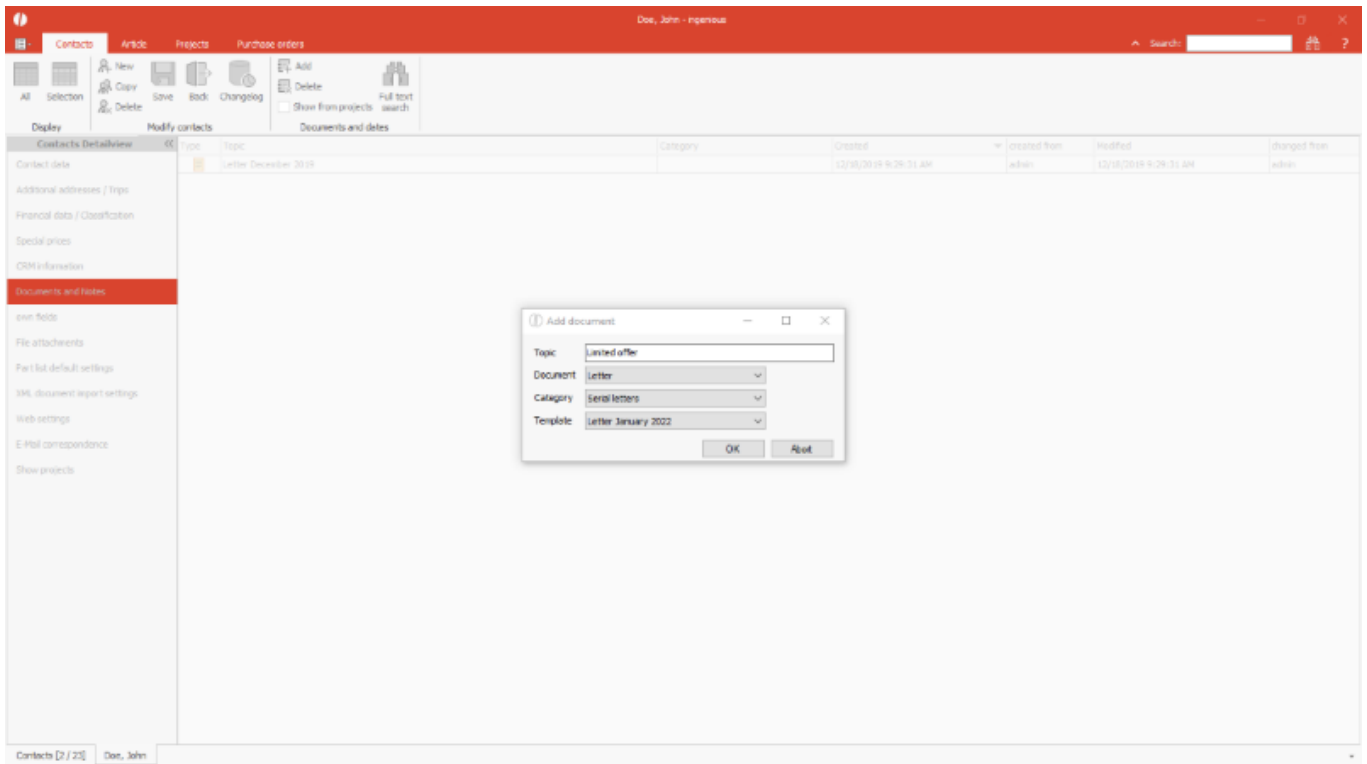
A note is summarized as a title with a heading and further described in an additional text field.

The simple note, on the other hand, consists of a single text field, which is also the title.

For letters and faxes, there is a further selection of a document template that was created in the text modules.

This can be a simple template that just includes the contact address on a sheet of letterhead.

For recurrent letters it's useful to create a complete pre-formulated sample template that can be chosen here.



The different documents are highlighted by own icons in the list view.

	Note or simple note
	Letter
	Fax

When a new letter or fax is created or an existing document is edited additional functions for text formatting are available.

The screenshot displays the 'Documents and notes' section of the ingenious CRM. The top navigation bar includes 'Contacts', 'Articles', 'Projects', and 'Purchase orders'. The left sidebar contains various settings and information sections. The main area shows a table of documents and notes with columns for Type, Topic, Category, Created, created from, Modified, and changed from. The selected document is 'Limited offer' under the 'Serial letters' category, created on 1/7/2022. The preview area shows the content of the document, which is a 'LIMITED SALES OFFER' for John Doe, including a 20% special rebate.

Type	Topic	Category	Created	created from	Modified	changed from
Letter	December 2019		12/18/2019 9:29:31 AM	admin	12/18/2019 9:29:31 AM	admin
Serial letters	Limited offer	Serial letters	1/7/2022 11:38:05 AM	admin	1/7/2022 11:38:05 AM	admin

The list of documents and notes can be sorted, filtered and grouped (e.g. by category).

The screenshot displays the 'Documents and notes' section of the ingenious CRM. The top navigation bar includes 'Contacts', 'Articles', 'Projects', and 'Purchase orders'. The left sidebar contains various settings and information sections. The main area shows a table of documents and notes with columns for Type, Topic, Category, Created, created from, Modified, and changed from. The table is grouped by category, showing 'Letter December 2019' and 'Category: Serial letters'. The selected document is 'Limited offer' under the 'Serial letters' category, created on 1/7/2022.

Type	Topic	Category	Created	created from	Modified	changed from
Letter	December 2019		12/18/2019 9:29:31 AM	admin	12/18/2019 9:29:31 AM	admin
Serial letters	Limited offer	Serial letters	1/7/2022 11:38:05 AM	admin	1/7/2022 11:38:05 AM	admin

Simply click on a document or note to open it for viewing / editing.

By double-clicking in the Category column, the assignment to a category can be set or changed afterwards.

### 4.1.2.9 Own fields of contact

Own fields are 5 of text fields, numeric fields, date fields and checkboxes where additional individual information (that don't match any other field) can be stored for each contact. This can be for example the date when met the first time.




The titles of the fields can be renamed to individual ones in the localization module.

The content of the individual fields can be printed in project documents, reports and can be displayed in contact list views.

### 4.1.2.10 Contacts file attachments

In the file attachments divers external documents of a customer can be stored. This can be different documents and media files, e.g. PDF-catalogues, video business presentations, emails, scanned documents and web addresses.

The following functions are available:

	Add a new file attachment
	Delete the selected file attachment
	Edit the description of the selected file attachment




Show path of the file attachment in explorer

A new file attachment can be added by button in ribbon bar or with drag & drop.

A description can be stored for each file attachment and the file attachment can be assigned to a category.

In the list view all stored file attachments of a contact are shown. The symbol in the first column labels the type of the file attachment. The entries can be sorted by click on the column headers.

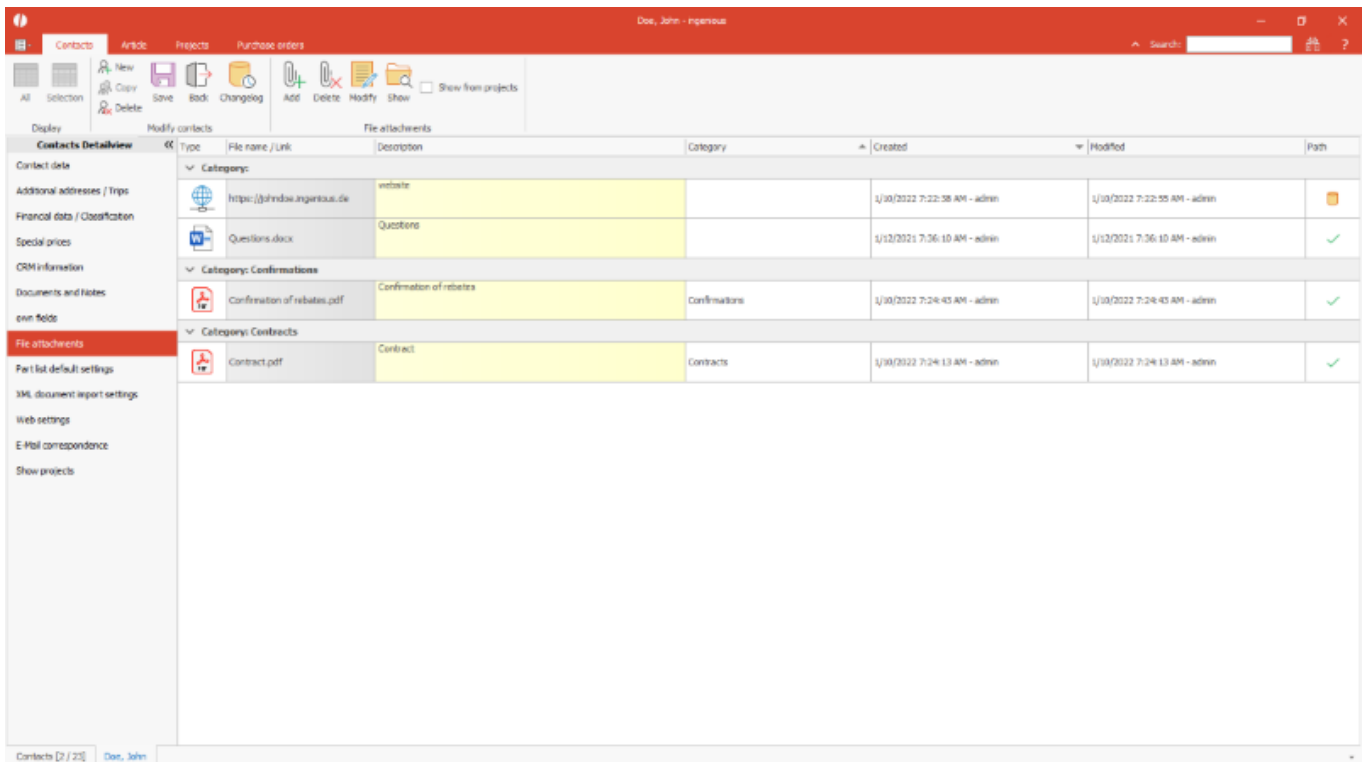
In the column "Path" the symbol  indicates that the file attachment is available at the stored path. The symbol



shows, that the file attachment or the path is not available.

A little database symbol shows that the information is directly stored in the database.

The paths for the file attachments must be configured in the program settings under Network / Web Server. It must be ensured that all users of the same database have access to these paths.



An existing file attachment can be opened by double click on the file name.

The description of the individual file attachment can be edited by double-clicking in the Description column.





By double-clicking in the Category column, the assignment to a category can be set or changed afterwards.

A simple click on a file attachment of the type Image shows a preview of the image below the file attachment list.

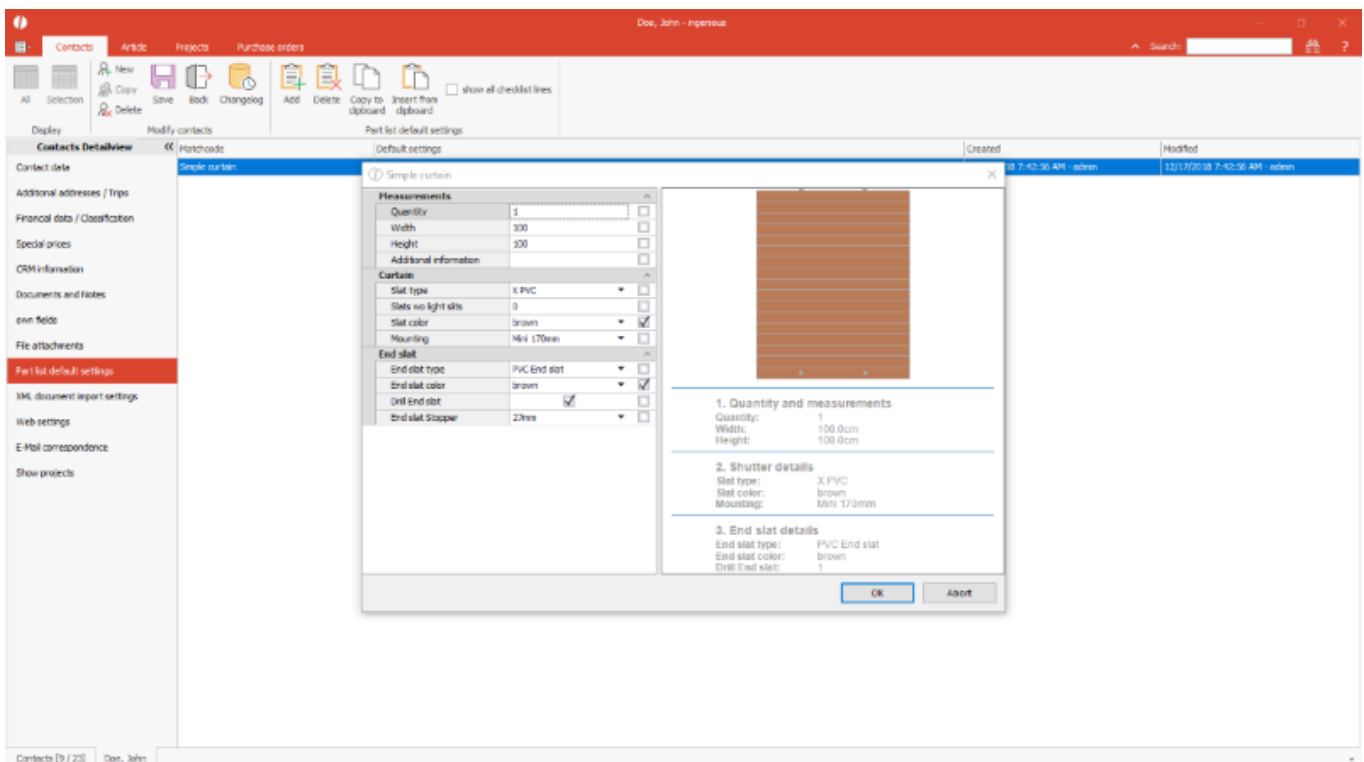
## 4.1.2.11 Part list default settings

In the part list default settings the preselection of single options of single part lists will be stored. This is interesting, when a customer always orders the products in the same (special) color or favors a specific manufacturer for single parts (e.g. for motors). When a project document is created (locally or in the web modules), the configurator of that part list is opened with already (pre-)selected options.

In the part list default settings the following additional functions are available:

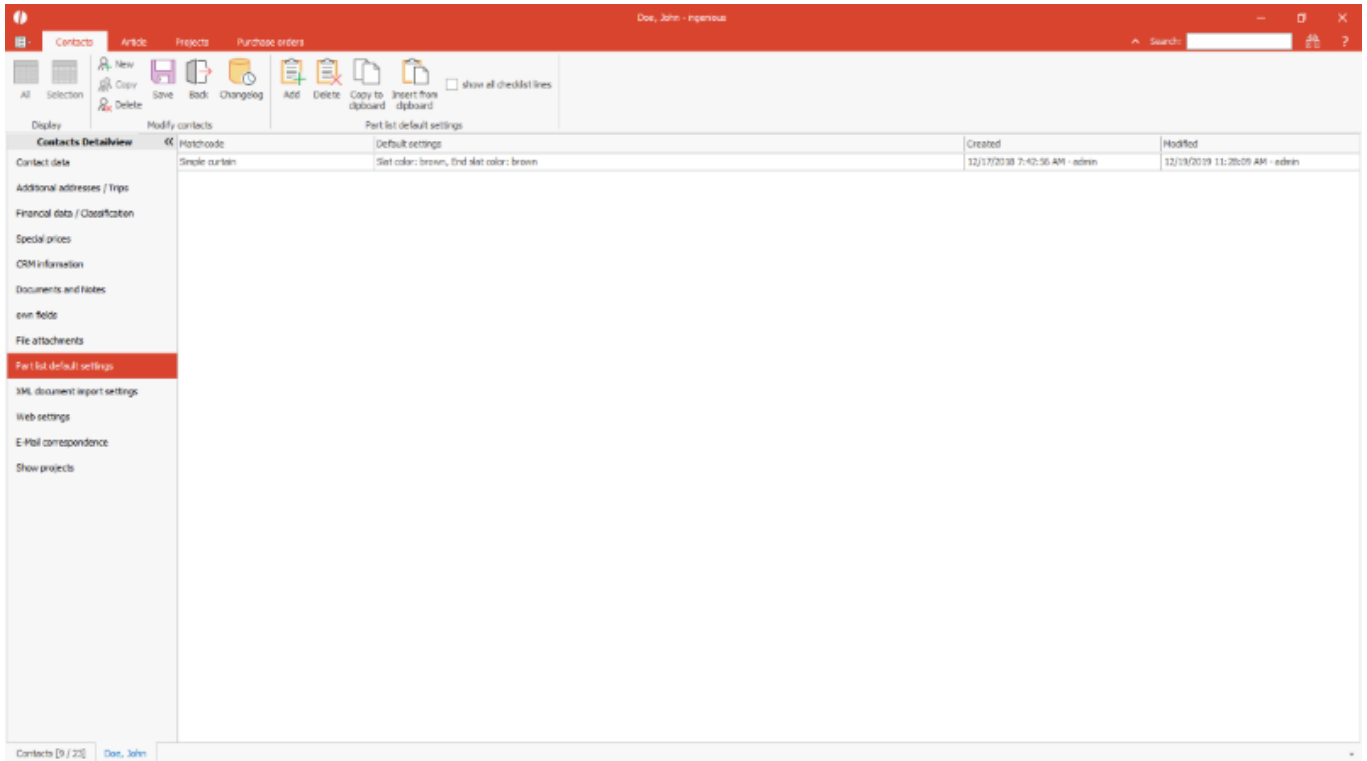
	Adds a new part list default setting.
	Deletes the selected part list default setting.
	Copies the selected part list default setting(s) into the clipboard.
	Pastes the part list default setting(s) from the clipboard.

When creating a part list default setting, first the article list will be opened for choosing the part list to configure. In the appearing configurator the related options can be set. Those then are always presetted when the part list is used in projects of this customer.



Changed options automatically gets the flag for taking over the default setting. But also default values can be set as a default setting by manually clicking the checkbox for the corresponding option. This way they also keep preset when the default values are changed by adjustments of the part list itself (Change in the order of the options, not deletion of the options).

All default settings of a part list of one customer are displayed collected in a list. For each default setting it is apparent for which part list (matchcode) it is valid, which options are set and when and by which user they were created or changed.



Of course only one presetting can be created for each customer - part list combination. If anyone mistakenly tries to create a second presetting an error message is shown.

With the function "copy to clipboard" and "paste from clipboard" the presettings of one customer can be copied to another.

## 4.1.2.12 XML documents interface

### 4.1.2.12.1 Settings openTRANS purchase order export

The openTRANS purchase order export is used to transfer purchase orders to suppliers from the ingenious software to another system via the open standard.

The export of the document types ORDER and ORDERCHANGE is implemented.

An ORDERRESPONSE can also be read in on request.

## User rights

101800 - Contacts - View OpenTrans export settings

101810 - Contacts - Modify OpenTrans export settings

## Basic settings for Order und Order Change

Über die Register am unteren Rand des Formulars kann zwischen den Einstellungen für ein Order-Dokument oder ein Orderchange-Dokument gewechselt werden.

Für beide Dokumenttypen stehen die folgenden Einstellmöglichkeiten zur Verfügung:

### File storage

Under File storage it is activated that the export should be carried out for the contact.

The way in which the export file is made available is also set here.

You can choose between FTP, network and e-mail.

### Export settings

Different settings have to be made depending on the export type.

#### via FTP server

Host	Simple input field	Address of the server on which the FTP server is running
Login	Simple input field	FTP user login
Password	Simple input field	FTP user password
FTP subdirectory	Simple input field	Directory on the FTP server in which the exported file is to be stored
SSL	Checkbox	Activation of data transfer encryption

#### via network

Export directory	Simple input field + Button	Directory in the network in which the export file is to be stored
------------------	-----------------------------	---

#### by email

Recipient's email address	Simple input field	Email address to which the export file should be sent
Save successfully exported files to	Simple input field + Button	Local or network directory in which the export file is to be stored
MAPI	Checkbox	If the checkbox is activated, the email will be sent via Outlook

## XML settings



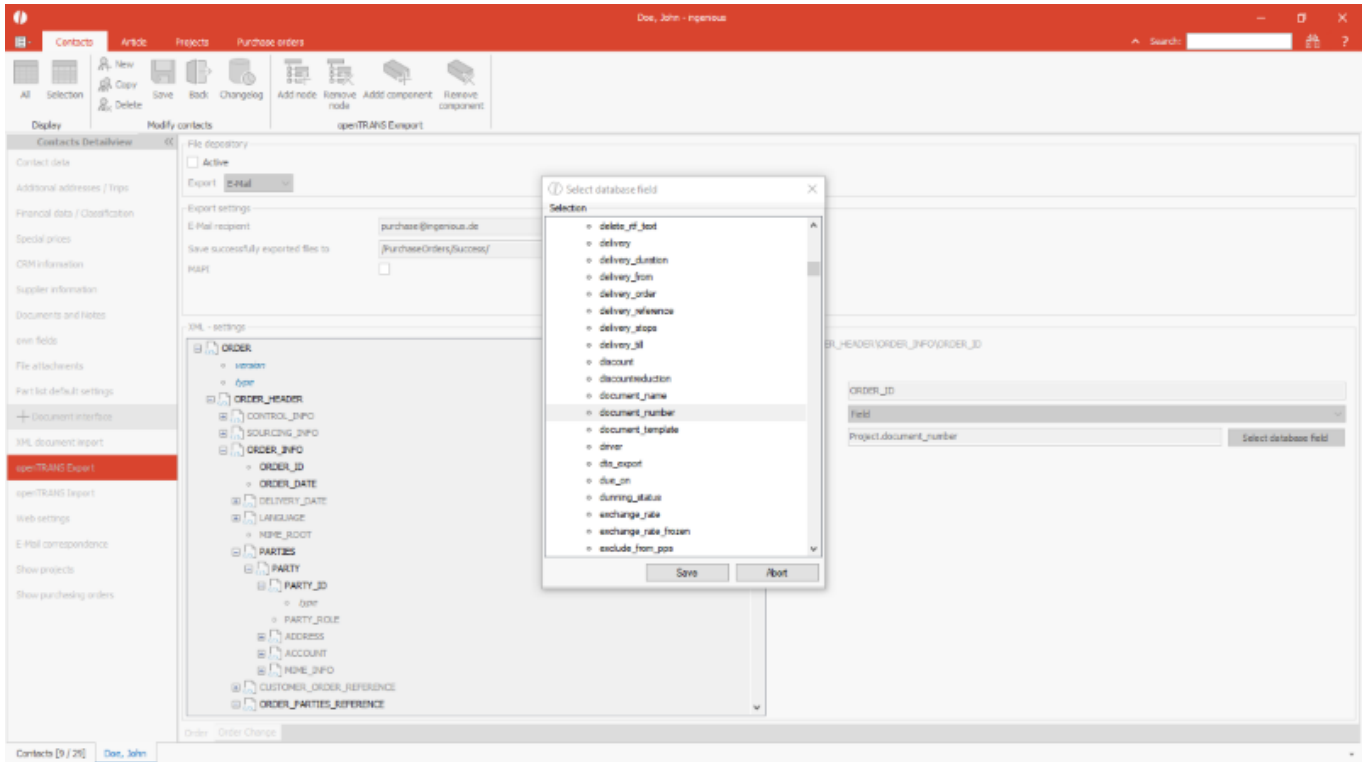
The tree structure of the export file is shown in the XML settings.

The individual nodes / attributes are marked as follows.





Blue background	selected node / attribute
Black font	active attribute
Grey font	inactive node / attribute
Blue font	active attribute
Font style normal	node
Font style italic	attribute

By clicking a node / an attribute in the tree information and settings are displayed in the area on the right.

Path	Text	Specification of the complete path of the node	
Active	Checkbox	Activation or deactivation of the node; According to the specifications of the openTRANS standard, mandatory nodes cannot be deactivated.	
Name	Protected input field	The name of the node is specified by the openTRANS standard and is displayed for information. It cannot be edited.	
Link type	Selection list	Table field	Specifies that the value of the node is filled from a table field in the database.
		User field	Specifies that the value of the node is populated from an individual user field.
		Fixed value	A fixed value is entered for the node.
		Script	The value of the node is filled by script
Value	Input field + Button if necessary	For a table field	If the link type "table field" is selected, the input field is write-protected. The table field that fills the node is selected using the "Select database field" button and the list that opens.
		For a user field	In the value field the name of the user field is entered that has to fill the node.
		For a fixed value	A static value is entered here directly.
Note	Text box	The info box is only displayed for individual elements to indicate relationships to other elements.	



If more than one node of the selected type is allowed according to the openTRANS standard, one can be added and removed using the icons in the ribbon bar:

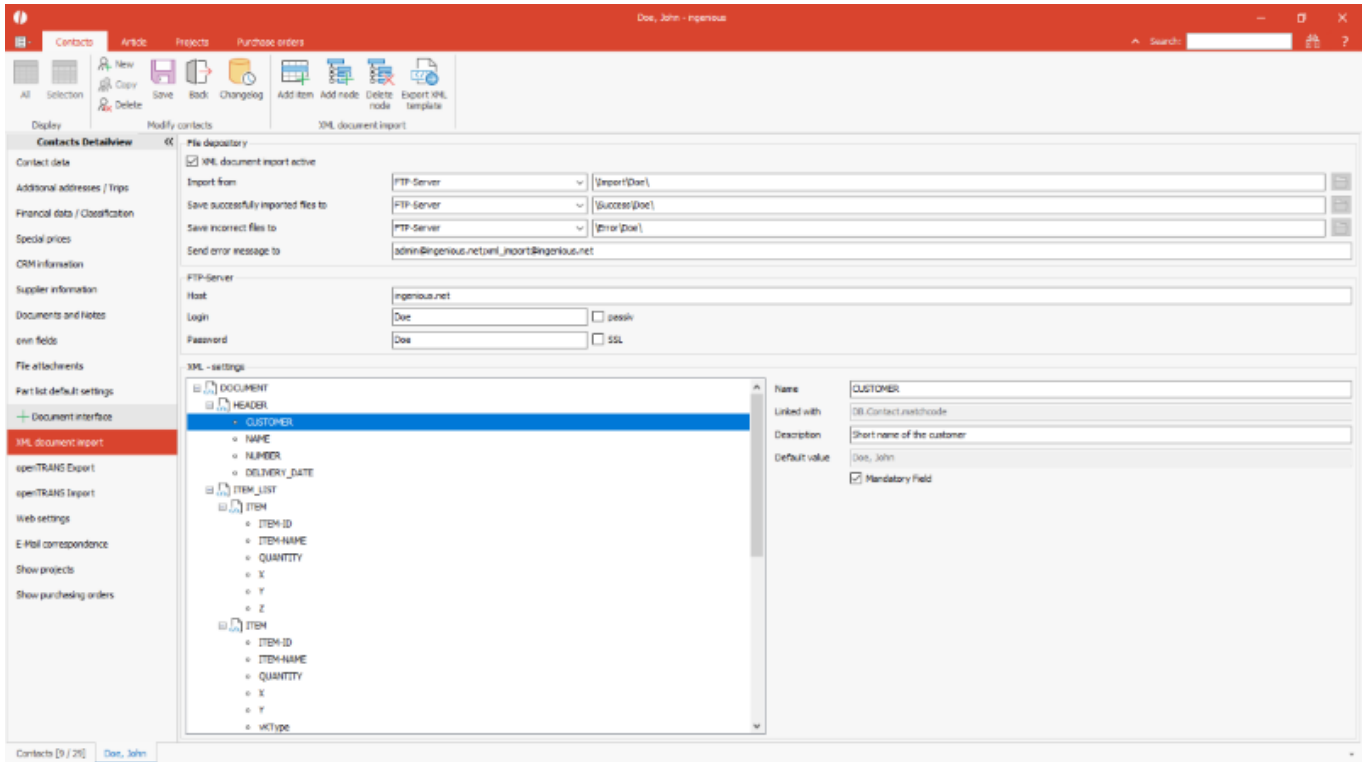
	Adds a copy of the currently selected element as a new node
	Removes the selected node
	Adds a new PRODUCT_COMPONENTS node to a selected PRODUCT_COMPONENT node
	Removes the selected PRODUCT_COMPONENTS node

## 4.1.2.12.2 XML document import settings

With the generic order import, customers can transmit their order in an XML, which is read into the ingenious database via script and created as an order.

The settings for the document import are saved in the customer's contact record.

The file storage and the XML structure can be defined individually for each customer.



## Functions

The following functions are available via the icon bar for the settings of the XML document import:

	Inserts an article with its preconfiguration into the XML structure.
	Adds a new node.
	Deletes the selected node. (Nodes that are the minimum required for the structure cannot be removed.)
	Exports the XML template for forwarding to the customer. The Windows save dialog opens, in which the storage location can be selected and the filter name can be assigned.

## File storage

XML document import active	Checkbox	Determination of whether the customer is connected to the order import.
Import from	Selection list + simple input field	Selection of whether the import is to take place from a local or network directory or from an FTP server + specification of the storage path. For storage in the local or network directory structure, the corresponding folder can be selected using the folder symbol. The FTP folder is specified without specifying the FTP host.

Save successful imported files to	Selection list + simple input field	Selection of whether successfully imported files are to be saved in a local or network directory or on an FTP server + specification of the storage path. For storage in the local or network directory structure, the corresponding folder can be selected using the folder symbol. The FTP folder is specified without specifying the FTP host.
Save incorrect files to	Selection list + simple input field	Selection of whether faulty files should be stored in a local or network directory or on an FTP server + specification of the storage path. For storage in the local or network directory structure, the corresponding folder can be selected using the folder symbol. The FTP folder is specified without specifying the FTP host.
Send error messages to	Simple input field	Enter the recipient e-mail address(es) to which a message should be sent in the case of an error. Enter several e-mail addresses separated by a semicolon.

## FTP-Server

Host	Simple input field	Address of the host of the FTP server without a leading ftp. or ftp://
Login	Simple input field	Login for the customer to access the FTP server
Passwort	Simple input field	Password for the customer to access the FTP server
passiv	Checkbox	Setting whether the FTP access should take place via the passive mode
SSL	Checkbox	Setting whether communication should take place via encrypted protocol (SSL)

## XML settings

The structure of the XML file is specified in the XML settings.

For each new customer configuration, the basic structure is loaded, which consists of the header and the item list.

For each node name, the link to the database field or partlist variable an optional individual description, a possible default value and the identifier for a mandatory field are given.

### Structure of the header

The header data of the order document are specified in the header.

### Standard node

The standard nodes represent the minimum configuration of the XML structure.


These must be included in the XML supplied by the customer.

Standard nodes cannot be deleted.

Node	Field link	Default value	Description
------	------------	---------------	-------------

CUSTOMER	DB.Contact.Matchcode	pre-assigned with the customer's matchcode, cannot be change	Information about the customer to assign the order
NAME	DB.Project.document_name	Specification of a default value for the name of the document with which the job is to be imported	The project document name under which the order documents are to be imported is specified here. If the name matches a project document defined in the program settings, the counter is generated from this configuration. Must be a document of the type order confirmation = status 1.
NUMBER	DB.Project.no_of_subsidary_project	Angabe eines Standardwertes für die Projekt Kommission(snummer), mit der der Auftrag importiert werden soll	Specification of a customer-specific order / purchase order number or commission description that is tranferred to the project field "project"; the internal document number is assigned automatically.

### Additional nodes

Additional nodes can be added to the header using the button .

With the node <DELIVERY\_DATE> with the link a the project field, e.g. date\_9, the customer can submit a requested delivery date, for example.

### Structure of the item list

All items of an order are listed in the item list <ITEM\_LIST>.

A node <ITEM> is written for each position, which contains the following standard elements:

Node	Field link	Default value	Description
ITEM-ID	DB.Item.number	If an article was explicitly configured for the XML order import, its article number is automatically entered here.	Internal article number of the position
ITEM-NAME	DB.Item.matchcode	If an article was explicitly configured for the XML order import, its article matchcode is automatically entered here.	Internal matchcode of the item
QUANTITY	DB.Project_item.quantity	e.g. 1 or higher if a minimum number has to	Quantity in which the article is ordered

		be ordered	
X	DB.Project_item.x	e.g. 100 or higher if a minimum length has to be ordered	Length in which the article is ordered, or width for flat articles, as far as applicable to the respective article, according to the input unit of measurement configured in the program settings (cm, mm, inch)
Y	DB.Project_item.y	e.g. 100 or higher if a minimum width has to be ordered	Height at which the article is ordered, as far as applicable to the respective article, according to the input unit measurement configured in the program settings (cm, mm, inch)
Z	DB.Project_item.z	e.g. 100 or higher if a minimum depth has to be ordered	Depth at which the article is ordered, as far as applicable to the respective article, according to the input unit measurement configured in the program settings (cm, mm, inch)

For each article to be ordered, all properties must be defined with which it can clearly identified or produced.


For products that are manufactured from several individual parts, information about the desired design must also be provided.

All variants of a complex product are defined in the so-called partlists.

For each property a variable is defined which can contain different values.

All the necessary variables for such an article must be listed in the XML structure.

### Partlist configuration

The desired part list can be loaded via the item search using the button .

The checklist opens in which it is determined which options should be included in the XML (1st checkbox) and which option must be filled in (2nd checkbox).

In addition a standard configuration can already be set.


If no values are entered for individual options in the XML transmitted by the customer, the standard value is accepted (e.g. the customer always orders a certain profile type or color).



A part list can also be preconfigured in the article data and is then available for all customer configurations when the article is added.

see **Sourcecode View (Section 4.2.3.5)** and **Measurement (Section 4.2.3.3)**

## Transfer of the XML

Once the XML structure has been defined, a template for the customer can be exported using the button .

With the help of this template the customer can (let) program an export of his order for his software.

### XML template

```
<?xml version="1.0" encoding="UTF-8"?>
<DOCUMENT mandatory="true">
  <HEADER mandatory="true">
    <CUSTOMER mandatory="true" description="Short name of the customer">Doe, John</CUSTOMER
  >
    <NAME mandatory="true" description="Name of the document">Order confirmation</NAME>
    <NUMBER mandatory="true" description="Project or own purchase order number"/>
    <DELIVERY_DATE description="Desired delivery date"/>
  </HEADER>
  <ITEM_LIST mandatory="true">
    <ITEM>
      <ITEM-ID mandatory="true"/>
      <ITEM-NAME mandatory="true"/>
      <QUANTITY mandatory="true">1</QUANTITY>
      <X>100</X>
      <Y>100</Y>
      <Z>100</Z>
    </ITEM>
    <ITEM>
      <ITEM-ID mandatory="true">RS</ITEM-ID>
      <ITEM-NAME mandatory="true">Rolling Shutter</ITEM-NAME>
      <QUANTITY mandatory="true">1</QUANTITY>
      <X mandatory="true">100</X>
      <Y mandatory="true">100</Y>
      <vKType>45°</vKType>
      <vKSize>137</vKSize>
      <vKColor>white</vKColor>
      <vPType mandatory="true">ALU</vPType>
      <vPSize mandatory="true">32</vPSize>
      <vPColor mandatory="true" description="Color: PVC: white, beige, brown, dark green, gr
ey ALU: white, beige, brown, grey, RAL">white</vPColor>
      <vEType>False</vEType>
      <vEDiffColor>False</vEDiffColor>
      <vEColor>white</vEColor>
```



```
<vStopType>False</vStopType>
<vFSType>ALU</vFSType>
<vFSSize>Mini</vFSSize>
<vFSDiffColor>False</vFSDiffColor>
<vFSColor>white</vFSColor>
<vFSLonger>0</vFSLonger>
<vFSBevel>0</vFSBevel>
<vFSCover>False</vFSCover>
<vControlSide>left</vControlSide>
<vControlType>Tape coiler</vControlType>
<vControlColor>white</vControlColor>
</ITEM>
</ITEM_LIST>
</DOCUMENT>
```

### Import of the order data

The import of the order data itself is executed time-controlled by the scheduler.

To do this, a script is to be created with the following call:

#### XML\_Import

```
public void XML_Import(out bool bError, out string sResult, out string sDescription)
{
    bError = false;
    sResult = "";
    sDescription = "";
    ingenious.net.Moduls.ProjectXmlImport.Import.Start(out bError, out sResult, out sDescription);
}
```

In the scheduler this script is then selected in the general task planning as the method to be executed.

### 4.1.2.12.3 Settings openTrans order import

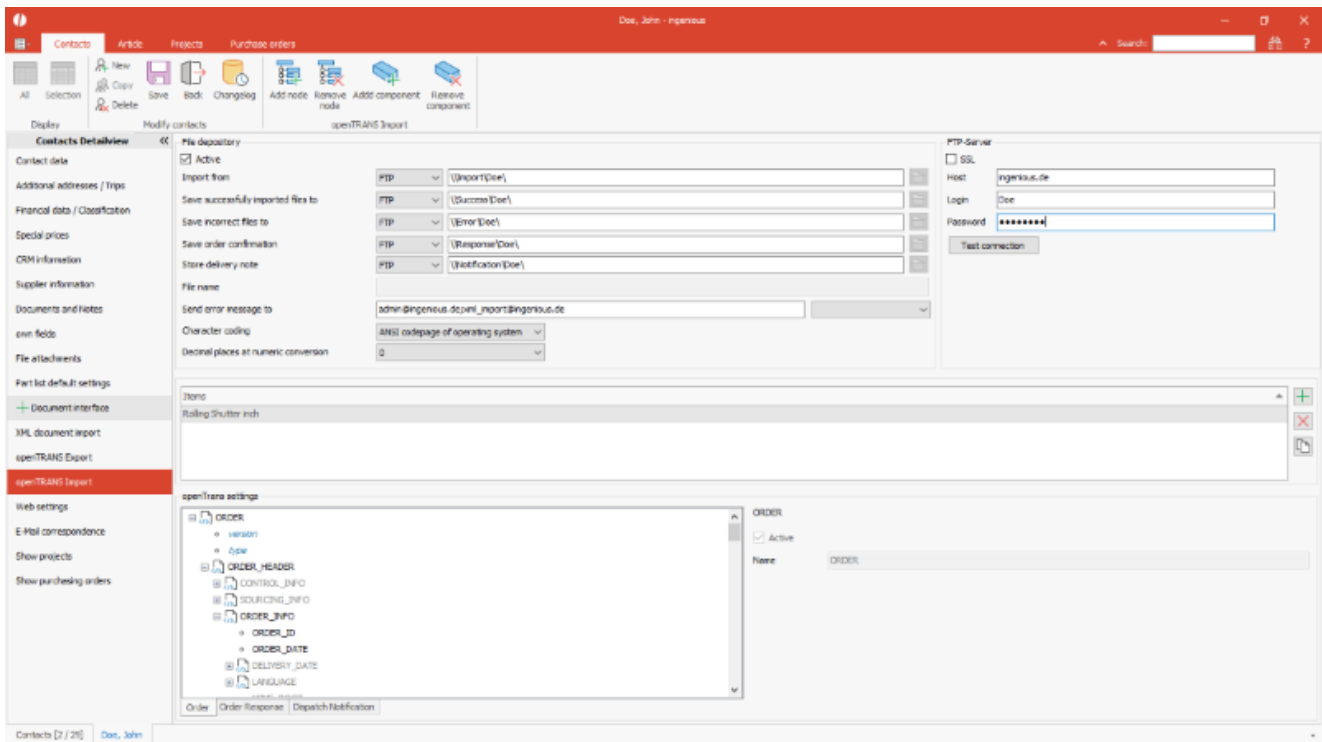
With the openTrans order import, the ingenious software makes it possible to import customer order data electronically via the open standard.

In addition to general import settings, such as data source, etc., the product variants of the software systems to be exchanged must be mapped.

## User rights

- 101820 - Contacts - View OpenTrans import settings
- 101830 - Contacts - Modify OpenTrans import settings
- 353000 - Projects - View openTRANS order export
- 353100 - Projects - Start openTRANS order export
- 353200 - Projects - Start openTRANS delivery note export

## Basic settings




## File storage

Active	Checkbox	Only contacts with activated checkbox are included in the import.
Import from	Simple input field	Directory containing the files to be imported
Save successfully imported files to	Simple input field	Directory where successfully imported files are stored after the import.
Save incorrect files to	Simple input field	Directory where files are stored that could not be imported.
Save order confirmation	Simple input field	Directory where the order confirmation is stored
Store delivery note	Simple input field	Directory where the dispatch notification is stored

Send error message to	Simple input field	E-Mail address to which error messages should be sent
Send error message to	Drop-down	Restricting the sending of error messages to only part list warnings or only part list errors
Character coding	Drop-down	Selection of the coding of the xml files
Decimal places at numeric conversion	Drop-down	Selection of the decimal places in numerical conversion

For each of the text boxes in which a directory can be entered, there is the option of choosing between a local/network directory or a directory on an FTP server.

The local/network directory can be selected with the button .

The FTP directory must be entered manually.

The format is unimportant here: for example, "\openTRANS\_Import\XML", "//openTRANS\_Import//XML" and "openTRANS\_Import//XML" would be possible.






### FTP-Server

SSL	Checkbox	Activation of data transfer encryption
Host	Simple input field	Address of the server on which the FTP server is running
Login	Simple input field	FTP user login
Password	Simple input field	FTP user password
Test connection	Button	Function for testing the connection with the stored FTP access data


### Article list

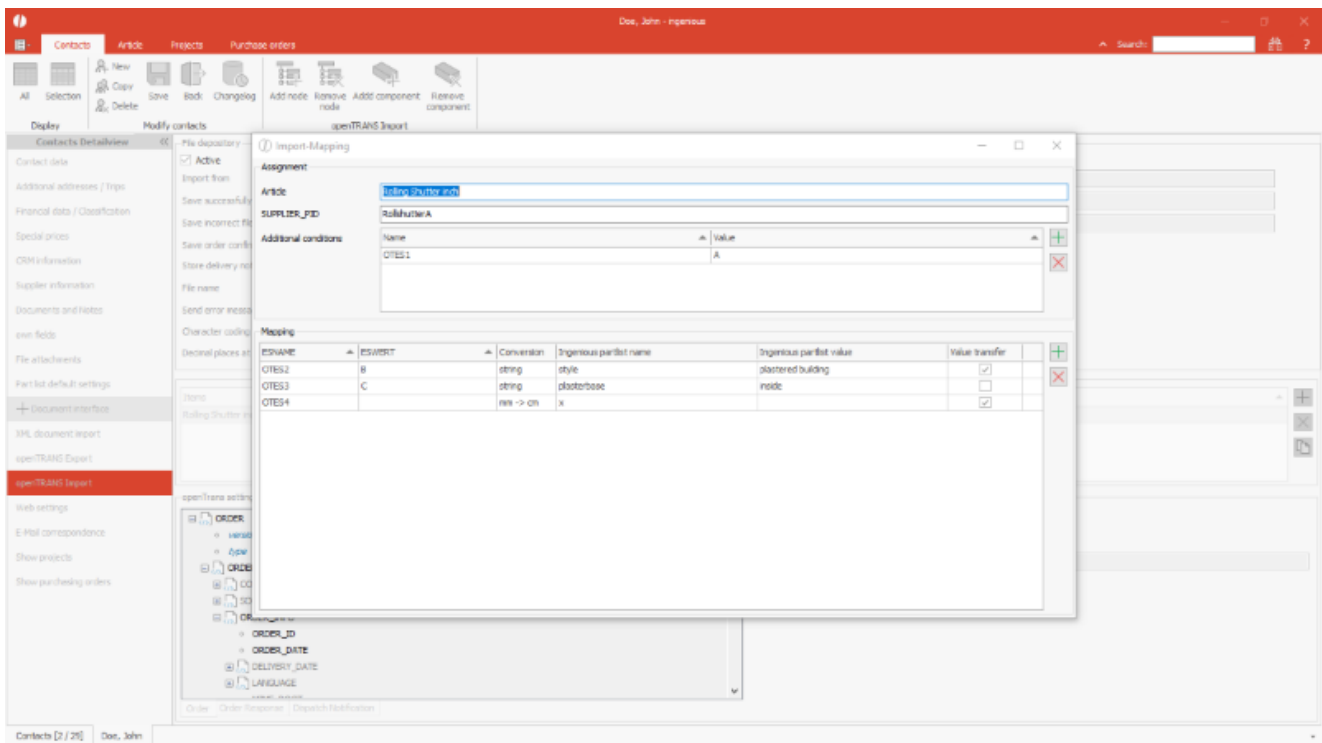
All part list configurations are displayed in this list.

The following functions are available for the item list via the corresponding buttons.

	Adding an item to create a new configuration / a new part list mapping
	Delete marked article configuration from the list
	Duplicate article: the existing configuration for the marked article is opened and after editing, a new entry is created in the list with the new duplicated article
	Edit selected item configuration for the order import
	Edit selected article configuration for the order response export

### Configuration of a new part list mapping

Clicking on the  button opens a window in which a new configuration can be created.



The article is described in the upper part, the mapping is created or edited in the lower part.

### Assignment

In the first text box the item matchcode is entered or searched for using the familiar search functions.

The SUPPLIER\_PID is used to identify which item in the XML file is described by the configuration (path of the node in the XML file: ORDER/ORDER\_ITEM\_LIST/ORDER\_ITEM/PRODUCT\_ID/SUPPLIER\_PID).

A feature from the XML file can be entered under "Additional conditions" (path of the node: ORDER/ORDER\_ITEM\_LIST/ORDER\_ITEM/PRODUCT\_FEATURES/FEATURE).

The identifier column corresponds to the FNAME node and the Value column to the fVALUE node.

If a value is entered in the additional conditions, this is used as further identification of the article.

In this way, items that have the same SUPPLIER\_PID can be uniquely identified by specifying a different feature.

Example: Two articles have the SUPPLIER\_PID "RollShutterA".

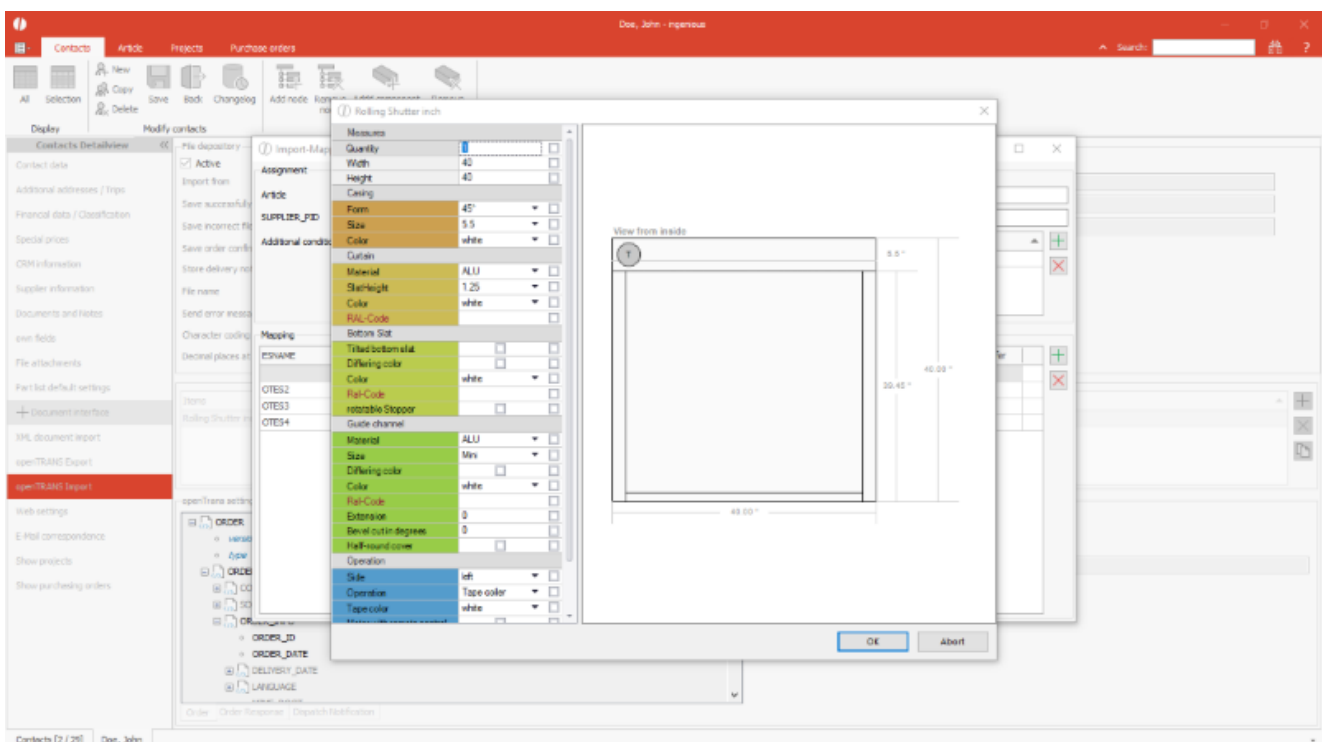
The first article has the FEATURE node with FNAME = OT1, FVALUE = X, the second article has a FEATURE node with FNAME = OT1, FVALUE = Y.



If there is a line with the designation OT1 and the value Y in the further conditions, this configuration can be clearly assigned to the second article.

### Mapping

ESNAME	Value of node FNAME from XML file
--------	-----------------------------------

ESWERT	Value of node FVALUE from XML file
Conversion	<p>Conversion of the EVALUATION into an ingenious part list value (only with activated value transfer)</p> <p>Options:</p> <ul style="list-style-type: none"> <li>• string: Value is taken as it is in the XML file</li> <li>• numerical – without conversion: only numbers are taken from the value (e.g.: 100cm becomes 100)</li> <li>• mm -&gt; cm: Value is multiplied by 10</li> <li>• cm -&gt; mm: Value is divided by 10</li> </ul>
Ingenious part list description	<p>Identifier from the ingenious part list (e.g. plaster base, profile, type of construction, etc.)</p> <p>The value from the column "ingenious part list value" is assigned to this identifier, or the value from the XML file, if it is accepted.</p> <p>Tab statements are possible.</p>
Ingenious part list value	<p>This value is assigned to the identifier from the "ingenious part list description" column (only with inactive value transfer).</p> <p>Tab statements are possible.</p>
Transfer of value	<p>Checkbox active: the value from the XML file is assigned to the identifier from the "ingenious part list description" column.</p> <p>Checkbox inactive: the value from the "ingenious part list value" column is assigned to the identifier from the "ingenious part list description" column.</p>
Last column	<p>Clicking on it opens the part list configuration windows (see figure)</p> <p>A mapping for the feature can be selected in the window: One line is created in the table for each option selected in the window.</p> <p>ESNAME and ESWERT are the same as the line in which the button was clicked.</p> <p>The ingenious part list description and values are taken from the window.</p>



A new entry is added using the icon  , existing marked entries are removed using the button  .

Entries in the table can be copied (Ctrl C) and added collectively (Ctrl V) to build up the list more quickly.

Multiple rows are selected with click + shift + click.

The rows can also be copied to Excel or pasted from Excel.

Note: In order to set the "Value transfer" checkbox correctly in Excel, "not selected" for an inactive checkbox and "selected" for an active checkbox must be entered in Excel in the 6th column.

## openTRANS settings

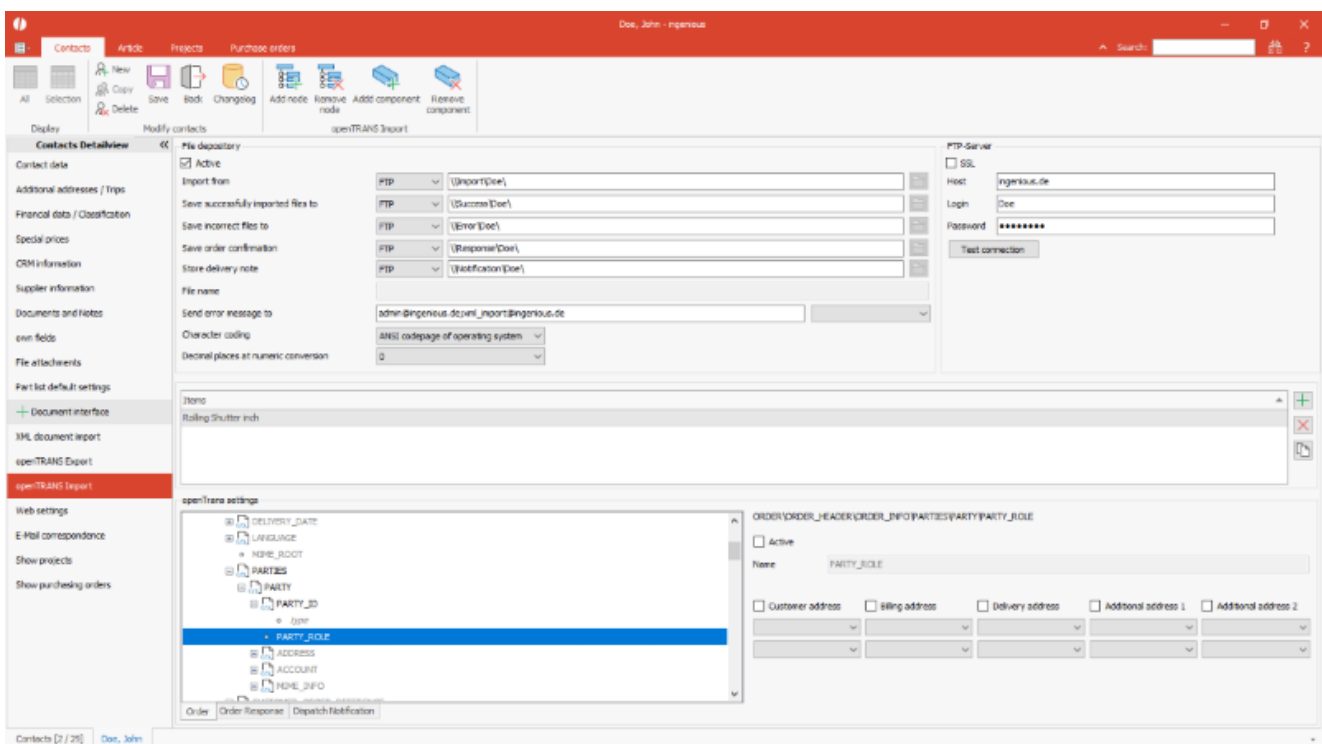
Finer settings for configuring the import can be made in the openTRANS settings. For each openTRANS element you can choose whether and where it should be saved during the import.

A tree is shown on the left in the figure, which contains all elements of the ORDER, ORDERRESPONSE or DISPATCHNOTIFICATION subarea of the openTRANS standard. If an element is selected, information and setting options for it are displayed on the right.

With the "Active" checkbox, the user can choose whether this node should be imported if it is present in an XML file. The Link Type drop-down box determines where the value of this item should be stored. You can choose between a table field and a user field.

The "Select database field" button opens a window in which the desired table field can be selected.

Different setting options are available for the PARTY\_ROLE element than for the other nodes, in order to differentiate between the different address types and to take them into account during the import according to the corresponding PARTY\_ROLEs from the openTRANS standard:







The openTRANS element PARTY contains information about a business partner. One of the child nodes, PARTY\_ROLE, describes the business partner's role in the transaction.

For each address type it is possible to select up to two roles from the openTRANS specification in the drop-down fields below the checkboxes.

If a checkbox is active and at least one value is selected in the associated checkboxes, an address with the corresponding address type is created during import and filled with the values from the PARTY element of the file to be imported, provided that a PARTY\_ROLE with the value from one of the checkboxes exists.

The tree can be edited with the following buttons in the ribbon bar:

	Adds a copy of the currently selected element as a new node
	Removes the selected node
	Adds a new PRODUCT_COMPONENTS node to a selected PRODUCT_COMPONENT node
	Removes the selected PRODUCT_COMPONENTS node

Adding nodes can be useful if the selected node occurs several times in the order to be imported.

This ensures that the settings of each node are taken into account during the import.

For example, if there are two PARTYS with different PARTY\_ROLEs in the order, then this should be reflected in the settings in the tree.

## Scripts

The openTRANS import can be executed or influenced with the following scripts:

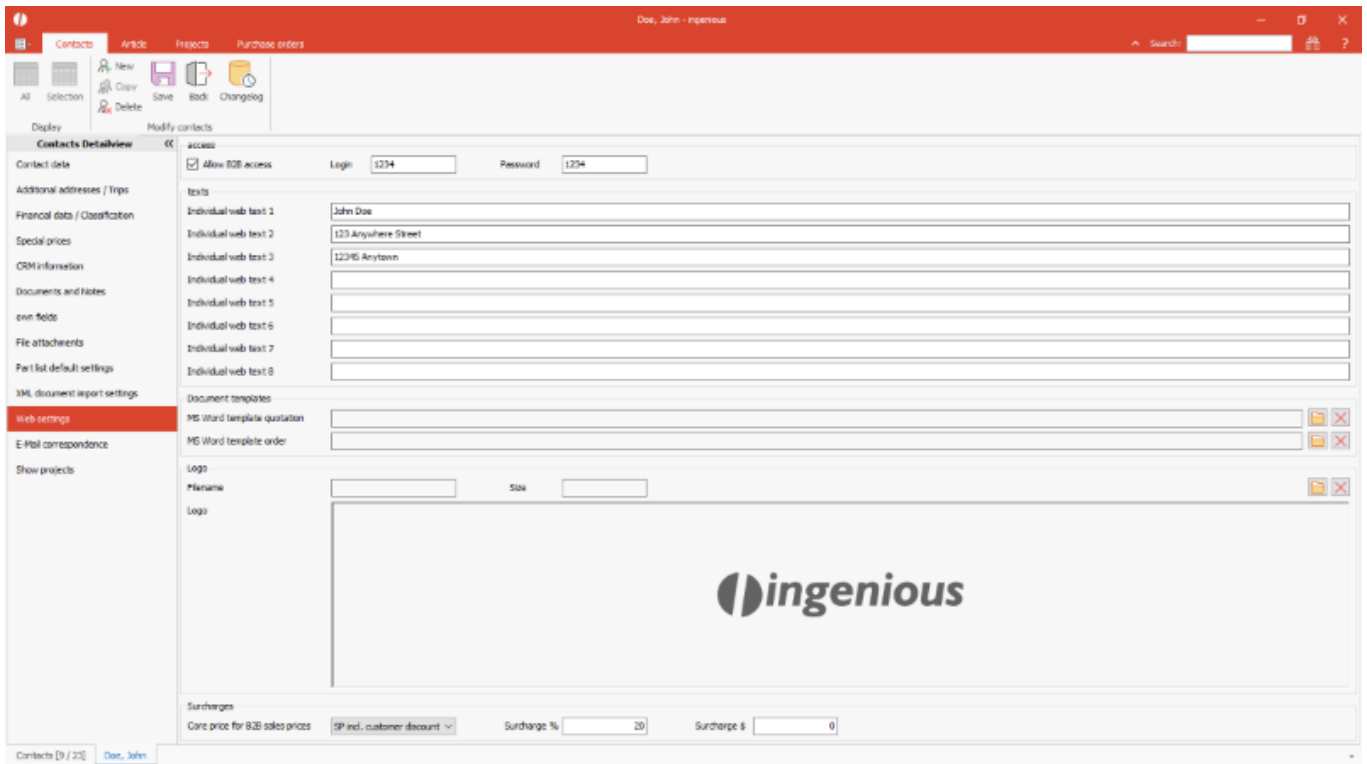
Function	Script	Module assignment
Start import manually	<pre>public override string OpenTransOrderImport() {     return     ingenious.net.Moduls.OpenTrans.OpenTransImport.OpenTransOrderImport.StartImport(); }</pre>	Projects
Script that is executed before the project is saved in the DB in order to edit or add information to the order confirmation	<pre>public override void OpenTransOrderImportBeforeSave(ingenious.net.DataSets.DataSet_Projects dataset) { }</pre>	Projects

Script that is executed in the DB before the order confirmation is exported in order to edit or supplement information in the order confirmation	<pre>public override string OpenTransOrderResponseBeforeExport(DataSet dataset, ingenious.net.Moduls.OpenTrans.OpenTransImport.OpenTransNode node) { }</pre>	Projects
Script that is executed in the DB before the dispatch notification is exported in order to edit or add information to the dispatch notification	<pre>public override string OpenTransDispatchNotificationBeforeExport(DataSet dataset, ingenious.net.Moduls.OpenTrans.OpenTransImport.OpenTransNode node) { }</pre>	Projects
Execute the import time-controlled via the ingenious scheduler	<pre>public void openTRANS_Import(out bool bError, out string sResult, out string sDescription) {     bError = false;     sResult = "";     sDescription = "";      ingenious.net.Moduls.OpenTrans.OpenTransImport.OpenTransOrderImport.StartImport(out bError, out sResult, out sDescription); }</pre>	Scheduler

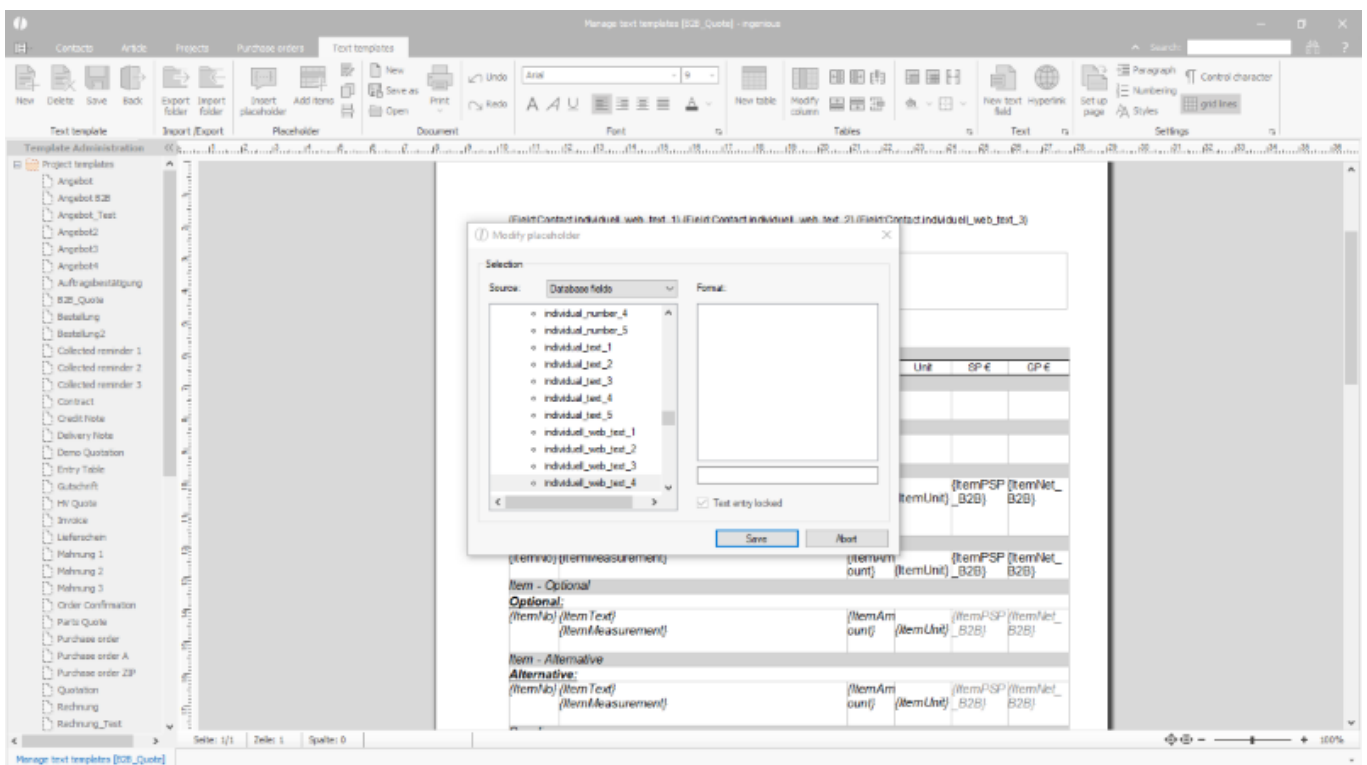
### 4.1.2.13 Web settings

In the web settings of a contact the web access to the B2B website can be configured for a dealer. The dealer gets an individual login and an individual password. Both will be set by the owner of the website and cannot be changed by the dealer himself. Additionally 8 individual web texts and a logo can be stored and various settings for the B2B price calculation can be made.





In the individual web texts some texts can be stored that are shown on the website and that the dealer can change by himself. Initially the address data of the dealer can be displayed, so he can check his stored master data and change them if necessary, e.g. if he wants to use them in a different spelling or order in the B2B documents. All individual web texts can be referred to on project documents.



The settings will be shown in the B2B website on page Master data.

The screenshot shows a web browser window with the title 'Settings - Ingenious B2B'. The browser's address bar is empty. The page has a dark navigation bar with 'Ingenious B2B', 'Settings', 'Quotes', and 'Orders' on the left, and 'Welcome 123-ff' and 'Log off' on the right. The main content area is titled 'Settings' and is divided into two columns. The left column is labeled 'Logo:' and contains the Ingenious logo, a search input field with the placeholder 'Durchsuchen...', and an 'Upload' button. The right column is labeled 'Address:' and contains a series of input fields: the first contains 'John Doe', the second '123 Anywhere Street', the third '12345 Anytown', and the remaining four are empty. A 'Save' button is positioned at the bottom right of the address section. At the bottom of the page, there is a light gray footer with the text 'powered by ingenious'.

The dealer can upload a logo himself or he sends the file to let an administrator store it.

For the calculation of his on sales prices the dealer can work with absolute or percent surcharges. In this moment when he calculates the first surcharges in the B2B website, the surcharges are stored and will be used for each following calculation. The surcharges can be overwritten at any time and can be changed by the dealer order dependent.

The base for the calculation of the B2B sales prices can be the list price or the customer-related special price.

## 4.1.2.14 Show projects

With the navigation point "Show projects" a direct link to all project documents of a customer exists.

With click on that point a switch to project list view is done and all quotes, order confirmations, delivery notes, invoices and credit notes are shown for that contact.

Project document	Document number	Date	Commission	Customer	Phone	Net total	Gross total	Paid	Open balance	bez	arch
Invoice	N:2019120012	12/19/2019		John Doe	+00 123 456 987	15,036.22 €	15,036.22 €	0.00 €	15,036.22 €		
Invoice	N:2019120011	11/28/2019		John Doe	+00 123 456 987	9,626.97 €	9,626.97 €	0.00 €	9,626.97 €		
Invoice	N:2019120010	9/9/2019		John Doe	+00 123 456 987	7,709.75 €	7,709.75 €	0.00 €	7,709.75 €		
Orderconfirmation	O:2019060061	6/20/2019		John Doe	+00 123 456 987	21,402.54 €	21,402.54 €	0.00 €	21,402.54 €		
Orderconfirmation	O:2019060066	6/20/2019		John Doe	+00 123 456 987	7,020.20 €	7,020.20 €	0.00 €	7,020.20 €		
Orderconfirmation	O:2019060060	6/19/2019		John Doe	+00 123 456 987	17,009.92 €	17,009.92 €	0.00 €	17,009.92 €		
Orderconfirmation	O:2019060062	6/19/2019		John Doe	+00 123 456 987	15,036.22 €	15,036.22 €	0.00 €	15,036.22 €		
Orderconfirmation	O:2019060059	6/19/2019		John Doe	+00 123 456 987	15,913.47 €	15,913.47 €	0.00 €	15,913.47 €		
Orderconfirmation	O:2019060064	6/19/2019		John Doe	+00 123 456 987	7,709.75 €	7,709.75 €	0.00 €	7,709.75 €		
Orderconfirmation	O:2019060063	6/19/2019		John Doe	+00 123 456 987	4,402.96 €	4,402.96 €	0.00 €	4,402.96 €		
Quotation	Q:2019060033	6/19/2019		John Doe	+00 123 456 987	8,383.23 €	8,383.23 €	0.00 €	8,383.23 €		
Orderconfirmation	O:2019060058	6/19/2019		John Doe	+00 123 456 987	6,379.26 €	6,379.26 €	0.00 €	6,379.26 €		
Orderconfirmation	O:2019060065	6/19/2019		John Doe	+00 123 456 987	8,811.15 €	8,811.15 €	0.00 €	8,811.15 €		
Orderconfirmation	O:2019060057	6/19/2019	Cutting	John Doe	+00 123 456 987	63.55 €	63.55 €	0.00 €	63.55 €		
Quotation	Q:2019060032	6/19/2019		John Doe	+00 123 456 987	6,707.06 €	6,707.06 €	0.00 €	6,707.06 €		
Quotation	Q:2019060031	6/19/2019		John Doe	+00 123 456 987	9,626.97 €	9,626.97 €	0.00 €	9,626.97 €		
Orderconfirmation	O:2019060056	6/19/2019		John Doe	+00 123 456 987	9,626.97 €	9,626.97 €	0.00 €	9,626.97 €		
Orderconfirmation	O:2019020055	2/24/2019	Demo PPS 2	John Doe	+00 123 456 987	11,397.74 €	11,397.74 €	0.00 €	11,397.74 €		
Orderconfirmation	O:2019020054	2/25/2019	Demo PPS 1	John Doe	+00 123 456 987	13,931.12 €	13,931.12 €	0.00 €	13,931.12 €		
Invoice	N:2019020058	2/21/2019	RollShutter	John Doe	+00 123 456 987	2,757.03 €	2,757.03 €	0.00 €	2,757.03 €		
B:20 Quote	BQ:2019020054	2/21/2019		John Doe	+00 123 456 987	1,360.36 €	1,360.36 €	0.00 €	1,360.36 €		
Invoice	N:2019020059	2/21/2019	RollShutter	John Doe	+00 123 456 987	269.11 €	269.11 €	269.11 €	0.00 €		
Angebot	AG:2019020063	2/21/2019		John Doe	+00 123 456 987	0.00 €	0.00 €	0.00 €	0.00 €		
B:20 Quote	BQ:2019020055	2/21/2019		John Doe	+00 123 456 987	0.00 €	0.00 €	0.00 €	0.00 €		
Angebot	AG:2018120020	12/20/2018		John Doe	+00 123 456 987	0.00 €	0.00 €	0.00 €	0.00 €		
B:20 Quote	BQ:2018120053	12/20/2018		John Doe	+00 123 456 987	167.40 €	399.21 €	0.00 €	399.21 €		
Angebot	AG:2018120019	12/17/2018		John Doe	+00 123 456 987	56.00 €	66.64 €	0.00 €	66.64 €		
Quotation	Q:2018120024	12/17/2018	Demo	John Doe	+00 123 456 987	1,852.92 €	2,204.97 €	0.00 €	2,204.97 €		
Orderconfirmation	O:2018120049	12/30/2018	Demo	John Doe	+00 123 456 987	450.00 €	515.50 €	0.00 €	515.50 €		
Quotation	Q:2018120023	12/30/2018	Demo	John Doe	+00 123 456 987	450.00 €	535.50 €	0.00 €	535.50 €		
						512,116.14 €	571,425.55 €		525,560.38 €		

## 4.1.2.15 Show purchasing orders


With "Show purchasing orders" a direct link for contacts of type supplier to his purchasing orders exists.

With click on that navigation point a switch to purchase-orders list view is done and all purchase orders of that supplier are shown.

Bestellung	Dokumentnr.	Datum	Kommission	Lieferant	Telefon	Netto (B) €	a...	ar...	Lie...
Purchase order	PC20 09120028	12/2/2019	Deere	Hr. Paul Parker		840.00 €	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bestellung	BE20 1790030	6/26/2019		Hr. Paul Parker		219.45 €	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bestellung	BE20 1790007	6/30/2019		Hr. Paul Parker		717.31 €	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bestellung	BE20 1790025	3/21/2017		Hr. Paul Parker		815.22 €	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	PC20 06070038	7/28/2016		Hr. Paul Parker		1,680.00 €	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	BE20 06060005	6/22/2016		Hr. Paul Parker		756.50 €	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bestellung	BE20 15110022	11/16/2015		Hr. Paul Parker		1,137.66 €	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	BE20 15110007	11/16/2015		Hr. Paul Parker		540.00 €	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	BE20 15110006	11/13/2015		Hr. Paul Parker		108.00 €	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	BE20 15110005	11/13/2015		Hr. Paul Parker		216.00 €	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	BE20 15100003	10/29/2015	Deere3	Hr. Paul Parker		0.00 €	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Purchase order	BE20 15100002	10/29/2015	Deere2	Hr. Paul Parker		0.00 €	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	BE20 15100001	10/29/2015	Deere1	Hr. Paul Parker		0.00 €	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 4.1.3 Contacts How-to

### 4.1.3.1 Add a new contact

Adding a new contact can be started in contacts list view or in contacts detail view with button . A nearly empty form is opened for entry of the contact details.

To save the contact the minimum required fields has to be filled: matchcode (unique short name) and account receivable when interface for accounting is configured. The protected fields like matchcode, customer number and account receivable are freely editable only for first editing. Afterwards the are locked to secure them in case of accidental changes. Unlocking is possible by double click on the blue field title.


The customer number can be given automatically when configured in the global settings.

When creating a new contact all possible fields should be filled to exploit all possibilities of the program.

The screenshot displays the 'Contact - ingenious' application window. The 'Contacts Detailview' is active, showing the 'Miscellaneous' tab. The interface includes a top navigation bar with 'Contacts', 'Article', 'Projects', and 'Purchase orders'. Below this is a toolbar with icons for 'All', 'Selection', 'New', 'Copy', 'Delete', 'Save', 'Back', 'Changelog', and 'Create Task'. The main area is divided into a left sidebar with navigation options like 'Contact data', 'Additional addresses / Trips', 'Financial data / Classification', 'Special prices', 'CRM information', 'Documents and Notes', 'own fields', 'File attachments', 'Part list default settings', 'XML document import settings', 'Web settings', 'E-Mail correspondence', and 'Show projects'. The 'Miscellaneous' section contains fields for 'Matchcode', 'Company / Name', 'Street', 'Country', 'State', 'ZIP', 'City', 'Unit', 'District', 'Contact person', 'Salutation', 'Communication' (Phone, Fax, WWW, Email), and a 'Pinip note' text area. At the bottom, it shows 'created' and 'Modified' timestamps.

In the financial data the fields discount %, Discount deadline, net payment terms, dunning days and dunning fees are prefilled with the global values from global settings.

The screenshot displays the 'Contact - ingenious' application window, showing the 'Financial data / Classification' tab in the 'Contacts Detailview'. The interface is similar to the previous screenshot, but the 'Financial data / Classification' section is expanded. This section includes fields for 'Classification' (Client, Group, Representative), 'Settlement' (Account receivable, Sales tax ID, Finanzsysteme), 'Method of payment' (Payment practice, Discount %, Till disc. dead. [days], Net, max. open balance, limit check), 'Dunning' (Dunning run in days, Reminder fee, Default interest %), 'Bank details' (IBAN, Bank, Mandate reference, BIC, Direct debit, Mandate date), 'Supplier defaults' (terms of delivery, default firm purchase order), and '(ZB) Texts bound to document states' (Project title, text). The 'Discount %' field is pre-filled with 2.00%.

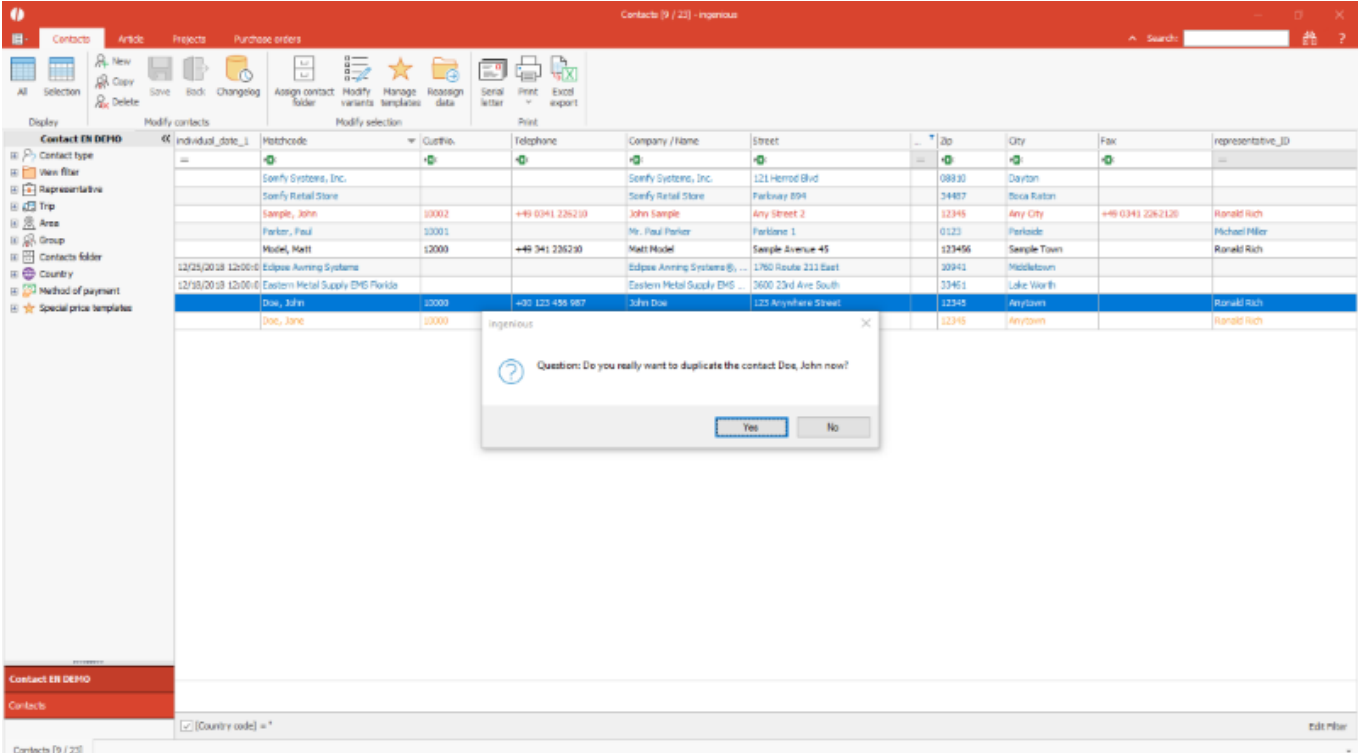
After the entries are completed the details are saved by clicking the button .

If the entries should be discarded, the data record should be deleted by clicking the button .

### 4.1.3.2 Duplicate an existing contact

When a new contact should be created that details are similar to another contact data record, e.g. the financial data and classification, a copy of the existing contact can be created and modified.

First the existing contact needs to be selected and button  needs to be clicked. A message pops up and the duplication process needs to be confirmed.

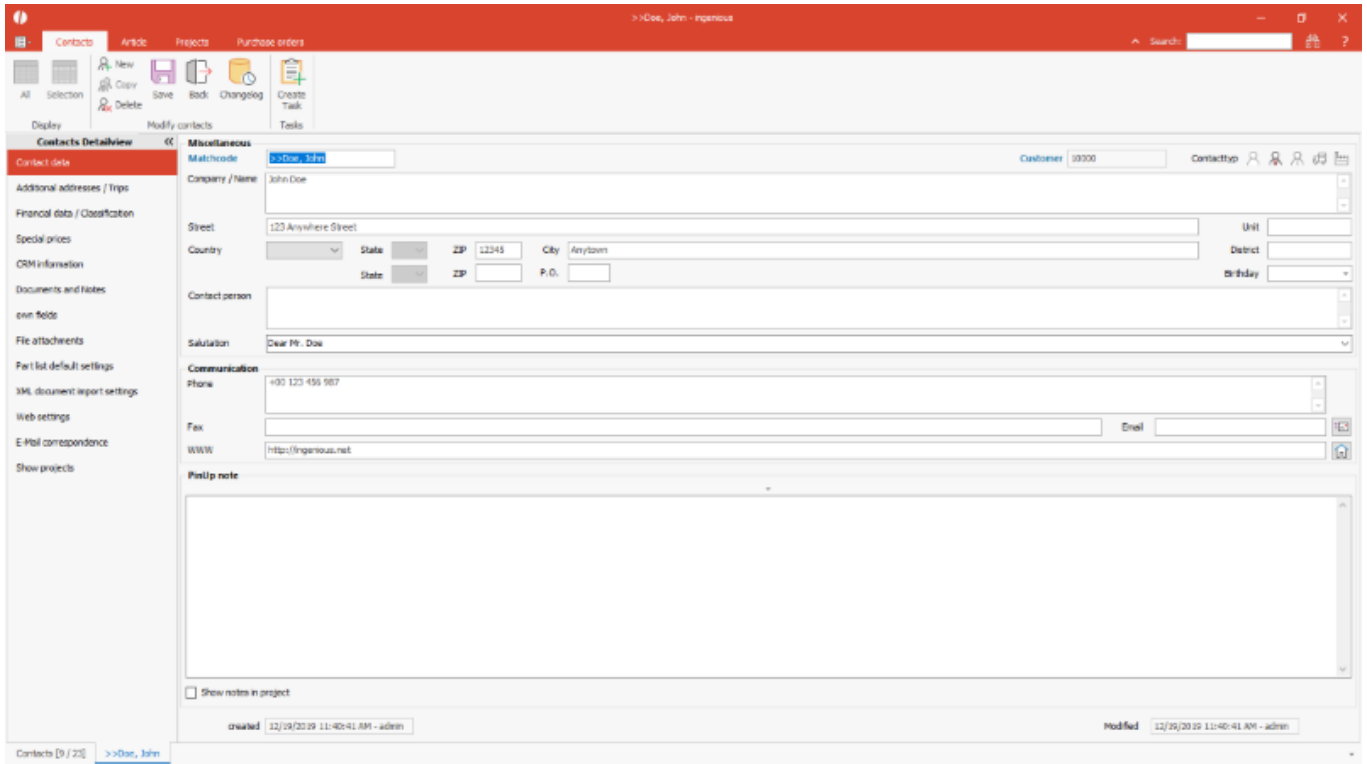



The screenshot shows the 'Contacts' application interface. A table of contacts is displayed with columns for Matchcode, Company / Name, Street, Zip, City, Fax, and representative\_ID. A dialog box is open in the foreground with the text: "Question: Do you really want to duplicate the contact Doe, John now?". The dialog has 'Yes' and 'No' buttons.


Matchcode	Company / Name	Street	Zip	City	Fax	representative_ID
12000	Seeley Systems, Inc.	121 Herrod Blvd	08930	Dayton		
12001	Seeley Retail Store	Parkway 894	34407	Deva Rattan		
12002	John Sample	Any Street 2	12345	Any City	+49 0341 2262120	Ronald Rich
12001	Mr. Paul Parker	Parklane 1	0123	Parkside		Michael Miller
12000	Matt Model	Sample Avenue 45	123456	Sample Town		Ronald Rich
12/25/2018 12:00:0	Edgese Anning Systems	1760 Route 211 East	20942	Middletown		
12/18/2018 12:00:0	Eastern Metal Supply EMS Florida	5600 23rd Ave South	33451	Lake Worth		
12000	John Doe	123 Anywhere Street	12345	Anytown		Ronald Rich
12000	Doe, Jane		12345	Anytown		Ronald Rich

While duplication all data are taken from the fields of the original contact. All attached details like documents and notes, file attachments and project documents are not copied.

Each contact needs a unique matchcode for identification. While duplication the matchcode of the copied contact is enriched with characters >>. This is to remind that the matchcode has to be changed mandatorily.



After complete editing of the data they will be saved with click on button .

If the changes should be discarded instead, the data record needs to be deleted with click on button .

## 4.2 Articles

### 4.2.1 Articles list view

#### 4.2.1.1 The articles list view

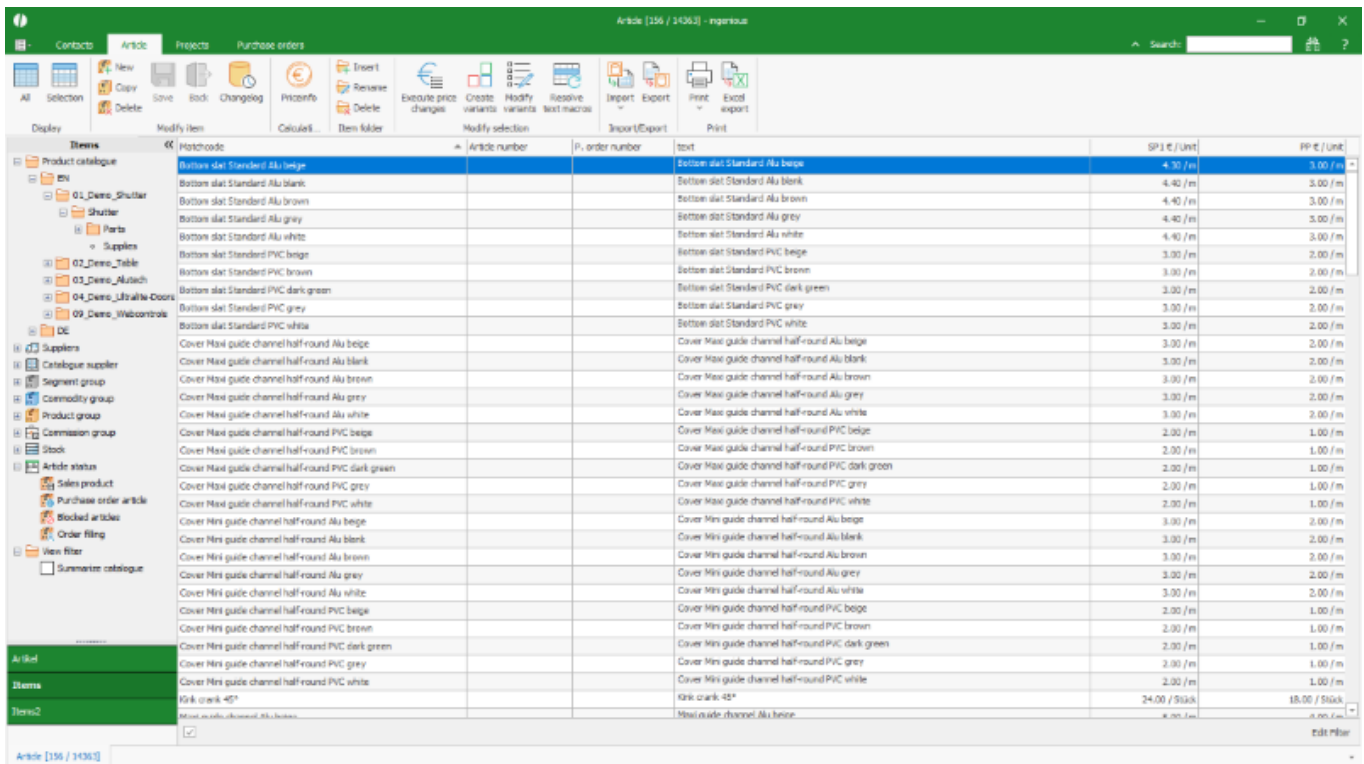
The articles list view displays all saved articles in clear tabular form. Articles can be searched for by matchcode, article number and more.

Which articles are shown is ruled by individual filters from the list or by static filters in the left filter area.

The static filters are:

Product catalogue	Immediate filter in dendroid texture	The product catalogue represents an individual categorization / sorting of all articles / items. The folder structure is to be individually defined and can consist of any number of main and sub-folders. Articles can be classified into different folders at the same time. The single levels can be freely re-sorted by drag&drop.
Suppliers	Immediate filter from contact linkage	Within the group suppliers all matchcodes of contacts are listed that were created in the database as contact type supplier. All assigned items, for that the supplier was selected in article details are shown in the list view immediately when the supplier is clicked on.














Commodity group, Stock,...	Immediate filter with values from selection lists	With click on that single filter all articles / items are shown, whose parameter values match the filter.
Article status	Immediate filter with predefined parameters	With click on that single filter all articles / items are shown, whose parameter values match the filter.



Within the article list view the following functions are available.

	Show all articles depending on the selected filters
	Only display the selected articles
	Create a new article
	Duplicate the selected article
	Delete the selected article/s




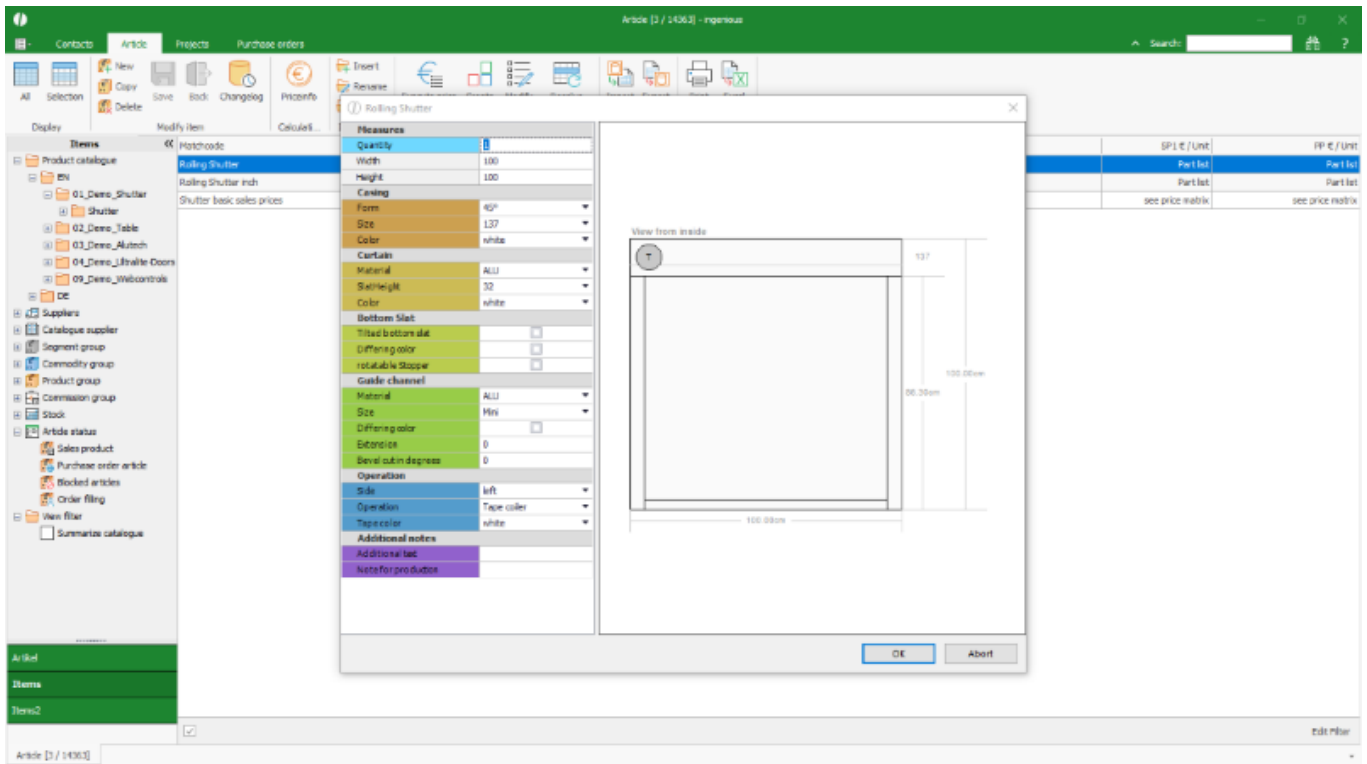
	Open the changelog for administrators (user right required)
	Show the price info for the selected article
	Add a new folder to the product catalogue
	Rename the selected folder of the product catalogue
	Delete the selected folder of the product catalogue
	Execute price changes for the selected articles
	Create variants of an article
	Overwrite / set parameters of the selected articles at once
	Resolve text macros Textmakros (Type values of article variants); see Creation of article variants
	Import articles from XML file (ingenious own scheme) or Datanorm 5
	Export articles to ingenious own XML structure
	Print article list or individual reports / Create and modify individual print reports
	Export article list view to Microsoft Excel file

### 4.2.1.2 Price info

With price info sales prices can fastly be calculated particularly for lengths and flat items and part lists without the creation of a quote, e.g. for just giving a price info on the telephone. In the price calculation all price depending parameters like measurements, options and variants are integrated.

When calculating a part list product (= product with variants) first the product configurator is opened to select the needed options.

The price info is started with button 



All relevant prices are shown (piece price, unit price, total price,...). Additionally a customer special price can be calculated by entering his matchcode (special prices have to be configured).

Also product texts are shown, that would be printed to customer documents.

When calculating a "simple" article the price overview is directly opened. The calculation for that is done with quantity, measurements and special prices when indicated.

The screenshot shows the 'Price info' window for a 'Rolling Shutter'. The interface includes a top navigation bar with 'Contacts', 'Article', 'Projects', and 'Purchase orders'. Below this, there are buttons for 'Modify', 'Back', and 'Modify checklist'. The main content area is divided into several sections:

- Quantity/Dimensions:** Shows Quantity (1), Size (100), and Height (100). A Customer field is also present.
- Prices:** A table showing Unit price (1,211.58), PP total (611.90), Weight (32.0), Rat price (17.45), CM net abs. (599.63), and Time (1:15 Std). It also shows Net Total (1,211.58) and Gross Total (1,211.58).
- Notes:** Two sections, 'Single text' and 'Formatted text', both containing the same list of components: Rolling Shutter, 45° Casing 137 in white, ALU Casing 32 in white, Bottom Slot ALU in white, ALU Mini - Guide channel in white, and Tape roller - Operation left.
- Measurement line:** B: 100 x H: 100 cm.


For part list products also the summary respectively the base of the calculation can be displayed. Here is apparent, which parts are needed for this product and which surcharges are integrated in the calculation.

The screenshot shows the 'Price info' window for a 'Rolling Shutter' with a detailed part list table. The table has the following columns: 'Hotchocid/Name', 'Quantity', 'X inch', 'Y inch', 'Z inch', 'SP', 'PP', 'Time (min)', 'Rebate', and 'VK OGP'. The data is as follows:

Hotchocid/Name	Quantity	X inch	Y inch	Z inch	SP	PP	Time (min)	Rebate	VK OGP
Shutter casing PVC 45° 137mm white	1.00	89.40	0.00	0.00	0.00	\$156.45	\$119.20	0.00	\$0.00
Side cap Set PVC 45° 137 mm white	1.00	0.00	0.00	0.00	0.00	\$2.00	\$1.00	0.00	\$0.00
Start Alu 32 mm white	28.00	89.40	0.00	0.00	0.00	\$625.90	\$417.20	0.00	\$0.00
Bottom slot Standard Alu white	1.00	89.40	0.00	0.00	0.00	\$227.90	\$22.25	0.00	\$0.00
Mini guide channel Alu white	2.00	86.30	0.00	0.00	0.00	\$57.53	\$43.15	0.00	\$0.00
Tape roller rotatable	1.00	0.00	0.00	0.00	0.00	\$11.00	\$8.00	0.00	\$0.00
Tape white	1.00	12.00	0.00	0.00	0.00	\$1.00	\$1.00	0.00	\$0.00
Working time production curtain	0.75	0.00	0.00	0.00	0.00	\$15.00	\$0.00	45.00	\$0.00
Working time assembly shutter	0.30	0.00	0.00	0.00	0.00	\$15.00	\$0.00	30.00	\$0.00

### 4.2.1.3 Execute price changes

Price changes (mainly increases) mostly don't apply to only one article, but to a large selection like the whole assortment of a supplier or all own products. For managing such a price change for a multiplicity of articles without editing each one manually, the function "Execute price changes" is available.

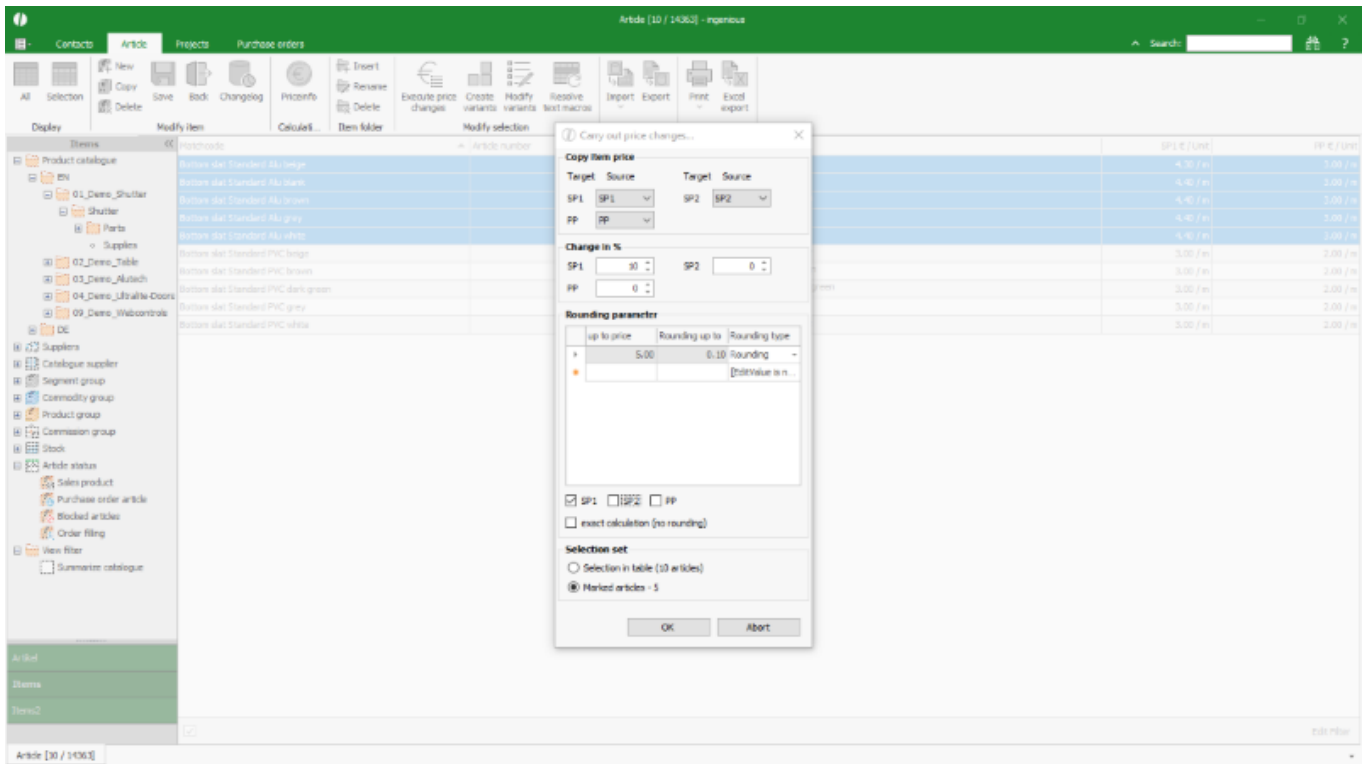
The function is to be started with clicking on the button 

In the appearing window the following price changes can be done:

- Copy article prices
- Percental increase of sales price 1, sales price 2 and / or purchase price
- Percental reduction of sales price 1, sales price 2 and / or purchase price (enter a minus before the percentage rate)
- Graded Rounding of the sales price 1, sales price 2 and / or purchase price
  - (mercantile) rounding
  - round up to
  - round off to
- Price changes for all shown articles (Selection in table) or all marked articles

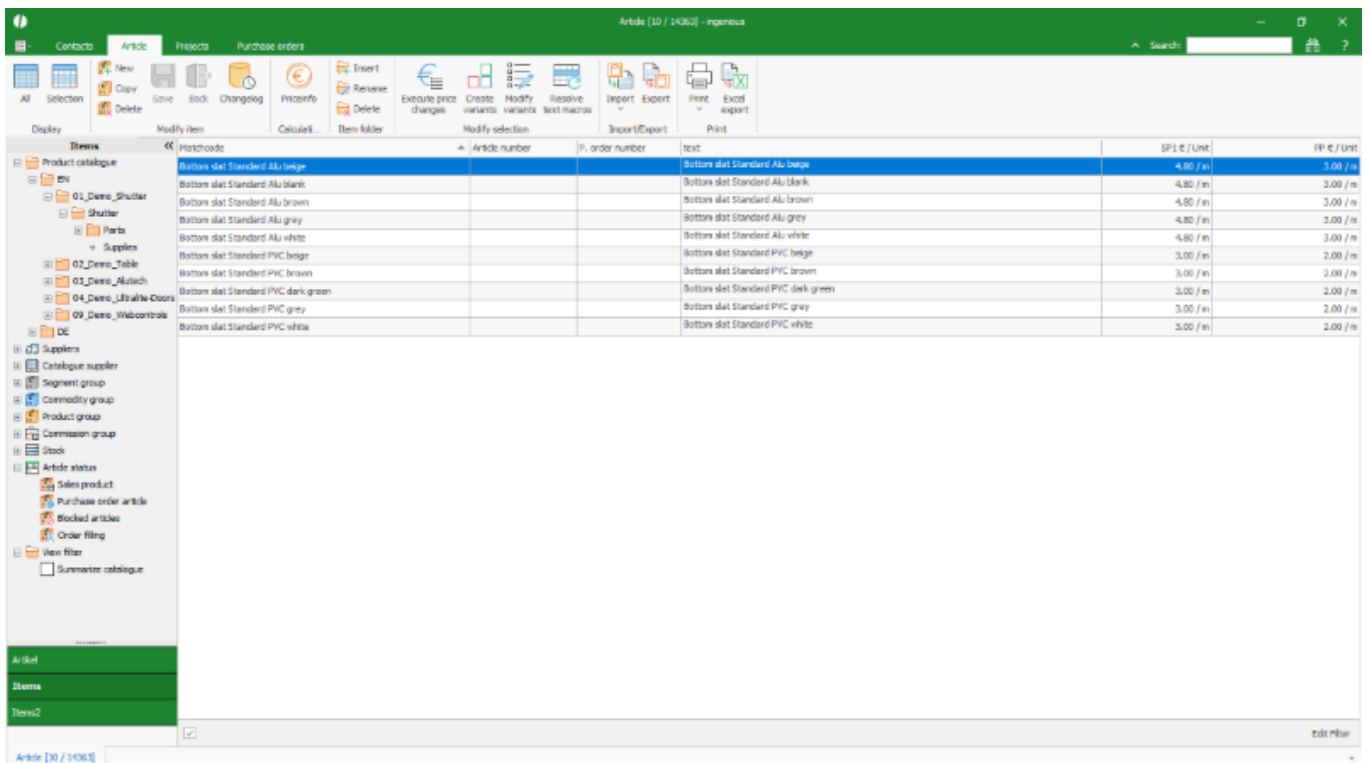
Possible values for rounding are

0,01	Round the price to 1 Cent
0,10	Round the price to full 10 Cent
1,00	Round the price to full 1 Euro
10,00	Round the price to full 10 Euro
...	...



After the configuration of the price change is done, it will be started with click on button OK.

After a new confirmation for taking over the changes the prices will be changed.



## 4.2.1.4 Create variants

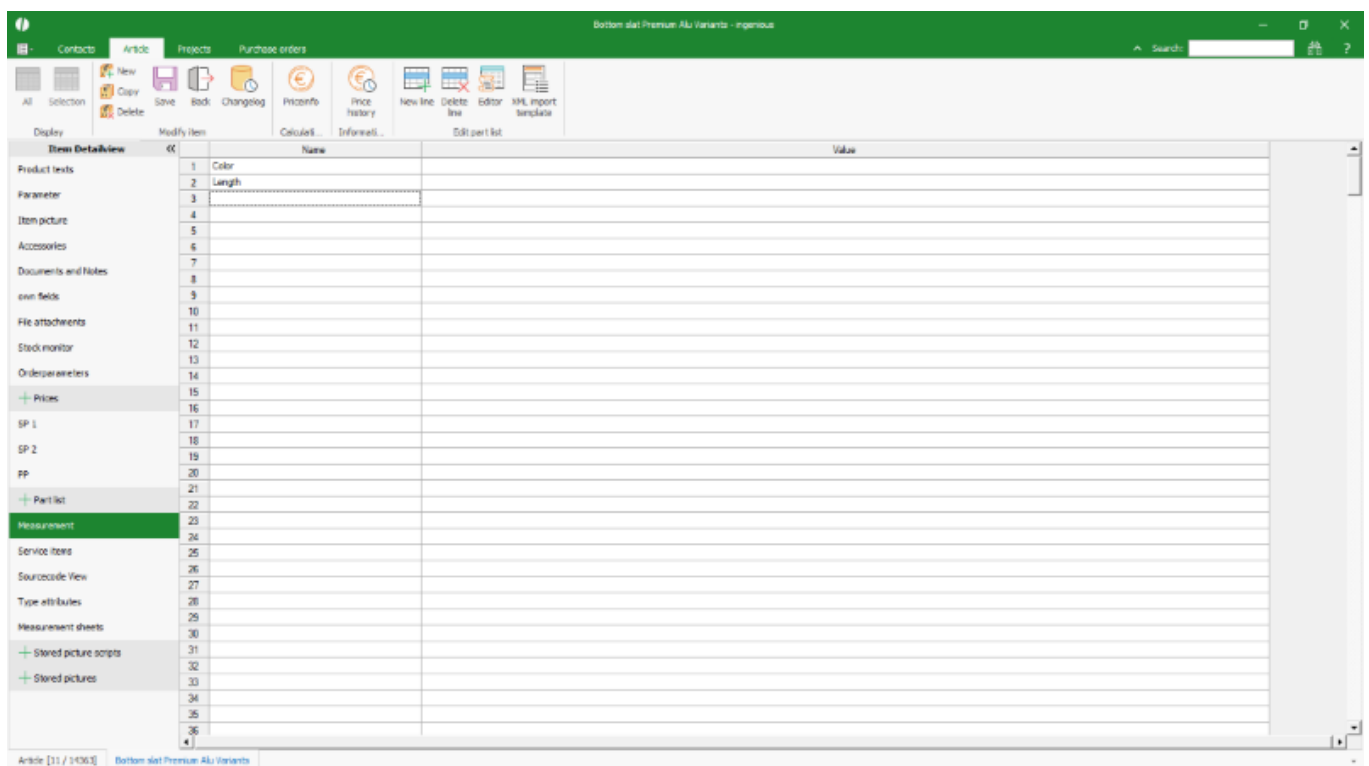
Variant articles are those that are offered with different characteristics, e.g. in different colors. Other details like measures and prices can be equal.

For an exact inventory and ordering it's worth to create variant articles as separate article data records.

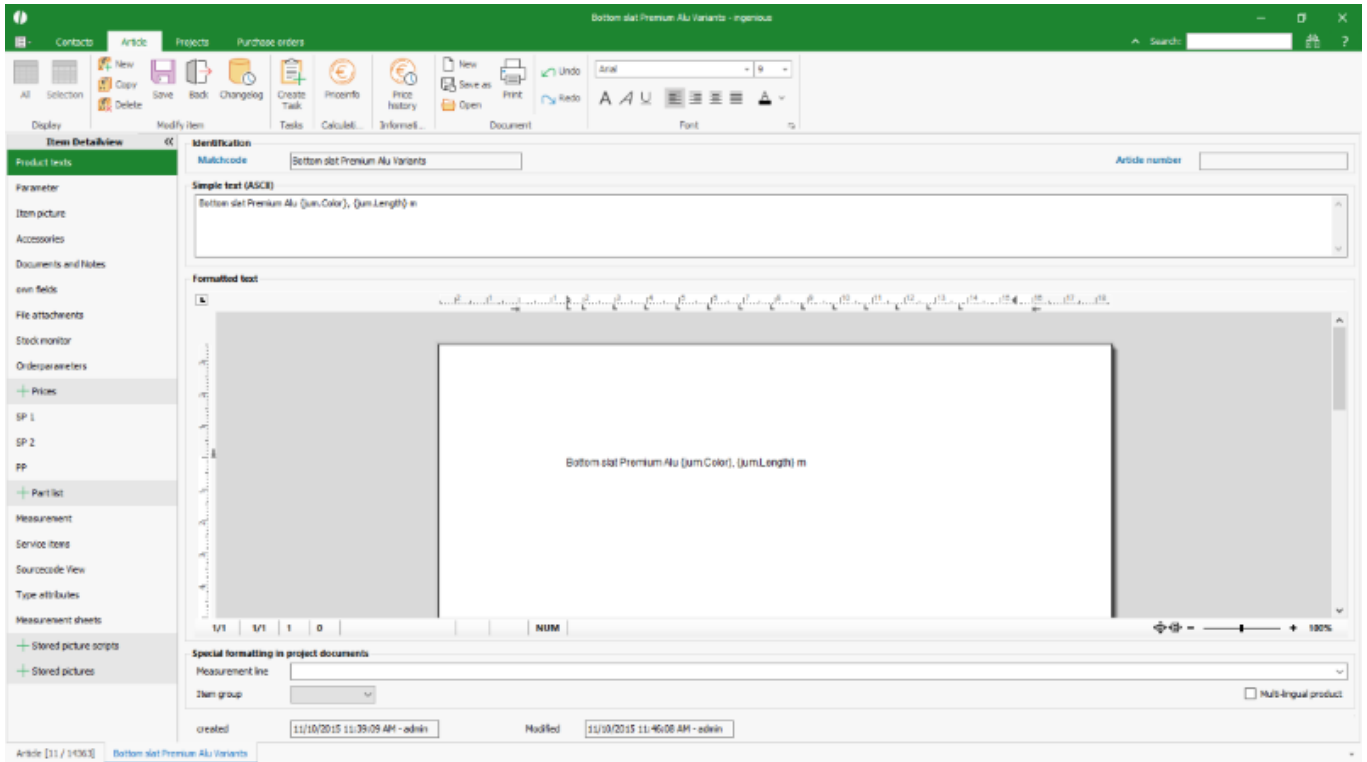
The function "Create variants" saves oneself time that's needed to create the articles manually. With definition of the characteristics the articles can be created automatically.


First a basic article is needed that acts as template. In this article all equal details are stored. These are mainly the classification, prices and article texts. The article texts will be enriched with the characteristics = type data.

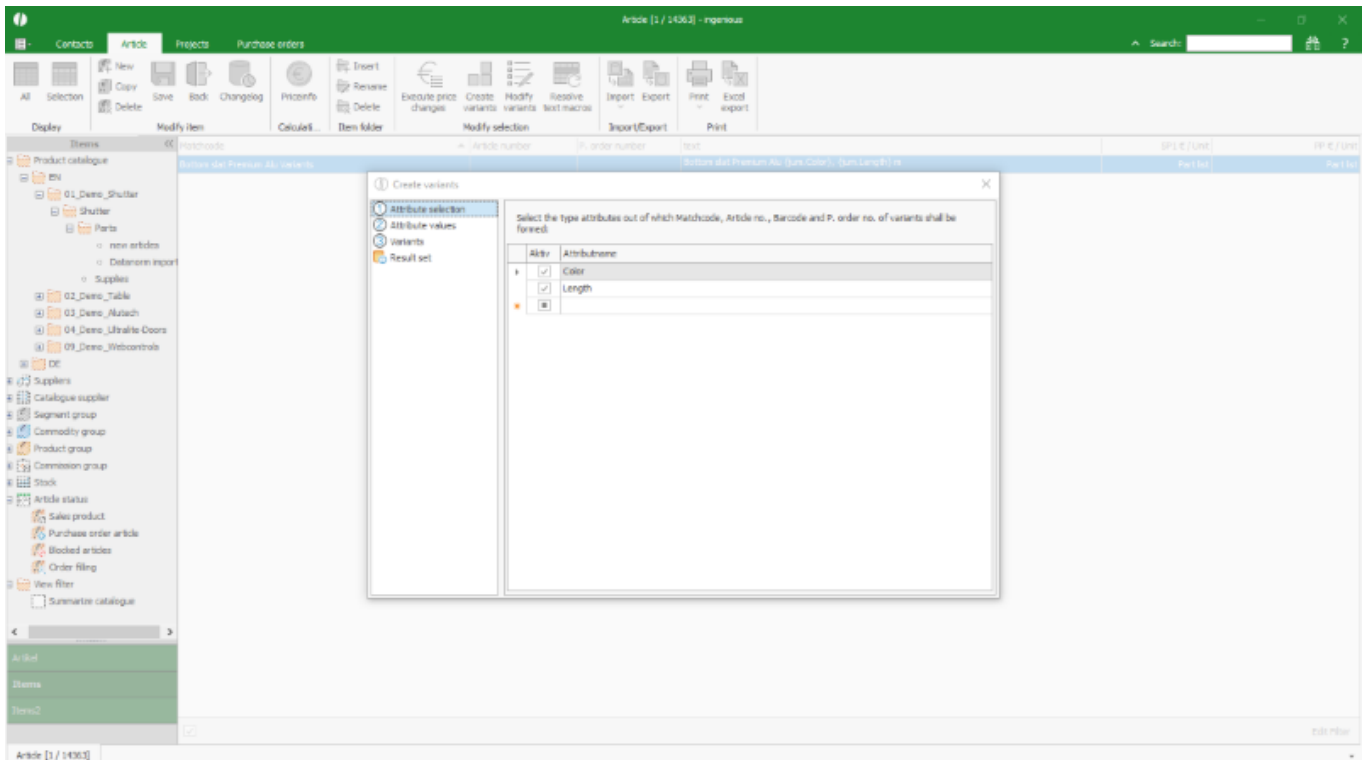
Type attributes are configured in the article details / part list / type attributes. First only the name is defined.



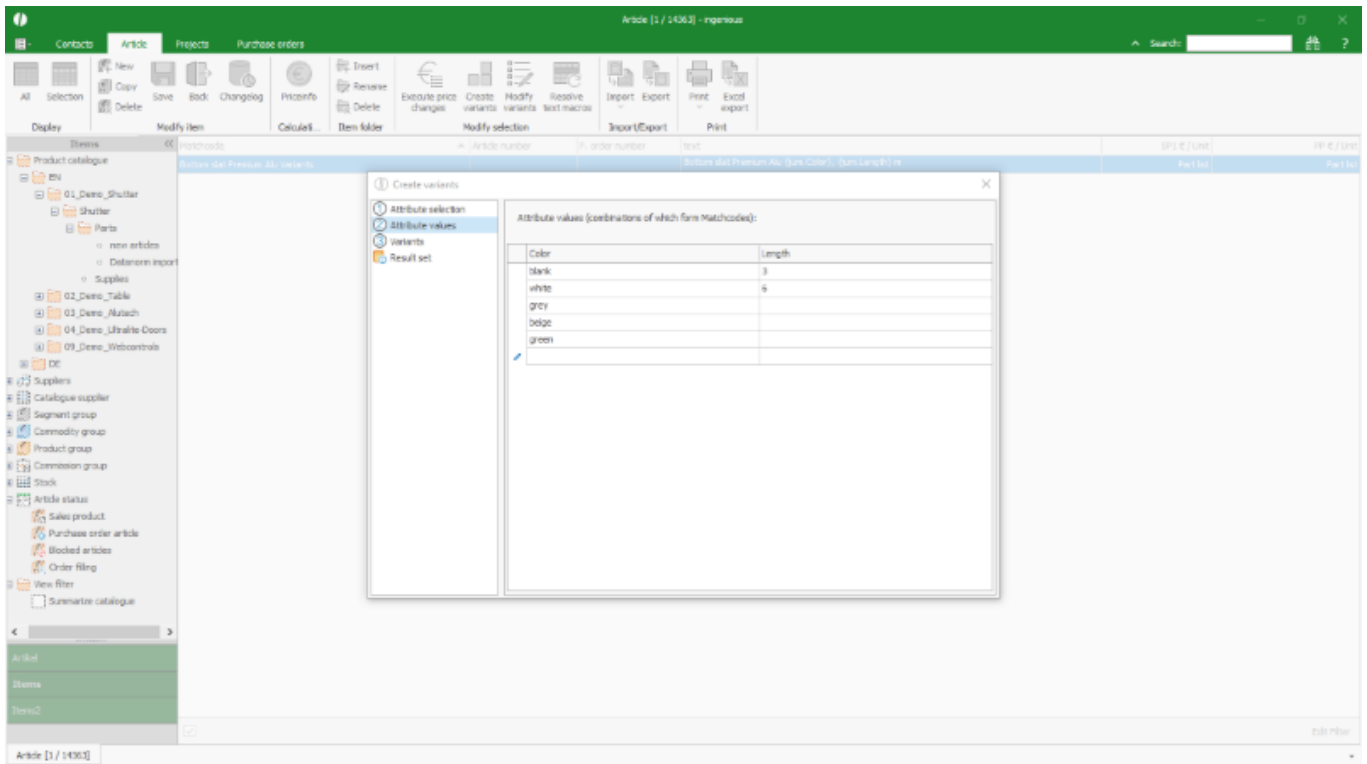
After specification of the name of the type attributes, they will be written within curly brackets with part list term .jum and will be added to the article text at the wished position.



After preparation is finished the base article is to be saved and the detail view is to be closed. With button  the function for creation of variant articles will be started. The defined type attributes are loaded and if needed also additional ones could be added.



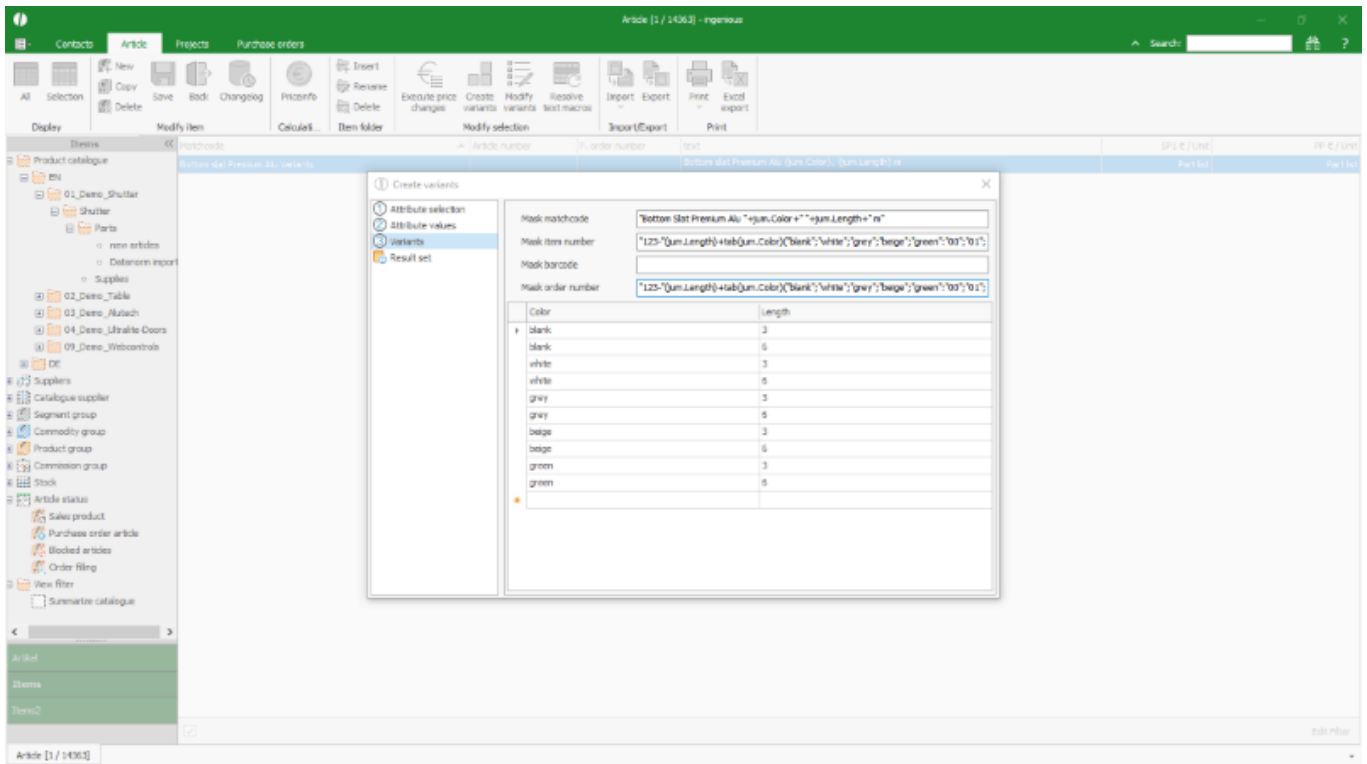
In the next step the type values are to be defined, means each single characteristic of each attribute. These will be written below the attribute name in the table.



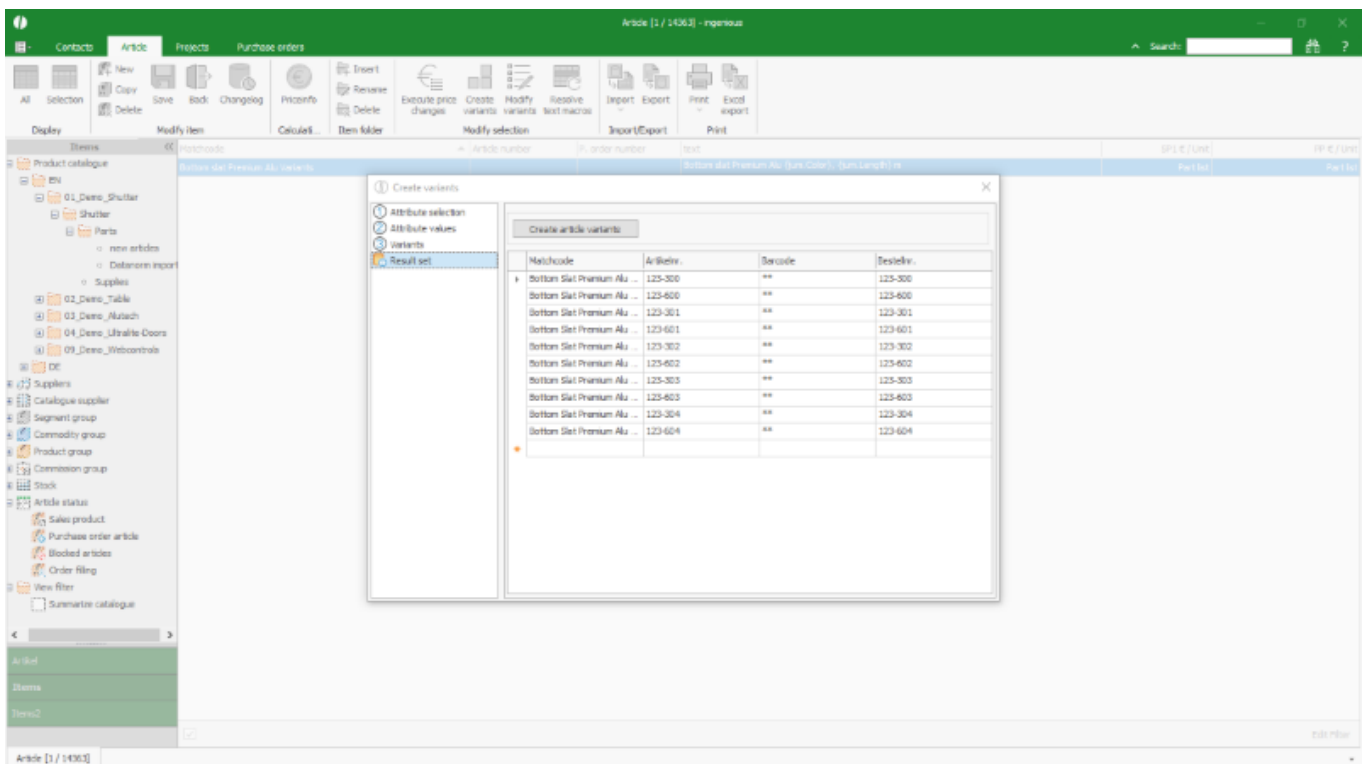
In step 3 "Variants" all possible combinations from the attribute values are listed. Here also matchcodes and item numbers will be configured.

The attribute values will be added by part list term jum.; static values has to be written within double quotes. The single parts will be combined by a "+". Additional part list terms can be used, e.g. for creation of item numbers.





In the last step the result set can be checked and the creation of the variant articles can be executed with button "Create article variants".



After the confirmation of the dialogue the new articles will be listed.

Article [1 / 14372] - ingenious

Article number	P. order number	Text
123-300	123-300	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-603	123-603	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-300	123-300	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-600	123-600	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-304	123-304	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-604	123-604	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-302	123-302	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-602	123-602	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-301	123-301	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-601	123-601	Bottom slot Premium Alu (sum.Color), {sum.Length} m

Afterwards the text macros (type data within the curly brackets in the article text) can be resolved with click on button



Article [1 / 14372] - ingenious

Article number	P. order number	Text
123-300	123-300	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-603	123-603	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-300	123-300	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-600	123-600	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-304	123-304	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-604	123-604	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-302	123-302	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-602	123-602	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-301	123-301	Bottom slot Premium Alu (sum.Color), {sum.Length} m
123-601	123-601	Bottom slot Premium Alu (sum.Color), {sum.Length} m

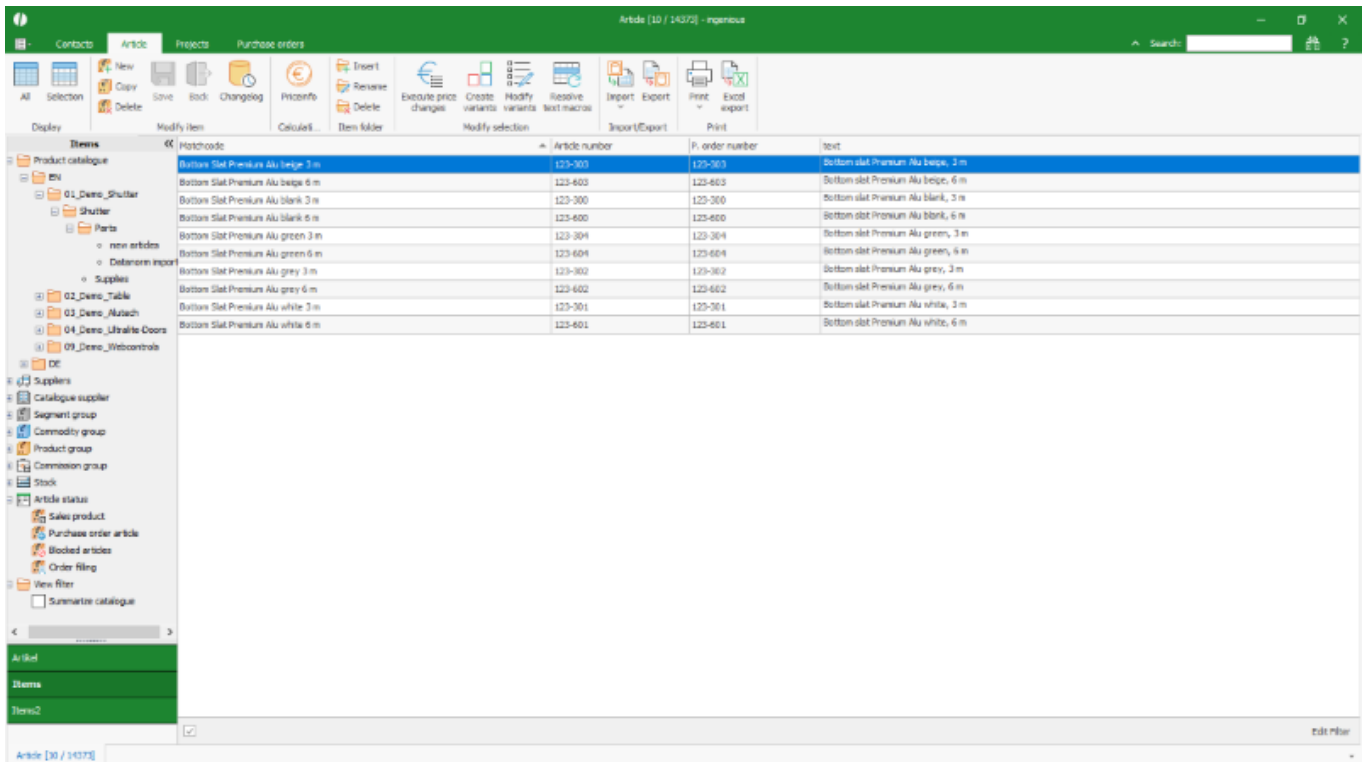
Resolving text macros...

Selection set

Selection in table (10 records)

Marked products (10 records)


OK Abort



After finalisation the base article can be deleted or it can be kept for further creation of additional variants.

### 4.2.1.5 Modify variants

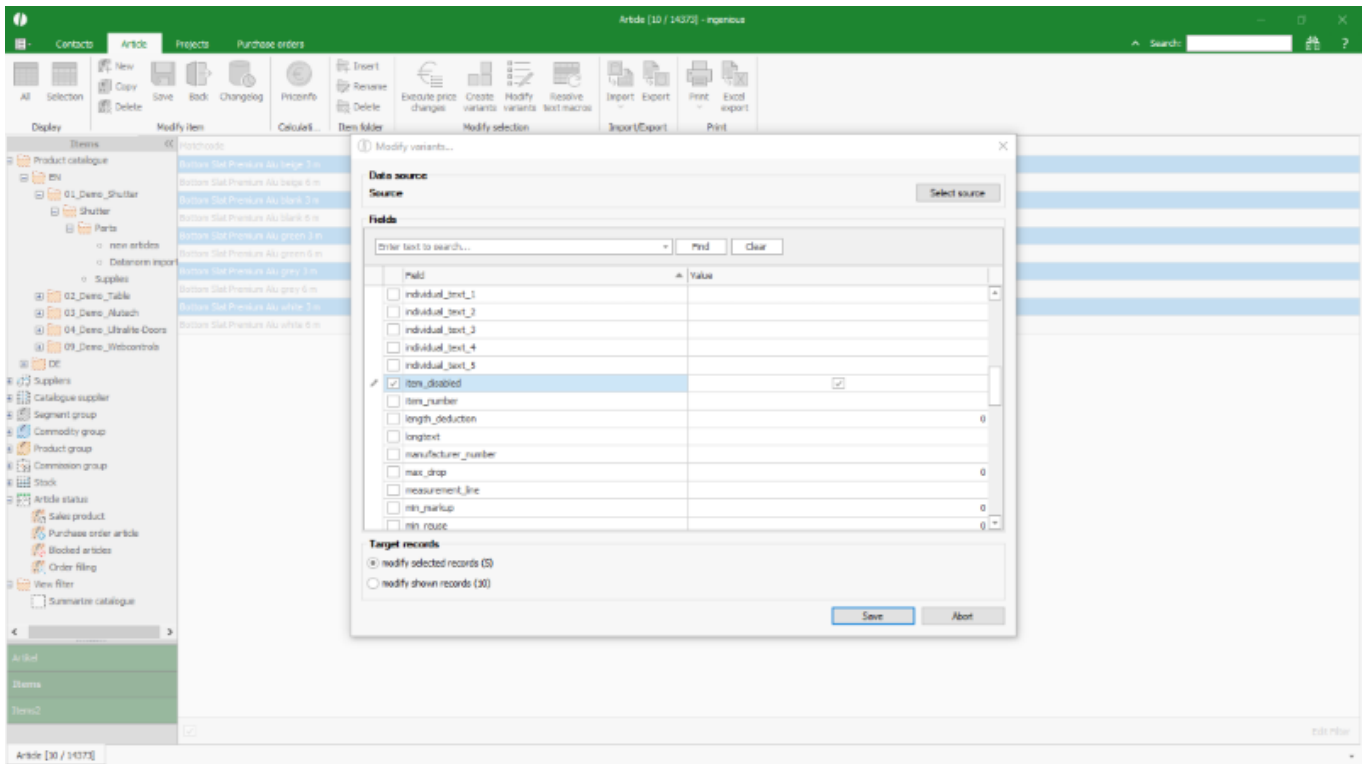
With the function "Modify variants" single parameters can be set or changed for various articles at once. This can be helpful e.g. when various articles should be rearranged in the product catalogue or e.g. when they should be disabled when they are phased out from product range.

The function is started with button 

In the appearing dialogue all available article fields are listed. Depending on the effective type they will be presented here analog - text fields, checkboxes, selection lists,...

In the first column a checkmark is set for these parameters that should be changed. In the last column the new value is to be entered. In the following example

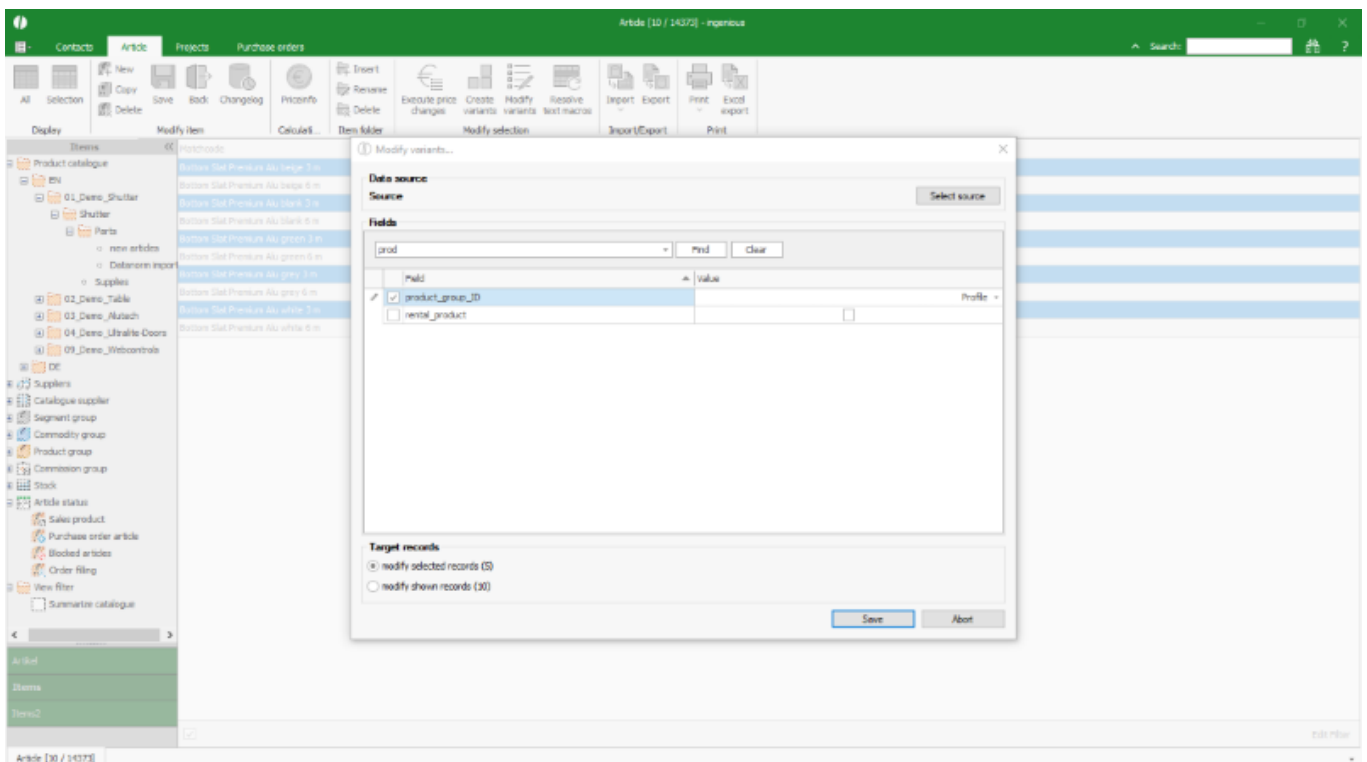
1. the parameter "Article disabled" is set with checkmark in the checkbox and



2. the selected articles will be sorted to product group "Profile".

With the search field the needed field can be found by typing the first letters of the field name.

In the final step it's needed to define whether the changes should be executed for all marked articles or for all shown articles.




After click on button "Save" the changes are written into the data records. The final transfer is done after the confirmation.

With refresh of the list view or of course in the Article details the changes are visible.

item...	product_group_ID	Materialcode	Article number	P. order number	text
<input type="checkbox"/>	Profile	Bottom Slot Premium Alu beige 3 m	123-303	123-303	Bottom slot Premium Alu beige, 3 m
<input type="checkbox"/>		Bottom Slot Premium Alu beige 6 m	123-603	123-603	Bottom slot Premium Alu beige, 6 m
<input checked="" type="checkbox"/>	Profile	Bottom Slot Premium Alu blank 3 m	123-300	123-300	Bottom slot Premium Alu blank, 3 m
<input checked="" type="checkbox"/>		Bottom Slot Premium Alu blank 6 m	123-600	123-600	Bottom slot Premium Alu blank, 6 m
<input checked="" type="checkbox"/>	Profile	Bottom Slot Premium Alu green 3 m	123-304	123-304	Bottom slot Premium Alu green, 3 m
<input checked="" type="checkbox"/>		Bottom Slot Premium Alu green 6 m	123-604	123-604	Bottom slot Premium Alu green, 6 m
<input checked="" type="checkbox"/>	Profile	Bottom Slot Premium Alu grey 3 m	123-302	123-302	Bottom slot Premium Alu grey, 3 m
<input checked="" type="checkbox"/>		Bottom Slot Premium Alu grey 6 m	123-602	123-602	Bottom slot Premium Alu grey, 6 m
<input checked="" type="checkbox"/>	Profile	Bottom Slot Premium Alu white 3 m	123-301	123-301	Bottom slot Premium Alu white, 3 m
<input checked="" type="checkbox"/>		Bottom Slot Premium Alu white 6 m	123-601	123-601	Bottom slot Premium Alu white, 6 m

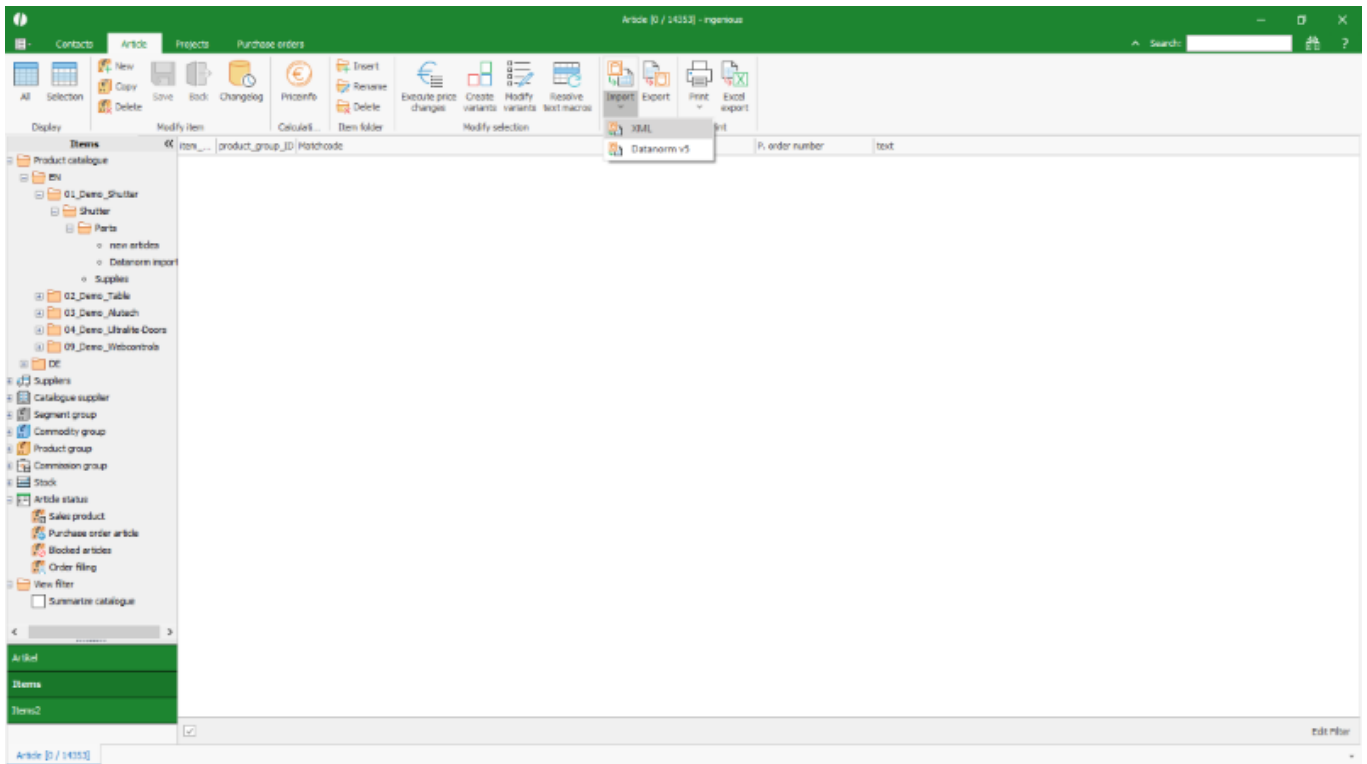
## 4.2.1.6 Article import

With click on the import icon  the standard import of the ingenious own XML import is started. With the small triangle below the icon a selection list opens where additional formats for the import are available.

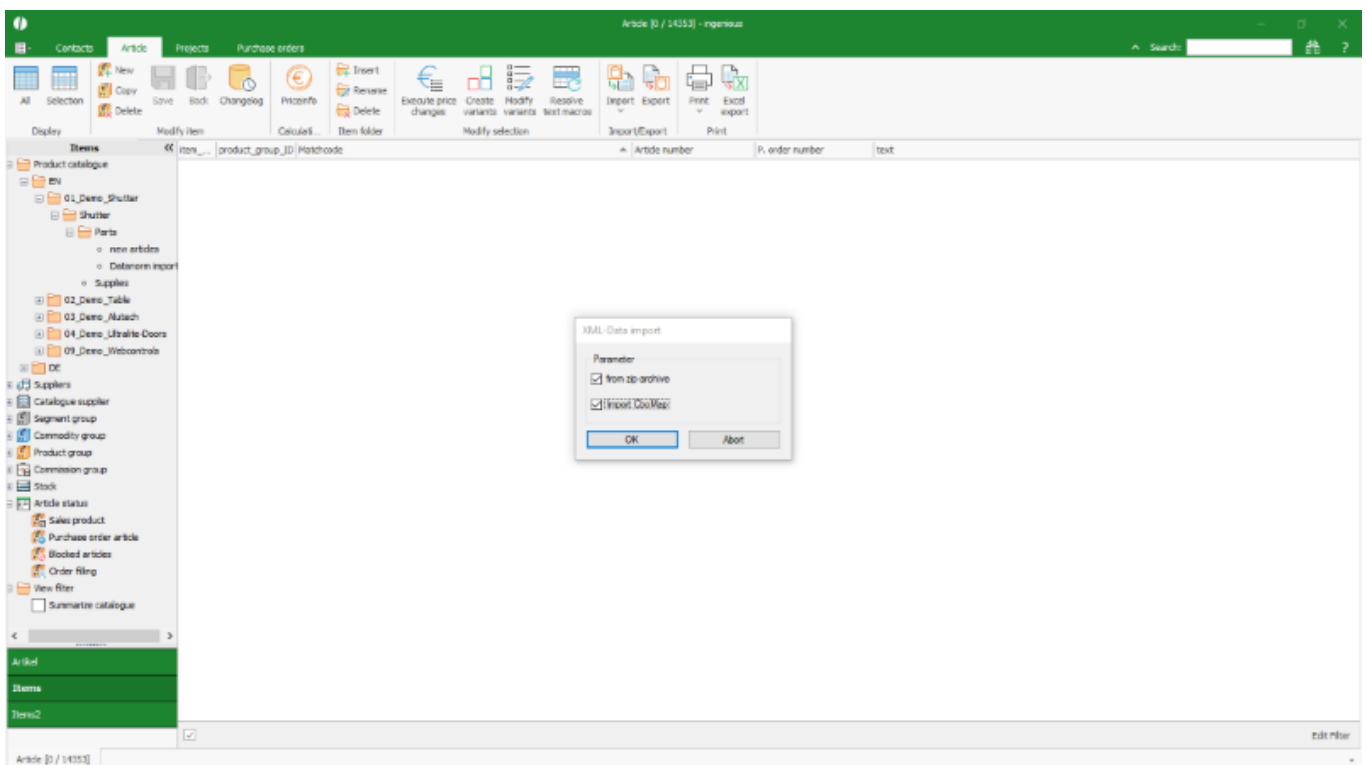
### XML-Import

With the ingenious individual XML import article data records can be interchanged, including their images, file attachments, documents and part list details. This exchange is designed for backup and restore of article data from test system to productive system - especially for part lists.

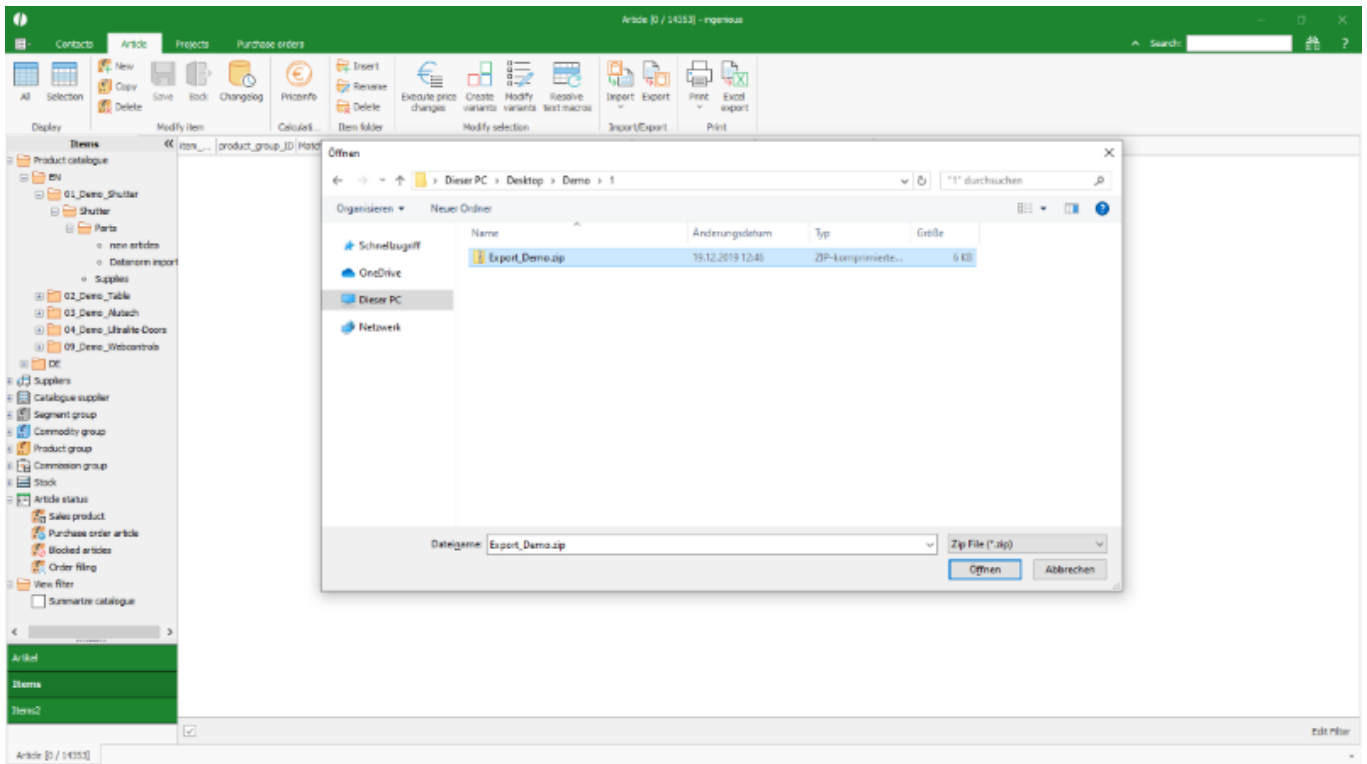
For the (re-)import of article data records first a directory of the product catalogue needs to be selected or created for storing the article data there. Afterwards the import is started with click on the import button or on "XML" in the sub menu.



In the appearing dialogue can be chosen, which data should be imported. When the checkbox for zip-archive was set for the export it also has to for the import. With the cboMap the entries from fields that are filled by values from selection lists, these values can also be added to the selection lists in the program settings. Such fields are for example commodity group, product group,...

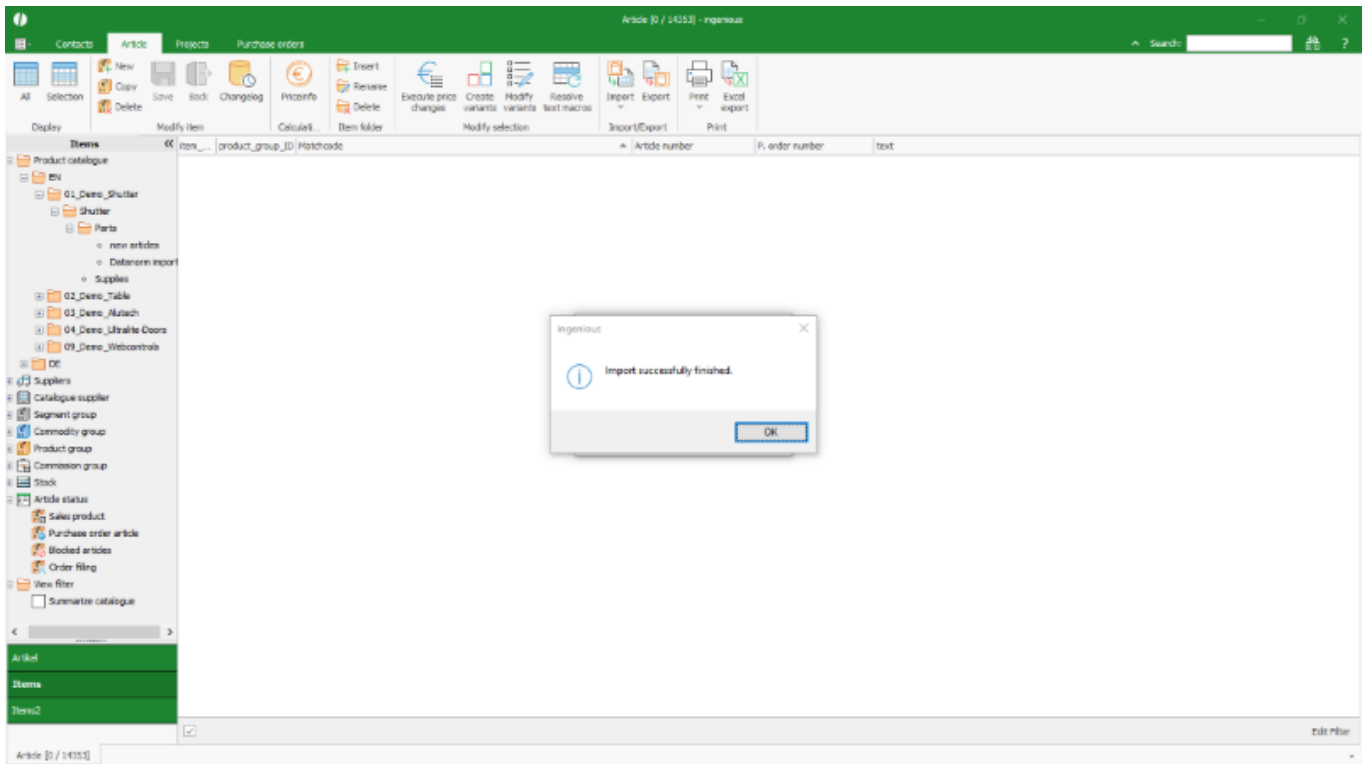


After click on OK a Windows dialogue for opening the import file.

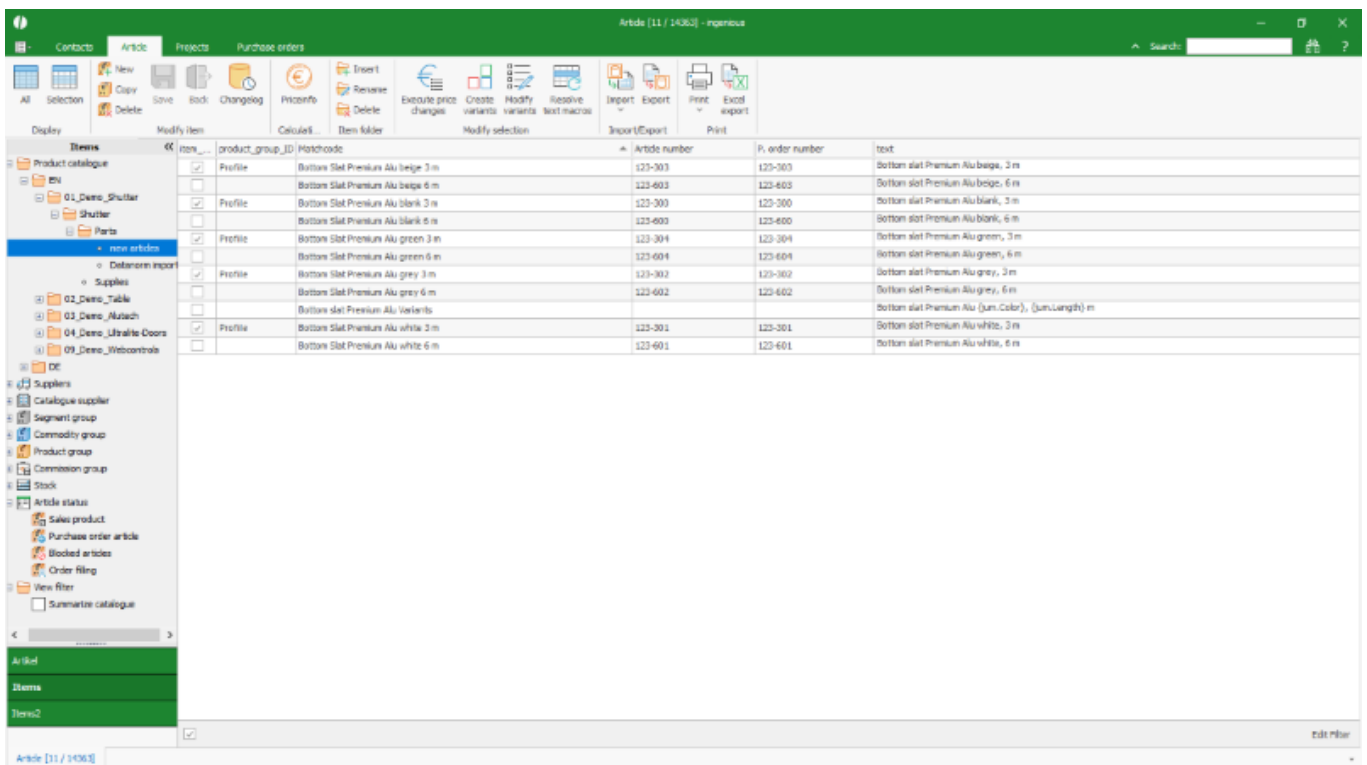


After selection of the zip-archive that contains the data that needs to be imported, you need to decide whether the articles should be imported to the selected directory or to that directory where they were sorted in during the export. But this is only possible when this directory is available with the same wording and the same structure here.

Afterwards the import is executed a message reports success.




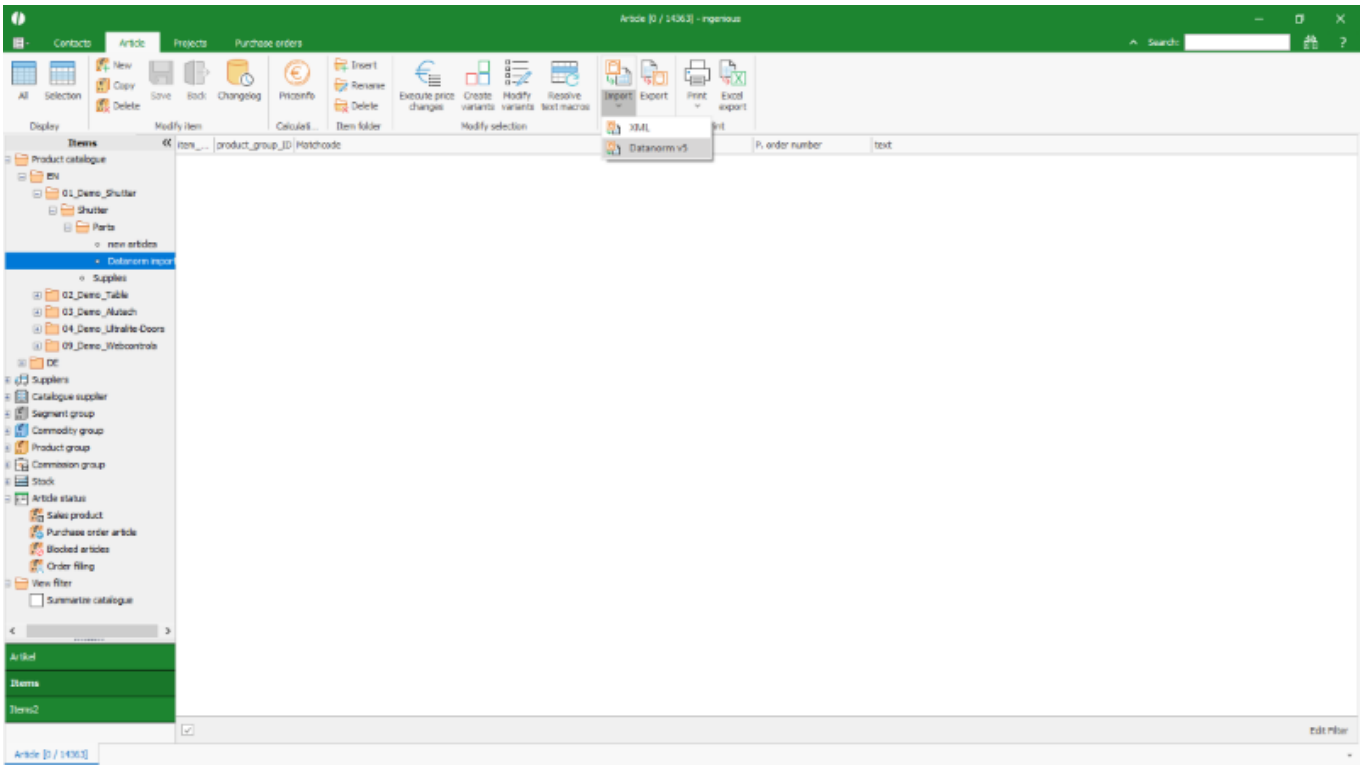
With clicking on the article directory again, the imported articles are displayed.



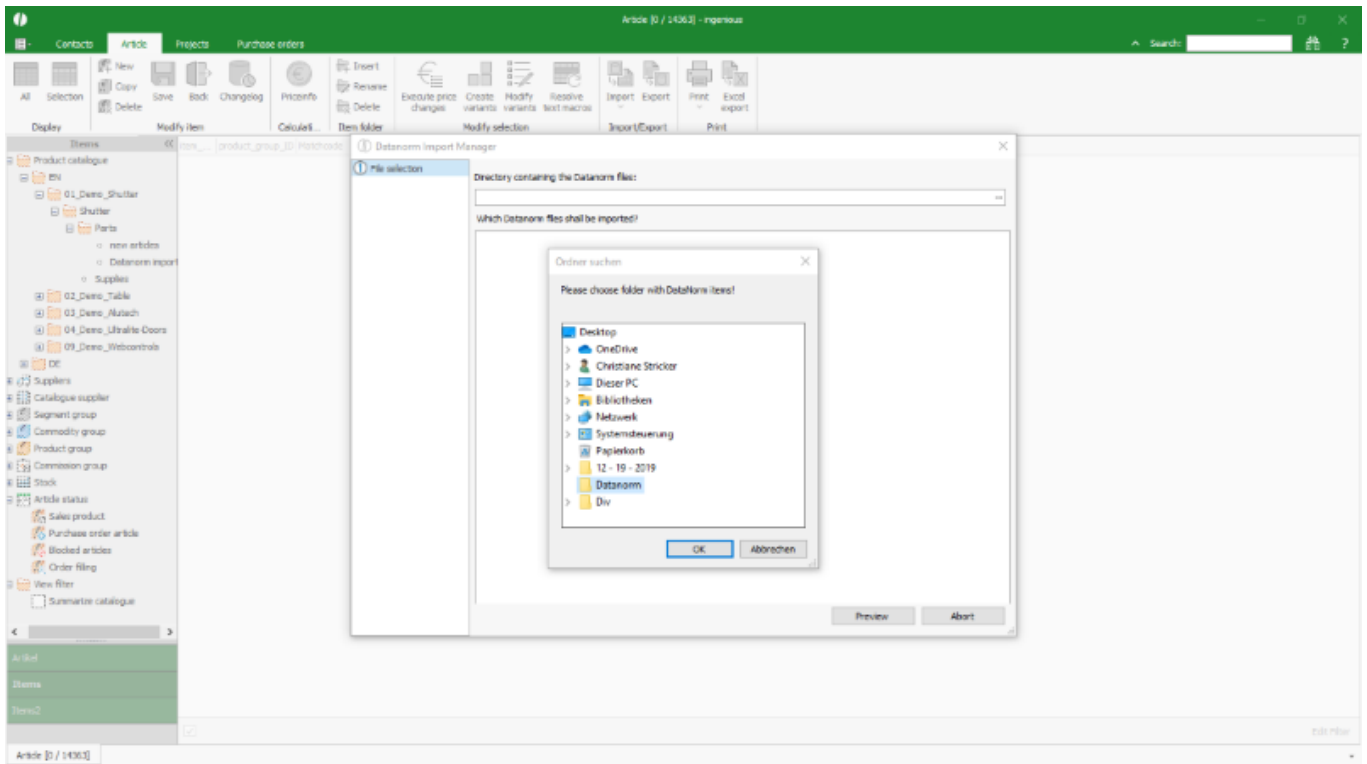


## Datanorm v5 Import

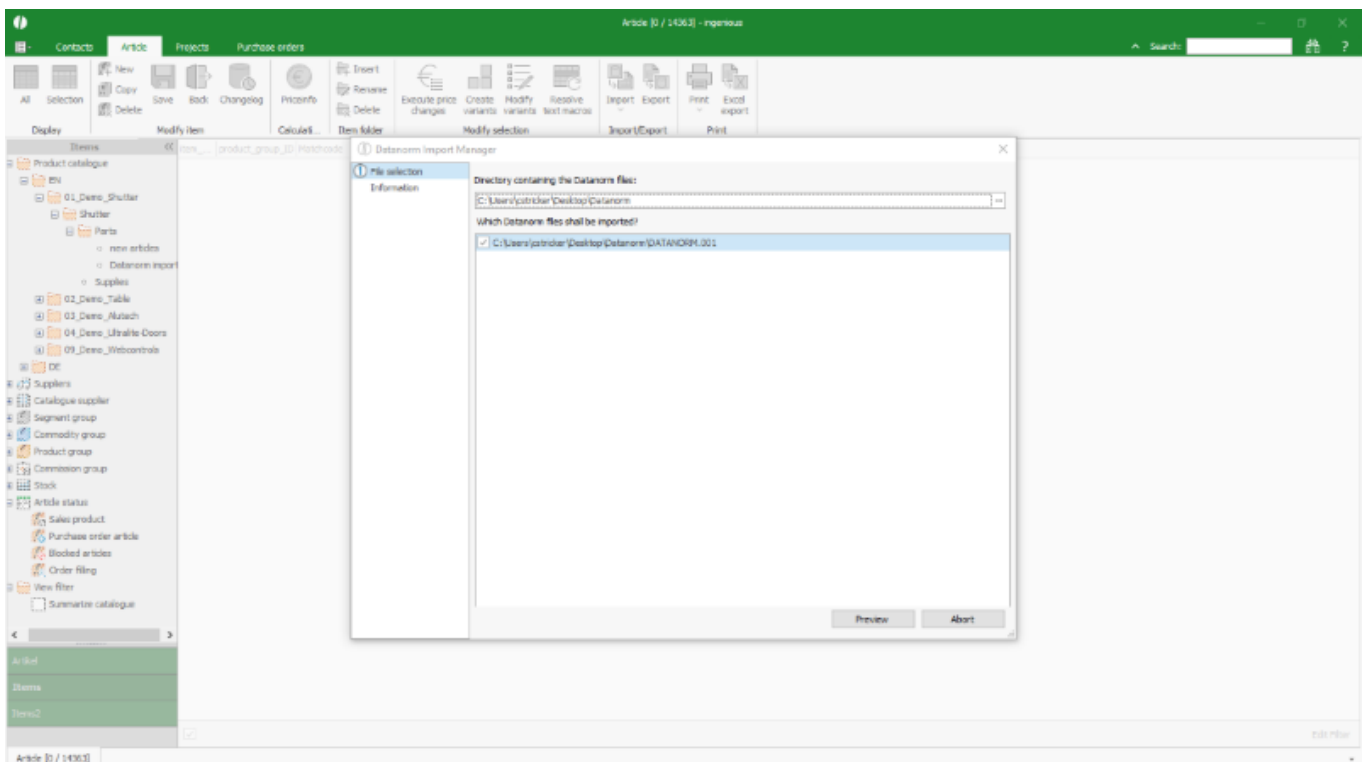
Article data can be provided by the supplier in Datanorm 5 format. For importing such files first a directory in the product catalogue needs to be selected or created. Afterwards the import will be selected from sub menu of the import button (small little triangle below button ).



The Datanorm import manager is opened where first the directory needs to be chosen, where the Datanorm files are stored in. (Click on the button with the 3 points)

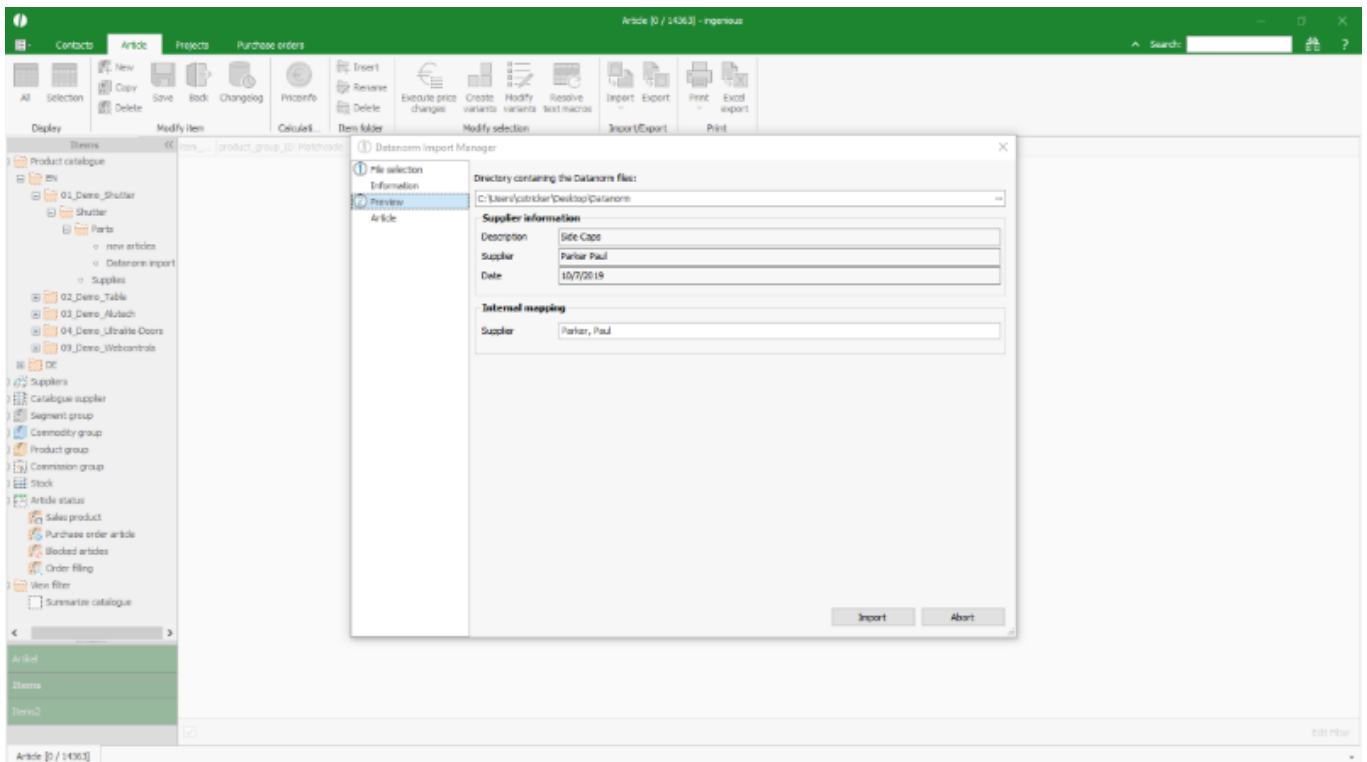


After click on OK all available Datanorm files are displayed. With click on the checkbox the needed file can be selected.



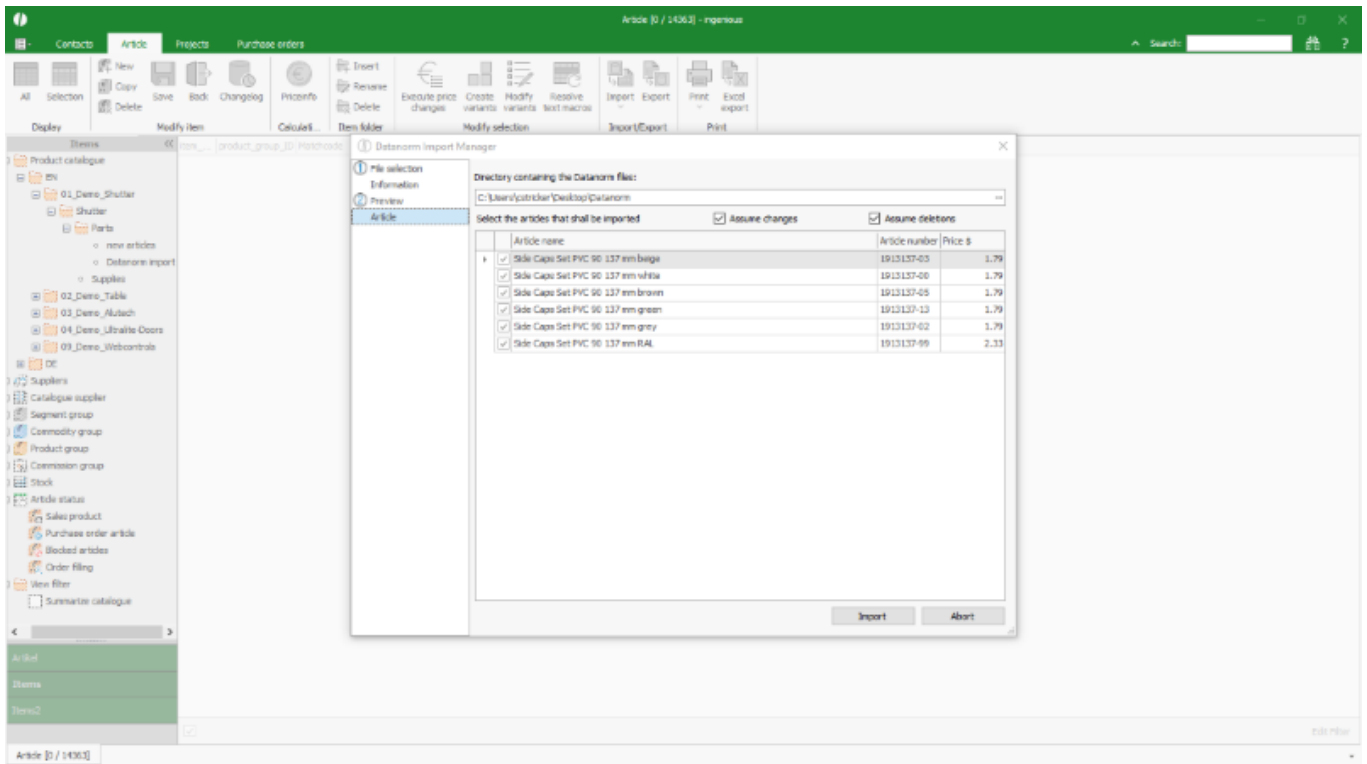
After click on button "Preview" first the master data of the supplier are displayed, that was read from the import file. For correct internal assignment the matchcode of the supplier is to be entered in that way as it is stored in the

ingenious database. If the supplier doesn't exist so far, it first needs to be created.



Afterwards the preview of the articles from the import file can be opened with click on "Article" in the navigation on the left side. All articles that have a check mark in the first column will be imported. There are 2 additional options:

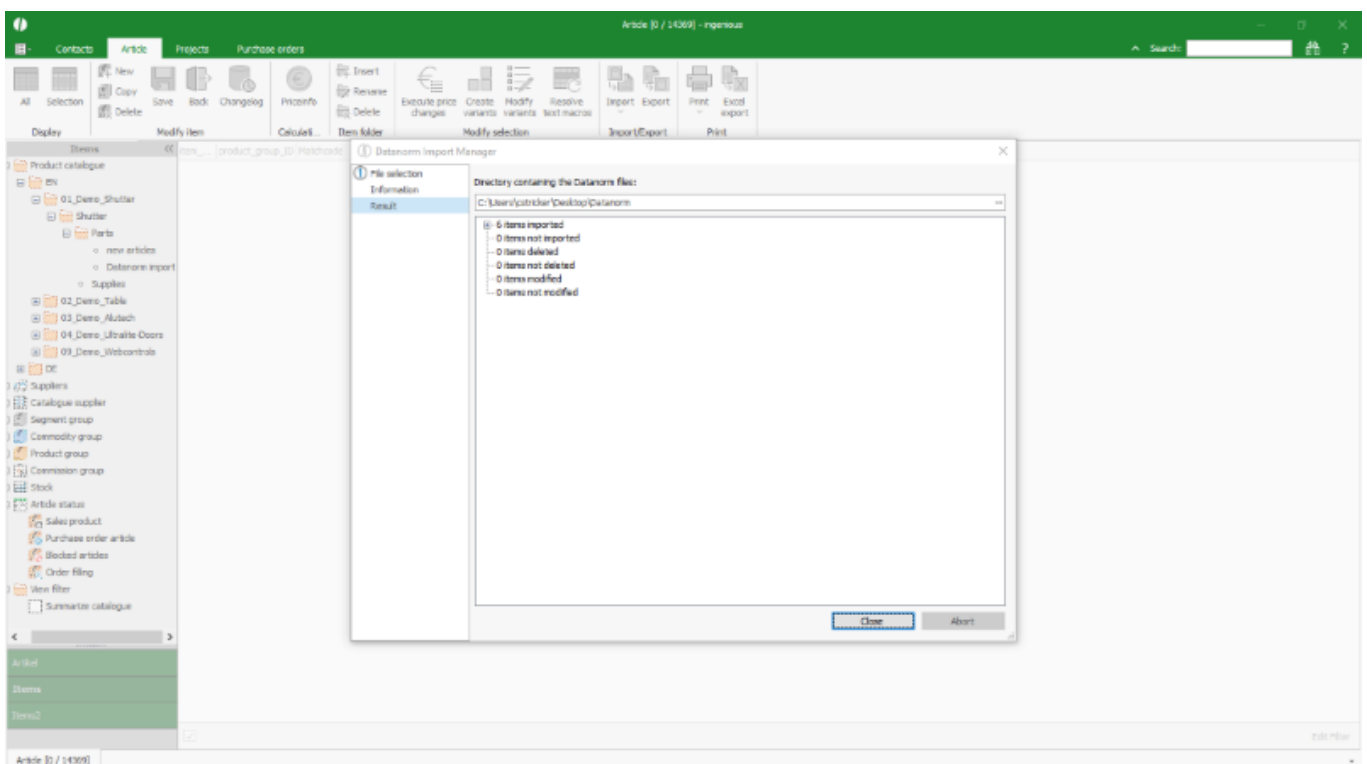
Assume changes	Not only new articles will be imported but also those that are changed by the supplier. Attention: If you first have made changes to the article in your database, these changes will be overwritten with those details that will be imported now.
Assume deletions	If the supplier has marked single articles for deletion, those articles will also be deleted from the ingenious database when the checkmark is set.



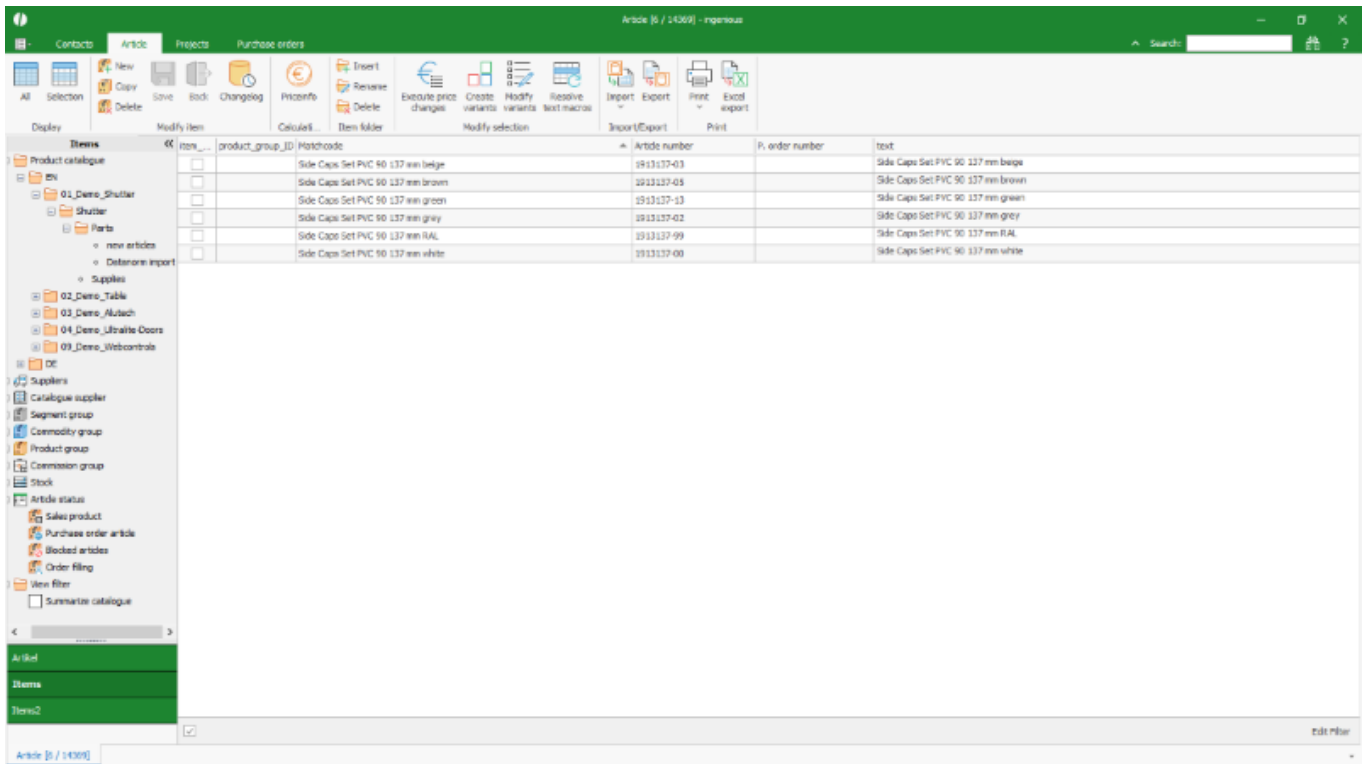
When all is configured right the import can be started with click on button "Import". A progress bar shows the status of the import.

Attention: Most import files contain many thousands articles. Such an import can take a long time.

After the import is finished a success message is shown.



After click on the Close button, the imported articles will be displayed.

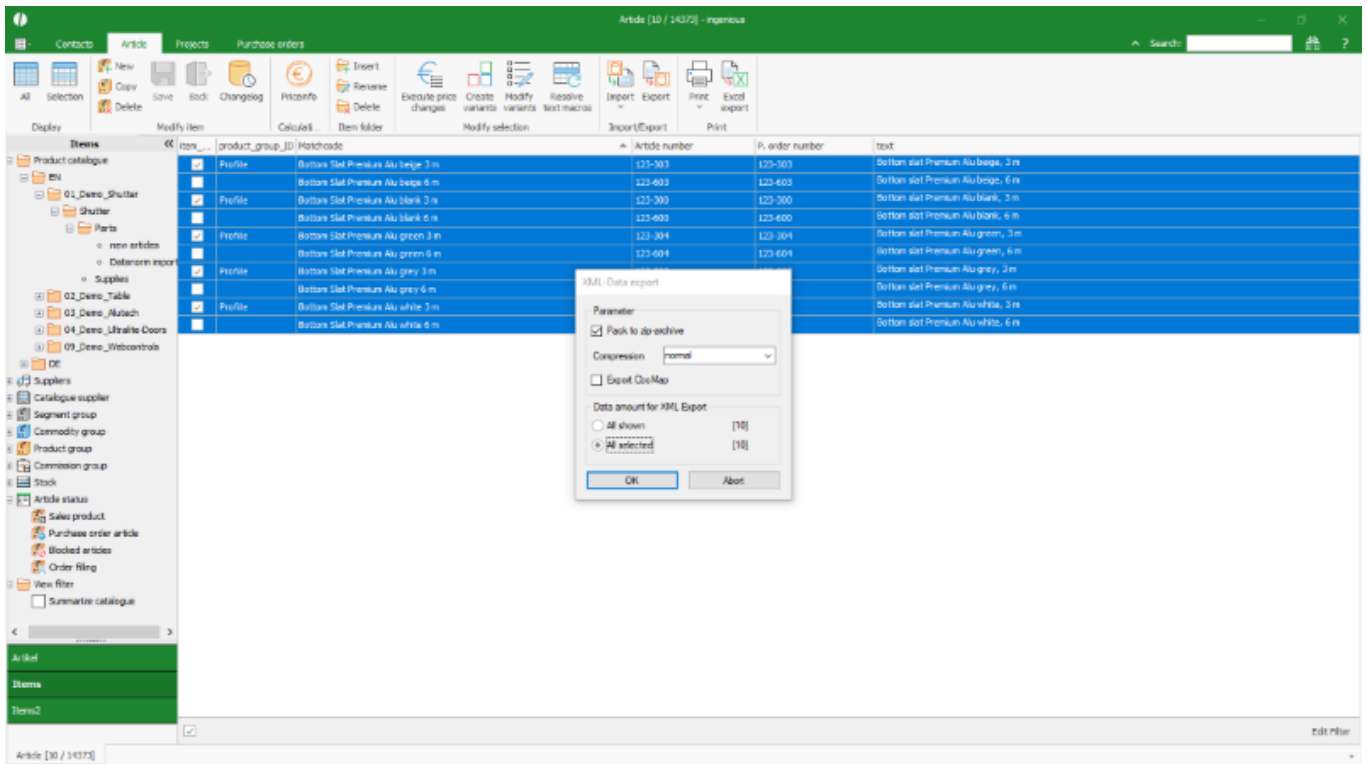


### 4.2.1.7 Article export

For the exchange between an ingenious test system and a productive system and for backup purposes an export in an own XML format is available. This export can also be used for the exchange to other systems, if the import of the other system is adjusted to the XML scheme of ingenious.

To start the export the needed articles need to be selected and the export button needs to be clicked .

The export set consists of various single files. It's recommended to pack them into a zip-archive. It can be chosen to compress or not. With the checkbox "Export cbo Map" also the contents of selection lists (e.g. product group,...) will be exported.

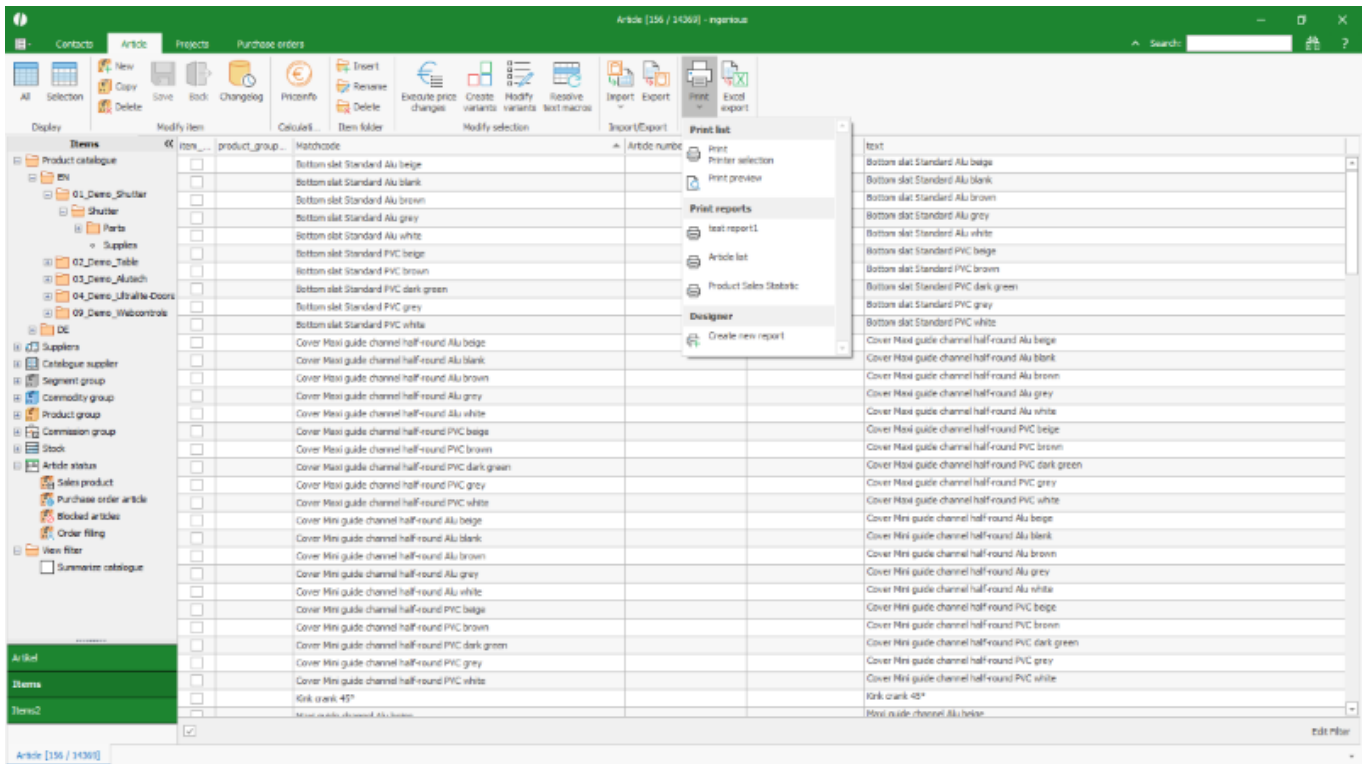


After confirmation with OK the Windows dialogue appears to save the file.

Then the export is executed.

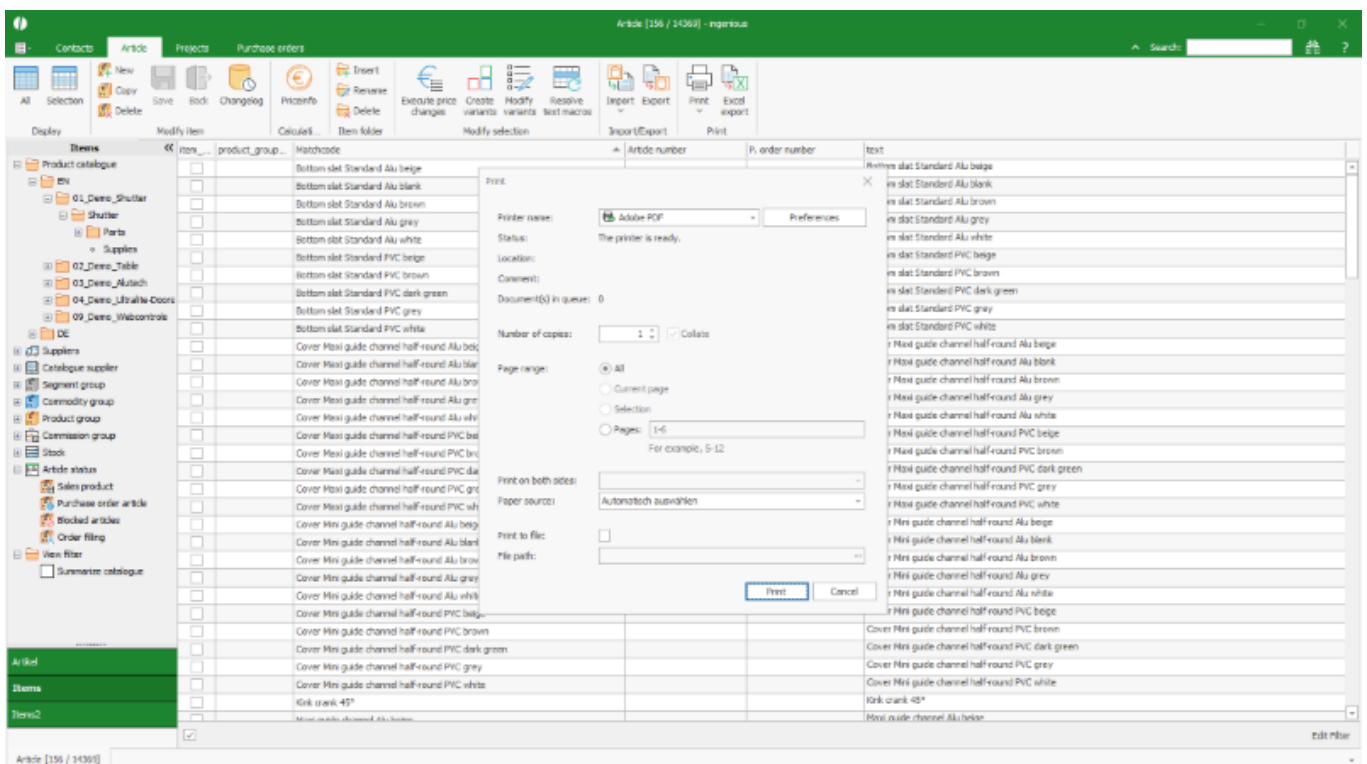
## 4.2.1.8 Printing article lists

In the article list view divers possibilities for printing lists and reports of articles are provided.



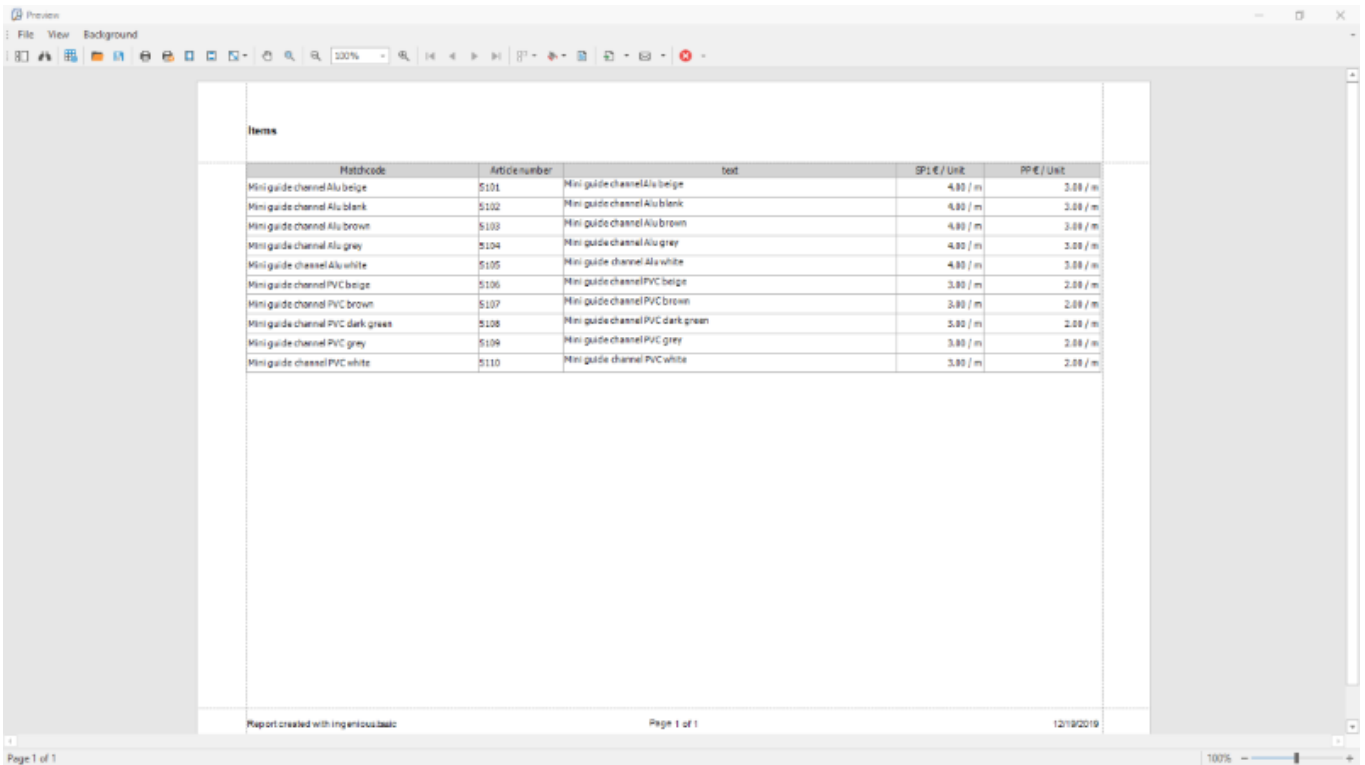
## 1. Print

With click on the menu entry "Print" the displayed article list will be printed with all visible columns with the shown sorting. With the appearing standard Windows print dialogue the needed printer can be chosen and print options can be configured depending on the printer.



## 2. Print preview

With the print preview the article list can be printed with first showing a preview on a document. Additional settings can be made here, e.g. changes of the header and footer, immediate print or printer selection,...



The screenshot shows a print preview window titled 'Preview'. The main content is a table with the following data:

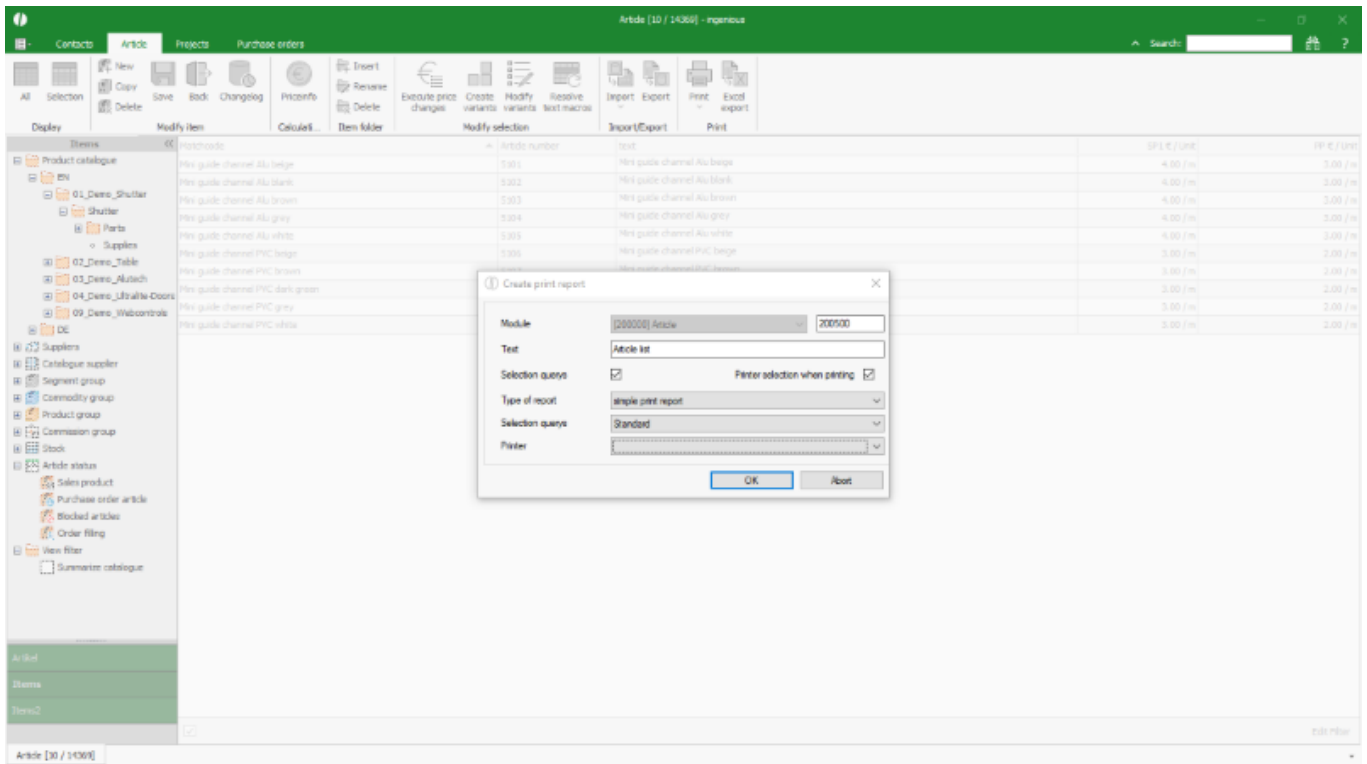
Matchcode	Article number	Description	SP / Unit	PP / Unit
Mini guide channel Alu beige	S101	Mini guide channel Alu beige	4,00 / m	3,00 / m
Mini guide channel Alu blank	S102	Mini guide channel Alu blank	4,00 / m	3,00 / m
Mini guide channel Alu brown	S103	Mini guide channel Alu brown	4,00 / m	3,00 / m
Mini guide channel Alu grey	S104	Mini guide channel Alu grey	4,00 / m	3,00 / m
Mini guide channel Alu white	S105	Mini guide channel Alu white	4,00 / m	3,00 / m
Mini guide channel PVC beige	S106	Mini guide channel PVC beige	3,00 / m	2,00 / m
Mini guide channel PVC brown	S107	Mini guide channel PVC brown	3,00 / m	2,00 / m
Mini guide channel PVC dark green	S108	Mini guide channel PVC dark green	3,00 / m	2,00 / m
Mini guide channel PVC grey	S109	Mini guide channel PVC grey	3,00 / m	2,00 / m
Mini guide channel PVC white	S110	Mini guide channel PVC white	3,00 / m	2,00 / m

At the bottom of the preview window, the following text is visible: 'Report created with ingenious basic', 'Page 1 of 1', and '12/19/2019'. The status bar at the very bottom shows 'Page 1 of 1' and a zoom level of '100%'.

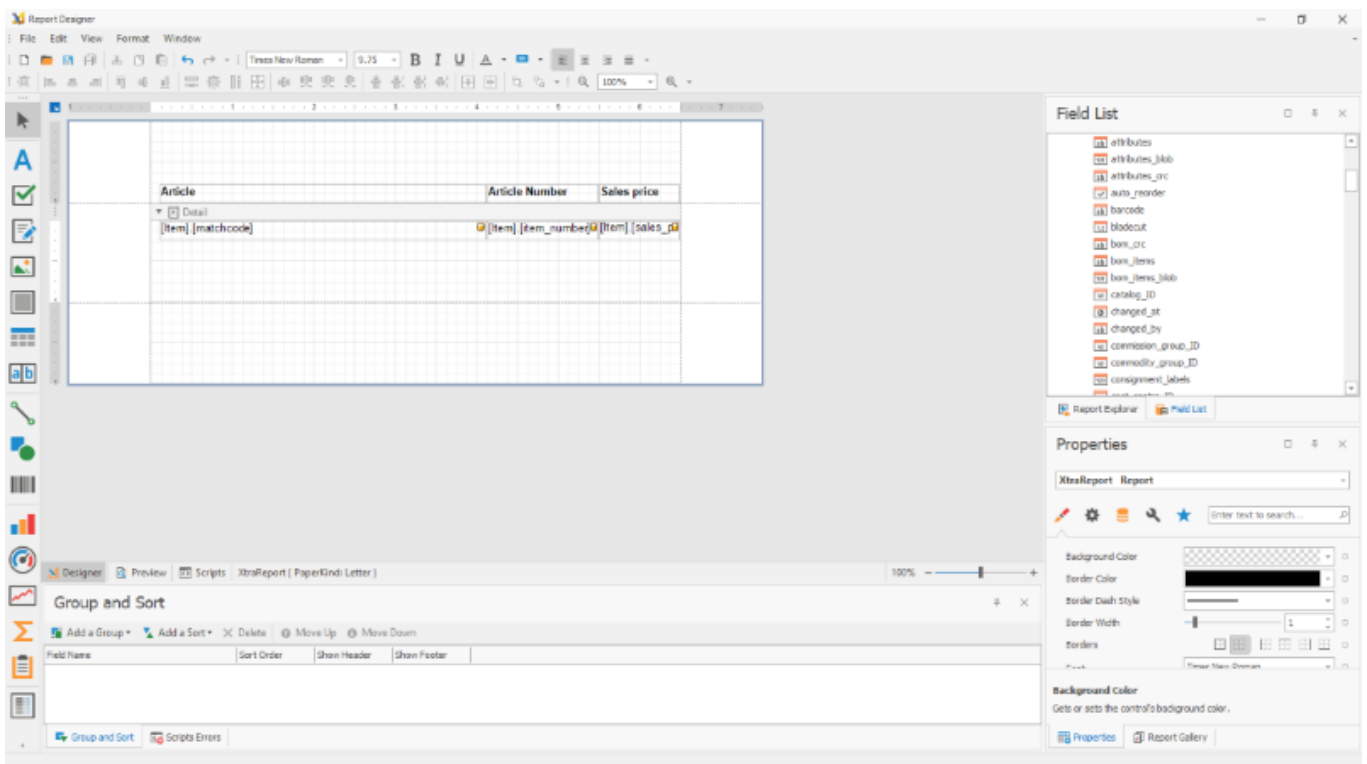
## 3. Create new report

Beside predefined print reports also individual analysis can be created and added. The report will be stored with an individual name and number in the global program settings. In the first step already presettings can be made, e.g. on which printer should the report be printed.





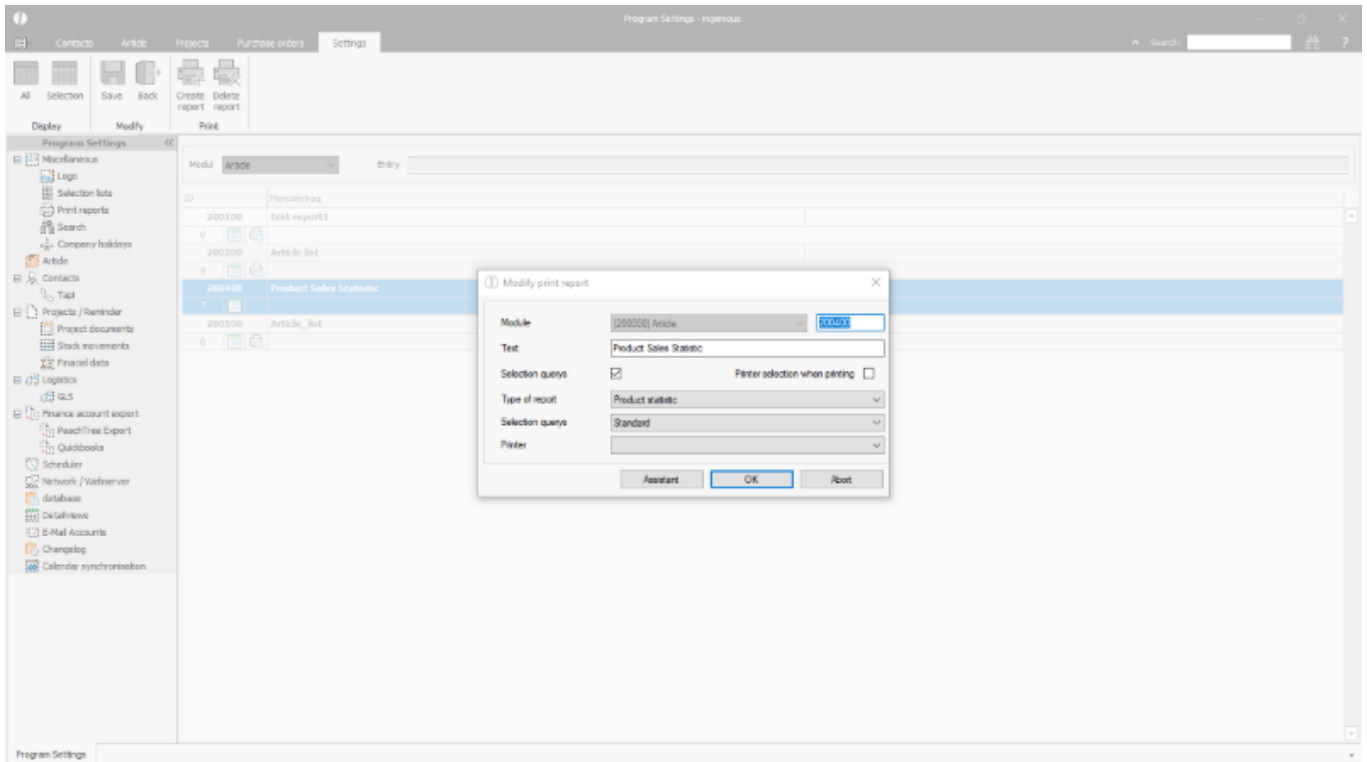
Afterwards the print report designer opens, where needed data can be placed on the editor by field selection. Also static texts can be added and queries can be made by scripts.



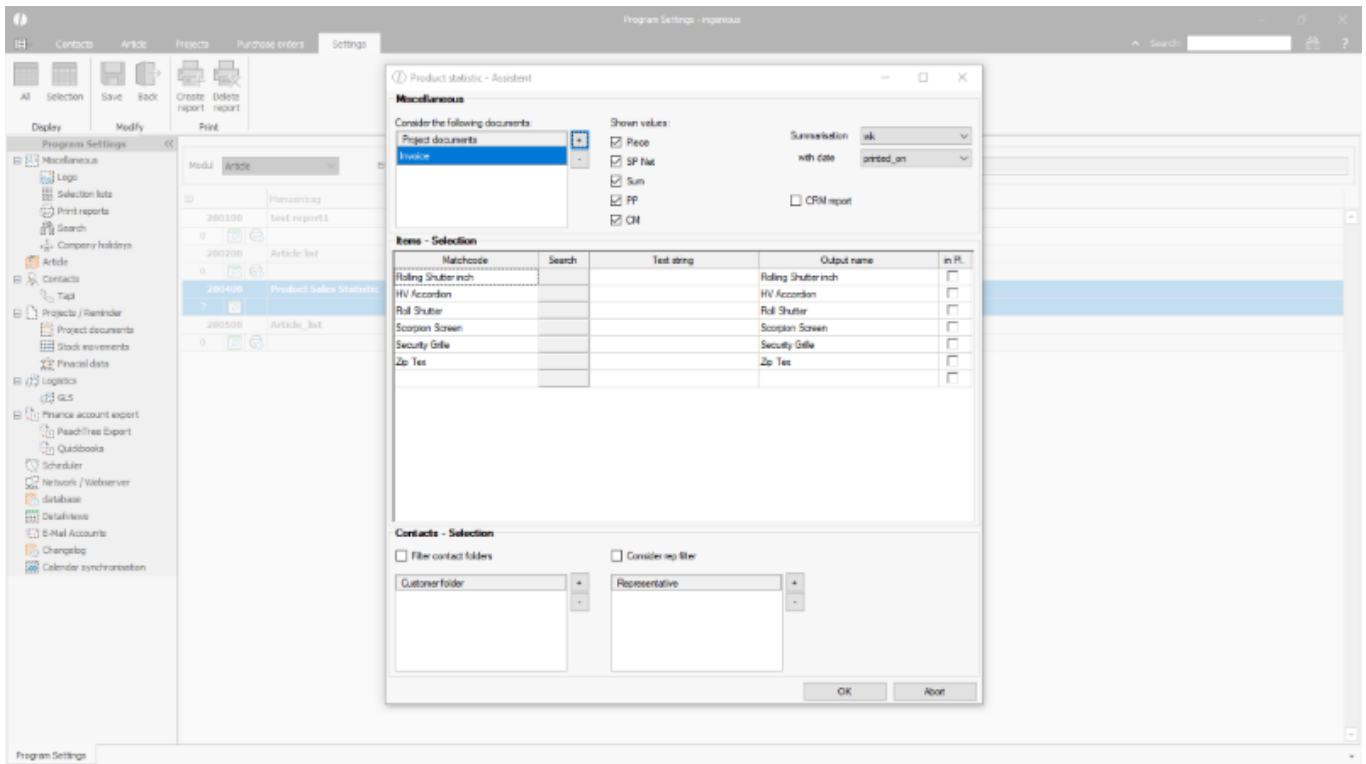
## 4.2.1.9 Product statistic

A product statistic makes a quick overview and a quick detailed analysis of one or several item over a certain time period possible.

Before that, a print report for the article statistic has to be defined in the program settings.



Through the assistant, the items to be viewed are selected and the project documents and values to be considered are defined.

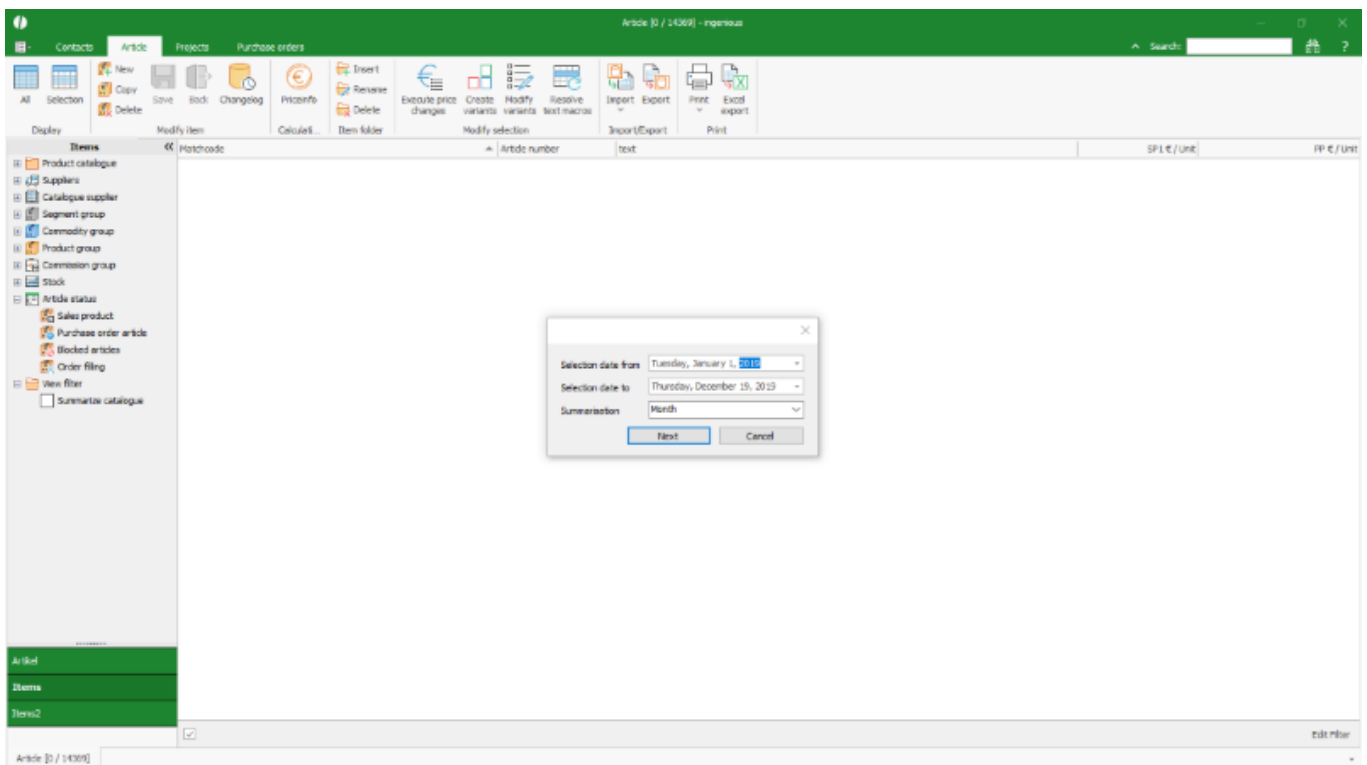


### Options of the product statistic:

Project documents	Selection of the project documents to be considered for the statistic.										
Displayed values	Selection of the values to be displayed in the statistic.										
	<table border="1"> <tr> <td>Piece</td> <td>Display of the piece number of the articles contained in the project documents</td> </tr> <tr> <td>SP net</td> <td>Display of the net sales price achieved in the project documents</td> </tr> <tr> <td>Sum</td> <td>Display of a sum</td> </tr> <tr> <td>PP</td> <td>Display of the purchase prices recorded in the project documents</td> </tr> <tr> <td>CM</td> <td>Display of the calculated contribution margin</td> </tr> </table>	Piece	Display of the piece number of the articles contained in the project documents	SP net	Display of the net sales price achieved in the project documents	Sum	Display of a sum	PP	Display of the purchase prices recorded in the project documents	CM	Display of the calculated contribution margin
	Piece	Display of the piece number of the articles contained in the project documents									
	SP net	Display of the net sales price achieved in the project documents									
	Sum	Display of a sum									
	PP	Display of the purchase prices recorded in the project documents									
CM	Display of the calculated contribution margin										
Summarization	Configuration, if it shall be consolidated in the report per calendar week, month or business year.										
with date	Selection, which project date shall be considered for the time period to be inquired.										
CRM report	If the check mark is set, the item statistics can be selected in the Contacts Detail View / CRM information and shows there the sales statistics for that one customer.										
Items-selection	Selection of the positions / articles, which shall be analyzed in the statistic. In the column matchcode, the matchcodes of the single articles have to be inserted. If several items shall be listed under a miscellaneous/combined										

	<p>name in the statistic, they can be inserted into a row one after another, divided by a semicolon. Via the column text string, the selection can be limited further, if, e.g. only the positions of an article shall be analyzed, which contain e.g. a certain color.</p> <p>In the column "output name" it is defined, which text shall appear for this row in the statistic.</p> <p>In the column "in PL" it is determined, if also items from part lists shall be considered in the statistic.</p>
Filter contact folder	A product statistic always considers all project documents of all customers. If the statistic shall be carried out only for a certain group of customers, this can be defined via the single customer folders.
Consider rep. filter	The customer circle to be analyzed can also be limited via the assigned representatives.

Via the print menu the article statistic is started. In the selection query, the time period to be analyzed and the density of the display values are determined.



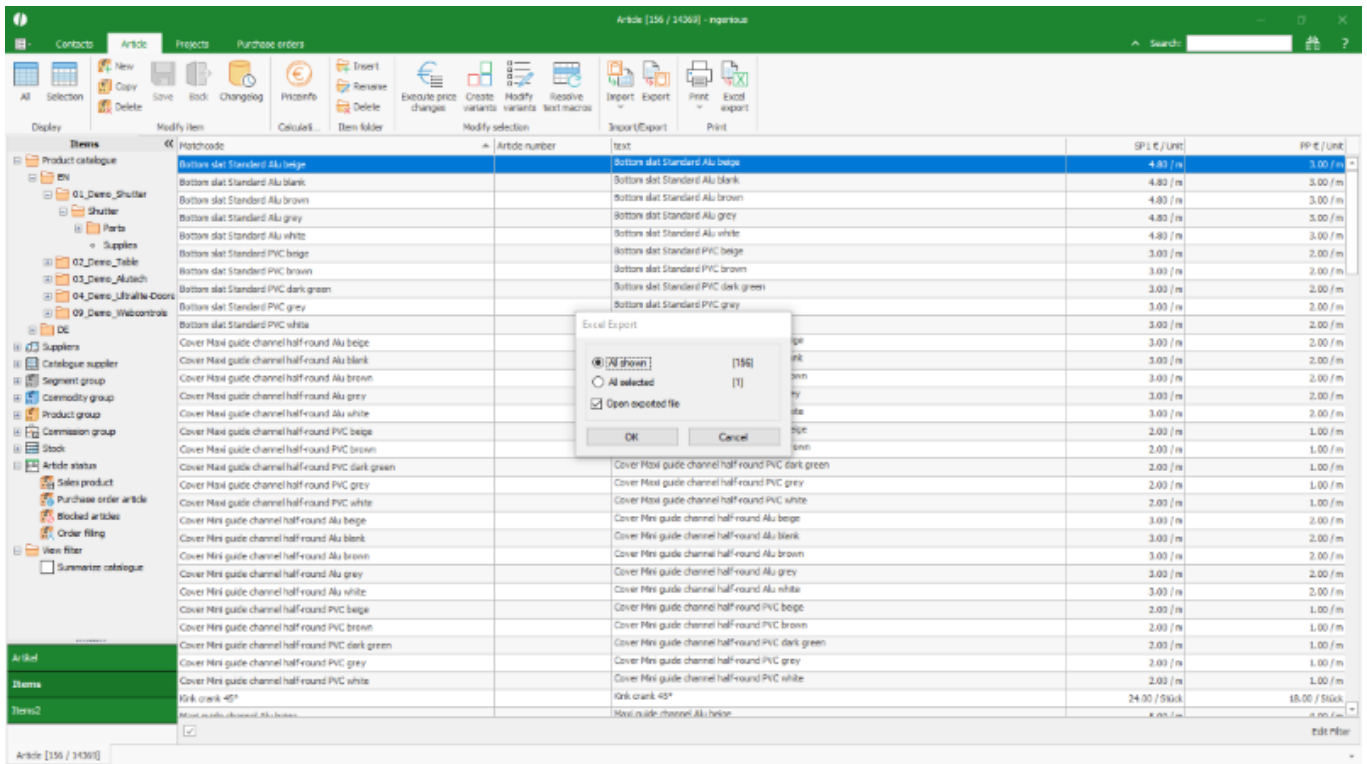
The created product statistic can be exported to Microsoft Excel or printed.

Item	01/2019	02/2019	03/2019	04/2019	05/2019	06/2019	07/2019	08/2019	09/2019	10/2019	11/2019	12/2019	Total result
<b>Rolling Shutter iron</b>													
Stück	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,00	0,00	1,00
Sum of units (qun)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	28,00	0,00	28,00
FK 1	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	593,58	0,00	593,58
VK 1	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	364,80	0,00	364,80
DB [%]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	62,54	0,00	62,54
<b>RV Accordion</b>													
Stück	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	5,00	5,00
Sum of units (qun)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	127,95	127,95
FK 1	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	810,00	810,00
VK 1	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2.894,00	2.894,00
DB [%]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	257,24	257,24
<b>Roll Shutter</b>													
Stück	0,00	1,00	0,00	0,00	4,00	0,00	0,00	0,00	0,00	0,00	4,00	0,00	17,00
Sum of units (qun)	0,00	38,67	0,00	0,00	160,00	0,00	0,00	0,00	0,00	0,00	178,06	303,06	640,78
FK 1	0,00	101,09	0,00	0,00	1.348,34	0,00	0,00	0,00	0,00	0,00	1.500,52	2.815,52	5.766,27
VK 1	0,00	1.683,00	0,00	0,00	8.649,16	0,00	0,00	0,00	0,00	0,00	7.550,78	15.036,22	32.919,16
DB [%]	0,00	1,564,85	0,00	0,00	541,47	0,00	0,00	0,00	0,00	0,00	403,08	433,97	470,89
<b>Scorpion Screen</b>													
Stück	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Sum of units (qun)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
FK 1	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
VK 1	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
DB [%]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
<b>Security grille</b>													
Stück	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Sum of units (qun)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
FK 1	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
VK 1	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
DB [%]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
<b>Zip Tex</b>													
Stück	0,00	1,00	0,00	0,00	0,00	0,00	0,00	0,00	7,00	0,00	1,00	0,00	9,00
Sum of units (qun)	0,00	24,98	0,00	0,00	0,00	0,00	0,00	0,00	204,17	0,00	26,17	0,00	258,22
FK 1	0,00	261,74	0,00	0,00	0,00	0,00	0,00	0,00	2.269,99	0,00	325,18	0,00	2.856,91
VK 1	0,00	1.674,03	0,00	0,00	0,00	0,00	0,00	0,00	7.706,75	0,00	1.101,39	0,00	9.882,17
DB [%]	0,00	310,34	0,00	0,00	0,00	0,00	0,00	0,00	236,64	0,00	238,73	0,00	246,01

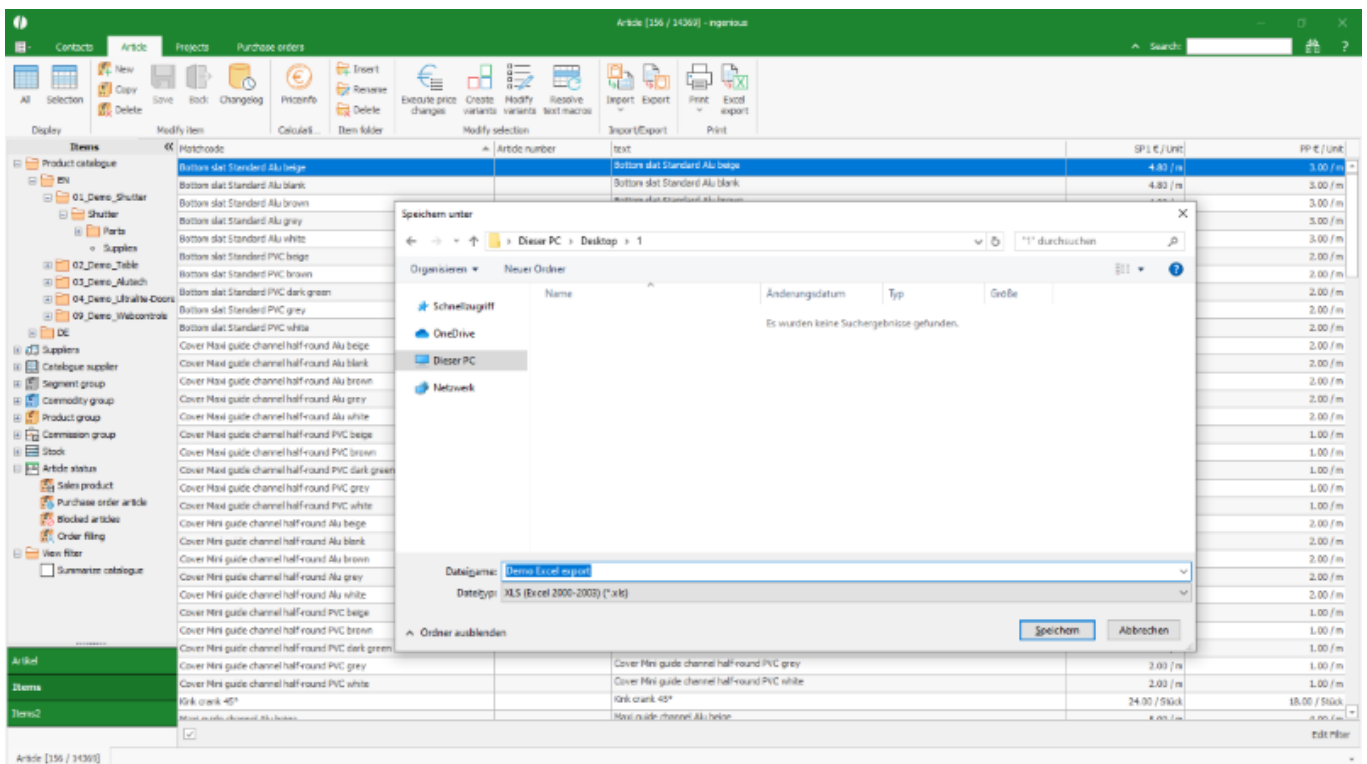
## 4.2.1.10 Articles Excel export

With the Articles Excel export article lists can be stored as an Excel file with all displayed columns for further modification.

In the export dialogue settings has to be made to determine which articles should be exported (all shown or all selected) and whether the exported file should directly be opened or not.



The Windows standard dialogue for saving a file opens where directory has to be selected and the name of the file has to be entered.



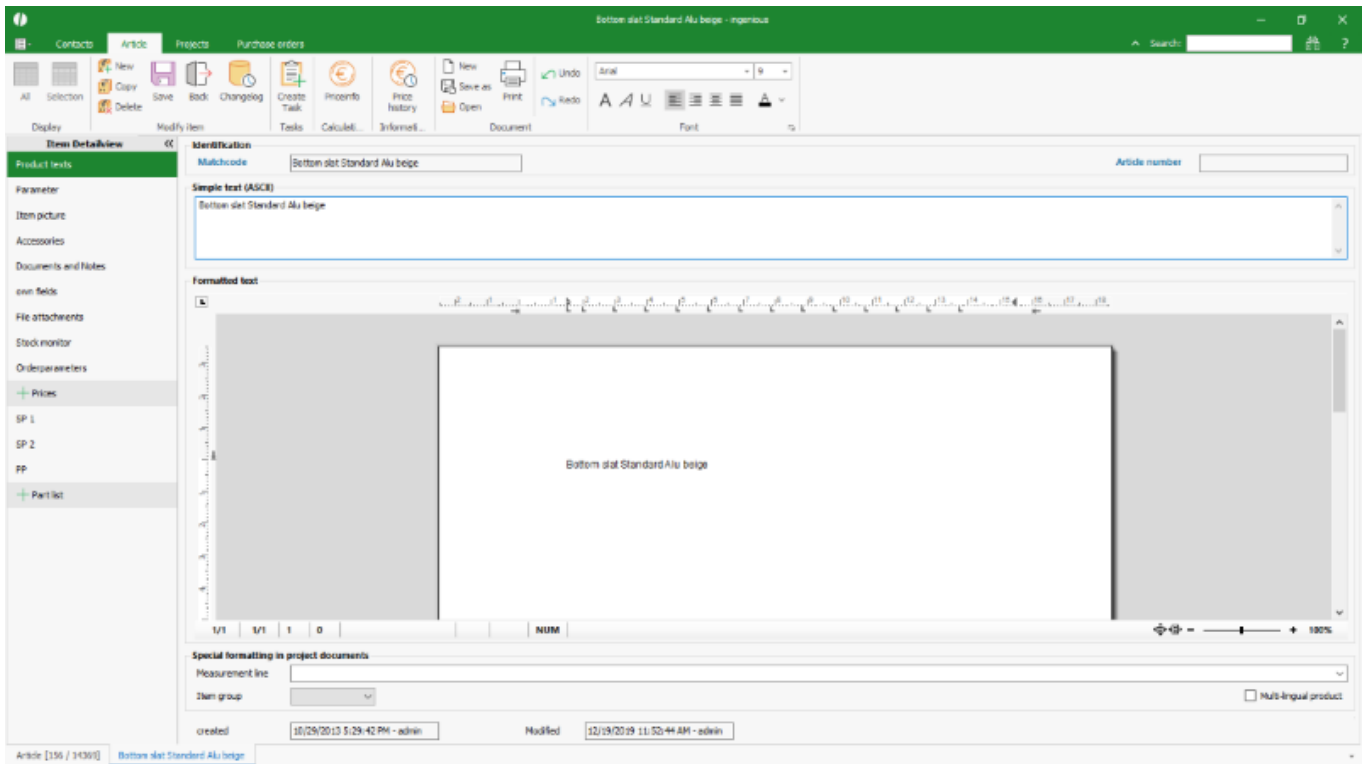
Depending on the settings the exported file will be opened.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	Matchcode	Article number	Text	SP # / Unit	PP # / Unit												
2	Bottom slot Standard Alu beige		Bottom slot Standard Alu beige	4,80 / m	3,00 / m												
3	Bottom slot Standard Alu blank		Bottom slot Standard Alu blank	4,80 / m	3,00 / m												
4	Bottom slot Standard Alu brown		Bottom slot Standard Alu brown	4,80 / m	3,00 / m												
5	Bottom slot Standard Alu grey		Bottom slot Standard Alu grey	4,80 / m	3,00 / m												
6	Bottom slot Standard Alu white		Bottom slot Standard Alu white	4,80 / m	3,00 / m												
7	Bottom slot Standard PVC beige		Bottom slot Standard PVC beige	3,00 / m	2,00 / m												
8	Bottom slot Standard PVC brown		Bottom slot Standard PVC brown	3,00 / m	2,00 / m												
9	Bottom slot Standard PVC dark green		Bottom slot Standard PVC dark green	3,00 / m	2,00 / m												
10	Bottom slot Standard PVC grey		Bottom slot Standard PVC grey	3,00 / m	2,00 / m												
11	Bottom slot Standard PVC white		Bottom slot Standard PVC white	3,00 / m	2,00 / m												
12	Cover Maxi guide channel half-round Alu beige		Cover Maxi guide channel half-round Alu beige	3,00 / m	2,00 / m												
13	Cover Maxi guide channel half-round Alu blank		Cover Maxi guide channel half-round Alu blank	3,00 / m	2,00 / m												
14	Cover Maxi guide channel half-round Alu brown		Cover Maxi guide channel half-round Alu brown	3,00 / m	2,00 / m												
15	Cover Maxi guide channel half-round Alu grey		Cover Maxi guide channel half-round Alu grey	3,00 / m	2,00 / m												
16	Cover Maxi guide channel half-round Alu white		Cover Maxi guide channel half-round Alu white	3,00 / m	2,00 / m												
17	Cover Maxi guide channel half-round PVC beige		Cover Maxi guide channel half-round PVC beige	2,00 / m	1,00 / m												
18	Cover Maxi guide channel half-round PVC brown		Cover Maxi guide channel half-round PVC brown	2,00 / m	1,00 / m												
19	Cover Maxi guide channel half-round PVC dark green		Cover Maxi guide channel half-round PVC dark green	2,00 / m	1,00 / m												
20	Cover Maxi guide channel half-round PVC grey		Cover Maxi guide channel half-round PVC grey	2,00 / m	1,00 / m												
21	Cover Maxi guide channel half-round PVC white		Cover Maxi guide channel half-round PVC white	2,00 / m	1,00 / m												
22	Cover Mini guide channel half-round Alu beige		Cover Mini guide channel half-round Alu beige	3,00 / m	2,00 / m												
23	Cover Mini guide channel half-round Alu blank		Cover Mini guide channel half-round Alu blank	3,00 / m	2,00 / m												
24	Cover Mini guide channel half-round Alu brown		Cover Mini guide channel half-round Alu brown	3,00 / m	2,00 / m												
25	Cover Mini guide channel half-round Alu grey		Cover Mini guide channel half-round Alu grey	3,00 / m	2,00 / m												
26	Cover Mini guide channel half-round Alu white		Cover Mini guide channel half-round Alu white	3,00 / m	2,00 / m												
27	Cover Mini guide channel half-round PVC beige		Cover Mini guide channel half-round PVC beige	2,00 / m	1,00 / m												
28	Cover Mini guide channel half-round PVC brown		Cover Mini guide channel half-round PVC brown	2,00 / m	1,00 / m												

## 4.2.2 Article detail view

### 4.2.2.1 The articles detail view

The articles detail view contains all details of a single article. The form is divided into the navigation /selection area and the data area.



The following functions are provided in the ribbon bar of articles detail view:

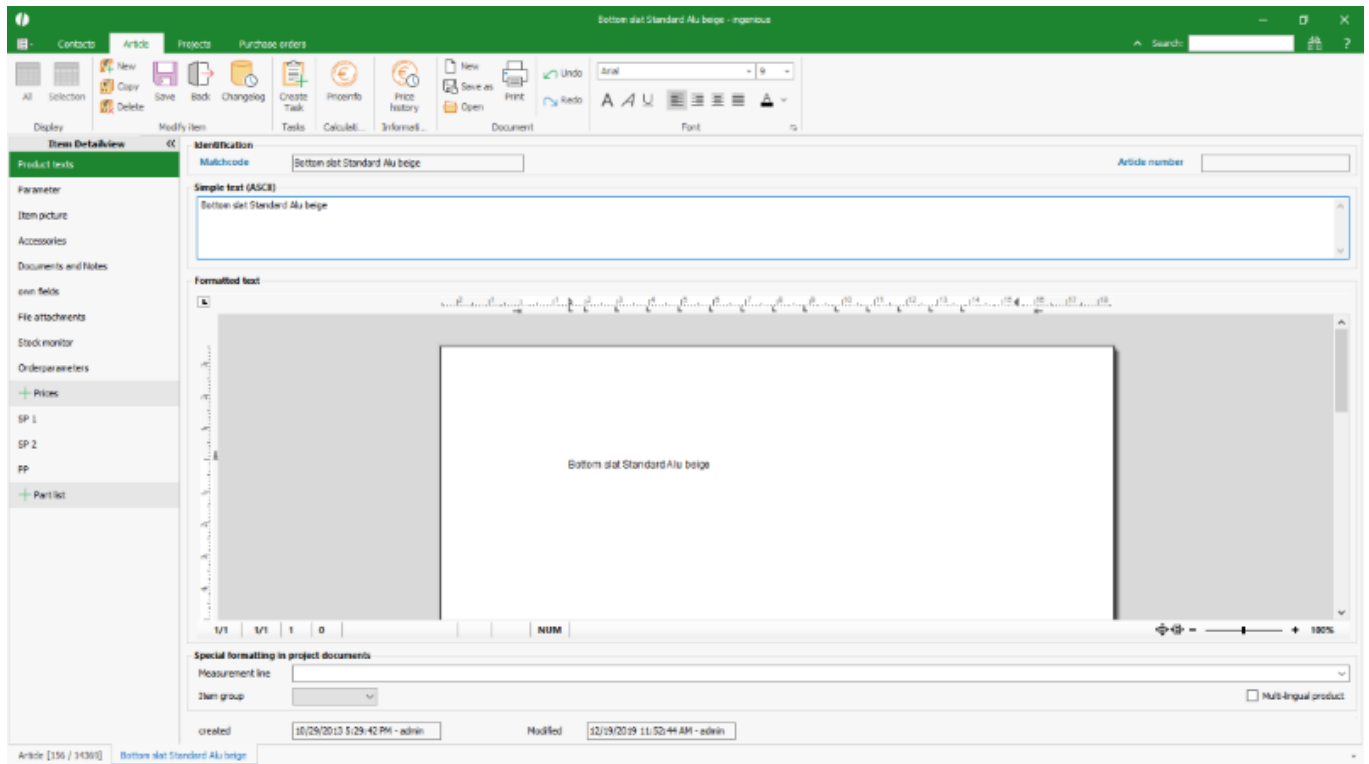
	Create a new article.
	Duplicate the marked article.
	Delete the marked article/s.
	Save the changes of the article.
	Close the detail view of the article.
	Open the changelog for administrators (user right required)
	Create a new task that is linked to the article.
	Open the price info of the marked article.
	Show the price history of the opened article.



### 4.2.2.2 Article texts

The article detail view starts with article texts. The following fields are provided:

Matchcode	Protected input field	The matchcode is a clear short name of the article for quick search and assignment. The matchcode of a article has to be unique.
Article number	Protected input field	The article number can be any alphanumeric string or a unique number. An automatic counter for the article number can be activated in the global settings.
Simple text (ASCII)	Simple multiline input field	The simple text serves as short description of the article for usage in reports, in list views and others.
Formatted Text	Multiline input field with editor	The formatted text is the description of the article as it should be printed in project documents (like quotes, invoices,...). The text can be freely formatted and will be taken over to the project document as it is.
Measurement line	Selection list	The measurement line contains details of the measures of the article. When this measurement line is used in project documents, it can be defined which details are shown in which order. The content of the measurement line is to be configured in the global program settings. Individual measurement lines can also be typed in directly here.
Item group	Selection list	With the item group an individual presentation of the project items on the documents can be defined. The content of the selection list for item group needs to be configured in the global program settings.
Multi-lingual product	Checkbox	no function



### 4.2.2.3 Multilingual article texts

For international companies, translations can be stored in the article texts via the "Multilingual article texts" module (license required).

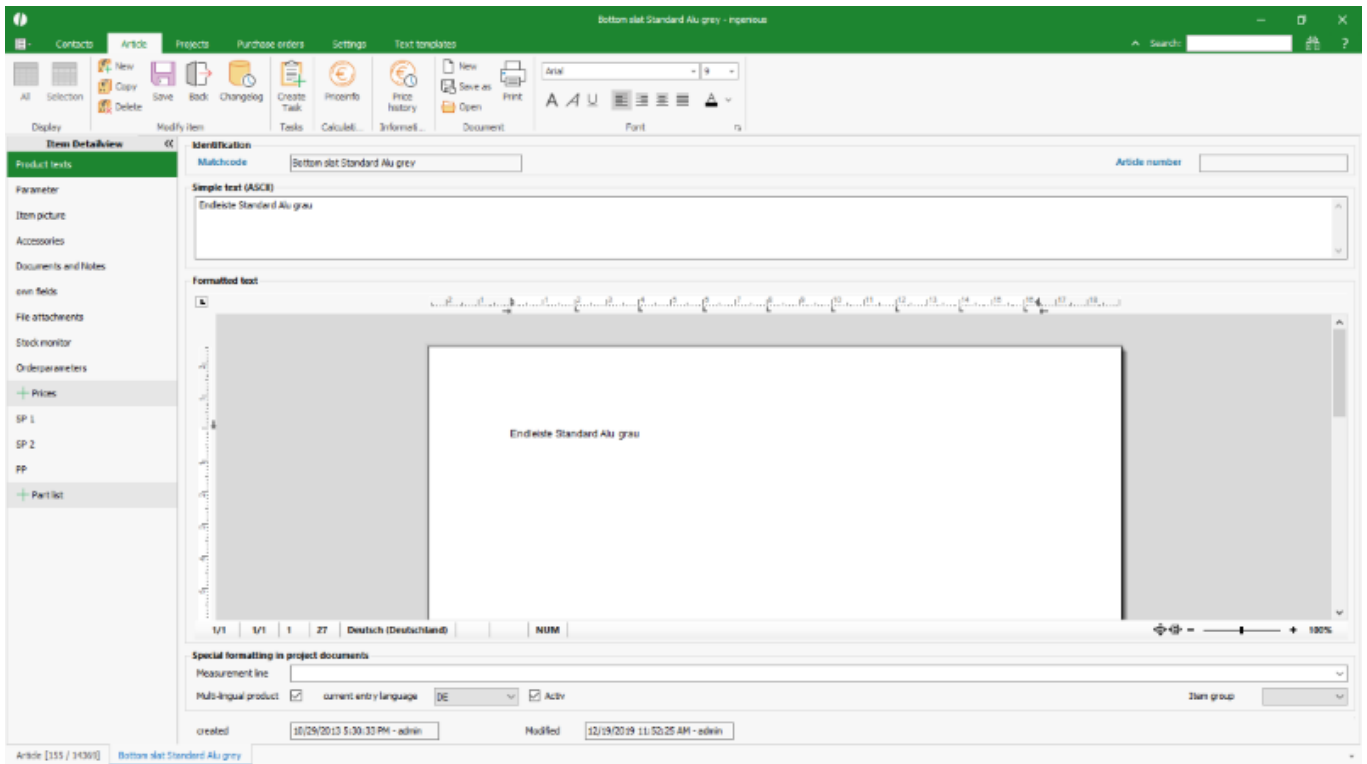
The languages German, English, French, Dutch, Slovenian, Czech and Polish are available for translations.

Any other language is possible on request.

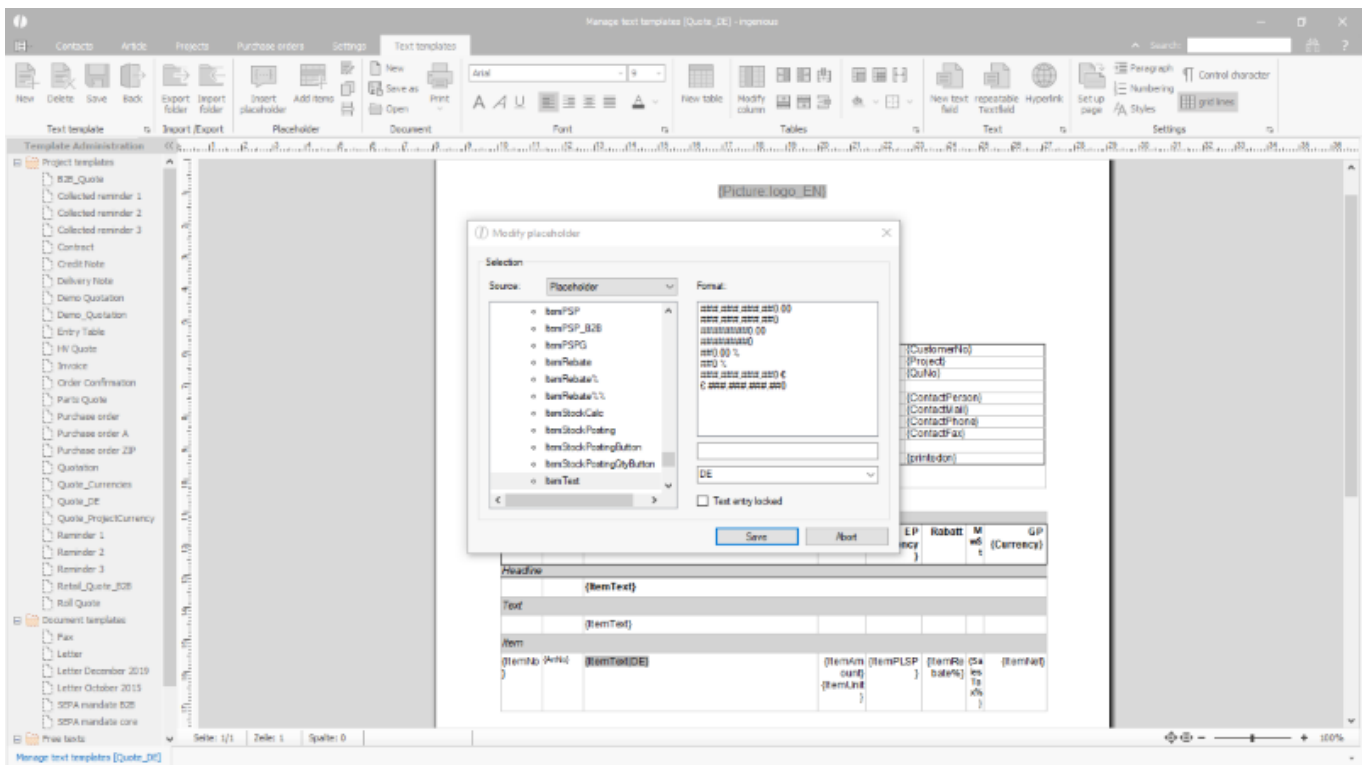
If the module license is available, the checkmark for "Multi-language article" can be set below the article texts in the "Special formatting in project documents" area and then the language to be entered can be selected.

The texts then entered in the simple and formatted texts are used as soon as the language is referenced.

The use of translation is also controlled via the "active" checkbox.



For use in the project documents, the language to be used for the placeholders must be set in the corresponding template.



Quotation Q2021010941 - ingenious

Projects detail view

Miscellaneous

Times

Price info

Documents and Notes

own fields

File attachments

Sample Company - Sample street 1245 - 12345 Sample town  
 John Doe  
 123 Anywhere Street  
 12345 Anytown

Delivery address:  
 John Doe  
 125 Anywhere Street  
 12345 Anytown

Quotation Q202101/0641

Betreff:

Dear Mr. Doe

Wir bieten Ihnen wie folgt an:

Pos.Nr.	Art.Nr.	Beschreibung	Menge	EP EUR	Robatz	M rd	GP EUR
001		Endseite Standard-A4u groß	1 m	4.80		10	4.80

created 1/8/2021 9:33:03 AM - admin Modified 1/8/2021 9:33:03 AM - admin Field info: PoText

Projects [1 / 341] Quotation Q202101/0941

Miscellaneous

Name Quotation  
 Number Q202101/0641  
 Komposition Transition  
 Printed on 1/8/2021  
 Contact Doe, John  
 Project template Quotation\_DE  
 Contact person Anton Admin  
 Representative Ronald Rich  
 Trip Wednesday  
 Project state  
 Project text  
 Notes

Item

Start type Article  
 auto\_number   
 Start no. 001  
 Matchcode Section der Standard  
 Article number  
 Quantity 1  
 Dimension 100  
 X cm 100.00  
 Weight 0.00  
 List price €4.80  
 Flat price €4.80  
 Unit price €4.80  
 Net price €4.80  
 VAT % 15 %  
 Gross price €5.71  
 SP conversion  
 Purchase price €3.00  
 PP conversion  
 Time 0 min  
 Rebate €0.00  
 Rebate % 0 %  
 Commission €0.00

## 4.2.2.4 Article parameter

Under navigation point "Parameter" details for grouping of an article are set.

Sales product	Checkbox	When the checkbox is set with check mark, the article can be used in sales documents (quote, invoice,...)
Purchase order article	Checkbox	When the checkbox is set with check mark, the article can be used in purchase order documents
Article disabled	Checkbox	When the checkbox is set with check mark, the article can't be used in any project document.
XML Supplier export	Checkbox	Yet without function
Labor item	Checkbox	Identification of whether the article in the positions of a project is to be assessed as work performance / labor costs. Labor costs can be summarized, for example, in invoices using the placeholders {NetLabor} and {GrossLabor}. For example, labor costs and materials can be shown separately on craftsman invoices to private individuals.
Item in part list	Selection list	Selection of the position of the article in the parts list. The available values can be defined yourself and created via the program settings / selection lists.
Item in packing list	Selection list	Selection of the position of the article in the packing list. The available values can be defined yourself and created via the program settings / selection lists.
Default measurement sheet	Selection list	Selection of a standard measurement sheet for this article. All created measurement sheets are available for selection.
Part list name	Simple input	To transfer a single article to the PPS. The entry must be identical to the part list item field configured for the PPS workstation

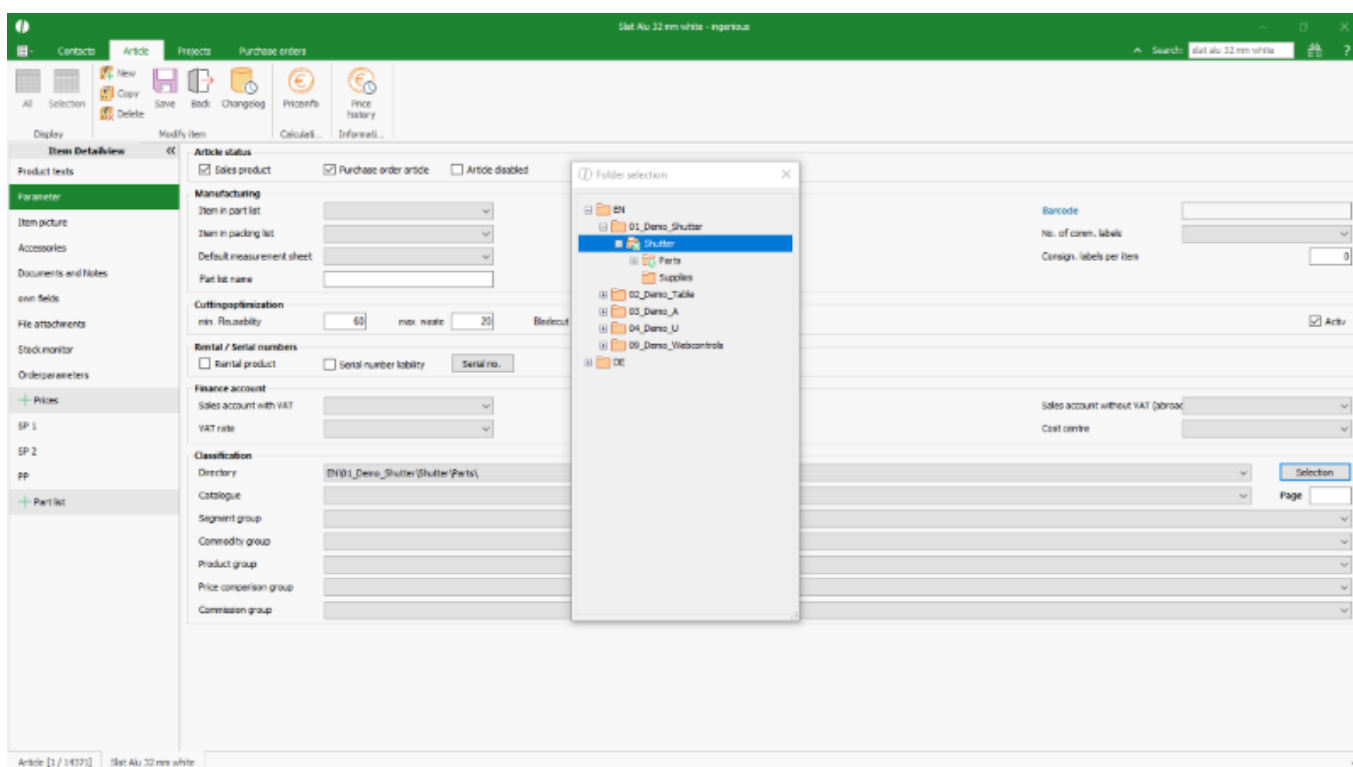
	field	
Barcode	Protected input field	Storage of a unique barcode for the identification of the article within various barcode-controlled processes such as inventory.
Number of commission labels	Selection list	How many commission labels should be printed: - according to the configuration in the program settings or - 1 label per position or - Number of labels = Number of items - Number of labels from product catalog (see next field) or - Number of labels from product catalog (see next field) * Item quantity
Commission labels per Position	simplp input field	Manually defined number of commission labels to be printed for the article (in conjunction with the "Number of labels from product catalog" and "Number of labels from product catalog * item quantity" options in the previous field).
min. Reusability	simple input field	Minimum size of an oddment that will go back to stock respectively will be reused; declaration in cm
max. waste	simple input field	Maximum size of an oddment that will not go back to stock, respectively will be depoluted; declaration in cm
Waste	simple input field	Loss of material throuh a cut of the material; declaration in cm
Length deduction	simple input field	Total measure of the material that is not usable, e.g. edge pieces; declaration in cm
Activ	Checkbox	The article will be calculated in the cutting optimization when it's activated here.
Sales account with VAT	Selection list	without function
Sales account without VAT (abroad)	Selection list	without function
VAT rate	Selection list	Here is to select which VAT rate is used for calculation of that article. Possible selection: full VAT rate, reduced VAT rate, no VAT. When no selection is made the full VAT rate is assumed. Within project documents articles with reduced and full VAT rate can be mixed.
Cost centre	Selection list	Selection of a cost centre, e.g. for usage in print reports
Directory	Selection list	Selection of the catalogue directory where the article should be found in list views.
Selection	Button	Articles can be sorted into different catalogue directory at once.
Catalogue	Selection list	Storage of a reference to a catalogue + page number

Segment group	Selection list	Sorting an article into the group with lowest degree.
Commodity group	Selection list	Sorting an article into a commodity group (middle rank)
Product group	Selection list	Sorting an article into a product group (first-rate)
Price comparison group	Selection list	without function
Commission group	Selection list	without function

### Multiple directory classification

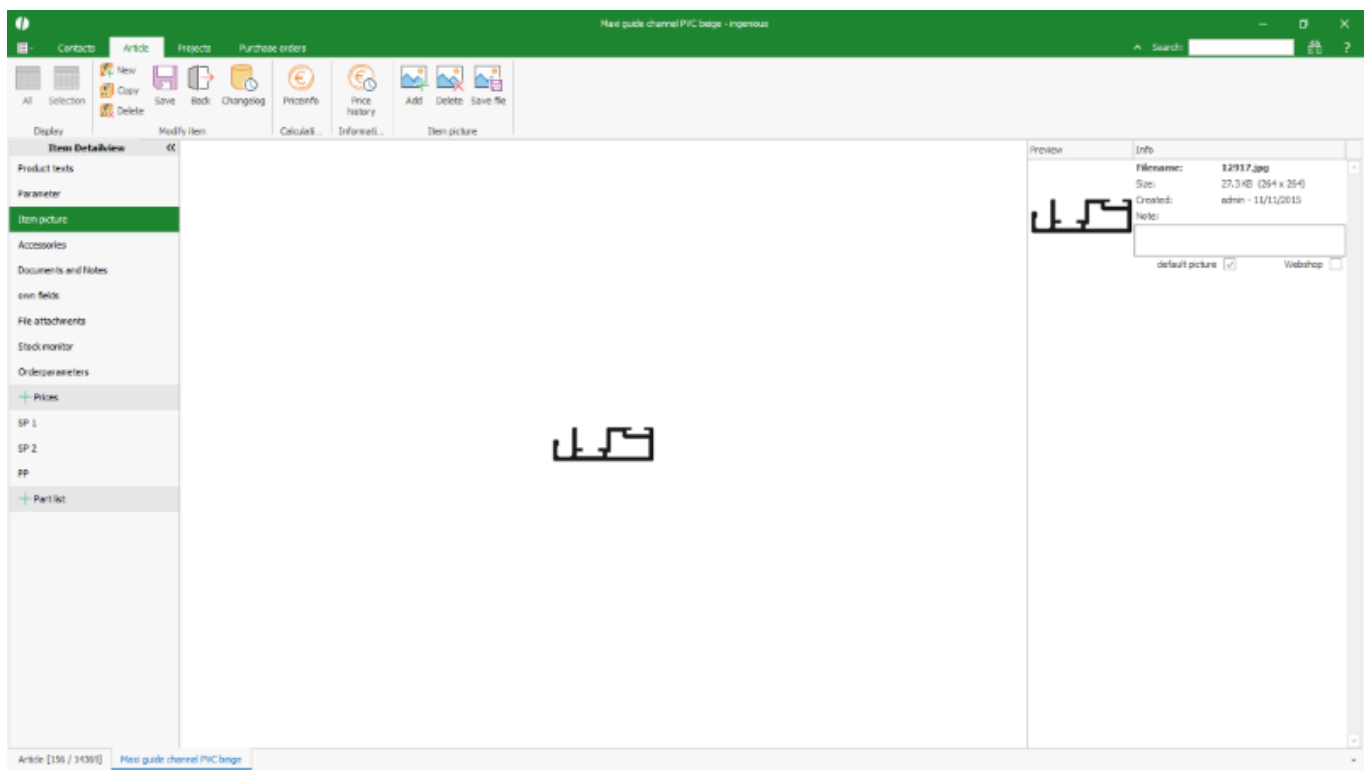
Articles can be assigned to diverse directories, e.g. when the article can be used for different groups. So an article can be displayed in different directories but without having duplicates of the article in the database.

With button "Selection" a directory tree opens. With double click of the single entry the article will be assigned/unassigned to that directory.



### 4.2.2.5 Item pictures

For each article / item various pictures can be stored. They can be used in individual print reports, on project documents, in article list views and more.






On the right side of the data area an overview of each stored picture of the article is shown with thumbnail and file info.

In project documents and list views the standard picture is used.

The picture preview in the centre shows the standard picture or that one that is selected on the right.

The administration of the pictures is done with the additional icons in the ribbon bar:

	Add a new picture. The Windows standard dialogue for opening a file appears.
	Deletes the selected picture
	Stores the selected picture from database link to an external directory (with standard Windows dialogue for saving a file)

### 4.2.2.6 Accessories

With navigation point "Accessories" articles can be linked for informative usage.

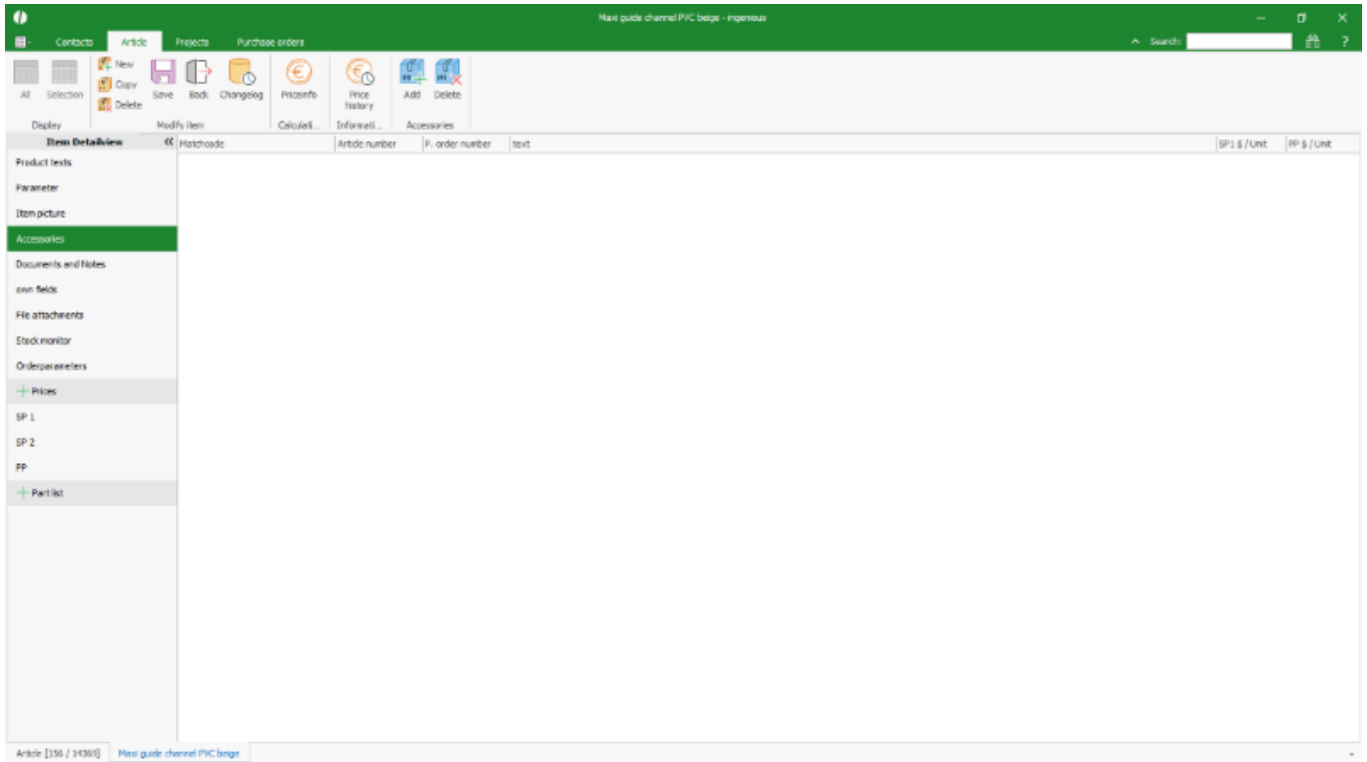
The following additional icons are provided in the ribbon bar:

	Add new accessories
---	---------------------

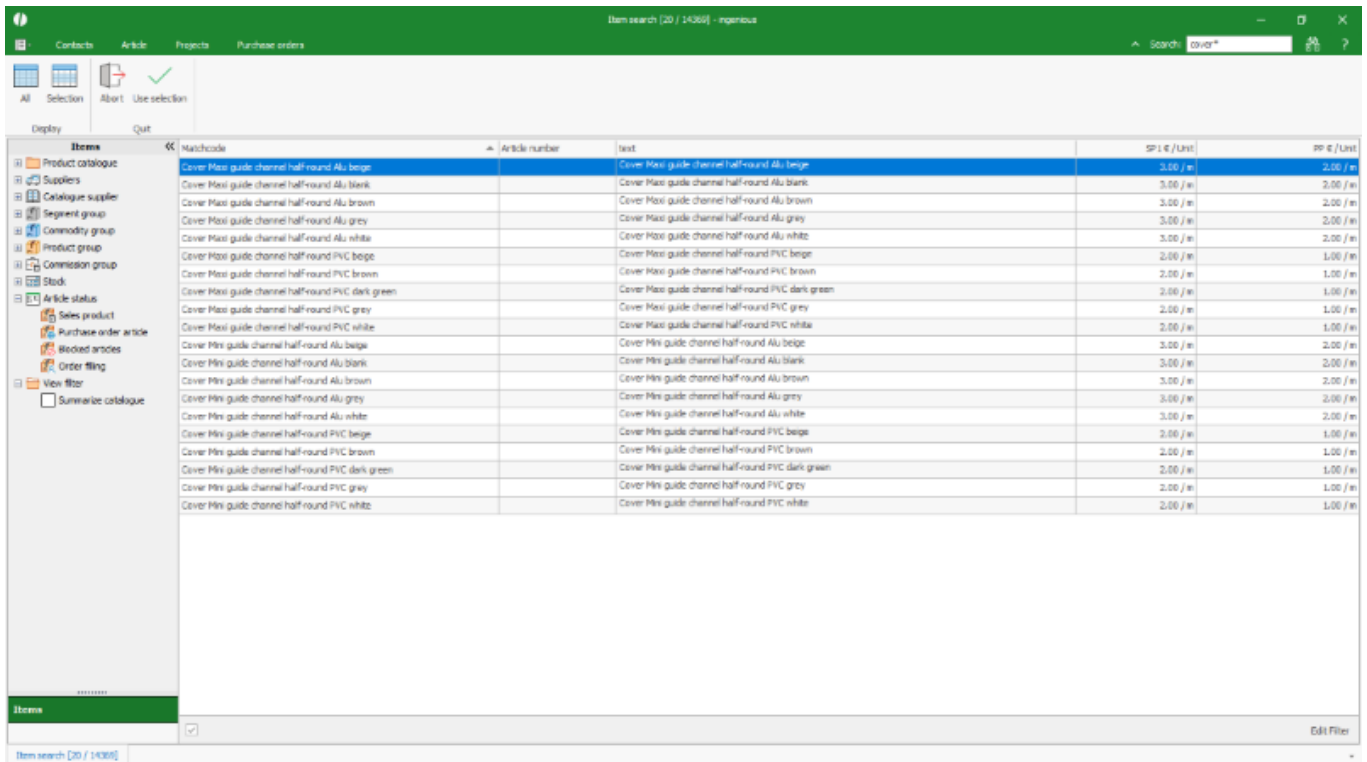





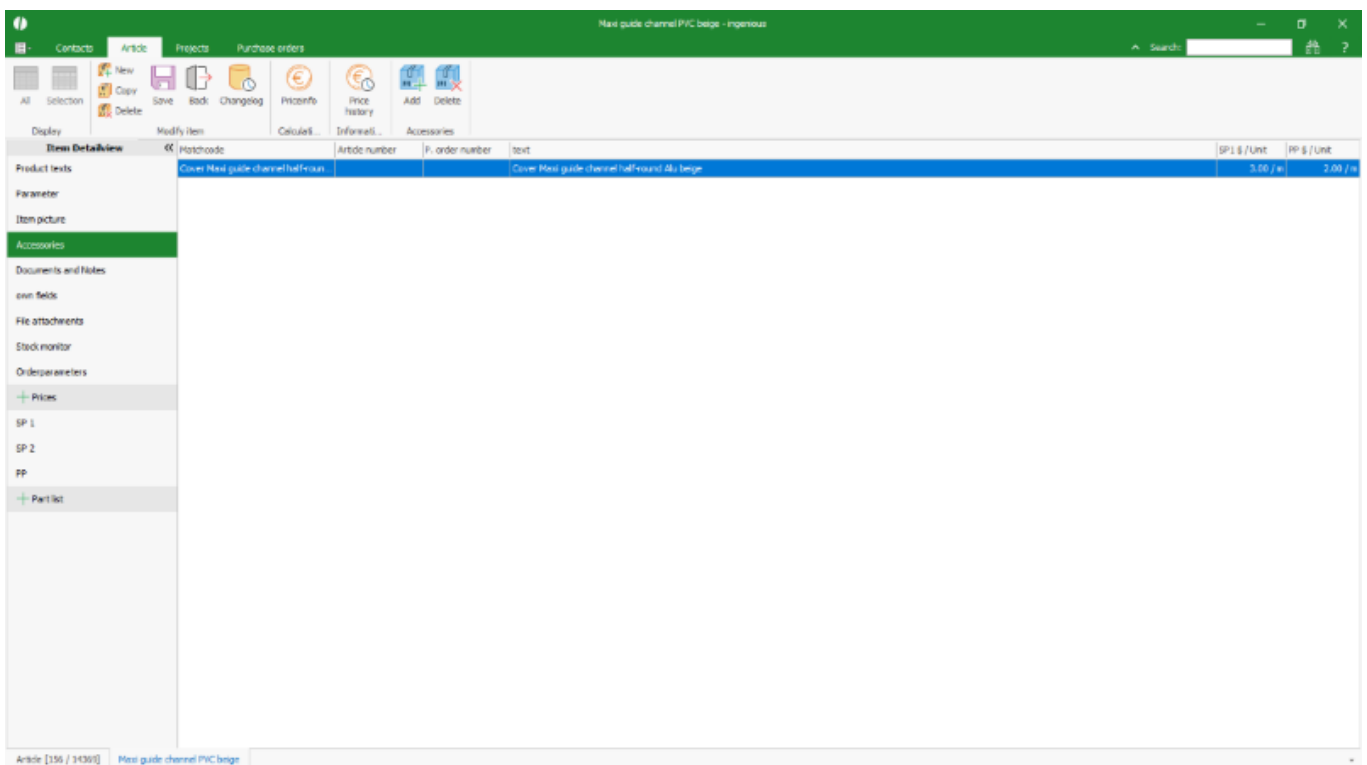
Delete the selected accessories



To add new accessories a list view of the articles is shown after click on "Add" button. Multiple articles can be selected with Shift or Ctrl + mouse click.





With button "Use selection"  the article/s will be added as accessories.



### 4.2.2.7 Documents and notes of the articles

In the documents and notes primarily general notes or letters and faxes with direct relation to one article are created and chronologically stored. In this navigation point the following additional functions are available:

	Add a new document / a new note
	Delete the selected document / the selected note

When creating a new entry a topic is entered that can be filled in the subject of letters and serves as identifier in the list view.

The entry can also be assigned to a category.

The categories can be created separately for document and note in the program settings.

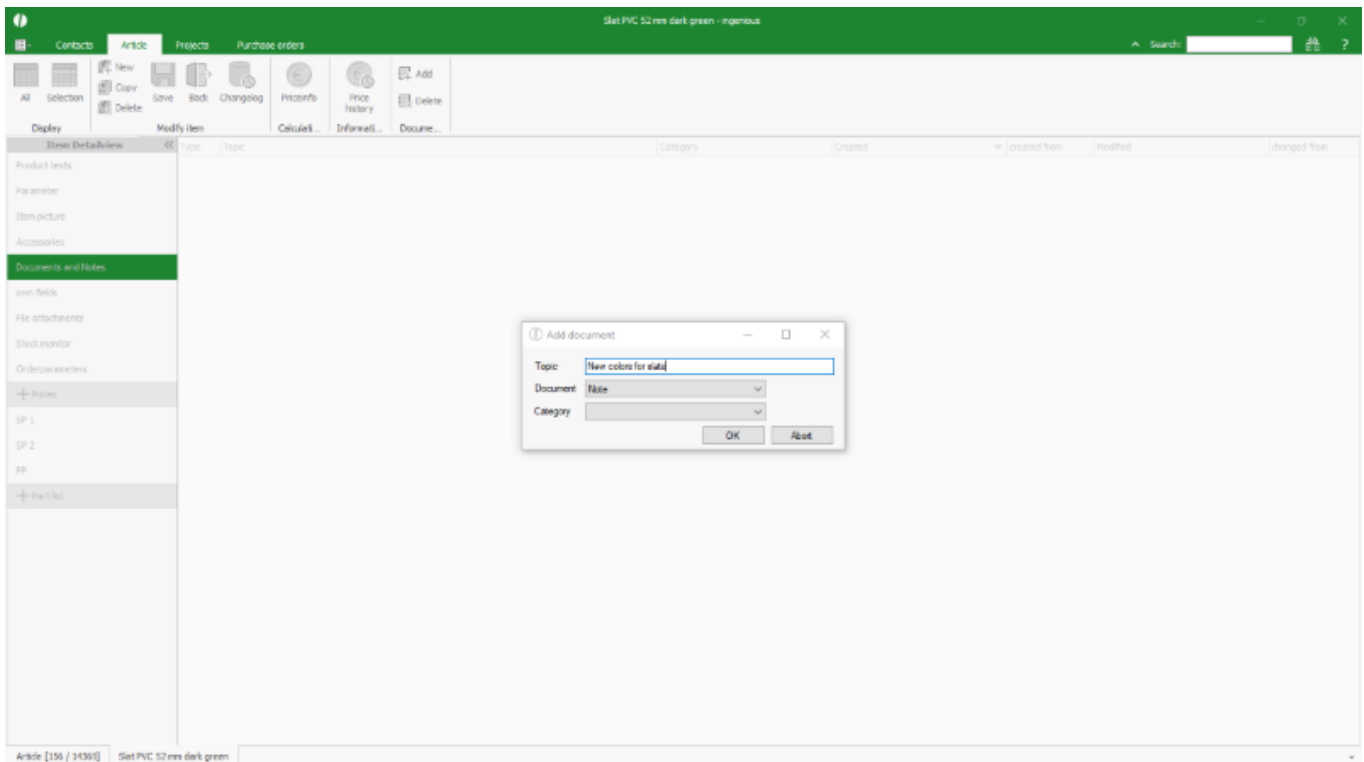
The following document types are available: Simple note, note, letter and fax.




A note is summarized as a title with a heading and further described in an additional text field.

The simple note, on the other hand, consists of a single text field, which is also the title.

For letter and fax an additional selection has to be made to choose a document template, that was created in the text template administration.

The different document types are labeled with corresponding icons in the list view.



	Note or simple note
	Letter
	Fax

When a new letter or fax is created or such a document is modified, additional functions for text editing and printing are available.

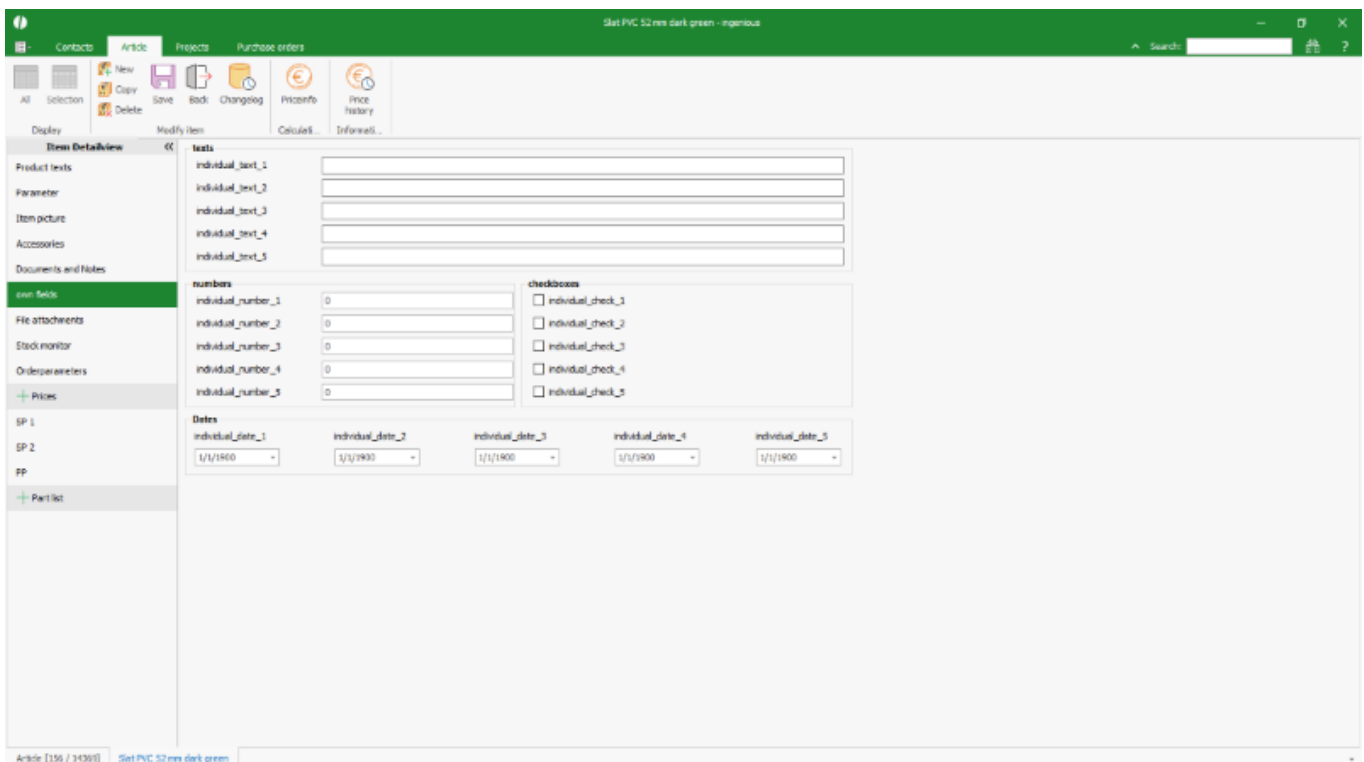
The list of documents and notes can be sorted, filtered and grouped (e.g. by category).

Simply click on a document or note to open it for viewing / editing.

By double-clicking in the Category column, the assignment to a category can be set or changed afterwards.

## 4.2.2.8 Own fields of articles

Own fields are individual text fields, numeric fields, date fields and checkboxes (5 of each), where additional information of each article can be saved. This could be a flag for a new item for example.

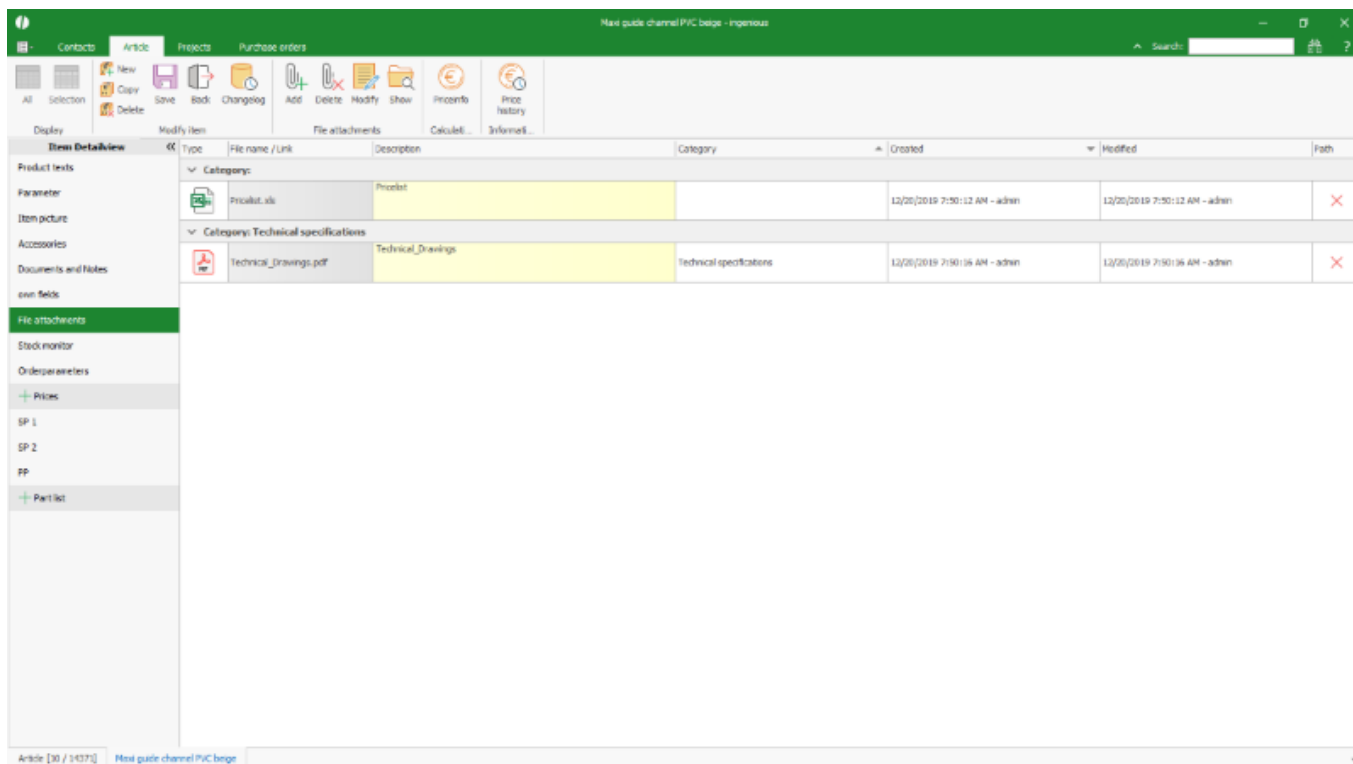


The labels of the individual fields can be renamed in the localization module.





The content of the fields can be printed it reports and can be displayed in articles list view.

### 4.2.2.9 File attachments of articles

In the file attachments additional materials can be added to an article, e.g. spec sheets, videos, audio files,...



For the administration of file attachments the following additional icons are provided in the ribbon bar:

	<p>Add a new file attachment.</p> <p>A dialog opens for selecting an external file attachment or an external URL.</p> <p>In addition, the file attachment can be assigned to a category and a description can be stored.</p> <p>After confirming the dialog, another dialog for entering the URL opens for an external URL and the standard Windows dialog for opening a file appears for an external file attachment.</p>
	Delete the selected file attachment/s
	Modify the description of the selected file attachment.
	Opens the directory, where the selected file attachment is stored.


New file attachments can also be added by drag&drop.


A double click on a file attachment opens the file.

With double click on the description of a file attachment a text field is opened for modification of the description.

By double-clicking in the Category column, the assignment to a category can be set or changed afterwards.

A simple click on a file attachment of type picture displays a preview of the picture below the file attachment list.

In the column "Path" the symbol  indicates that the file attachment is available at the stored path. The symbol

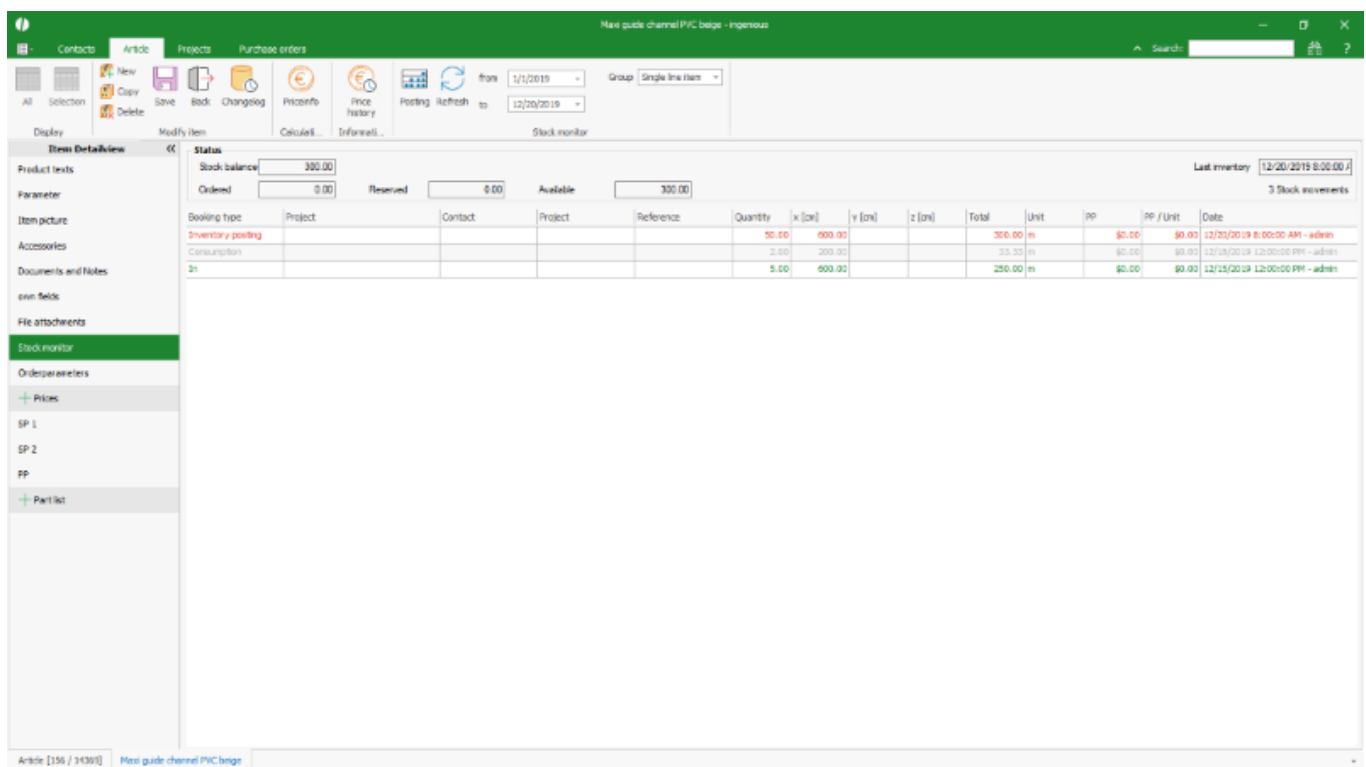
 shows, that the file attachment or the path is not available.

A little database symbol shows that the information is directly stored in the database.



File attachments are stored in the media path that is to configure in the global program settings. Ensure that all users of the database can access this path. When no path is configured, an error message is shown.

## 4.2.2.10 Stock monitor

In the stock monitor all postings - automatic and manual - are summarized and actual stock balance is calculated.




In the stock monitor the following additional functions are available in the ribbon bar:

	Make a manual stock post.
	Refresh of the list view of the stock postings.

from	Filter the list of stock postings by date - from
to	Filter the list of stock postings by date - to
Group	Group the list of automatic stock postings by single line item, project or day.

In the area status the following values are displayed:

Stock balance	The balance is calculated from the quantity of the last inventory + Der Bestand ergibt sich aus: Menge der letzten Inventur + later receipts - later consumptions
Ordered	Here all amounts of all open (= not delivered) purchase orders are summarized.
Reserved	Sum of the reserved quantities in project documents
Last inventory	Date and time of the last inventory
Stock movements	Number of all stock movements of the article

The values will be updated after click on the refresh button  in ribbon bar.

### Manual stock posting

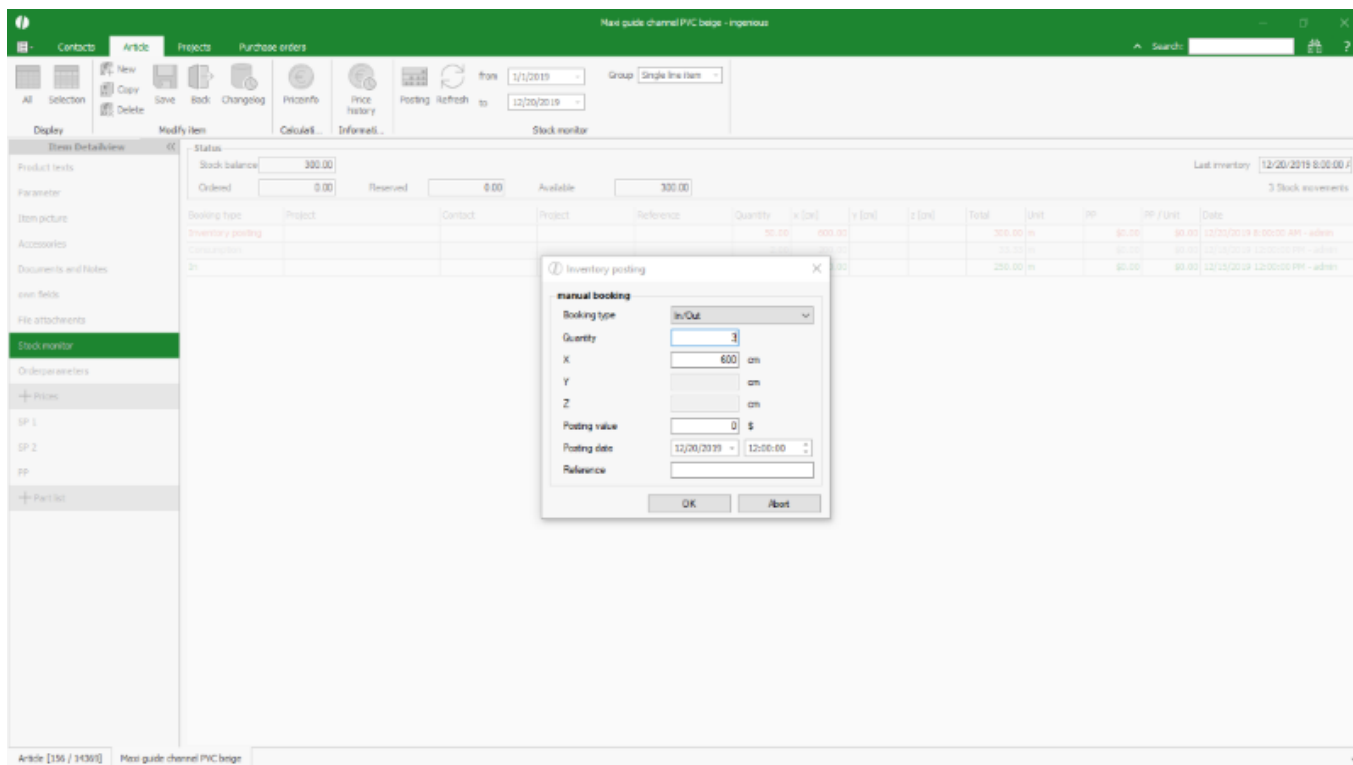
A manual stock posting can be made at any time.

For a receipt of goods "In/out" is to select and a positive quantity has to be entered.

For a consumption of goods "In/out" is to select and a negative quantity has to be entered.

For an inventory booking "Inventory posting" needs to be selected. A value  $\geq 0$  needs to be entered.

For individual reports a different price compared to the stored price can be entered. This will not be taken over to the article prices. The date of the posting can be set freely, the actual date at 12:00 o'clock high noon is presetted. In the field reference a free note can be entered, e.g. a note about the delivery documents, invoice,...



### Automatic stock postings

Automatic stock postings are postings that are done from project documents and purchase orders. Whether a stock posting is made is dependant from the configuration of each single article.

In the order parameters the checkbox "automatic stock keeping" needs to be activated.

The posting from project will be executed, when the checkbox "Reserved" or "Stock booked" is activated. Reservations don't reduce the stock balance and can already be made for quote documents. The consumption posting "Stock booked" can only be set in documents of type order confirmation. This posting reduces the stock balance.

With double click on a single consumption entry the linked project document is opened.

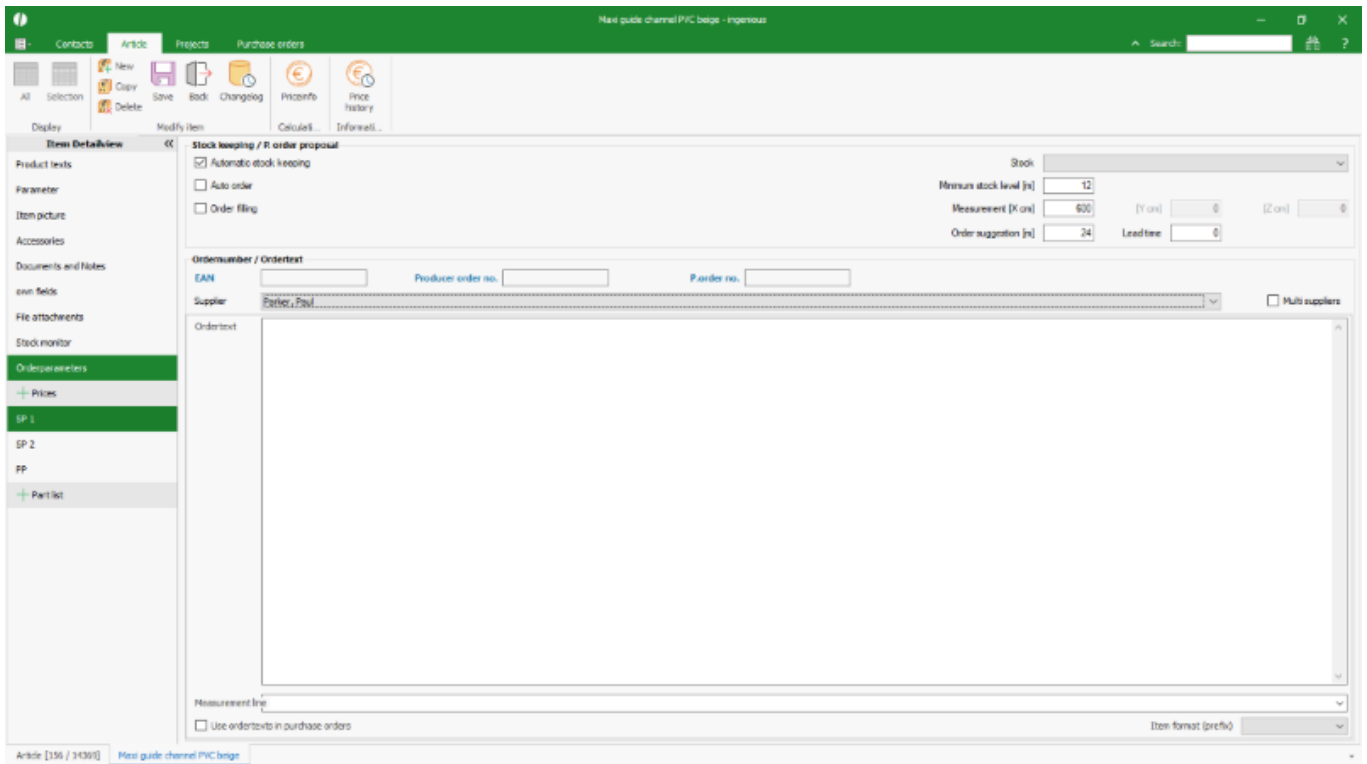
## 4.2.2.11 Order parameters

In the order parameters all details are stored that are relevant for a purchase order of the article:

Automatic stock keeping	Checkbox	When the automatic stock keeping is activated, the consumption of an article is posted to the stock monitor of the article when checkbox "Stock booked" is clicked on in a project document.
Auto order	Checkbox	The auto order determines whether a new purchase order is to create when the minimum stock level of an article is reached.
Order filling	Checkbox	Order filling articles will be especially bought from the supplier for a single order. There is no stockkeeping
Stock	Selection list	The field "stock" is for assignment and information which article is stored in which stock. The values of the selection list are to define in the global program settings.
Minimum	Simple	The minimum stock level is that balance when the purchase order assistant should



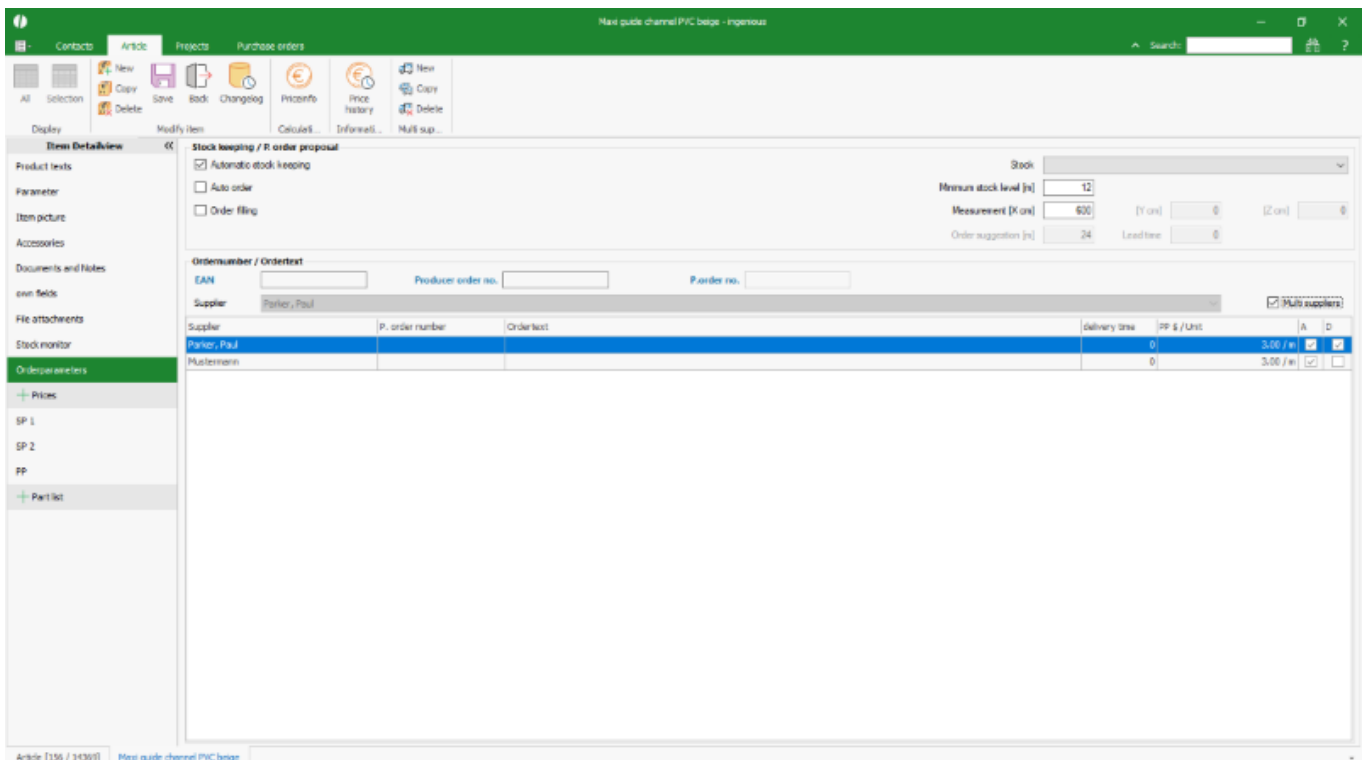
stock level	input field	automatically place a new order.
Measurements (X cm), (Y cm), (Z cm)	Simple input fields	The measurements are needed for length and flat articles to calculate the needed length and flats.
Order suggestion	Simple input field	The order suggestion in piece, meter,... is used for automatic purchase orders.
Delivery time	Simple input field	without function
EAN	Protected input field	The EAN is the European Article Number of an article.
Manufacturer order number	Protected input field	Here the order number / product number of the manufacturer can be entered.
Order number	Protected input field	The order number of the supplier.
Supplier / Multi suppliers	Selection list / Checkbox	Here the supplier is to be selected where the article mostly is ordered from. When the article is ordered from different suppliers, the order parameters can be stored for each supplier. With activation of the checkbox "Multi suppliers" additional options are provided.
Ordertext	Simple input field	Here the article description of the supplier or manufacturer can be entered.
Measurement line	Auswahlliste / input field	The measurement line contains details of the measures of the article. When this measurement line is used in purchase order documents, it can be defined which details are shown in which order. The content of the measurement line is to be configured in the global program settings. Individual measurement lines can also be typed in directly here.
Use ordertexts in purchase orders	Checkbox	When this checkbox is activated the ordertext is used in purchase orders instead of the own article text.
Item format (prefix)	Selection list	With the item format a deviat formatting of articles in purchase order documents can be defined. The content of the selection list is to be configured in the global program settings.






## Multi supplier

When the option multi supplier was activated, diverse suppliers can be linked with their order terms.

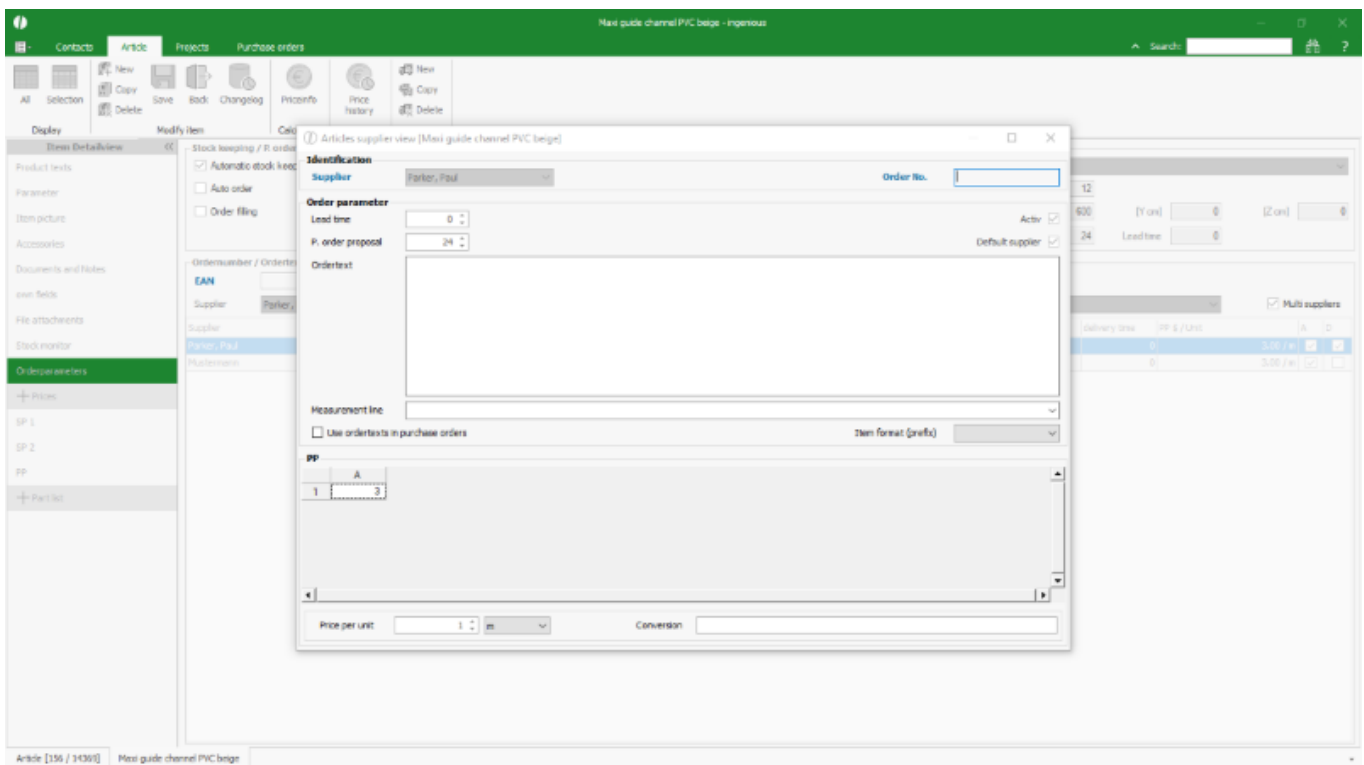
All linked suppliers are displayed in a list.



For multi suppliers additional functions are provided in the ribbon bar:

	Add a new supplier
	Copy the selected supplier
	Delete the selected supplier

For each supplier the following details can be configured:



Note:







One of the suppliers must be identified as default supplier. A change always is done by activation of the new default supplier.

When the option "multi supplier" is deactivated at any time, the default supplier is preserved.

## 4.2.2.12 Prices

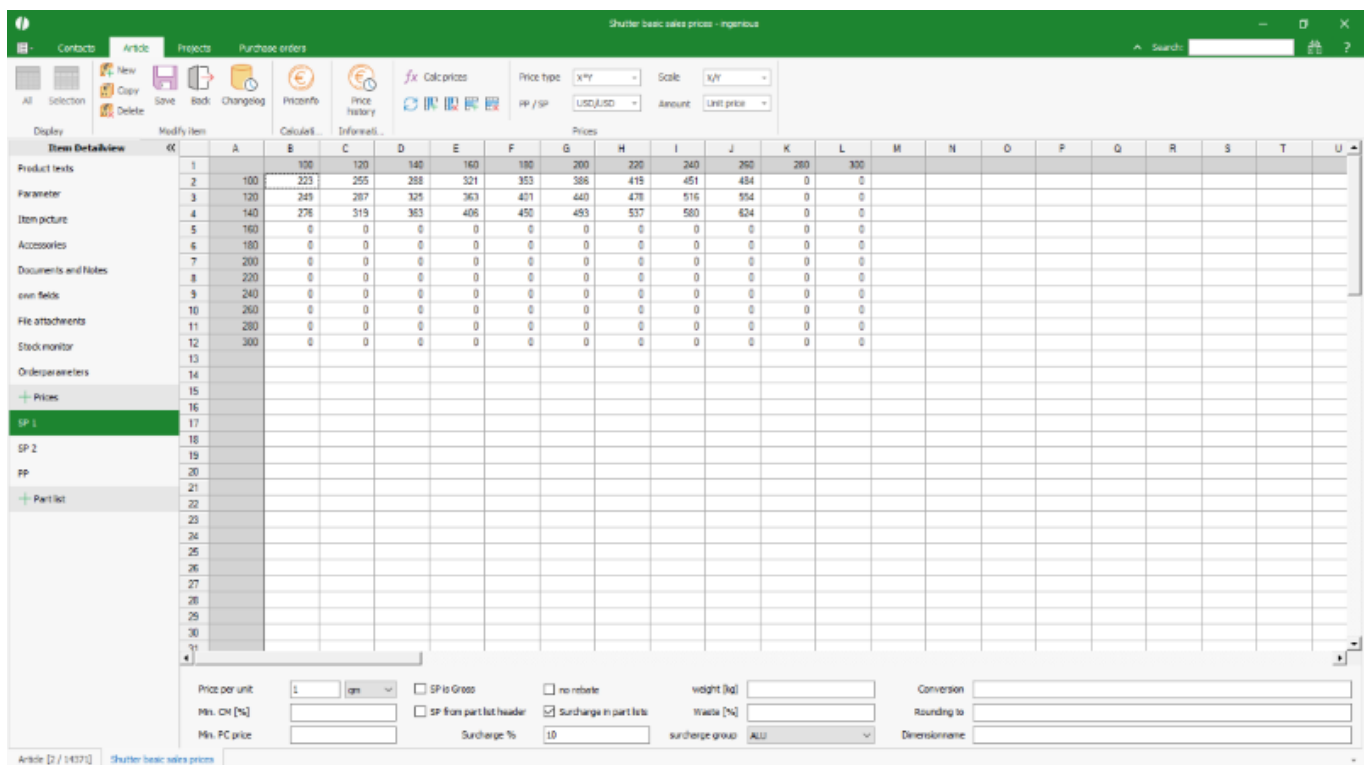
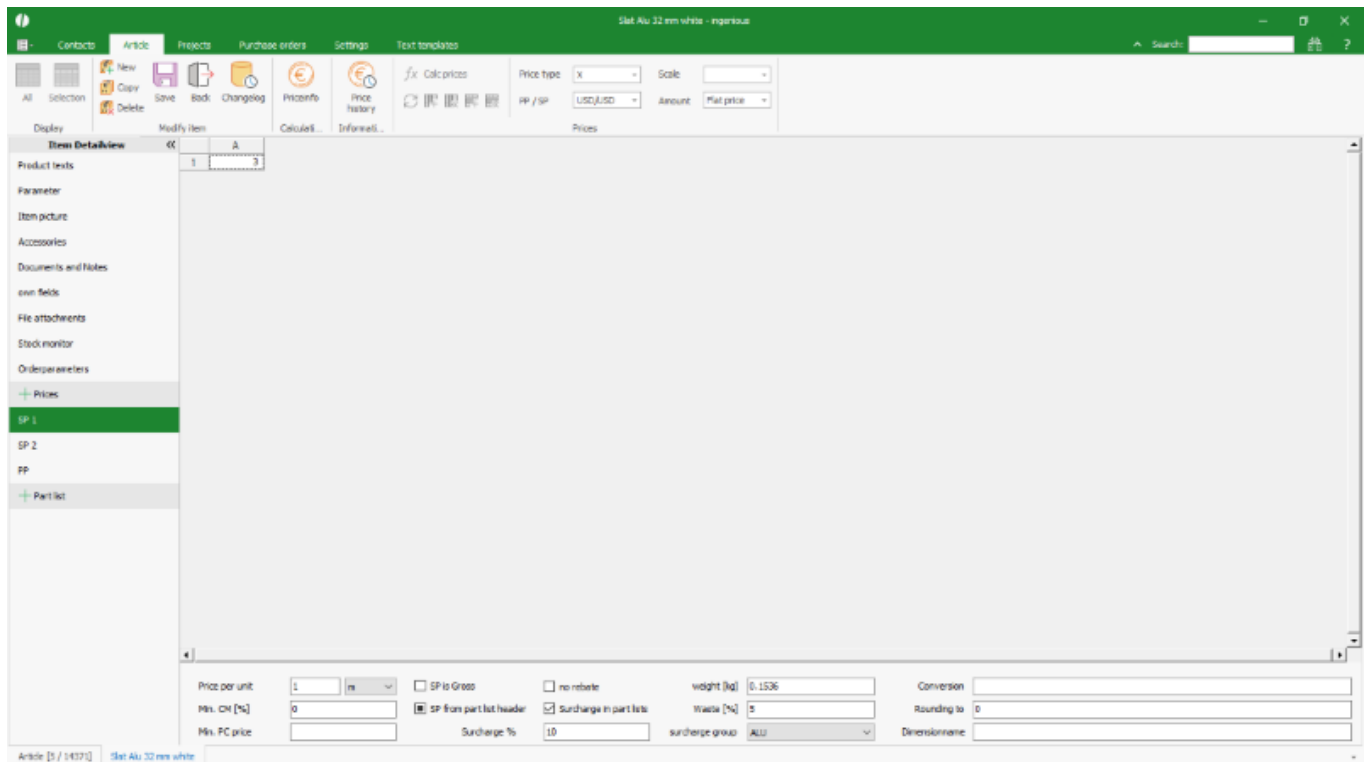
The prices are subclassified to SP1, SP2 and PP. The sales price 1 is the list price of an article. The sales price 2 can be a differing sales price that's valid for a special customer group for example.

The following functions are additionally provided in the ribbon bar:

 Calc prices	With the button "Calc prices" price matrices can be calculated automatically from part lists.	
	With this button the axle legends of X and Y can be exchanged.	
	Adds a new column.	
	Deletes the selected column/s	
	Adds a new row	
	Deletes the selected row	
Price type	Piece	The price is valid for piece
	X	The price is valid per length unit
	X*Y	The price is valid per flat unit
	X*Y*Z	The price is valid per volume unit
PP / SP	Determines the relation between purchase price and sales price.	
	EUR/EUR	Both prices are entered in EUR.
	EUR%	The purchase price is entered in EUR and the sales price is calculated with the stored percentage rate (surcharge / rebate)
	%/EUR	The sales price is entered in EUR and the purchase price is calculated with the stored percentage rate (surcharge / rebate)
	Time: Min/EUR	In the purchase price the hourly rate is stored in EUR. In the sales price the time unit is stored. Example: To calculate with an hourly rate of 50 EUR, that is invoiced for each started quarter, the purchase price is filled with 50 and the sales price is filled with 15 (means minutes)
Scale	empty	The price is a unit price
	Piece	The scale price is read for each piece.
	Total	The scale price is read after the total quantity / length / flat was calculated.
	X*Y	The scale price is read for each single flat
	X/Y	The prices are detected from the price matrix by height and width of the article.
Amount	Unit price	The stored price is valid for each piece.
	Flat price	The stored price refers to the unit of the article.
	Total price	The stored price relates to the total price of the article.

The prices are filled into simple input fields for single prices, in a single-line table for scale prices and in multi-line

tables for price matrices.



To fill the axis labeling of a price matrix, the values can be entered manually or by entering the following small formula in the first cell: 100/10/300 (stands for first value / steps / last value). The prices of the matrix can also be filled

automatically using the button *fx*. An overview of the available functions can be found in the following chapter.

Prices for dimensions that are not technically possible are entered with -1, which results in a corresponding error / notice message during the calculation.

Additional possible values for the price calculation:

Price per unit	Simple input field + Selection list	Specification of the unit for the price calculation. The content of the selection list is determined in the program settings.
SP is Gross	Checkbox	The sales price is gross, means including VAT.
no rebate	Checkbox	If this checkbox is ticked, no special price will be charged for the item if the item would be discounted, for example, due to a product group and a corresponding product group special price.
Weight []	Simple input field	Weight of an article unit. Unit is determined in the program settings.
Conversion	Simple input field	Offers the option of converting the stored price using percentage or absolute surcharges or discounts. Eg entering 10% adds 10% to the stored price.
Min. CM [%]	Simple input field	To define a minimum contribution margin that must be achieved for the article in%.
SP from part list header	Checkbox	The price should be determined from the parts list.
Surcharge in part lists	Checkbox	If enabled, a single item's surcharge will be calculated even it is not sold directly but is used in a part list.
Waste [%]	Simple input field	Information about any waste incurred for length items for consideration when posting the stock.
Rounding to	Simple input field	Rounds the price to the value set here. For example, entering 0.1 rounds to a full 10 cents.
Min. PC price	Simple input field	Enter a minimum price that is to be calculated for the article, e.g. if a price per square meter is stored and the full price for 1 square meter is to be calculated for sizes below one square meter. Entry of an absolute amount or a formula (from the ingenious parts list language). Example formula: tab (jum.m) (10: 3; 2) = Up to and including 10 pieces, the minimum unit price is 3, for a larger item quantity the minimum unit price is 2.
Surcharge %	Simple	Percentage surcharge on the item for separate identification on a project document

	input field	
Surcharge group	Selection list	Selection of the surcharge group under which the item's surcharge is to be displayed
Dimensionname	Simple input field	Enter the dimension description, e.g. length

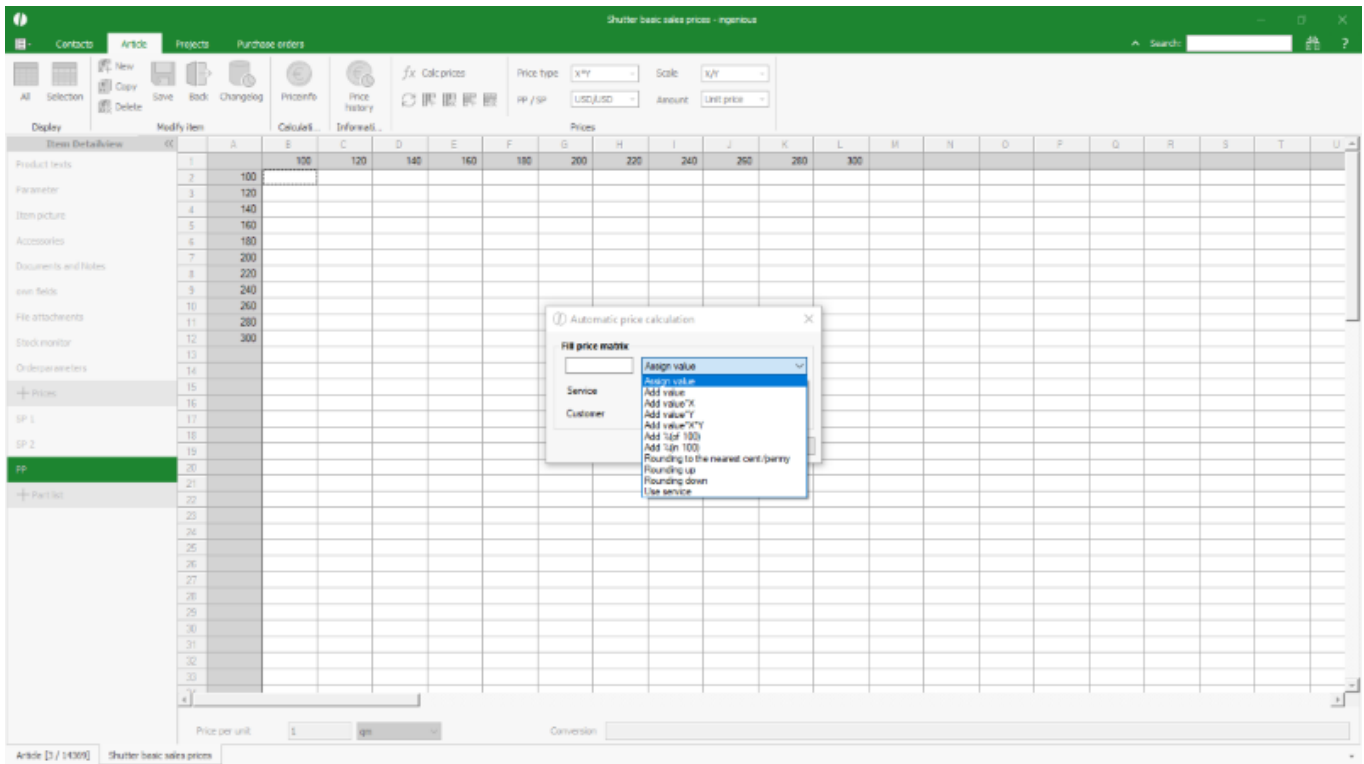
## 4.2.2.13 Calculate prices automatically

For scaled prices and price matrices a function for automatic price calculation is available.

Price matrices are prices tables, with that prices per measurements (width/height) can be calculated. Diverse price lists can be created as a base for the calculation of project items in project documents or for other calculations.

For each price matrix a single article is created in the product catalogue. In the column prices the related price type and scale is to be chosen. For a 2-dimensional price matrix (Scale X/Y) a table sheet is provided with the scale values for width and height in its axes. These values can be automatically filled by entering the first value, the interval and the last value (e.g. 100/20/300) in the first grey field.

Also the prices themselves can be automatically filled. With the button *fx* and its drop down menu divers functions are available.



Assign value	Transfers the entered value to all price fields in the price table.
Add value	Adds the entered value to each prices that are already listed in the price table.
Add value*X	Adds the product of the entered value and X (value * X) to each of the existing prices of the price table. This means that the surcharge is dependent on X, that mainly represents the width.
Add value*Y	Adds the product of the entered value and Y (value * Y) to each of the existing prices of the price table. This means that the surcharge is dependent on Y, that mainly represents the height.
Add value*X*Y	Adds the product of the entered value and X and Y (value * X * Y) to each of the existing prices of the price table. This means that the surcharge is dependent on X and Y, that mainly represents the surface.
Add %(of 100)	Adds a percental surcharge (of 100) to all existing prices in the price table.
Add %(in 100)	Adds a percental surcharge (of 100) to all existing prices in the price table.
Rounding to the nearest cent/penny	Rounds all existing prices in the price table to the nearest Cent/Penny to the entered digits. Example: Entering "1" -> rounds to the nearest full Euro/Dollar/Pound; Entering "0,1" -> rounds to the nearest full 10 Cents/Pennys.
Rounding up	Rounds up all existing prices in the price table to the nearest Cent/Penny to the entered digits. Example: Entering "1" -> rounds up to full Euro/Dollar/Pound; Entering "0,1" -> rounds up to full 10 Cents/Pennys.
Rounding down	Rounds down all existing prices in the price table to the nearest Cent/Penny to the entered digits. Example: Entering "1" -> rounds down to full Euro/Dollar/Pound; Entering "0,1" -> rounds down to full 10 Cents/Pennys.
Use service	The price table will be calculated by an existing part list.



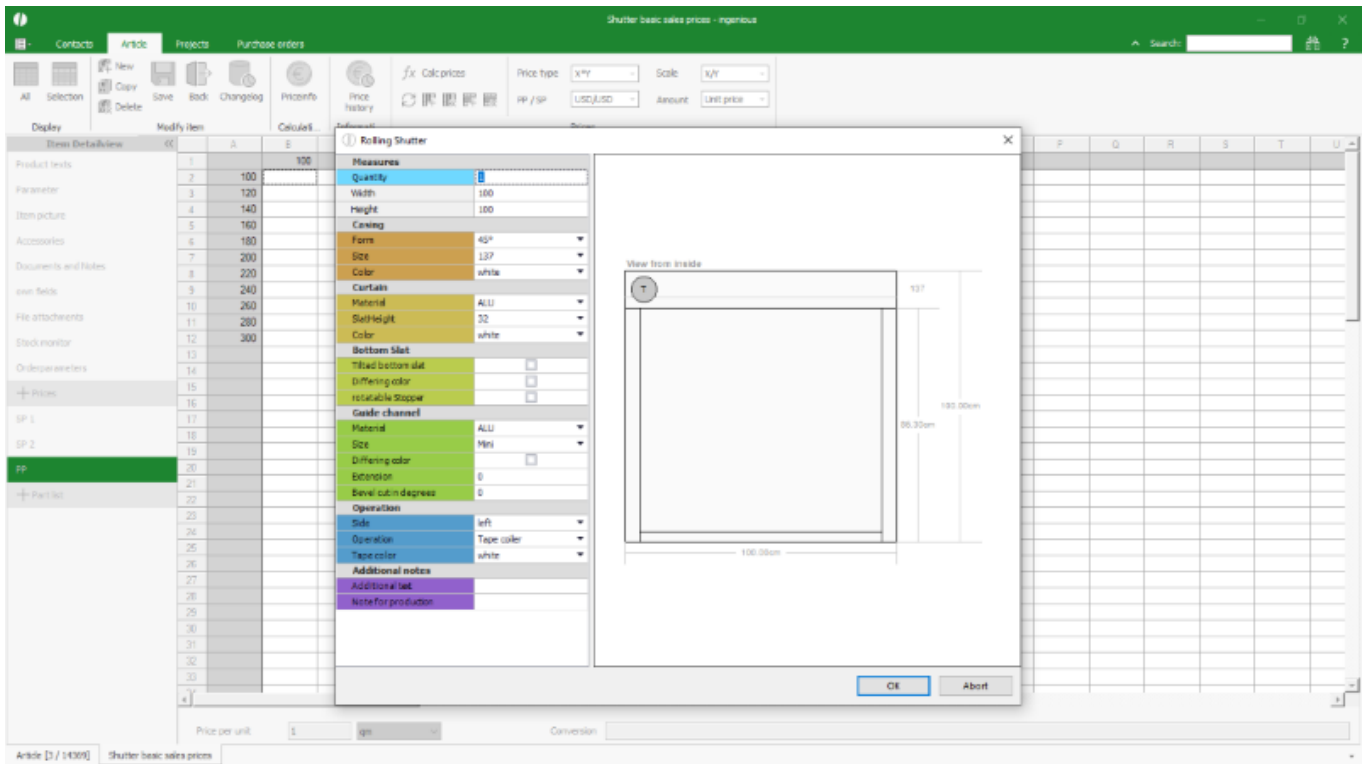
### Calculate prices by an existing part list

A price matrix can be filled by means of a part list (service). By that way price lists can be calculated e.g. from the purchase price of all in a part list used single items and their quantities to then calculate the sales prices with a percental surcharge.

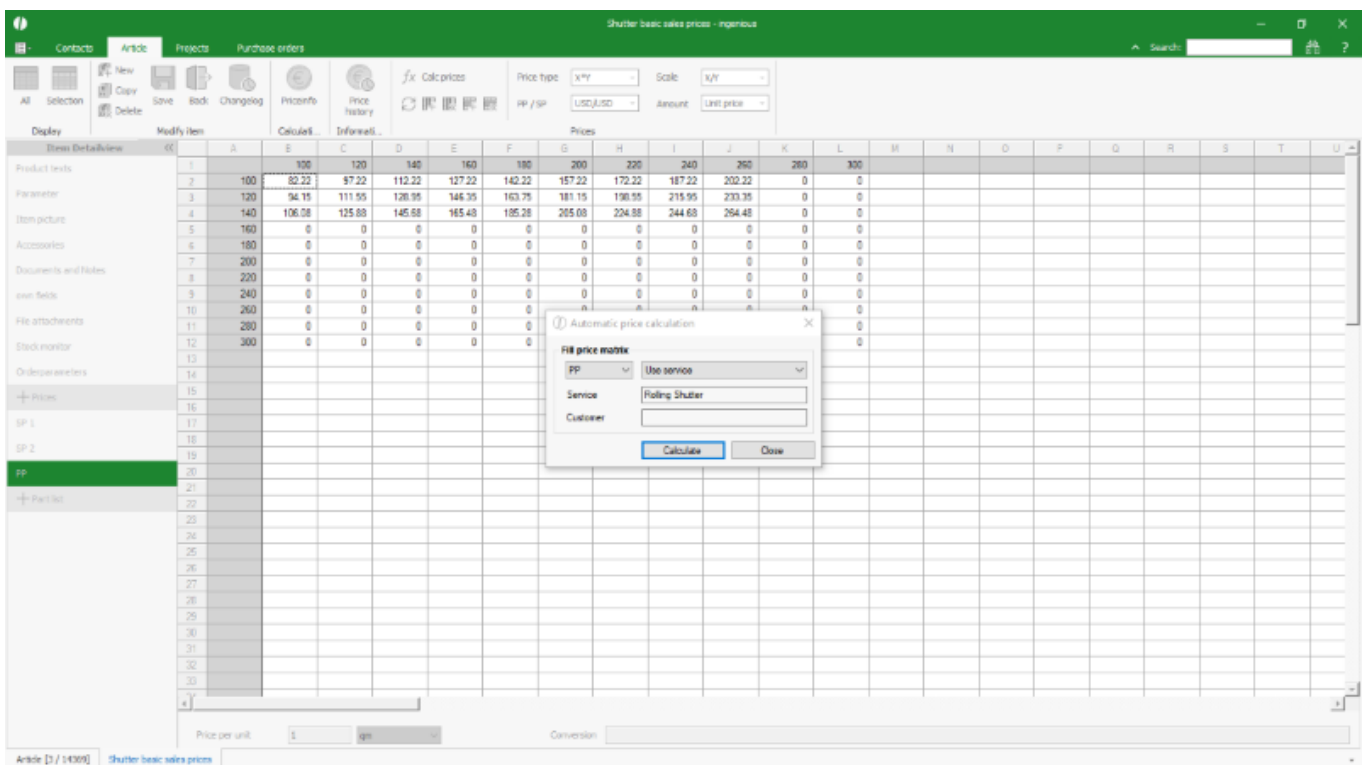
For this calculation first the option "Use service" has to be chosen from drop down menu. Afterwards the base for the price calculation has to be defined (PP, SP1 or SP2). In the field "service" the matchcode of the part list has to be entered. If the price matrix shall be calculated for a customer with his individual special prices, also his matchcode has to be entered in the related field.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1		100	120	140	160	180	200	220	240	260	280	300									
2		100																			
3		120																			
4		140																			
5		160																			
6		180																			
7		200																			
8		220																			
9		240																			
10		260																			
11		280																			
12		300																			
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																					
21																					
22																					
23																					
24																					
25																					
26																					
27																					
28																					
29																					
30																					
31																					
32																					
33																					

After clicking "Calculate" the configurator is opened, with that the options for the variant, that needs to be calculated, can be chosen.



After the confirmation of the configuration the price matrix is filled. If the calculation causes errors, e.g. because of the technical dependencies that are defined in the part list, the further calculation can be canceled or continued. The continued calculation after a planned error produces a price of "0" for the technical impossible measurements. This zero-price itself reflects the technical restriction.



In the still opened price calculation dialogue additional modifications of the prices can be made, e.g. add a surcharge of 50% and round the prices to full Euros/Dollars/Pounds.

The screenshot displays the 'ingenious' software interface. The main window shows a price list with columns for various parameters and prices. A dialog box titled 'Automatic price calculation' is open, allowing for adjustments to the price matrix. The dialog box includes a 'Fill price matrix' dropdown set to 'Add % of 100', a 'Service' dropdown set to 'Rising Shutter', and a 'Customer' field. The 'Calculate' and 'Close' buttons are visible at the bottom of the dialog.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
Product tests	100	82.22	97.22	112.22	127.22	142.22	157.22	172.22	187.22	202.22	0	0									
Parameter	120	94.15	111.55	128.95	146.35	163.75	181.15	198.55	215.95	233.35	0	0									
Item picture	140	106.08	125.88	145.68	165.48	185.28	205.08	224.88	244.68	264.48	0	0									
Accessories	160	0	0	0	0	0	0	0	0	0	0	0									
Documents and Notes	180	0	0	0	0	0	0	0	0	0	0	0									
own fields	200	0	0	0	0	0	0	0	0	0	0	0									
File attachments	220	0	0	0	0	0	0	0	0	0	0	0									
Stock monitor	240	0	0	0	0	0	0	0	0	0	0	0									
Order enquiries	260	0	0	0	0	0	0	0	0	0	0	0									
SP 1	280	0	0	0	0	0	0	0	0	0	0	0									
SP 2	300	0	0	0	0	0	0	0	0	0	0	0									

The intermediate steps of the price changes are executed immediately and the results can directly be followed in the price list.

Item Detailview	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
Product texts	100	120	140	160	180	200	220	240	260	280	300										
Parameter	50	107	123	140	156	173	189	206	222	0	0										
Item picture	120	104	123	142	161	180	199	218	238	257	0	0									
Accessories	140	117	138	160	182	204	226	247	269	291	0	0									
Documents and Notes	160	0	0	0	0	0	0	0	0	0	0	0									
own fields	180	0	0	0	0	0	0	0	0	0	0	0									
File attachments	200	0	0	0	0	0	0	0	0	0	0	0									
Stock monitor	220	0	0	0	0	0	0	0	0	0	0	0									
Orderparameters	240	0	0	0	0	0	0	0	0	0	0	0									
Prices	260	0	0	0	0	0	0	0	0	0	0	0									
SP 1	280	0	0	0	0	0	0	0	0	0	0	0									
SP 2	300	0	0	0	0	0	0	0	0	0	0	0									
PP																					
Part list																					

## 4.2.2.14 Price history

In the price history of the single articles the price trend of all 3 prices sp1, sp2, pp is recorded.

The list of the price changes contains date and time of the price change, the price that was entered with that change, the user that executed the change and a comment, whether the change was done manually or by the function "Execute price changes". For a price matrix it's only stored when and by whom the price change was executed and in which way.

The list can be filtered by price type, changed by and by the type of change, and it can also be time limited by a date filter.

The screenshot shows the 'Price history Bottom slat Standard Alu beige' window. The window title is 'Price history Bottom slat Standard Alu beige'. It has a 'Filter settings' section with the following fields:

- Price: SP
- From: 1/2015
- To: 12/31/2019
- changed by: [no filter]
- changed at: [no filter]

The main table contains the following data:

Date	Time	Price	Changed by	Hint
12/19/2019	11:52:44 AM	4.80	admin	Manual change
12/19/2019	11:52:04 AM	4.84	admin	Manual change
12/19/2019	11:51:41 AM	484.00	admin	Manual change
12/19/2019	11:50:51 AM	52.00	admin	Price change
12/19/2019	11:50:18 AM	52.00	admin	Price change
12/19/2019	11:49:35 AM	47.30	admin	Price change
12/19/2018	8:41:34 AM	4.30	admin	Manual change
12/17/2018	7:33:21 AM	4.40	admin	Price change

At the bottom of the window, there are several input fields:

- Price per unit: 1
- Min. CH [%]: 0
- Dimension name: [empty]
- SP is Gross:
- weight [kg]: 0
- SP from part list header:
- Waste [%]: 0
- Conversion: [empty]
- Rounding to: 0

## 4.2.3 Partlists

### 4.2.3.1 The part lists

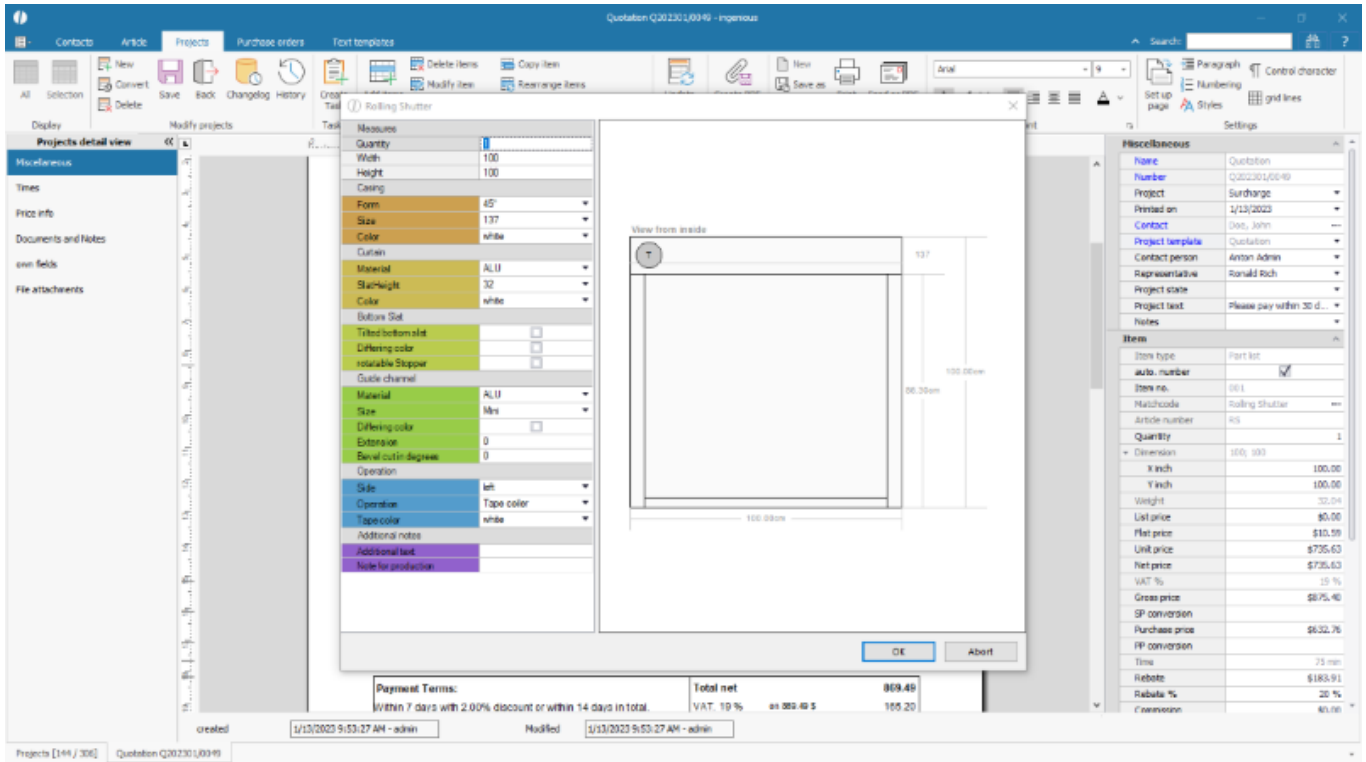
Part lists contain instructions about single parts and dependencies of a product.

The instructions consist of:

- Measurement: Definition of a checklist that is shown the users for configuration of a product while creation of an order.
- Service items: Definition of the single parts and supporting items that are needed for the production/calculation of the product.
- Type attributes: Options of the Product
- Measurement sheets: Instructions for the production
- Stored picture scripts: Scripts for the creation of true-to-scale pictures based on the measurements and options that was entered by the user.
- Stored pictures: Static pictures for identification of the product or single options.

### 4.2.3.2 Configurator checklist

The product configurator or checklist is a window that allows the user to enter a part list product in an order.



The following controls are available for input:

Checkbox	Check box for entering logical values
Combobox	Selection list with the possibility to overwrite values
Drop down	Fixed (non-overwriteable) selection list
Input field	<p>Direct entry of numbers or text</p> <p>Alternatively, you can enter formulas with basic arithmetic operations that are calculated directly. Eg. input "50+50" -&gt; calculation "100"</p> <p>The calculation within input fields can be activated with a simple script:</p> <pre>public override void ClientStart() {     Globals.bCalcinChecklistInput = true; }</pre> <p>Note: Activating the calculation slows down the input, as each input field is checked to see whether it contains a formula and this is calculated.</p>

The configurator / Checklist can be operated using the mouse or keyboard.

When operating with keyboard, you can navigate with the following keys.

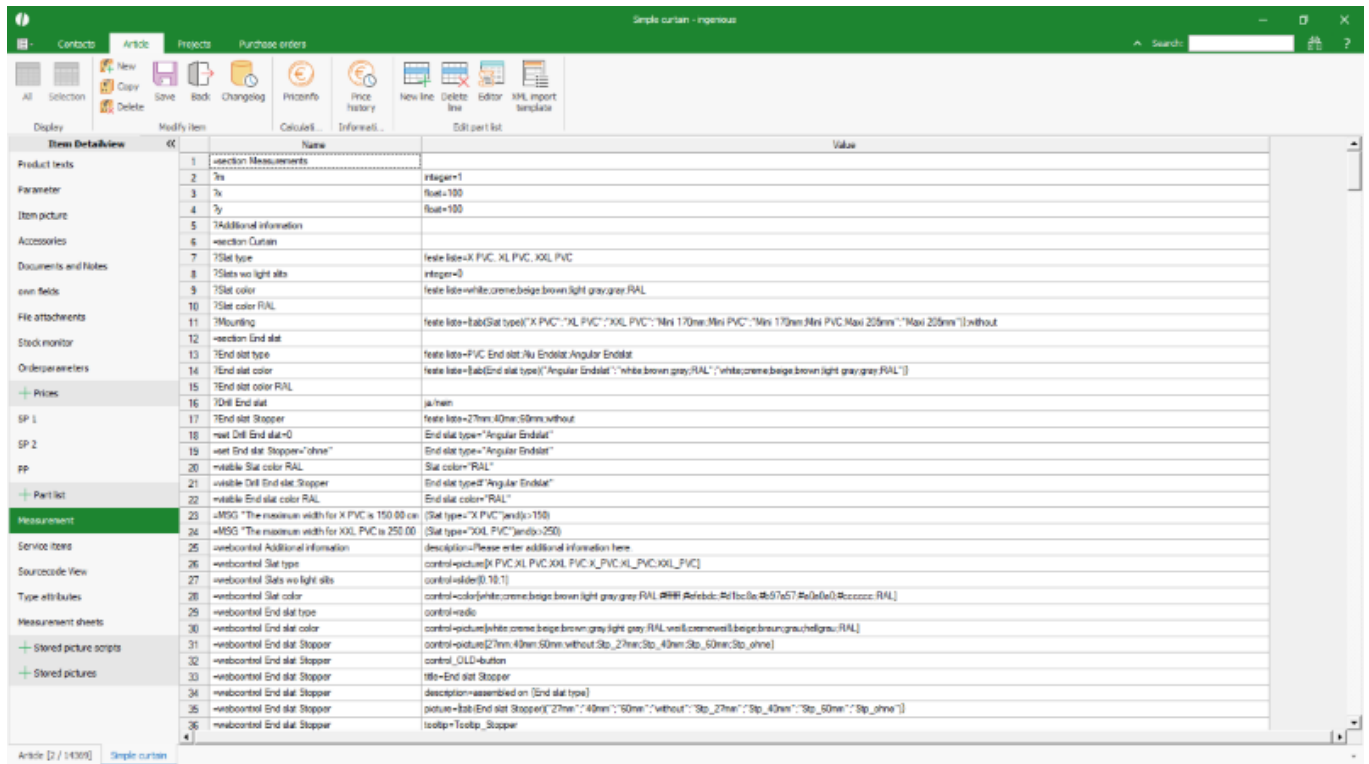
Tab key	Jumps to the next option
---------	--------------------------

Alt + Tab key	Jumps to the previous option
Arrow key down	Jumps to the next option; Jumps to the next entry in an expanded selection list
Arrow key right	Jumps to the next option
Arrow key up	Jumps to the previous option; Jumps to the previous entry in an expanded selection list
Arrow key left	Jumps to the previous option
ALT + Arrow key down	Opens the active selection list
Pos1	Jumps to the first entry in an expanded selection list
Picture up	Jumps to the first option; Jumps to the first entry in an expanded selection list
Picture down	Jumps to the last option; Jumps to the last entry in an expanded selection list
Letters / Numbers	Within selection lists you can jump to the desired entry by entering the first letter or number
Spacebar	Activates/deactivates a checkbox
Return	Confirms the selection of an entry in a selection list; Confirms the entry of an alphanumeric field and jumps to the next option
Enter	Confirms the selection of an entry in a selection list; Confirms the entry of an alphanumeric field and jumps to the next option
Escape	Cancels the selection of an entry in a selection list; Cancels the entry of the entire configurator / checklist
End	Confirms the entire configurator / checklist

Appearance and content of a configurator / checklist are defined in the measurement data or in the **Sourcecode View (Section 4.2.3.5)**.

### 4.2.3.3 Measurement

The view Measurement is mainly available for part lists that was imported from previous ingenious programs. In this compatibility view the checklists can be modified in the familiar way.



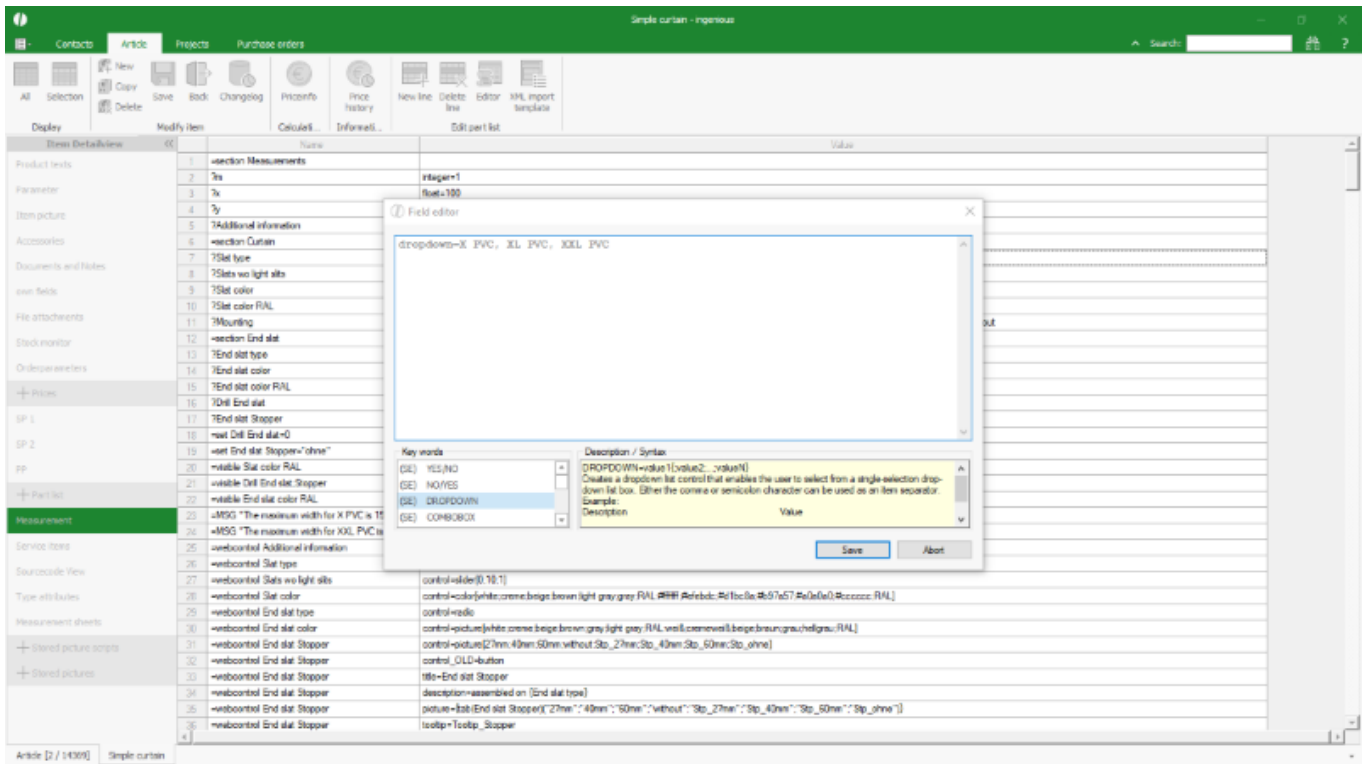
In the icon bar the following functions are available for the Measurement:

	Adds a new line
	Deletes the selected line
	Edit the content of the selected cell in the editor
	Set the pre-configuration for the XML order import

The content can be written directly into the cells or in the editor.

The editor contains a big text area for the function and also a list with the single commands and their explanations. With a double click on a command it will be added to the formula and can be modified.






## Pre-configuration for the order XML import

With the order XML import the software offers an interface to import orders from a customer directly into ingenious as order documents via XML.

To ensure that the configuration is completely mapped in the order in the case of a partlist, a specification for the customer is extracted from the configurator.

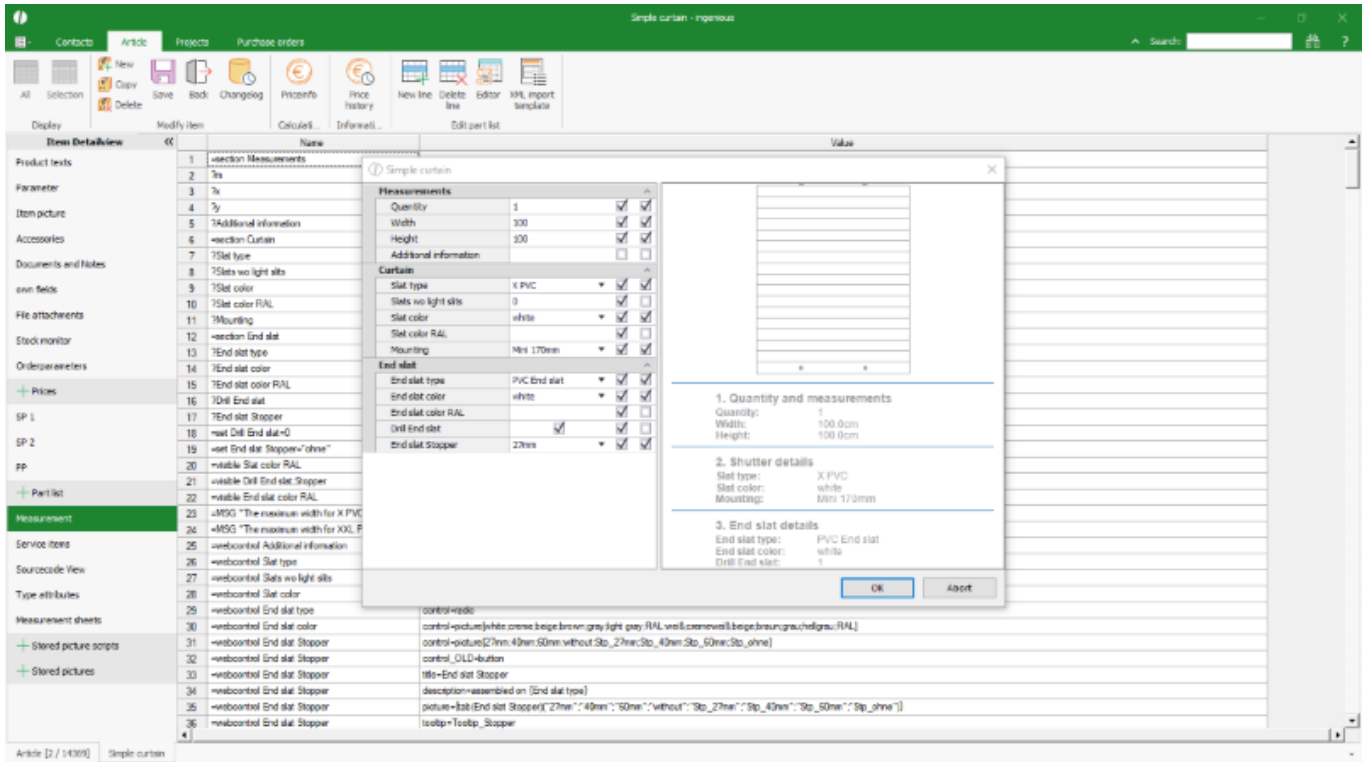
Which options and possible standard values should be taken into account is configured via the button 

Settings are made in the configurator that opens

- 1. Checkbox: which option should be included in the XML
- 2. Checkbox: which options must be filled out

The values that are selected for the individual options are used as the default values.

These can be adjusted for each customer in his **XML settings (Section 4.1.2.12.2)**.



## 4.2.3.4 Service items

The view "Service items" also is a compatibility view that is mainly used for part lists that were imported from a previous ingenious versions.

All needed parts, calculations and abort conditions can be modified in the familiar way.

Item	Matchcode	Name	Price type	Quantity	X	Y	Z	PP/SP	SP1	SP2	PP	Condition
1	height	tab(jun material) "wood"; "alu"; "glass"; 2; 1; 1; 5)	0									
2	width1	jun width	0									jun shape="square"
3	width2	width1	0									jun shape="square"
4	width1	jun width 1	0									jun shape="rectangular"
5	width2	jun width 2	0									jun shape="rectangular"
6	width1_constr	width1-8	0									jun shape="round"
7	width2_constr	width2-8	0									jun shape="round"
8	width1	jun diameter	0									jun shape="round"
9	width2	width1	0									jun shape="round"
10	width1_constr	mt(2)(jun diameter/2) 2; 3; 4; 1)	0									jun shape="round"
11	width2_constr	width1_constr	0									jun shape="round"
12	width3_constr	tab(jun subconstruction enforced(0) 1 0 m(d)ep(w)idh1_constr	0									jun shape="round"
13	print_subconT		0									
14	print_subconT	jun subconstruction material	0									jun subconstruction material
15	print_subconT	tab(print_subconT) ("print_subconT", ")*enforced"	0									jun subconstruction enforced=1
16	print_subconT	tab(print_subconT) ("print_subconT", ")*with frame"	0									jun subconstruction frame=1
17	print_subconT	"*print_subconT"	0									print_subconT
18	print_subconH	tab(print_subconT) ("subconstruction")	0									
19	print_w1	fmt(width 1 "80.00/16")=	0									
20	print_w2	fmt(width 2 "80.00/16")=	0									
21	print_d	fmt(jun diameter "80.00/16")=	0									
22	print_h	fmt(jun height "80.00/16")=	0									
23	print_l	fmt(jun height "80.00/16")=	0									
24	tabletop	tab(top "jun material	2	1	width1	width2		0	0	0	0	
25	table leg	tab(leg "jun legs shape=" jun legs	1	4	jun height+es			0	0	0	0	
26	subconstruction	tab(subconstruction "jun subconstruction	1	2	width1_constr			0	0	0	0	
27	subconstruction	tab(subconstruction "jun subconstruction	1	2	width2_constr			0	0	0	0	
28	subconstruction	tab(subconstruction "jun subconstruction	1	2	width3_constr			0	0	0	0	width3_constr=0
29	frame	tab(frame "jun subconstruction material	1	1	width1_constr			0	0	0	0	jun subconstruction frame=1
30	frame	tab(frame "jun subconstruction material	1	1	width2_constr			0	0	0	0	jun subconstruction frame=1
31	correction		0					0	0	0	0	
32	prX	tab(jun shape) "square"; "rectangular"; "round" jun width jun s	0									
33	prY	tab(jun shape) "square"; "rectangular"; "round" jun width jun s	0									
34	prBasic	"price table " jun material	2	1	prX	prY		0	0	0	0	
35	prJall	extra cost height bigger than 40"	0	1				0	0	0	0	jun height > 40
36	prTable	jun vk	0									

In the icon bar the following functions are available for the Service items:

	Adds a new line
	Deletes the selected line
	Edit the selected cell in the editor

The content can be written directly into the cells or in the editor.

The editor contains a big text area for the function and also a list with the single commands and their explanations. With a double click on a command it will be added to the formula and can be modified.





For the selected line also a tool tip of the syntax appears in the bottom of the window frame.

Example structure of a command line:

```
Conf_Dropdown("Name", "Title", "Tooltip", "(Default-)value", "value list", Boolean
visible, "Foreground colour", "Background colour");
```

```
Conf_Dropdown("vKSize", "Box size", "Please choose box size", "137", "137;165;180",
true, "black", "RGB(255,200,100)");
```

Meaning: The option "box size" gets for

- name of the variable "vKSize",
- in the checklist the user will see the title "Box size",
- the user will see the tooltip "Please choose box size",
- the default value is "137",
- the user can choose from the values "137,165 and 180",
- the option is visible in the checkbox,
- the font color is black,
- the background color is orange.

### Commands for the method Build

In general:

Syntax	Meaning
Name	Unique name for the variable for its identification in the part list.
Title	Title of the option as it should be shown to the user
Tooltip	Help text or description text tha the user will see in the checklist when he moves the mouse over the title of the option.
Default	Default value for this option
Value list	Available options for this option, separated by smicolon
dValue	Number
iValue	Integer
bSelected	Boolean definition for preselection of a checkbox. Possible values true and false

The following partlist commands are available:

Command	Description
Alert	Output of a information or error message without abort <code>Alert("Text");</code>
ConfLine	Line with the measurment definition of the compatibility mode from a partlist that was imported from a previous ingenious version.
Conf_Checkbox	Line for measurment definition in the form of a checkbox

	<code>Conf_Checkbox("Name", "Title", "Tooltip", bSelected);</code>
Conf_Combobox	Line for measurement definition in the form of a combobox with the possibility to overwrite the values <code>Conf_Combobox("Name", "Title", "Tooltip", "Default", "Value list");</code>
Conf_Dropdown	Line for measurement definition in the form of a fix selection list (cannot be overwritten) <code>Conf_Dropdown("Name", "Title", "Tooltip", "Default", "Value list");</code>
Conf_Integer	Line for measurement definition in the form of an integer <code>Conf_Integer("Name", "Title", "Tooltip", iValue);</code>
Conf_Number	Line for measurement definition in the form of a number <code>Conf_Number("Name", "Title", "Tooltip", dValue);</code>
Conf_Section	Definition of a simple headline in the checklist <code>Conf_Section("Name", "Title");</code>
Conf_Size	Definition of the size of the checklist (without picture area). Set 1. width, 2. height in pixels. <code>Conf_Size(iValue, iValue)</code>
Conf_Split	Definition of the separator of the checklist; Sets the size of the definition area left and the selection area right; The entered value is meant as percentage and is valid for the definition area. <code>Conf_Split(iValue)</code>
Conf_Text	Adds a free text field to the checklist <code>Conf_Text("Name", "Title", "Tooltip", "Default");</code>
Conf_Title	Adds a group headline to the checklist; allows to show or hide the complete group. <code>Conf_Title("Name", "Title")</code>
DrawPict	Output of a stored picture.
Error	Output of an error message with abort <code>Error("Text");</code>
Eval	Execution of a partlist calculation <code>var Surface = Eval("jum.x * jum.y / 10000");</code>
GetValue	Auslesen einer Stücklistenvariable. <code>String Width = GetValue("jum.x");</code>
GetValue<Type>	Readout a partlist variable and conversion to another data type. <code>Double dWidth = GetValue&lt;Double&gt;("jum.x");</code>
Message	Generating a message thats condition is checked with every change in the partlist. <code>Message("Text");</code>
MultiposVariable	Definition of a variable as a multi item input variable. Can be called multiple. <code>MultiposVariable("jum.Color");</code>
SetValue	Saves a value to a partlist variable. <code>SetValue("PrintWidth", "1250");</code>
ValueExists	Checks whether a partlist variable exists or not. <code>Boolean PrintWidthSet = ValueExists("PrintWidth");</code>

### Commands for the method Calculate

In general:


Syntax	Meaning
Name	Unique name of the variable for its identification in the partlist
dQuantity	Consumed quantity of an article
dSalesprice	Salesprice of free supporting articles (BOM_Price)
dPurchaseprice	Purchaseprice of free supporting articles (BOM_Price)
dService	Hourly rate of free time articles (BOM_Price)
dMinutes	Number of minutes of free time articles (BOM_Price)

The following partlist commands are available:

Command	Meaning
Alert	Output of a information or error message without abort <code>Alert("Text");</code>
BOMLine	Line with the service definition of the compatibility mode from a partlist that was imported from a previous ingenious version.
BOM_Item	Request of an article of the product catalogue <code>BOM_Item("Name", "Matchcode/Articlenumber", dQuantity);</code>
BOM_Price	Request of a free (supporting) article that is not stored in the product catalogue <code>BOM_Price("Name", "Text", dQuantity, dSalesprice, dPurchaseprice);</code>
BOM_Time	Request of a free time article that is not stored in the product catalogue <code>BOM_Time("Name", "Text", dQuantity, dService, dMinutes);</code>
Eval	Execution of a partlist calculation <code>var Surface = Eval("jum.x * jum.y / 10000");</code>
GetValue	Readout a partlist variable <code>String Width = GetValue("jum.x");</code>
GetValue<Type>	Readout a partlist variable and conversion to another data type. <code>Double dBWidth = GetValue&lt;Double&gt;("jum.x");</code>
SetValue	Saves a value to a partlist variable. <code>SetValue("PrintWidth", "1250");</code>
ValueExists	Checks whether a partlist variable exists or not. <code>Boolean PrintWidthSet = ValueExists("PrintWidth");</code>

An overview of all available C# code words is to be found in the Microsoft MSDN documentation.




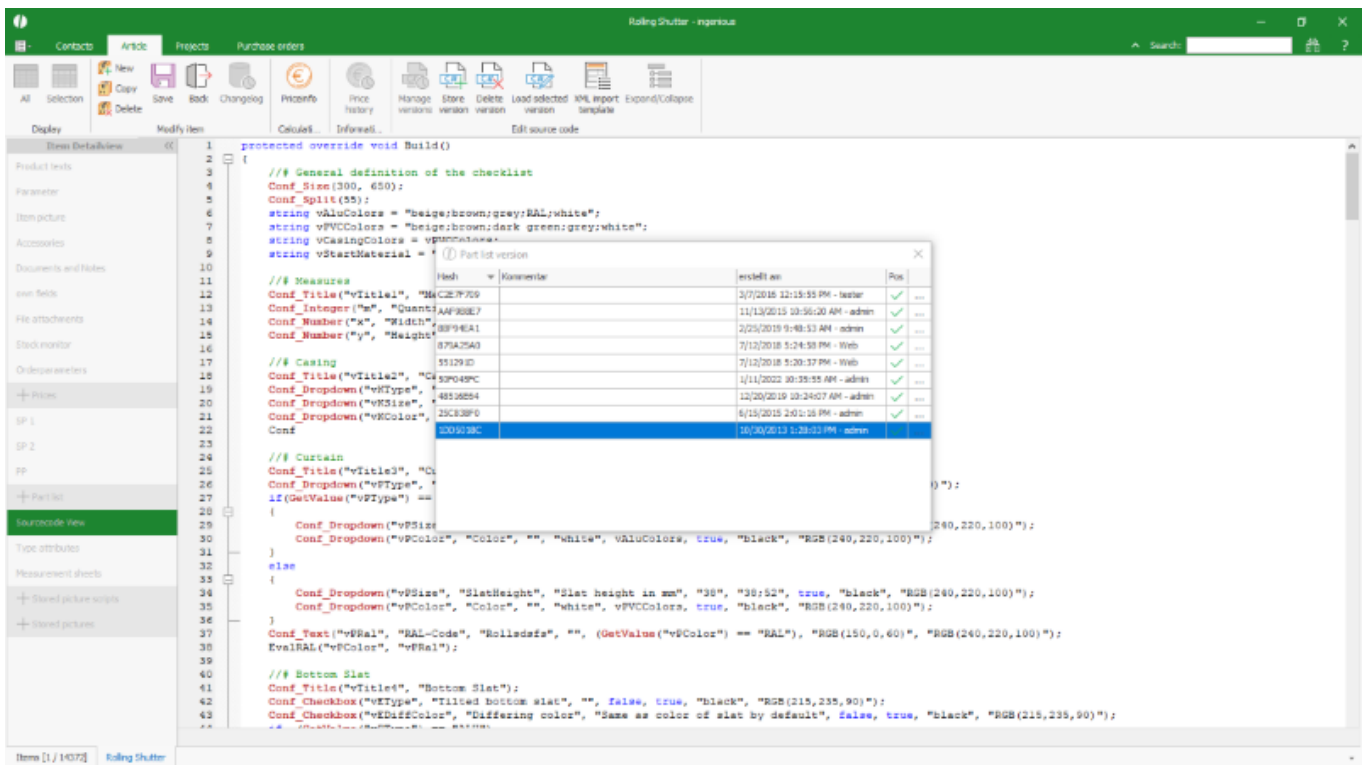
For a better overview, the contents of the individual parts list methods can be expanded and collapsed collectively using the button .

## Sourcecode-Administration



To follow up changes of the partlist or to restore a previous version in case of problems with a modification, versions of the partlist can be stored. Additionally a version is automatically stored in that moment when a modified partlist is used in a project document the first time.

The partlist versions are also used for the recalculation of project items that are always be calculated with that version that was valid at the time of the creation of the project item.

With the button  of the icon bar the sourcecode administration is opened. It contains a list with all stored versions of the partlist with a hash, a comment and a log with date and time of the storage, the user's name and a checkmark when the partlist version was used in any project item.



For the sourcecode administration the following functions are available in the icon bar:

	Stores a new version of the actual partlist in the history.
	Deletes the selected partlist version. Deletion is only possible as long no project item was created with that version.




Loads the selected version of the partlist and overwrites the actual one.

## Pre-configuration for the order XML import

With the order XML import the software offers an interface to import orders from a customer directly into ingenious as order documents via XML.

To ensure that the configuration is completely mapped in the order in the case of a partlist, a specification for the customer is extracted from the configurator.

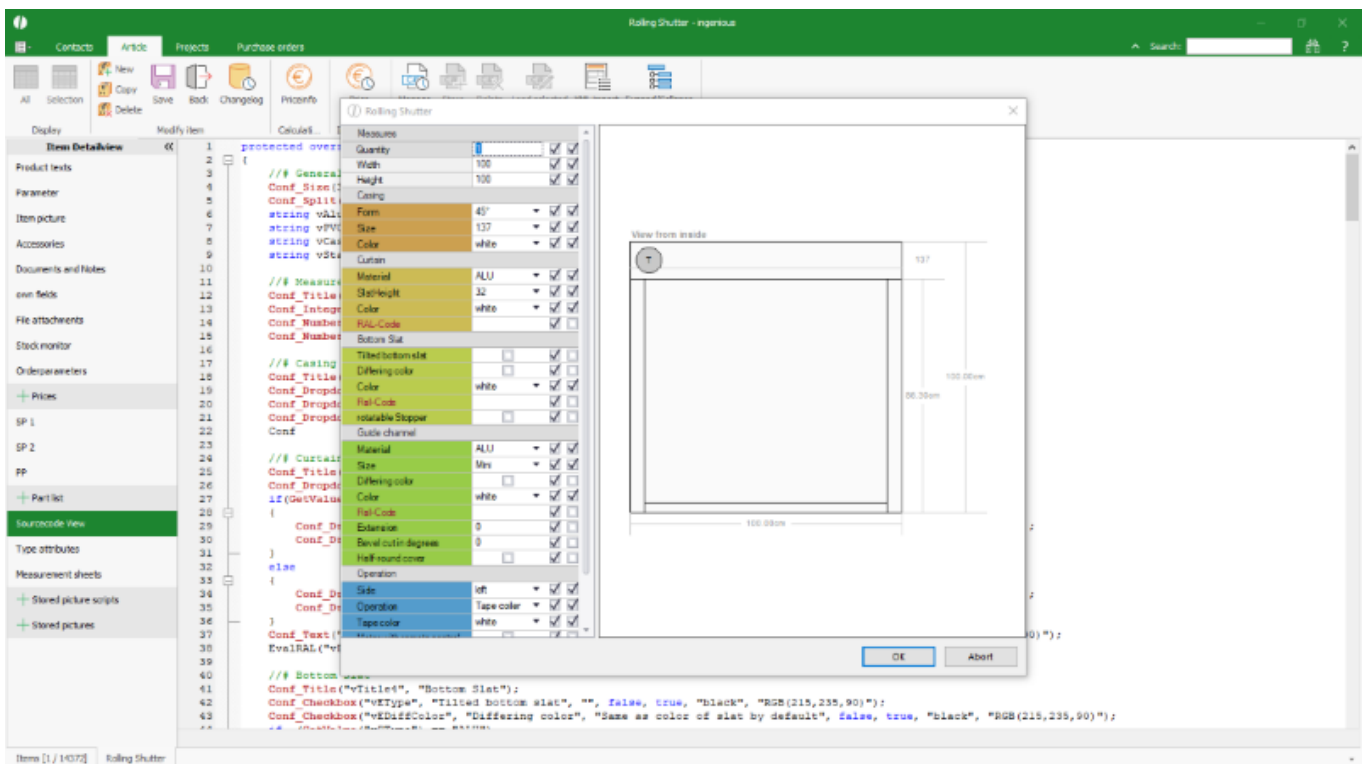
Which options and possible standard values should be taken into account is configured via the button .

Settings are made in the configurator that opens

- 1. Checkbox: which option should be included in the XML
- 2. Checkbox: which options must be filled out

The values that are selected for the individual options are used as the default values.

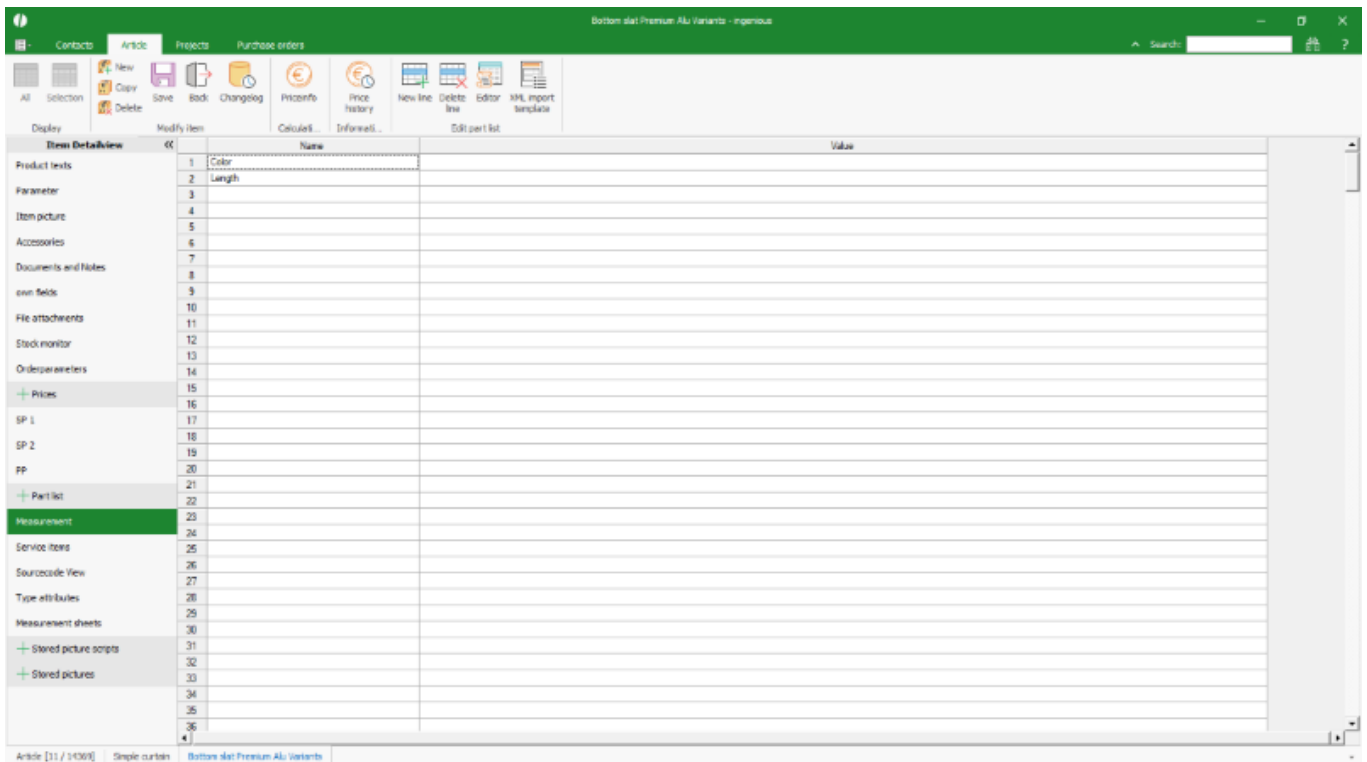
These can be adjusted for each customer in his **XML settings (Section 4.1.2.12.2)**.



## 4.2.3.6 Type attributes

Type attributes identify the characteristics of single parts. These type attributes are used for the function "Create

variants" and for evaluations in partlists.



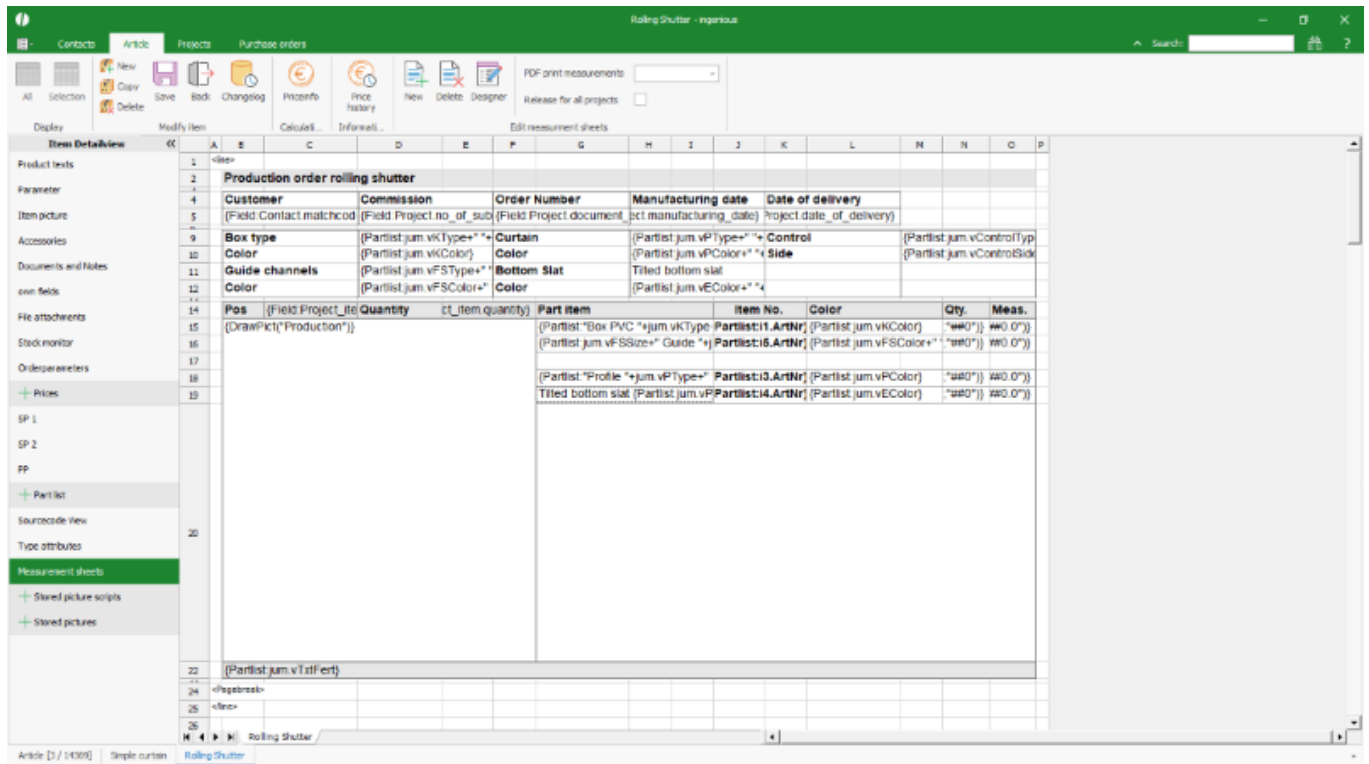
Evaluation of a type attribute in a partlist:

Evaluation of a type attribute




```
BOM_Item("Name", "Matchcode", dQuantity);
string sTypeAttribute = GetValue("Name.Typeattribute");
```



### 4.2.3.7 Measurement sheets


Measurement sheets contain evaluations of measurement data, service items and picture scripts for printing papers for production and technical data sheets.



The following functions are provided for measurement sheets in the icon bar:

	Add a new measurement sheet
	Delete the selected measurement sheet
	Switch to measurement sheet designer mode
Release for all projects	If this checkbox is activated, the measurement sheet can be used in all projects, even when no project item was entered by that partlist itself.

Changes to a measurement sheet can be made with direct modification or by using the tools of the designer. The designer mode can be opened by clicking the button  of the icon bar. Besides the functions for formatting the output, also tools are provided behind the button  to select placeholders and database fields and to load scripts, partlist functions and pictures. der Symboleiste geöffnet werden.

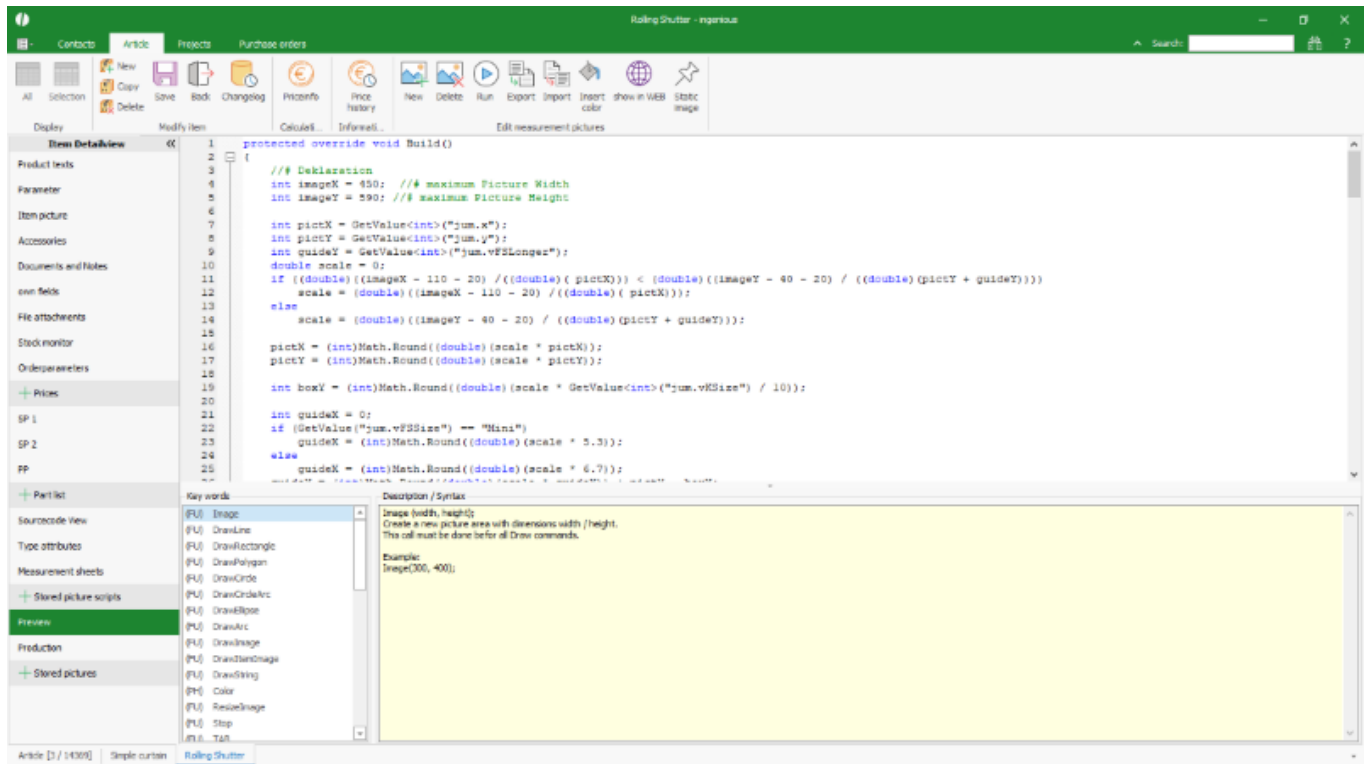
Additionally a dialogue is available for the selection of control characters. This dialogue can be opened by clicking the button .

Possible control tags are:









Control	Meaning
<Line> </Line>	Repeating section for each partlist of a project.

	<b>Parameter</b>	<b>Meaning</b>
	Distinct="X"	Merges all sections with the same partlist variable "X"
	VarNotNull="X"	Generates the line section only when the partlist variable "X" exists and it is not empty or zero.
	ColumnNotNull="X"	Generates the line section only when the partlist variable "Y" exists and it is not empty or zero.
	Repeat="X"	Generates the line section X-times. (e.g. for printing multiple equal labels per partlist)
	Supplies	Modifies the output in that way that a line section is generated for articles that are no partlists (but accessories)
<PrintArea> </PrintArea>	Generates a section if a test condition is true.	
	<b>Parameter</b>	<b>Meaning</b>
	TestColumn="X"	Checks, whether column X is not empty or zero
<InsertRow>	Adds a row.	
	<b>Parameter</b>	<b>Meaning</b>
	Count="X"	X=number of rows to be inserted
<DeleteRow>	Deletes a row.	
<Repeat>	Repeats the section	
	<b>Parameter</b>	<b>Meaning</b>
	Count="X"	X=number of repeats
<PageBreak>	Adds a page break.	





The following functions are provided in the icon bar:

	Creates a new picture script; the name of the picture script has to be unique
	Deletes the selected picture script
	Executes the selected picture script
	Exports the selected picture script in a .cs (c#) format
	Imports a picture script in a .cs (c#) format
	Inserts an RGB color code by selection from a color box
	
	

For each partlist any number of picture scripts can be created, e.g. different scripts for different output in the checklist and on printed documents.

The definition of a picture script is made in the following method:

## Method for picture script

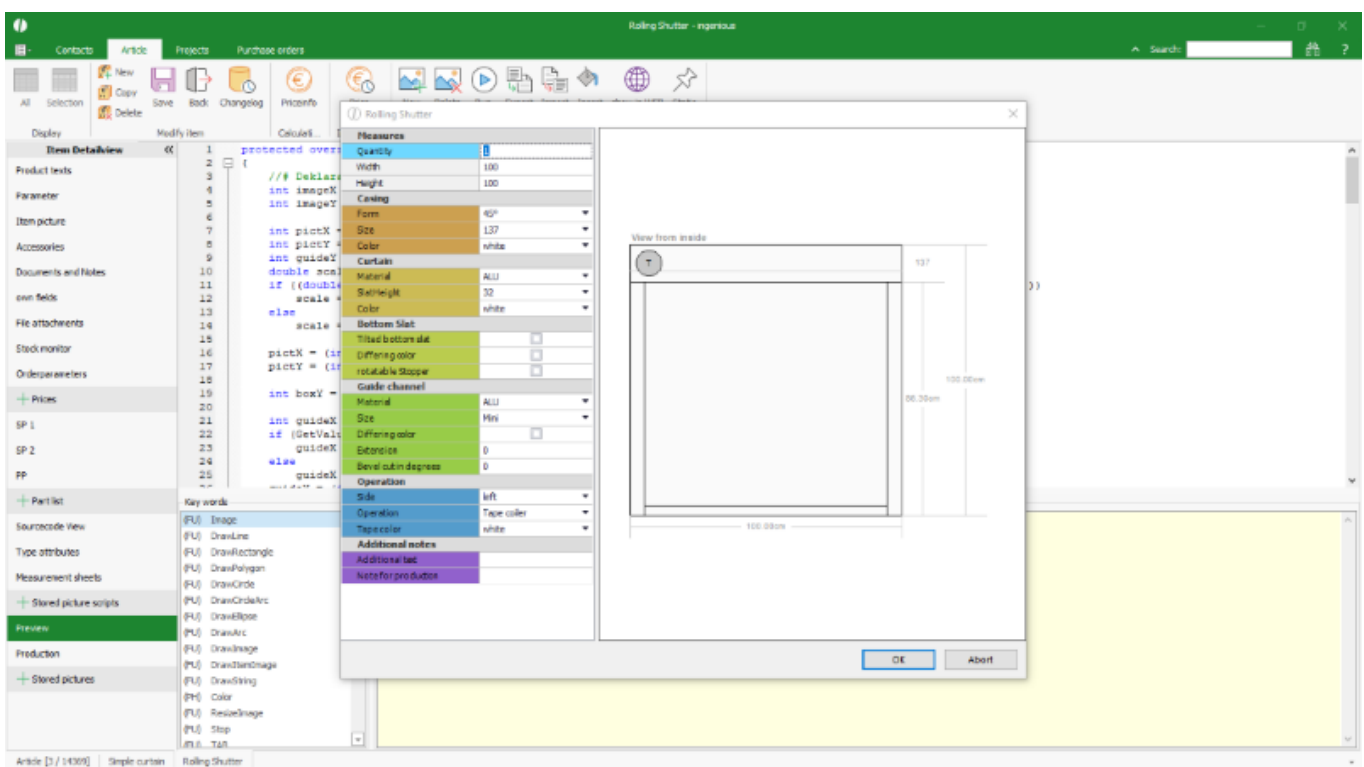
```
protected override void Build()
```

In the lower area of the script view an overview of the possible code words is shown with a description for each control. A double click on one of the code words inserts it into the script for its modification.

Call for embedding a picture script into a checklist:

## Picture script in a checklist

```
ConflLine("=_PicWidth 500", "");
DrawPict("Name");
```

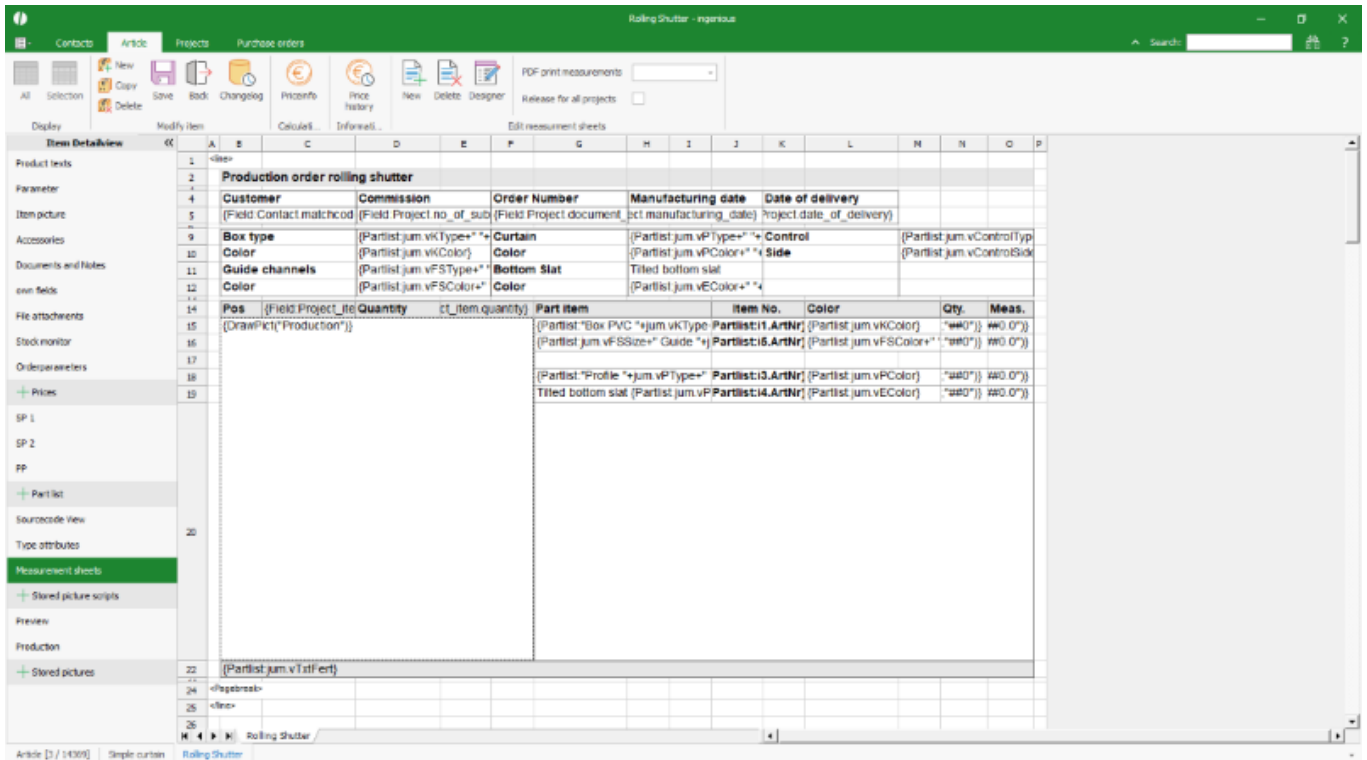


Call for embedding a picture script into a measurement sheet:

## Picture script in a measurement sheet

```
{DrawPict("Name")}
```





## Patterns

The shape that was created by picture scripts can be filled with different patterns.

### Example script for patterns

```
protected override void Build()
{
    Image (800, 700);

    int x = 25;
    int y = 10;

    string color1 = "lightgrey";
    string color2 = "red";
    string t;

    for (int i = 0; i < 53; i++)
    {
        t = "P" + i.ToString();
        DrawString (t, x, y, 50, 30, "Tahoma", 12, "bold", "center", "black", "", true);
        DrawRectangle (x, y + 15, 50, 50, 1, t, color1, color2, true);

        if ((i + 1) % 10 == 0)
        {
            x = 25;

```

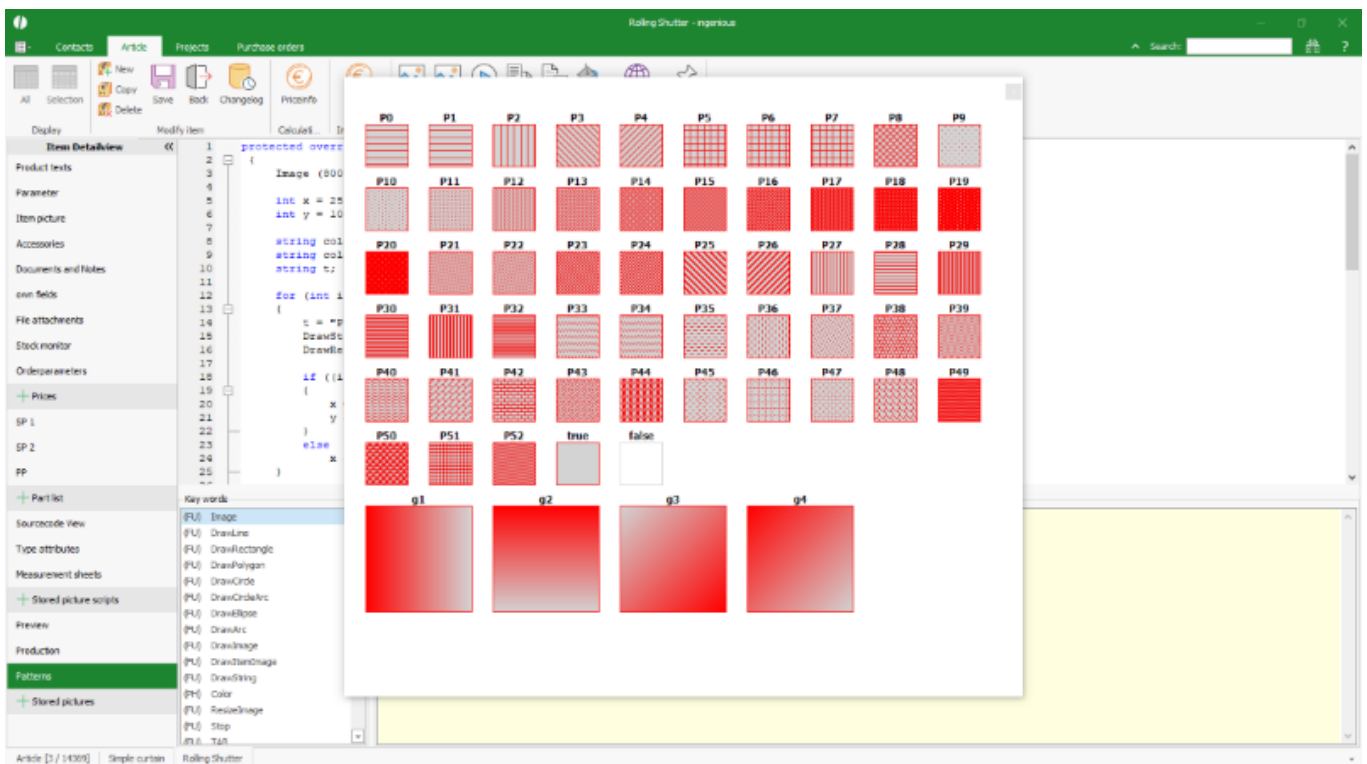
```

        y += 75;
    }
    else
        x += 75;
}

t = "true";
DrawString (t, x, y, 50, 30, "Tahoma", 12, "bold", "center", "black", "", true);
DrawRectangle (x, y + 15, 50, 50, 1, t, color1, color2, true);

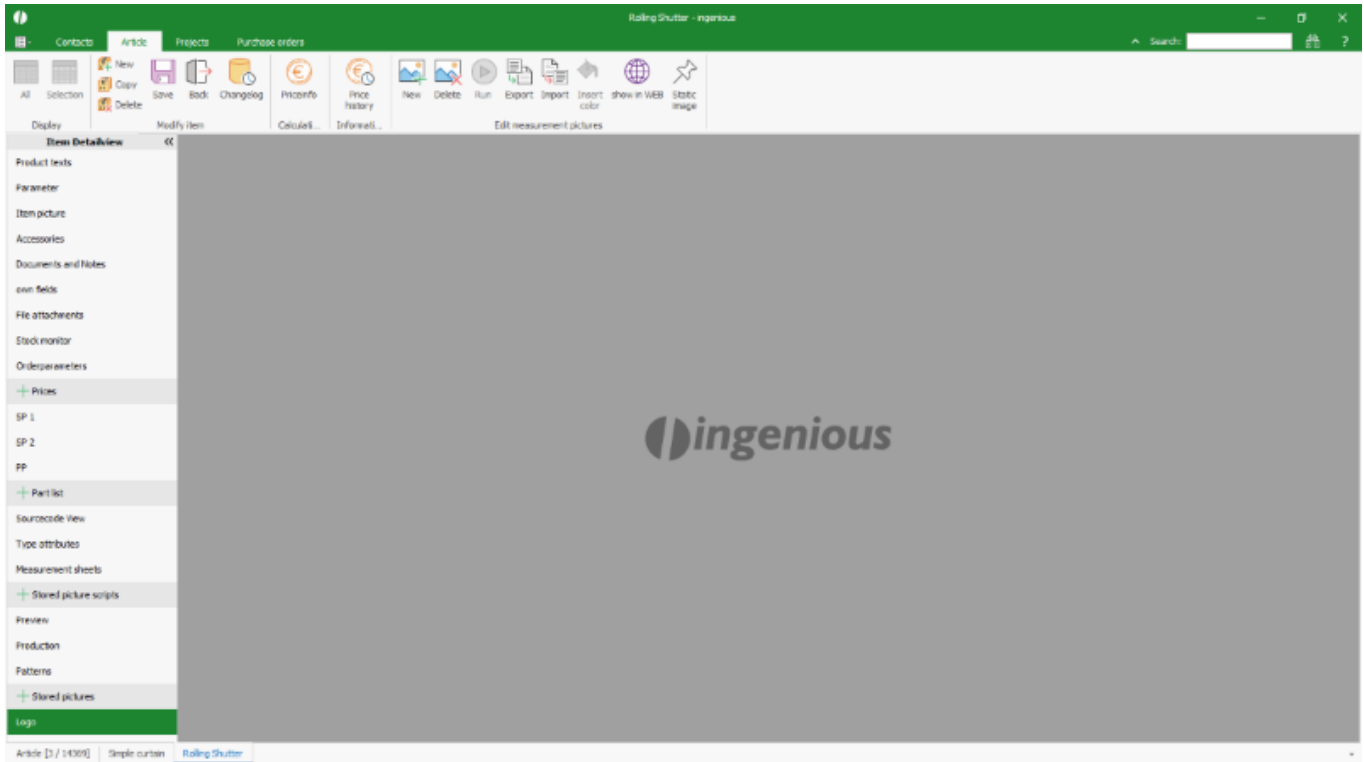
x += 75;
t = "false";
DrawString (t, x, y, 50, 30, "Tahoma", 12, "bold", "center", "black", "", true);
DrawRectangle (x, y + 15, 50, 50, 1, t, color1, color2, true);
x = 25;
y += 75;
for (int i = 1; i < 5; i++)
{
    t = "g" + i.ToString();
    DrawString (t, x, y, 125, 30, "Tahoma", 12, "bold", "center", "black", "", true);
    DrawRectangle (x, y + 15, 125, 125, 1, t, color1, color2, true);
    x += 150;
}
}

```









### 4.2.3.9 Stored pictures

In the stored pictures static images can be stored for usage in checklists or measurement sheets. Static pictures can also be used in picture scripts.



The following functions are provided in the icon bar:

	Adds a new picture; the name of the picture has to be unique.
	Deletes the selected picture
	Exports the selected picture; possible file formats: .png, .jpg, .bmp, .gif, .tif, .ico, .emf, .wmf, .exif
	Imports a picture; possible file formats: .png, .jpg, .bmp, .gif, .tif, .ico, .emf, .wmf, .exif
	
	

Call for embedding a static picture in a checklist:

Static picture in a checklist

```
ConfLine("=_PicWidth 500", "");
DrawPict("Name");
```

Call for embedding a static picture in a measurement sheet:

Static picture in a measurement sheet

```
{DrawPict("Name")}
```


Possible embedding of a static picture in a picture script:

Static picture in a picture script

```
DrawImage (Name,x1,y1{x2,y2{,relative}});
```

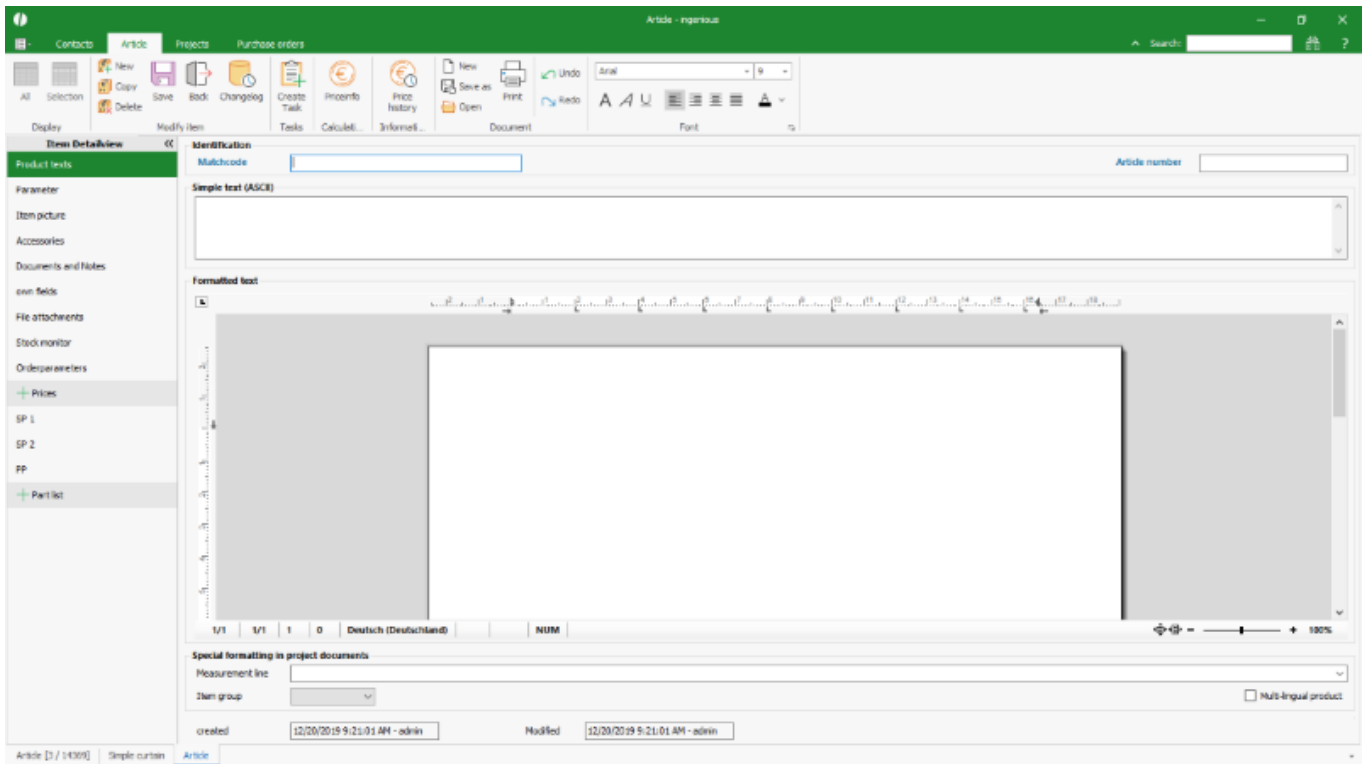
## 4.2.4 Article how-to

### 4.2.4.1 Create a new article

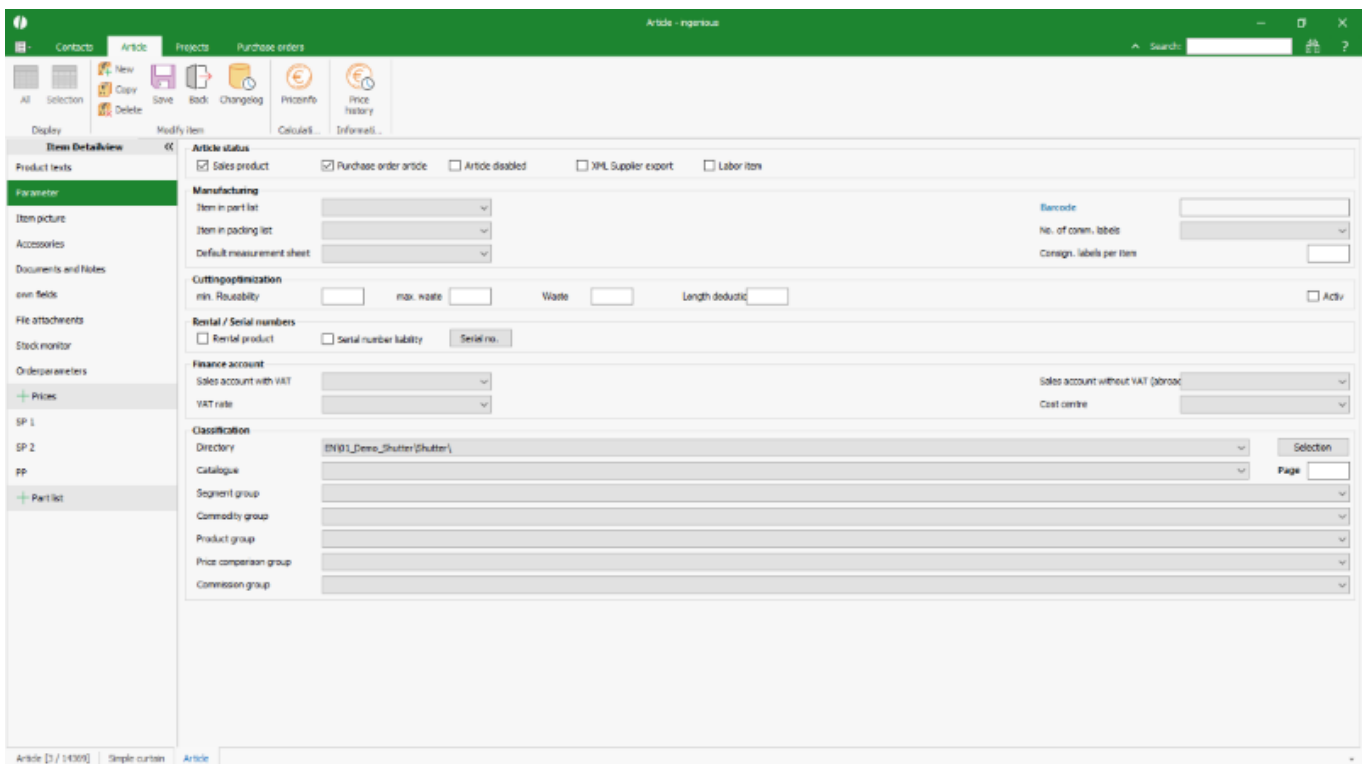
Creating a new article is started with the button . An empty form is opened, where all available data of an article are filled in. The secured fields like matchcode and articlenumber are free editable for the first input. Afterwards the fields are locked to avoid changes by mistake. A new modification is only possible after double clicking the blue field title.


Giving the article a unique matchcode (short string) is essential for saving the dataset.

The article number is given automatically if it's configured in the program settings.




Each new created article is automatically identified as sales product and purchase order article. Additional values are not preallocated.

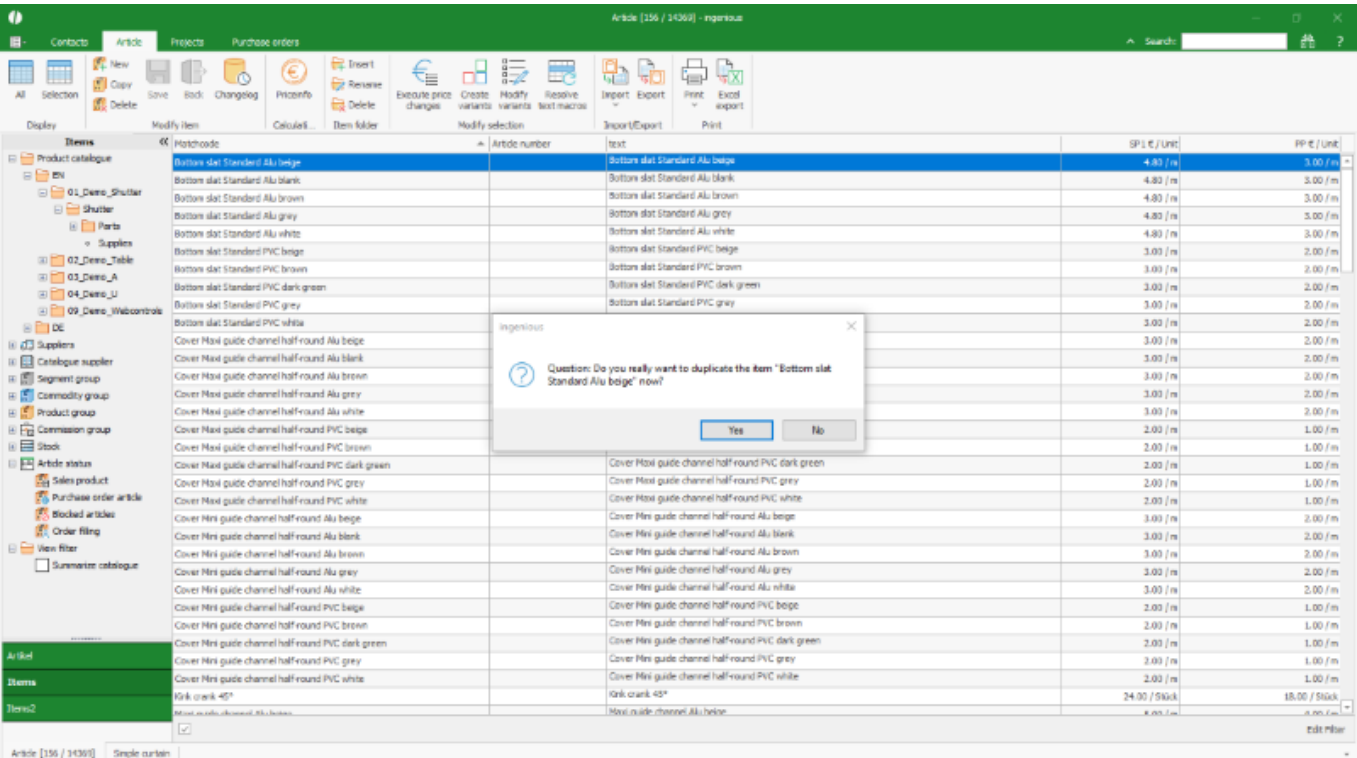


After the complete entry of the details the changes are saved by clicking the button  in the icon bar.

If the creation shall be canceled instead, the article has to be deleted by clicking the button .

## 4.2.4.2 Copy an existing article

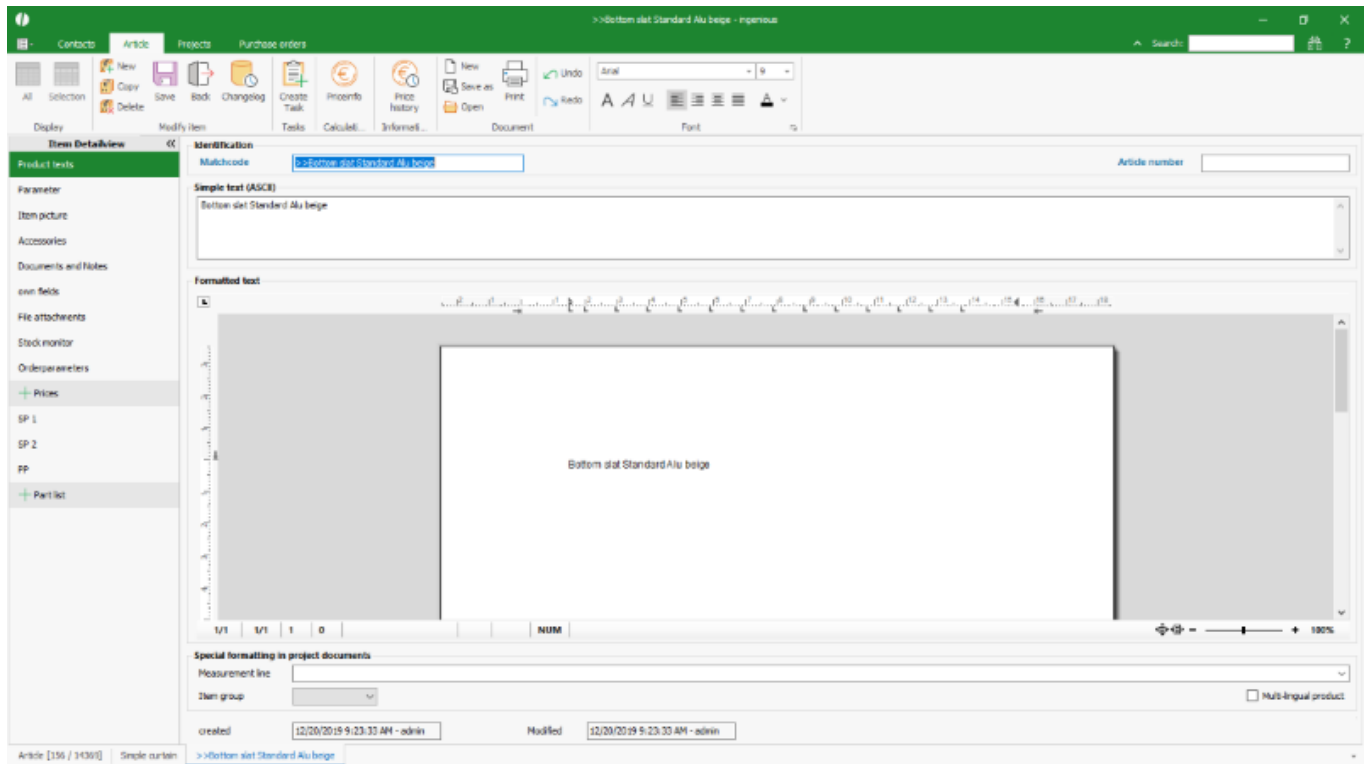
A new article that only differs in a little detail from an existing article (e.g. in color), can be created in the simplest way by the copy function. First the original article is to be selected and the process is started with button . After confirmation of the appearing dialogue the new article is created.





The screenshot displays the 'ingenious' software interface. The main window shows a list of articles with columns for 'Article number', 'text', 'SP1 €/UNIT', and 'PP €/UNIT'. A dialog box is open in the center, asking: 'Question: Do you really want to duplicate the item "Bottom slot Standard Alu beige" now?'. The dialog has 'Yes' and 'No' buttons. The background list includes various items like 'Bottom slot Standard Alu beige', 'Bottom slot Standard Alu blank', 'Bottom slot Standard Alu brown', etc., with their respective prices.

All values of the original article are taken over, including accessory assignments, partlists, file attachments and pictures. Only stock of inventory is not copied.

Because a matchcode of an article has to be unique, the matchcode of the new article is enriched with a prefix >>. For saving the new article the matchcode has to be modified.




After complete modification the changes are saved by clicking the button .

If the creation shall be canceled instead, the article has to be deleted by clicking the button .

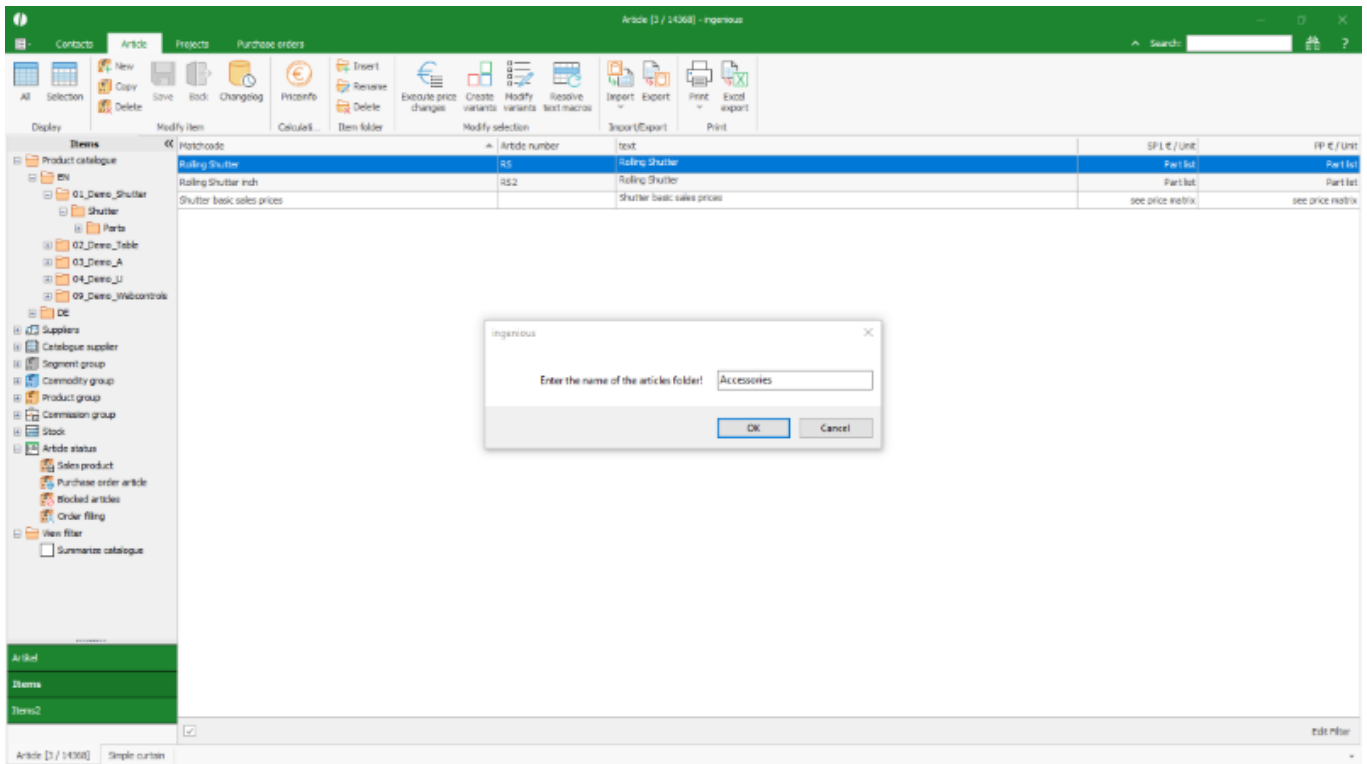
### 4.2.4.3 Administration of item folders

The item or article directory (= product catalogue) is an individual tree structure for sorting all articles. The administration of the article directory is mad in the article list view. A various number of folders and subfolders can be created. The structure can be enriched or modified at any time.


#### Create a new article folder

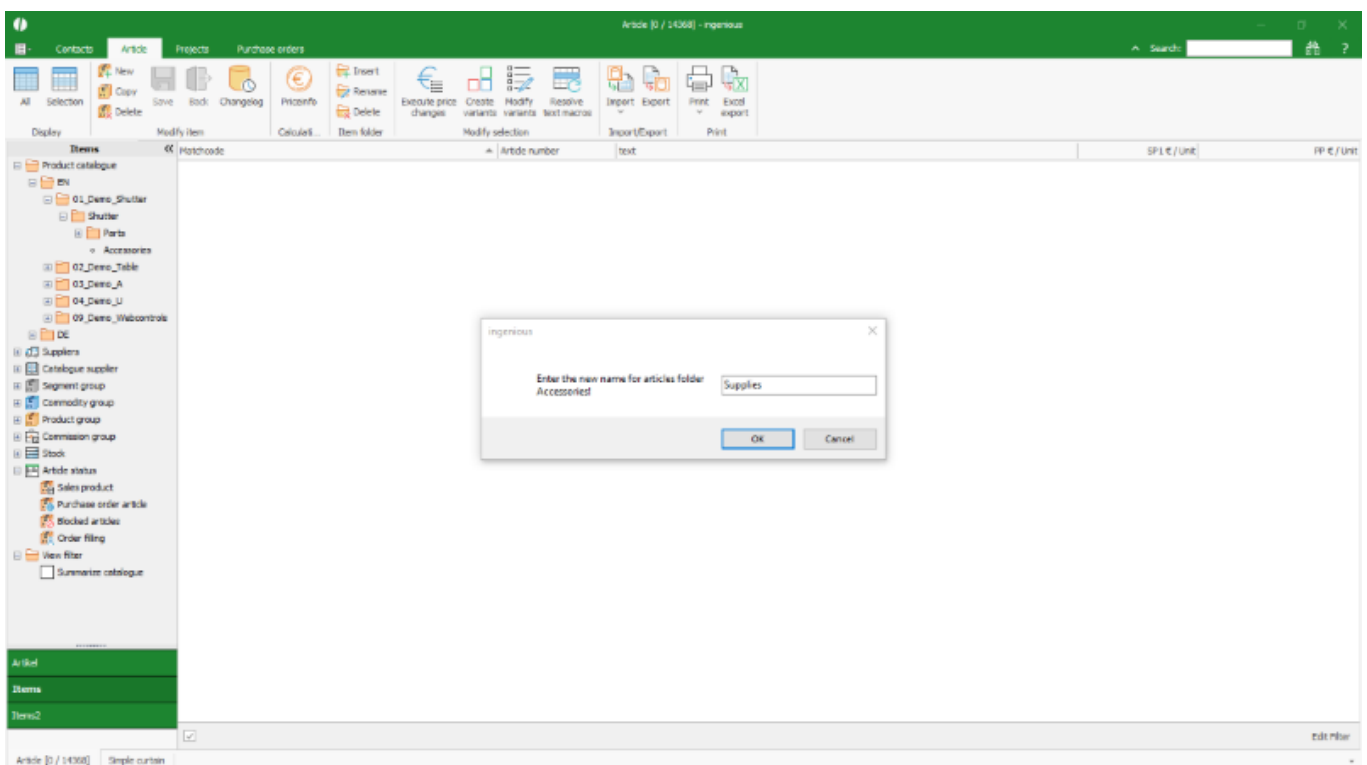
With the button  a new folder can be created. For the correct placement of a subfolder first the greater folder in the tree structure should be selected. The new folder will be inserted in this folder then. If no greater folder was selected, the new folder is created at the bottom of the tree.

After clicking the button the name of the new folder is entered and confirmed with OK.



## Renaming an article folder

If a name of an article folder was given wrong or needs to be changed for other reasons, it can be renamed after clicking the button . In the appearing dialogue the new name has to be entered and confirmed with OK.






## Rearrange article folders

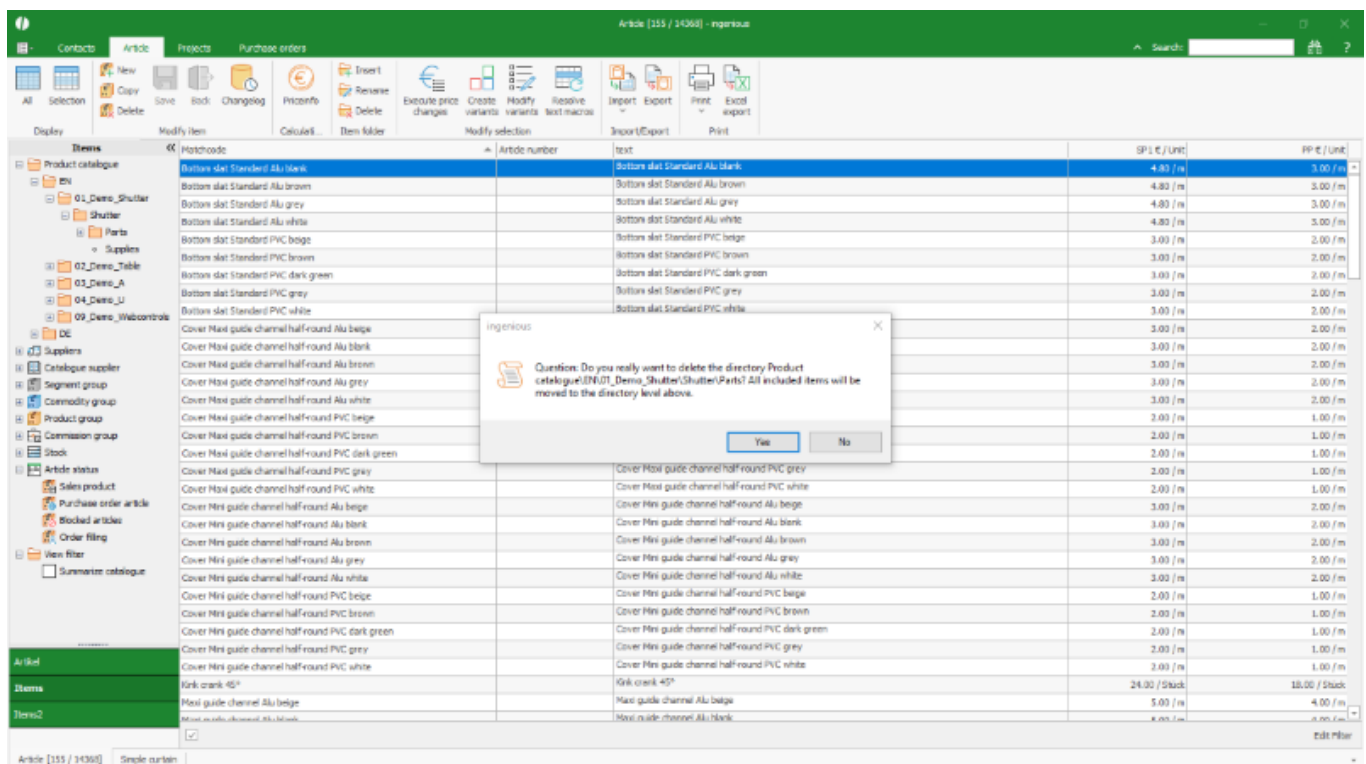
If article folders were placed wrongly, they can be rearranged subsequently. The structure can be changed by simple drag&drop. The folder needs to be be dropped to the greater folder, where it shall be placed in.

## Delete an article folder

If an article folder is not needed anymore it can be deleted with the button  at any time.

If the folder contains some articles, they will be automatically moved to the greater folder. If the folders should be moved to an other folder, they need to be moved before.

The greatest folder cannot be deleted as long as it contains articles.



The screenshot displays the 'ingenious' software interface. The main window shows a list of articles with columns for 'Article number', 'text', 'SP1 € / Unit', and 'PP € / Unit'. A dialog box is open in the center, asking for confirmation to delete a directory. The dialog text reads: 'Question: Do you really want to delete the directory Product catalogue\EN\_01\_Dense\_Shutter\Parts? All included items will be moved to the directory level above.' The dialog has 'Yes' and 'No' buttons.

Article number	text	SP1 € / Unit	PP € / Unit
Bottom slot Standard Alu blank	Bottom slot Standard Alu blank	4.80 / m	3.00 / m
Bottom slot Standard Alu brown	Bottom slot Standard Alu brown	4.80 / m	3.00 / m
Bottom slot Standard Alu grey	Bottom slot Standard Alu grey	4.80 / m	3.00 / m
Bottom slot Standard Alu white	Bottom slot Standard Alu white	4.80 / m	3.00 / m
Bottom slot Standard PVC beige	Bottom slot Standard PVC beige	3.00 / m	2.00 / m
Bottom slot Standard PVC brown	Bottom slot Standard PVC brown	3.00 / m	2.00 / m
Bottom slot Standard PVC dark green	Bottom slot Standard PVC dark green	3.00 / m	2.00 / m
Bottom slot Standard PVC grey	Bottom slot Standard PVC grey	3.00 / m	2.00 / m
Bottom slot Standard PVC white	Bottom slot Standard PVC white	3.00 / m	2.00 / m
Cover Maxi guide channel half-round Alu beige	Cover Maxi guide channel half-round Alu beige	3.00 / m	2.00 / m
Cover Maxi guide channel half-round Alu blank	Cover Maxi guide channel half-round Alu blank	3.00 / m	2.00 / m
Cover Maxi guide channel half-round Alu brown	Cover Maxi guide channel half-round Alu brown	3.00 / m	2.00 / m
Cover Maxi guide channel half-round Alu grey	Cover Maxi guide channel half-round Alu grey	3.00 / m	2.00 / m
Cover Maxi guide channel half-round Alu white	Cover Maxi guide channel half-round Alu white	3.00 / m	2.00 / m
Cover Maxi guide channel half-round PVC beige	Cover Maxi guide channel half-round PVC beige	2.00 / m	1.00 / m
Cover Maxi guide channel half-round PVC brown	Cover Maxi guide channel half-round PVC brown	2.00 / m	1.00 / m
Cover Maxi guide channel half-round PVC dark green	Cover Maxi guide channel half-round PVC dark green	2.00 / m	1.00 / m
Cover Maxi guide channel half-round PVC grey	Cover Maxi guide channel half-round PVC grey	2.00 / m	1.00 / m
Cover Maxi guide channel half-round PVC white	Cover Maxi guide channel half-round PVC white	2.00 / m	1.00 / m
Cover Mini guide channel half-round Alu beige	Cover Mini guide channel half-round Alu beige	3.00 / m	2.00 / m
Cover Mini guide channel half-round Alu blank	Cover Mini guide channel half-round Alu blank	3.00 / m	2.00 / m
Cover Mini guide channel half-round Alu brown	Cover Mini guide channel half-round Alu brown	3.00 / m	2.00 / m
Cover Mini guide channel half-round Alu grey	Cover Mini guide channel half-round Alu grey	3.00 / m	2.00 / m
Cover Mini guide channel half-round Alu white	Cover Mini guide channel half-round Alu white	3.00 / m	2.00 / m
Cover Mini guide channel half-round PVC beige	Cover Mini guide channel half-round PVC beige	2.00 / m	1.00 / m
Cover Mini guide channel half-round PVC brown	Cover Mini guide channel half-round PVC brown	2.00 / m	1.00 / m
Cover Mini guide channel half-round PVC dark green	Cover Mini guide channel half-round PVC dark green	2.00 / m	1.00 / m
Cover Mini guide channel half-round PVC grey	Cover Mini guide channel half-round PVC grey	2.00 / m	1.00 / m
Cover Mini guide channel half-round PVC white	Cover Mini guide channel half-round PVC white	2.00 / m	1.00 / m
Link crank 45°	Link crank 45°	24.00 / Stock	18.00 / Stock
Maxi guide channel Alu beige	Maxi guide channel Alu beige	5.00 / m	4.00 / m
Maxi guide channel Alu blank	Maxi guide channel Alu blank	4.00 / m	3.00 / m

## 4.3 Projects

### 4.3.1 Projects list view

#### 4.3.1.1 The projects list view

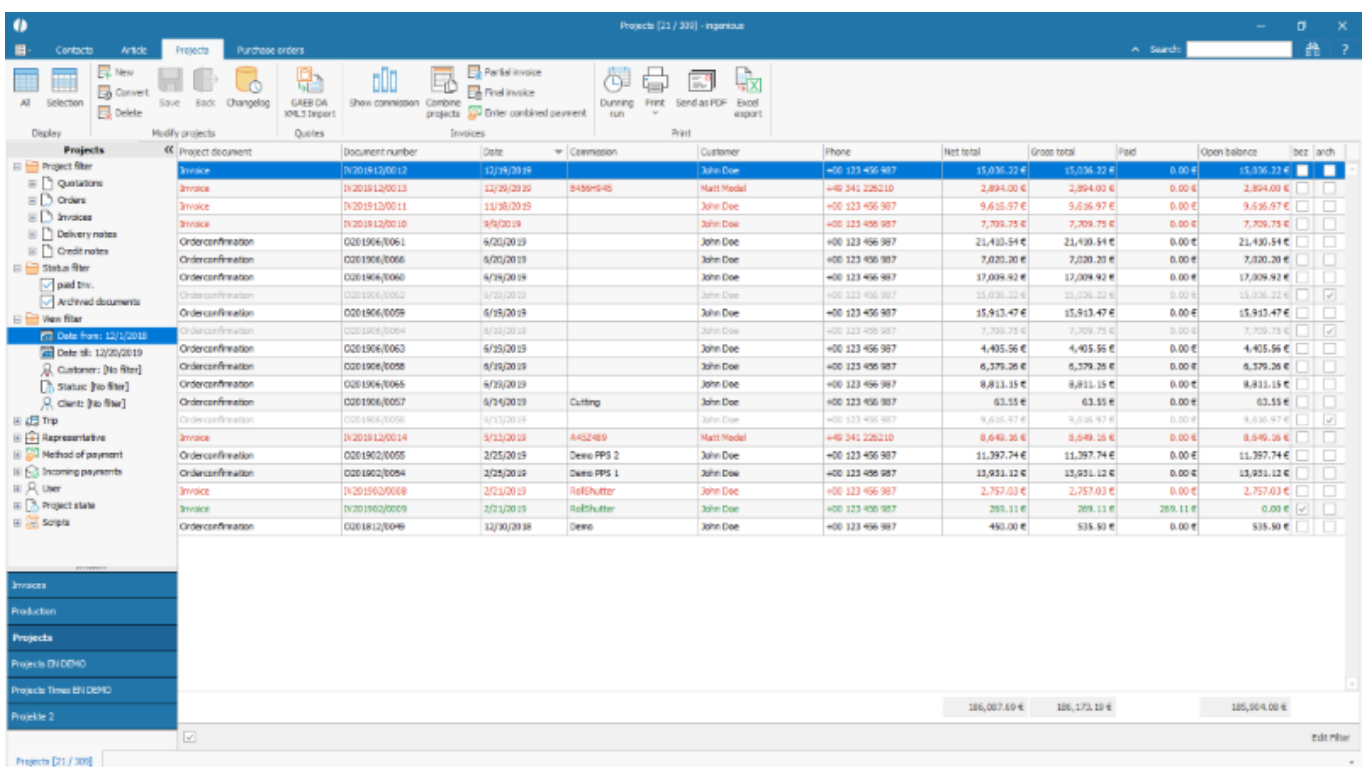
The projects list view shows an overview about all project documents that are stored in the database. They are listed depending on the filters that are set or on the search string that was entered. In the project filters the kind of document types is to be set. This selection can additionally be filtered for the status of the projects and e.g. for a timeframe.

After selecting the filters and clicking the button  the related project documents will be shown.



The filters Trip, Representative, Method of payment, Incoming payment, User and Project state are immediate filters and the documents that match the criteria are shown directly after clicking the filter.













In the projects list view the project documents can be identified by the following colors:

black font	Standard document of type quote, order confirmation or delivery note
grey font	Archived document of type quote, order document or delivery note
red font	Not (or incomplete) paid invoice or credit note
green font	Fully paid invoice or credit note
purple font	Overpaid invoice or credit note




In the projects list view the following functions are provided:

	Shows all project documents depending on the selected filters.
	Only shows the selected project documents

	Creates a new project document
	(little icon) Converts an existing project document
	Deletes the selected project document
	Opens the changelog for administrators (user right required)
	Imports call for bids in GAEB DA XML3 format.
	Shows the complete commission documents (all project documents with the same commission name)
	(big icon) Combines project documents / Creates collected documents
	Creates a partial invoice for the selected order confirmation
	Creates a final invoice for the selected order confirmation
	Opens a window to enter a combined payment for the selected documents.
	Starts the dunning run for all open invoices that are overdue
	Diverse print reports / Opens the print report designer
	Exports the projects list view to Microsoft Excel file

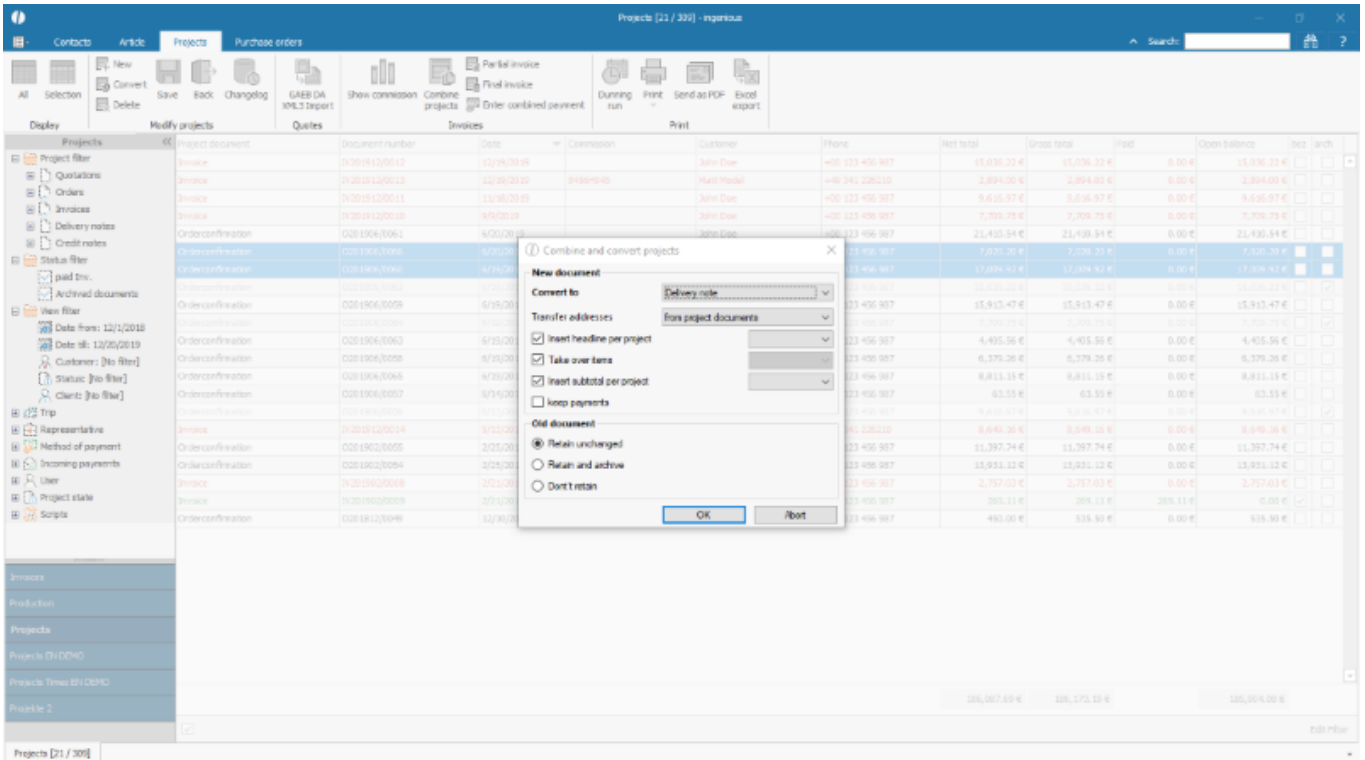
### 4.3.1.2 Combine projects

For the creation of collected documents the function "Combine projects" is provided. With that function project documents of the same type and of the same customer can be combined. In practice this is often used to create a collected delivery note out of divers orders or to invoice divers deliveries in one invoice document.

To create a collected document first all related project documents need to be selected and button  has to be clicked. In the appearing dialogue the user has to define, which project type should be created and what should happen with the original documents. Additionally the following options are available:

Insert headline per project	With a headline the project items of each original document can be delimited. Per default it is built from the following text with placeholders: {DocumentNo} from {printedon}, Project: {Project} Also an individual text for headline can be created in the text templates module / section free texts. This text can be built of any free text and project placeholders. This individual text can be chosen in the dialogue of the "combine projects" process.
-----------------------------	---

Take over items	The collected document can contain each single project item of the original documents or it can have one single item for each original document that describes the project volume in general. The content of that combined project item is to be built in the free texts can be selected in the process dialogue.
Insert subtotal per project	A subtotal can close each section of an original document. The default title for this subtotal is simply "Subtotal". Any other individual text could be chosen from free texts.



The combined document is created with the configured headlines and subtotals with its reference to the original documents.

The screenshot displays the 'Delivery note 0201912/0002' window. The main content area shows the following details:

Sample Company: Sample steel 0247 0240 Sample team  
 Delivery address:  
 John Doe  
 125 Anywhere Street  
 12345 Anytown

Invoice to:  
 John Doe  
 127 Anywhere Street  
 12345 Anytown

Customer No. 10000  
 Project Order No. 0201906/0006  
 Delivery Wednesday  
 Your contact Anton Admin  
 Email: anton@ingenious.de  
 Phone: 0123456789  
 Fax: 0123456780  
 Date: 12/20/2019


**Delivery note 0201912/0002**  
**Subject:**  
 Dear Mr. Doe  
 Delivery contains:

PosNo	ItemNo.	Description	Height	Surface	Quantity	Confirmed
<b>Order confirmation 0201906/0006 from 6/19/2019</b>						
001	A0	Roll Shutter (Barracuda - white) - Motor Barracuda Motor 82 cm x 72 cm = 0.5904 sgm			1	<input type="checkbox"/>
002	A0	Roll Shutter (Barracuda - white) - Motor Barracuda Motor 56 cm x 75 cm = 0.42 sgm			1	<input type="checkbox"/>
008	HV	Accorden H-W3 - white (2 Stacks) AccordenManual 98 cm x 56 cm = 0.5488 sgm			3	<input type="checkbox"/>
<b>Subtotal</b>						
<b>Order confirmation 0201906/0006 from 6/20/2019</b>						
001	A0	Roll Shutter (Barracuda - grey) - Motor Barracuda Motor 55 cm x 85 cm = 0.4675 sgm			1	<input type="checkbox"/>
002	A0	Roll Shutter (Barracuda - grey) - Motor Barracuda Motor 54.5 cm x 85 cm = 0.46325 sgm			1	<input type="checkbox"/>

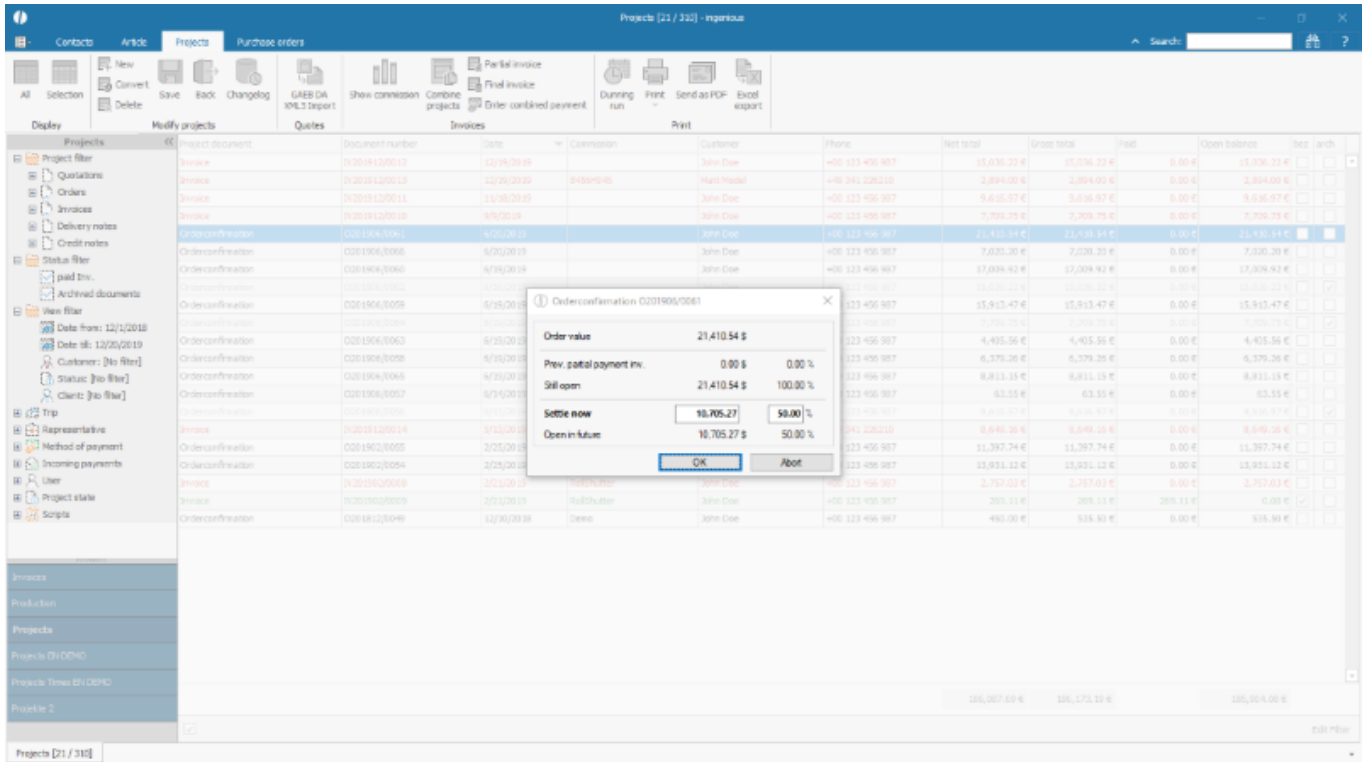
created: 12/20/2019 9:39:00 AM - admin Modified: 12/20/2019 9:39:08 AM - admin

The right sidebar shows miscellaneous details for the delivery note, including Name, Number, Project, Printed on, Contact, Project template, Contact person, Representative, Trip, Project state, Project text, and notes. The Item section lists dimensions (X Width: 82.00, Y Height: 72.00, Weight: 105.04, Flat price: \$0.00, Unit price: \$1,871.36, Net price: \$1,871.36, VAT %: 0 %, Gross price: \$1,871.36, SP conversion, Purchase price: \$338.75, PP conversion, Time: 0 min, Rebate: \$207.53, Rebate %: 10 %).

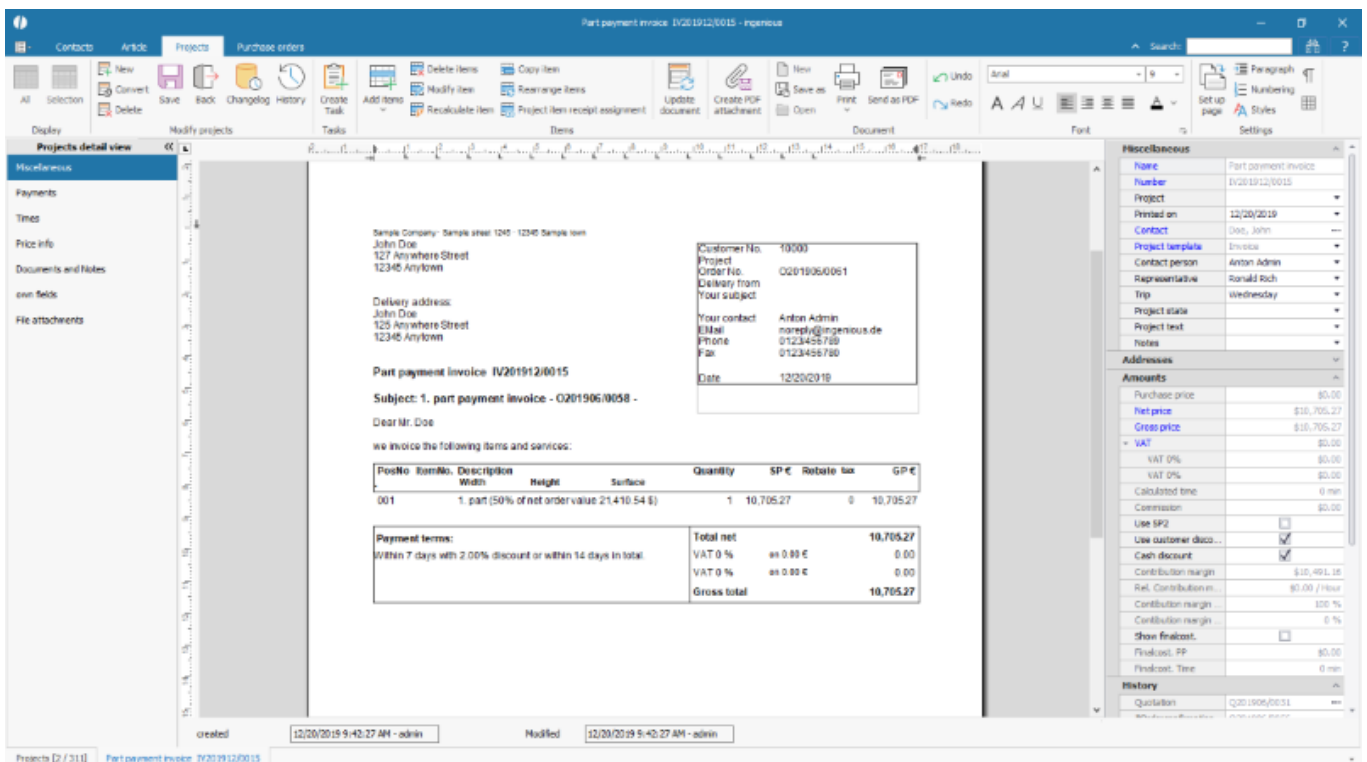
### 4.3.1.3 Partial invoice

In the building industry it's common practice to charge partial amounts for orders that are partial fulfilled. This function is started with button  after the order confirmation was selected in the projects list view.

In the appearing dialogue, a percental or absolute value can be entered as amount that shall be charged with this invoice.



The partial invoice is created.



This invoiced amount is stored in the original order, so with next execution of that function the remaining amount is factored.

The screenshot displays the 'ingenious' software interface. The top menu bar includes 'Contacts', 'Articles', 'Projects', and 'Purchase orders'. The 'Projects' menu is active, showing options like 'New', 'Convert', 'Save', 'Back', 'Changelog', 'GAB DA 10% Report', 'Show commission', 'Combine projects', 'Partial invoice', 'Final invoice', 'Order confirmed payment', 'Dunning run', 'Print', 'Send as PDF', and 'Excel export'. The main window shows a table of projects with columns for 'Project document', 'Document number', 'Date', 'Commission', 'Customer', 'Phone', 'Net total', 'Gross total', 'Paid', 'Open balance', 'acc', and 'arch'. A modal dialog titled 'Orderconfirmation C201906/0061' is open, displaying the following information:

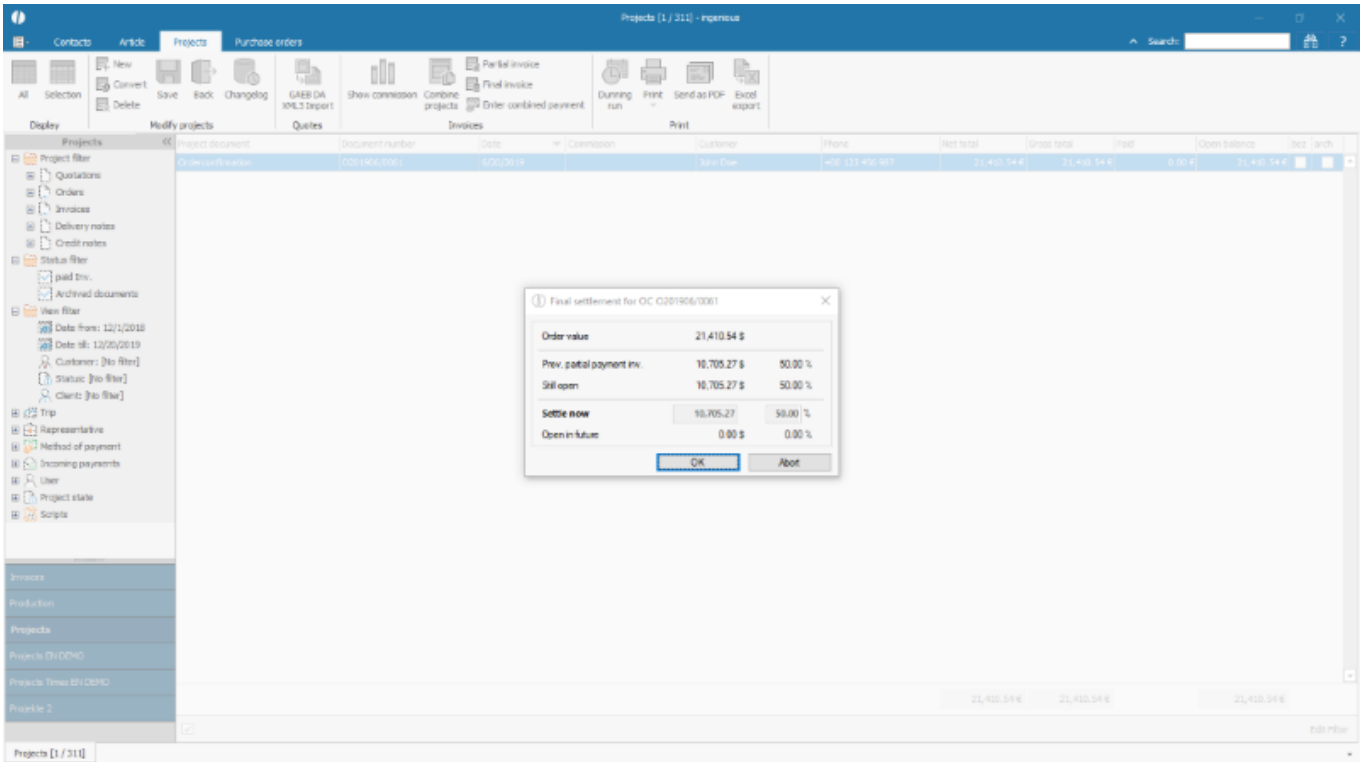
Orderconfirmation C201906/0061	
Order value	21.410,54 \$
Prev. partial payment inv.	10.705,27 \$ 50,00 %
Still open	10.705,27 \$ 50,00 %
Settle now	<input type="text" value="10.705,27"/> 50,00 %
Open in future	0,00 \$ 0,00 %

The dialog has 'OK' and 'Abort' buttons at the bottom. The background table shows a list of projects, with the selected row having a document number of 'C201906/0061' and a date of '6/20/2019'.

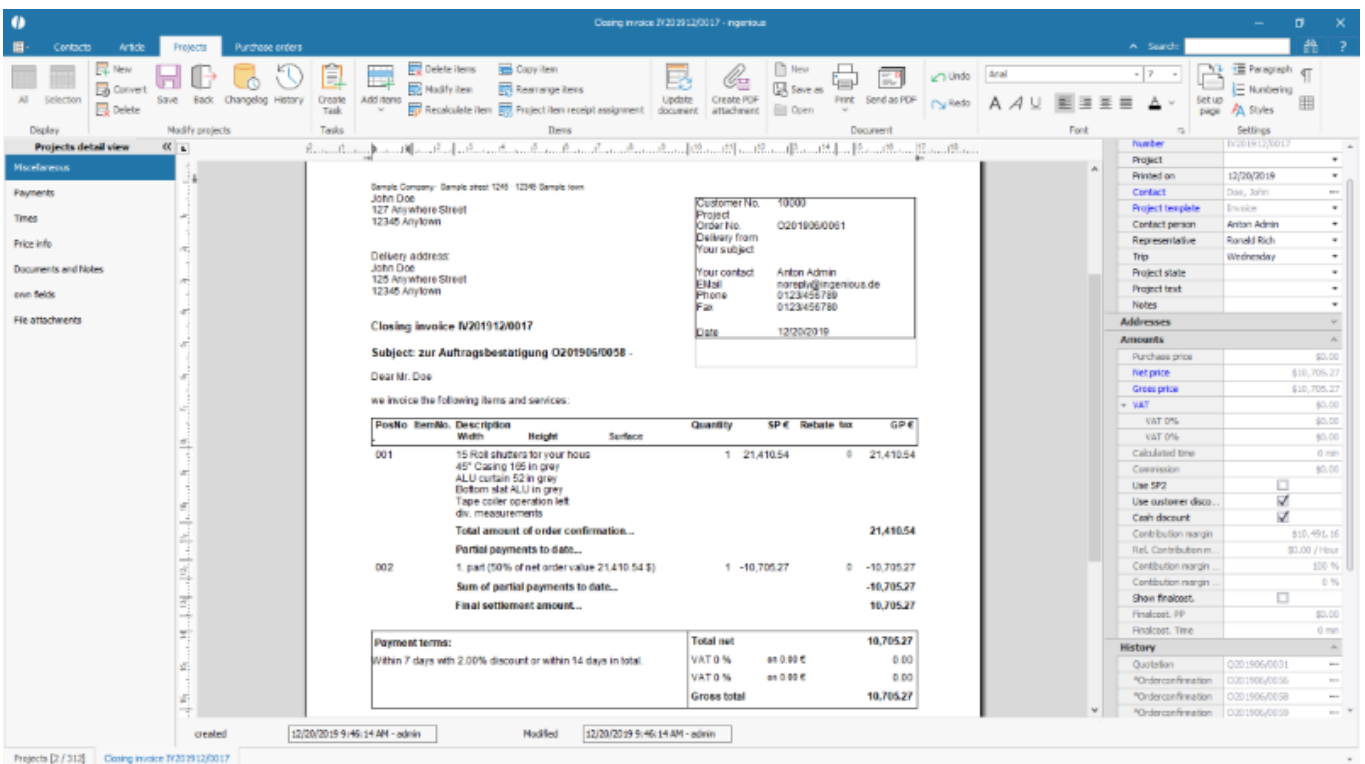
### 4.3.1.4 Final invoice

A final invoice can be created from an order document for that partial invoices were created by clicking the button





All partial invoices that were created for this project are listed in the final invoice and their amounts are subtracted from the complete project volume.





## Individual design of the final invoice

The simple final invoice lists all order items, creates a total and subtracts the net amounts of the previous partial invoices before the sales tax and the gross amount are determined in the totals block.

In particular, if VAT rates change in the meantime the long-running projects, the partial invoices must be shown and deducted with their gross values from the gross order value (e.g. during the temporary VAT reduction in Germany in July 2020).

The VAT rate that is valid on the service date (usually the date of completion / delivery) is decisive for the final invoice.

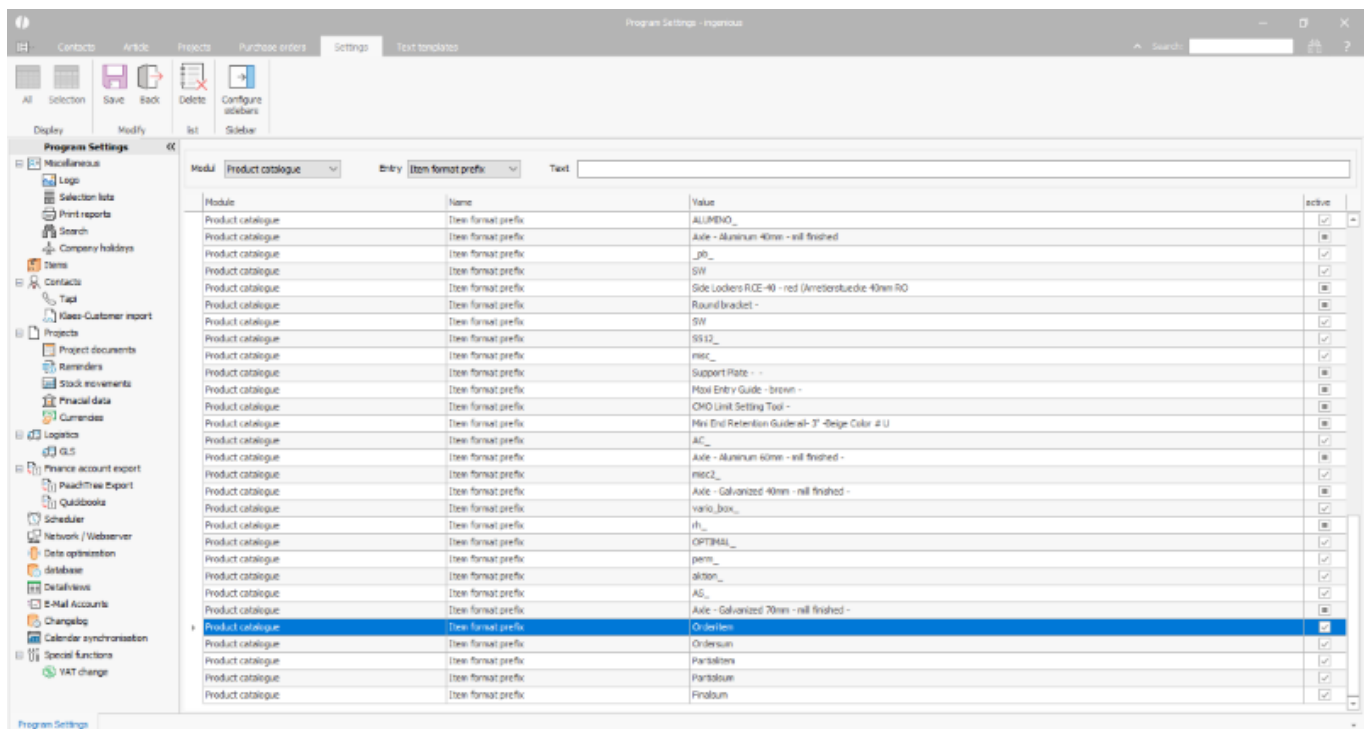
## Components of the final invoice - item categories

A final invoice is divided into:

- the Orderitem
- the Ordersum
- the Partialitem
- the Partialsum
- and the Finalsum

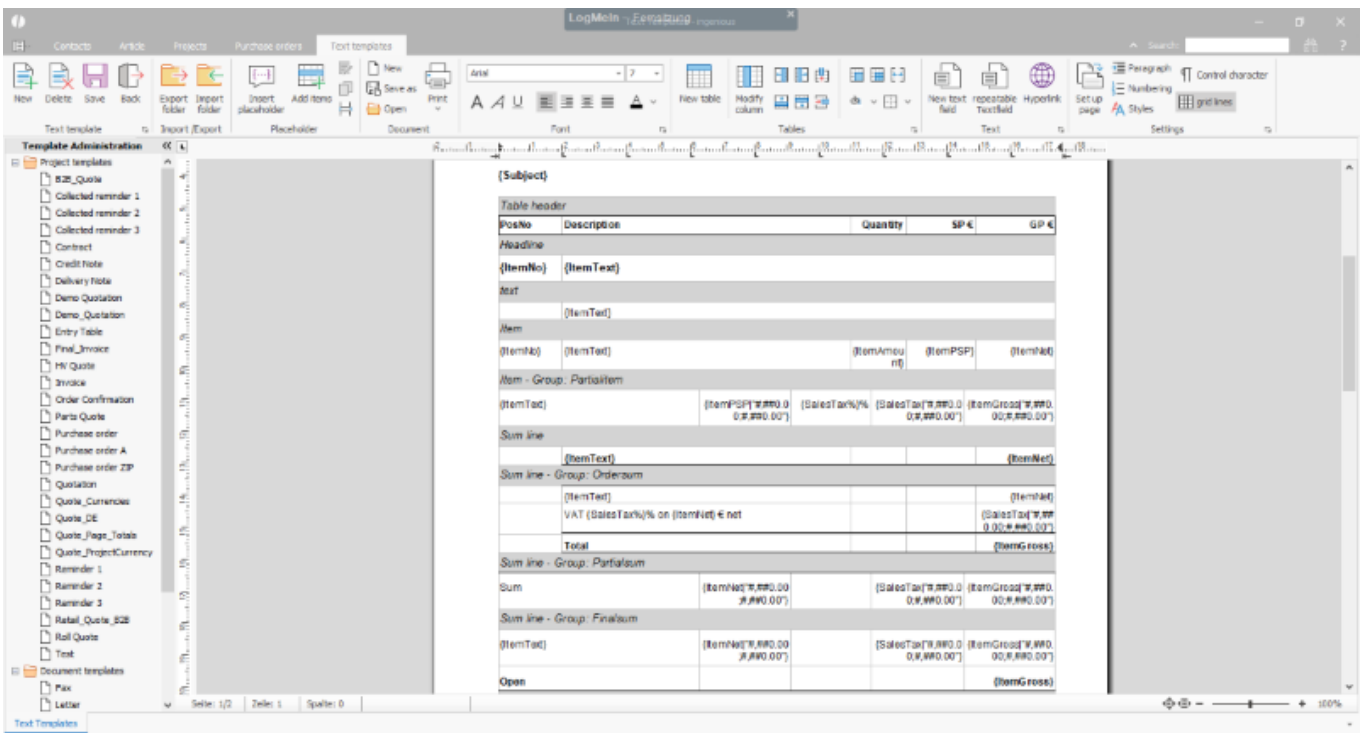
Separate representations can be defined for these blocks.

To do this, the position groups must first be created in the program settings as "Prefix position format" in the selection lists (see **Selection lists (Section 8.6.4)**)

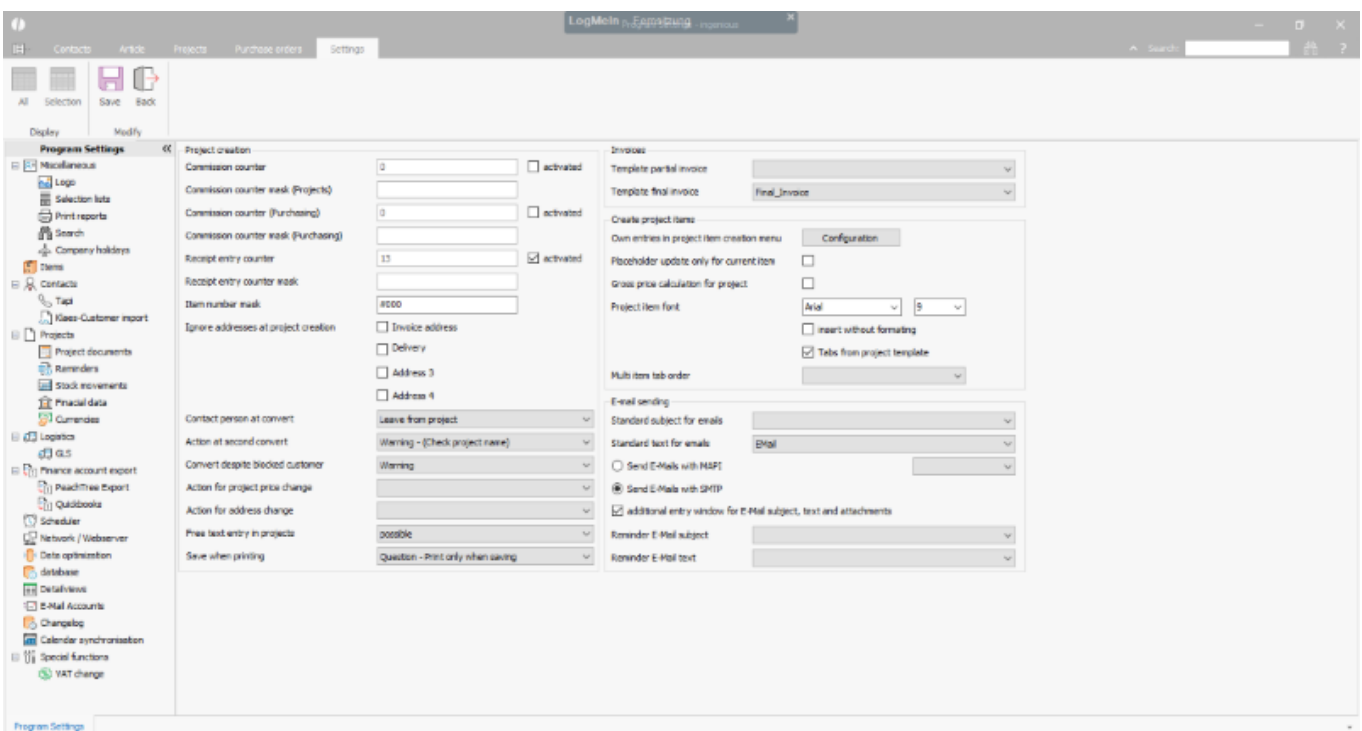


These position groups can then be selected when adding a position in the text template administration.

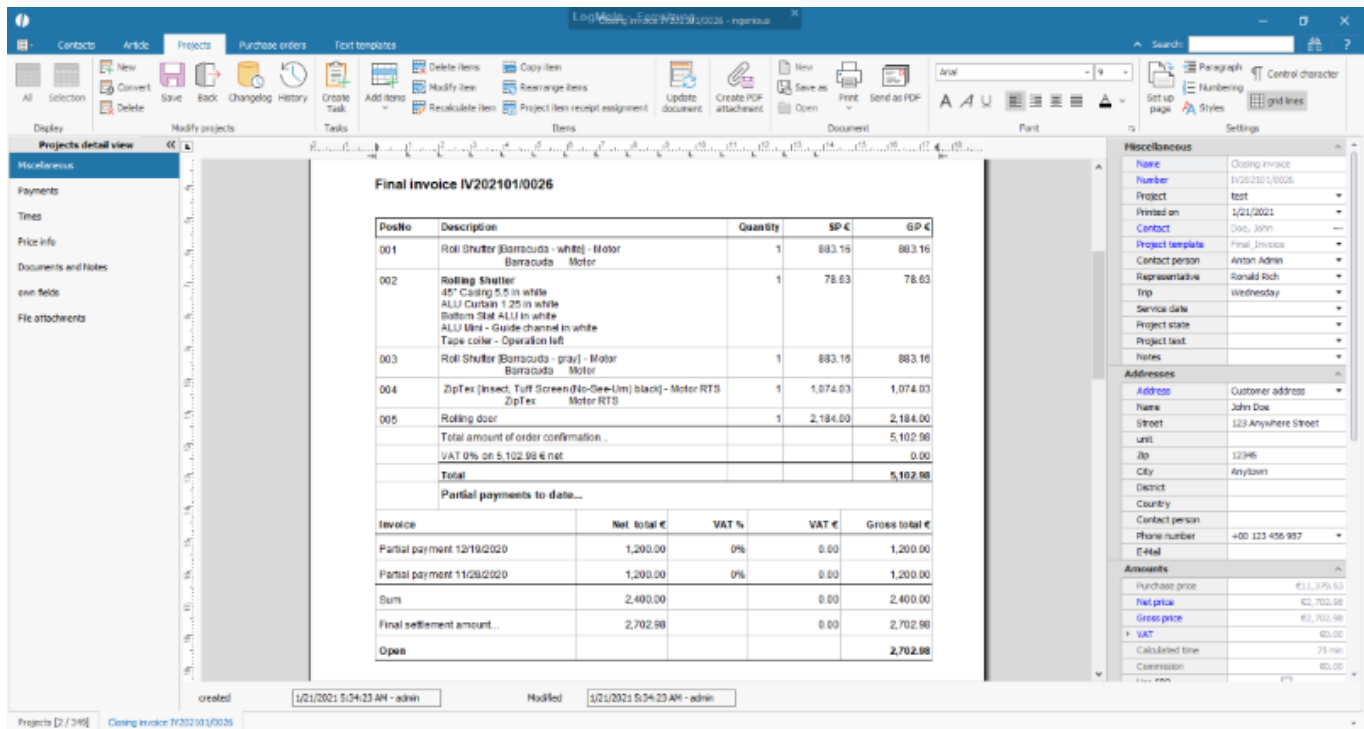
A subtotal with a corresponding item group must be inserted for a total of the partial invoices.



After the individual template for the final invoice has been created, this must be selected as the standard for new final invoices to be created in the program settings.



Each new final invoice is then created in this individual format.




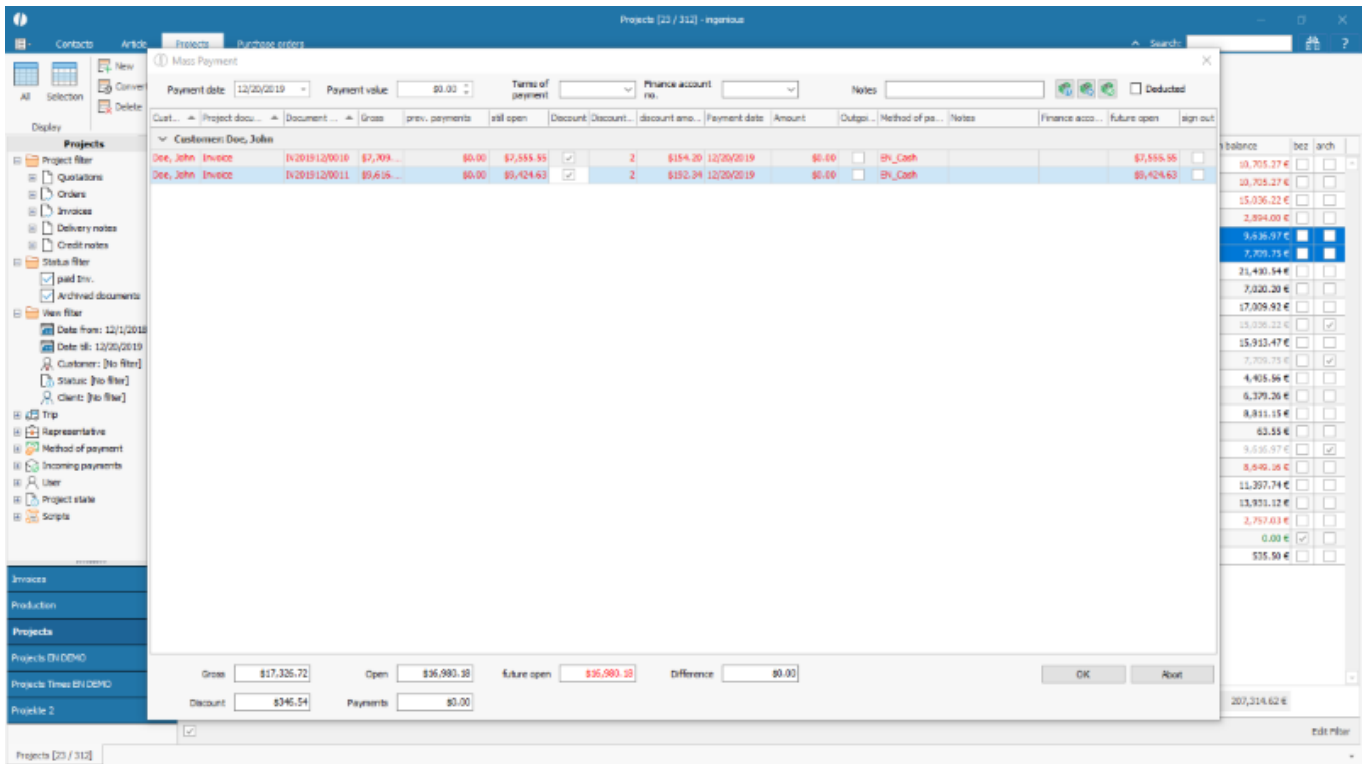
**Final Invoice IV202101/0026**

PosNo	Description	Quantity	SP €	GP €
001	Roll Shutter (Barracuda - white) - Motor Barracuda - Motor	1	883.16	883.16
002	Rolling Shutter 45° Cassing 5.5 in white ALU Curtain 1.25 in white Bottom Seal ALU in white ALU Mini - Guide channel in white Tape color - Operation left	1	78.83	78.83
003	Roll Shutter (Barracuda - gray) - Motor Barracuda - Motor	1	883.16	883.16
004	ZipTex (Insect, Tuff Screen(No-See-Um) black) - Motor RTS ZipTex - Motor RTS	1	1,074.03	1,074.03
005	Rolling door	1	2,184.00	2,184.00
Total amount of order confirmation...				5,102.98
VAT 0% on 5,102.98 € net				0.00
<b>Total</b>				<b>5,102.98</b>
Partial payments to date...				
Invoice	Net total €	VAT %	VAT €	Gross total €
Partial payment 12/19/2020	1,200.00	0%	0.00	1,200.00
Partial payment 11/26/2020	1,200.00	0%	0.00	1,200.00
Sum	2,400.00		0.00	2,400.00
Final settlement amount...	2,702.98		0.00	2,702.98
Open				<b>2,702.98</b>

### 4.3.1.5 Combined payments

Customers who frequently order and appropriate frequently receive invoices, often combine single invoices to one payment. This combined payment can simply be spread to the open invoices, without open each single invoice.

The tool combined payments can be opened from projects list view after the open invoices were selected. With button  a separate form is opened, where all selected invoices are listed.



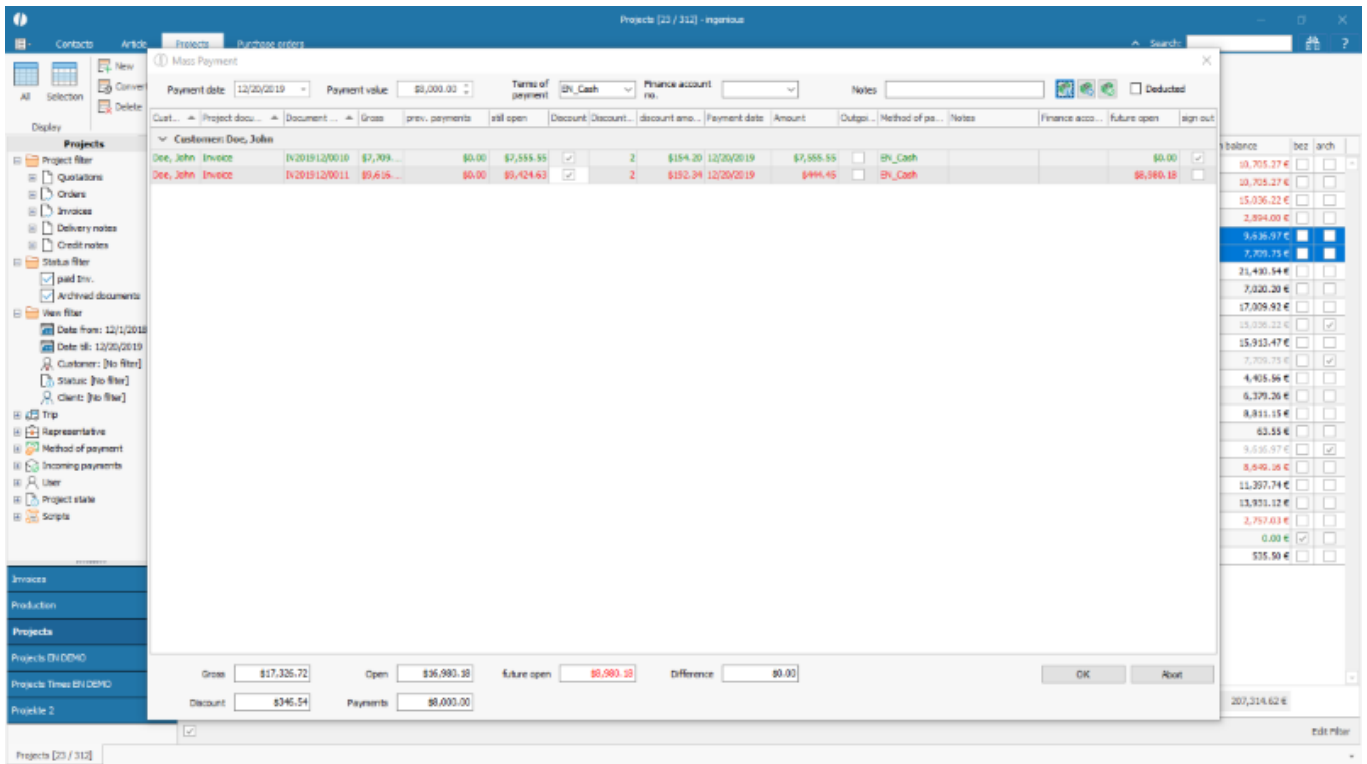
If invoices of multiple customers were selected, those are displayed grouped by customer. To capture the combined payment the payment date and the amount has to be entered into the related fields. Also the payment method needs to be chosen from drop-down list.


Afterwards the payment amount is spread to the open invoices by buttons:

	<p>The payment amount is spread till it's exploited starting at the oldest invoices. Der Zahlbetrag wird beginnend bei der ältesten Rechnung so lange verteilt, bis der Betrag ausgeschöpft ist. Partial amounts or complete invoices might stay open.</p>
	<p>The payment amount is spread percentaged to all displayed invoices. Partial amounts might stay open.</p>

Cash discounts can be considered or ignored at all or just for single invoices.


Below the invoices list the sums are calculated and cross checked with entered payment.



With the button  all displayed invoices can be set to fully paid. A possibly entered payment amount is ignored. Instead of that, the total amount of all displayed open invoices is supposed as payment amount, only reduced by possible cash discounts or previous partial payments.

With confirmation of the form by clicking the OK button the payments will finally be registered in the invoices. If the inputs should be dropped, the process needs to be aborted.

### 4.3.1.6 Dunning run

In the dunning run all overdue invoices are checked for their dunning status. Depending on the configured deadlines a reminder is created for the defaulters. The process is started with clicking the button .

In the appearing window the user can select which dunning levels should be included. The reminders can be printed directly or the user can first check the related invoices by clicking the button "Show".

The screenshot shows the 'ingenious' software interface with a 'Dunning run...' dialog box open. The background is a table of invoices with columns for 'Project document', 'Document number', 'Date', 'Commission', 'Customer', 'Phone', 'Net total', 'Gross total', 'Paid', 'Open balance', 'Acc', and 'Arch'. The dialog box has the following settings:

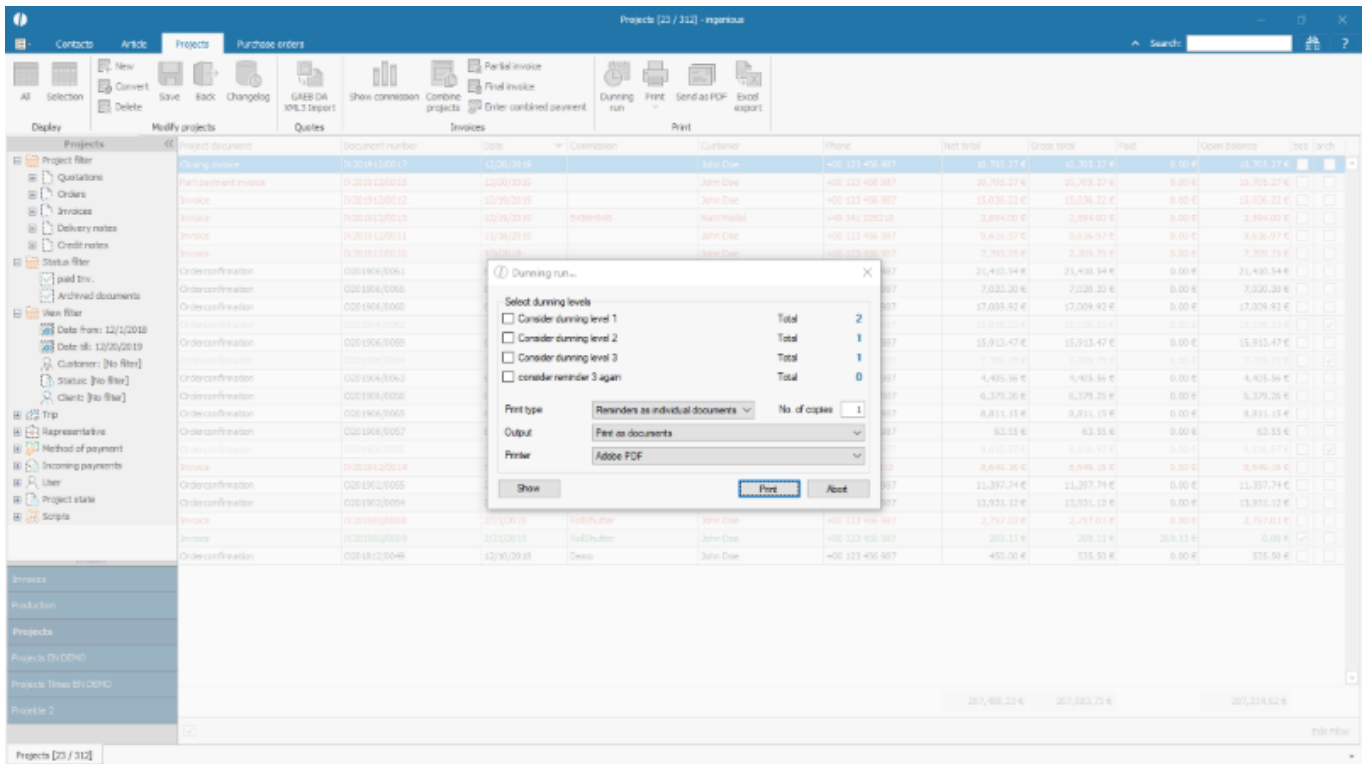
- Consider dunning level 1 (Total: 2)
- Consider dunning level 2 (Total: 1)
- Consider dunning level 3 (Total: 1)
- Consider reminder S again (Total: 0)
- Print type: Reminders as individual documents (No. of copies: 1)
- Output: Print as documents
- Printer: ZEPHE.PDF

For printing the reminders 2 options are available:

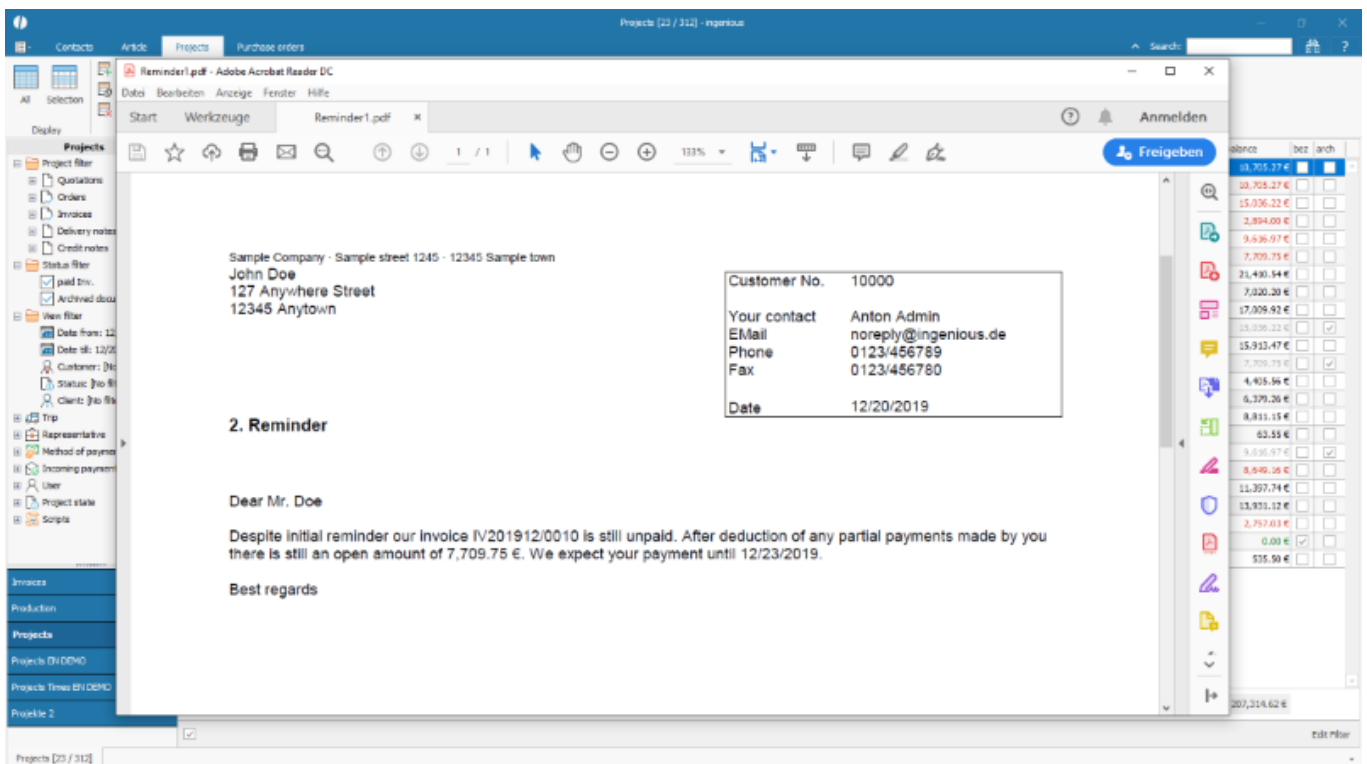
1. Printing reminders as individual documents or
2. Printing combined reminders

For both types the templates can be freely defined (in the global program settings and text template administration).

For option "individual documents" a single reminder document is printed for each overdue invoice.



For the option "Combined reminder" only one reminder is created for each customer. The combined reminder contains a list of all overdue invoices of that customer.



The date when the reminder was created is stored in the invoice so it can be used for calculating the next date for

next dunning run.

The screenshot displays the 'Payments' section of a project detail view in the ingenious software. The interface includes a top navigation bar with tabs for 'Contacts', 'Articles', 'Projects', and 'Purchase orders'. Below the navigation bar is a toolbar with icons for 'All', 'Selection', 'New', 'Convert', 'Save', 'Back', 'Changelog', 'New', and 'Delete'. The main content area is divided into several sections:

- Payments detail view:** A table with columns for 'Payment date', 'Method of payment', 'Comment', 'Finance account no.', and 'Amount'.
- Miscellaneous:** A section with a 'Payments' sub-section.
- Payments:** A section with a 'Last incoming payment' field set to 'Never'. It also displays 'Order sum' as \$7,709.75, 'Deducted' as \$0.00, and 'Still open' as \$7,709.75 (100%).
- Net paym. term:** A field set to '14'.
- Discount dead. [days]:** A field set to '7'.
- Discount %:** A field set to '2'.
- Resinders:** A section with a checkbox 'Remove project from dunning run' which is currently unchecked. It also includes fields for 'Default interest' (0.05%), 'Reminder fee (\$)' (5.00), and 'Dunning status' (2, reminder).
- Finance account / Interface:** A section with a 'Default proceeds' field and a 'Finance account' field.

The bottom of the interface shows a status bar with 'Projects [23 / 312]' and 'Invoice 7/30/19/0010'.

Single invoices could be excluded from the dunning run by clicking the checkbox "Remove project from dunning run" in the payment section of the project details.



Invoice IV201912/0010 - ingenious

Contacts Article **Projects** Purchase orders

All Selection New Convert Save Back Changelog New Delete

Display Modify projects Payments

Projects detail view Payment date Method of payment Comment Finance account no. Amount

Miscellaneous

Payments

Times

Price info

Documents and files

own fields

File attachments

Payments

Last incoming payment Never

Order sum **\$7,709.75** Still open **\$7,709.75 100%**  
**Deducted \$0.00** (Legitimate cash discount till 5/16/2019)

fully paid Net paym. term 14 Discount dead. [days] 7 Security deposit till

Terms of BN\_Cash Discount % 2 Warranty guarantee till

Resinders  Reserve project from dunning out

Default interest 0.00% Reminder fee [€] 5.00

Dunning status reminder Dunning status 1 18 Printed on 10/1/2019  
Dunning status 2 22 Printed on 12/25/2019  
Dunning status 3 26 Printed on

Finance account / Interface

Default proceeds Finance account as document number

Projects [23 / 312] Invoice IV201912/0010

### 4.3.1.7 Printing project lists

In the projects list view divers possibilities for printing projects lists and reports are available in the drop down menu from icon bar.

Project document	Document number	Date	Commission	Customer	Phone	Net total	Gross total	Paid	Open balance	bez	arch
Closing invoice	N2019120017	12/20/2019		John Doe	+00 123 456 987	30,705.27 €	30,705.27 €	0.00 €	30,705.27 €		
Part payment invoice	N2019120015	12/20/2019		John Doe	+00 123 456 987	30,705.27 €	30,705.27 €	0.00 €	30,705.27 €		
Invoice	N2019120012	12/19/2019		John Doe	+00 123 456 987	15,036.22 €	15,036.22 €	0.00 €	15,036.22 €		
Invoice	N2019120013	12/19/2019	8489940	Marti Medall	+49 241 2802 10	2,894.00 €	2,894.00 €	0.00 €	2,894.00 €		
Invoice	N2019120011	11/26/2019		John Doe	+00 123 456 987	9,636.97 €	9,636.97 €	0.00 €	9,636.97 €		
Invoice	N2019120010	9/5/2019		John Doe	+00 123 456 987	7,709.75 €	7,709.75 €	0.00 €	7,709.75 €		
Orderconfirmation	O20190610061	6/20/2019		John Doe	+00 123 456 987	21,430.54 €	21,430.54 €	0.00 €	21,430.54 €		
Orderconfirmation	O20190610066	6/20/2019		John Doe	+00 123 456 987	7,020.20 €	7,020.20 €	0.00 €	7,020.20 €		
Orderconfirmation	O20190610060	6/19/2019		John Doe	+00 123 456 987	17,009.92 €	17,009.92 €	0.00 €	17,009.92 €		
Orderconfirmation	O20190610062	6/19/2019		John Doe	+00 123 456 987	15,036.22 €	15,036.22 €	0.00 €	15,036.22 €		
Orderconfirmation	O20190610069	6/19/2019		John Doe	+00 123 456 987	15,913.47 €	15,913.47 €	0.00 €	15,913.47 €		
Orderconfirmation	O20190610064	6/19/2019		John Doe	+00 123 456 987	7,709.75 €	7,709.75 €	0.00 €	7,709.75 €		
Orderconfirmation	O20190610063	6/19/2019		John Doe	+00 123 456 987	4,405.56 €	4,405.56 €	0.00 €	4,405.56 €		
Orderconfirmation	O20190610068	6/19/2019		John Doe	+00 123 456 987	6,379.26 €	6,379.26 €	0.00 €	6,379.26 €		
Orderconfirmation	O20190610065	6/19/2019		John Doe	+00 123 456 987	8,811.15 €	8,811.15 €	0.00 €	8,811.15 €		
Orderconfirmation	O20190610057	6/14/2019	Cutting	John Doe	+00 123 456 987	63.55 €	63.55 €	0.00 €	63.55 €		
Orderconfirmation	O20190610056	6/13/2019		John Doe	+00 123 456 987	9,636.97 €	9,636.97 €	0.00 €	9,636.97 €		
Invoice	N2019120014	9/19/2019	A452489	Marti Medall	+49 241 2802 10	8,646.36 €	8,646.36 €	0.00 €	8,646.36 €		
Orderconfirmation	O20190210055	2/25/2019	Demo FPS 2	John Doe	+00 123 456 987	11,397.74 €	11,397.74 €	0.00 €	11,397.74 €		
Orderconfirmation	O20190210054	2/25/2019	Demo FPS 1	John Doe	+00 123 456 987	13,931.12 €	13,931.12 €	0.00 €	13,931.12 €		
Invoice	N2019020008	2/21/2019	RollShutter	John Doe	+00 123 456 987	2,757.03 €	2,757.03 €	0.00 €	2,757.03 €		
Invoice	N2019020009	2/21/2019	RollShutter	John Doe	+00 123 456 987	269.11 €	269.11 €	269.11 €	0.00 €		
Orderconfirmation	O20181210049	12/30/2018	Demo	John Doe	+00 123 456 987	450.00 €	535.50 €	0.00 €	535.50 €		

## 1. Print

With function "Print" the complete projects list view can be printed with all selected columns. After selecting this option the Windows print dialogue appears, in which the printer can be chosen where the list should be printed on. Additional settings are possible depending on the print model and driver.

Print

Printer name: Adobe PDF

Status: The printer is ready.

Location:

Comment(s) in queue: 0

Number of copies: 1 Collate

Page range: All

Print on both sides:

Paper source: Automotech subshison

Print to file:

File path:

Print Cancel

## 2. Print preview

With the function print preview the displayed projects list can be printed with all shown columns and content. Before the real printout a preview is shown in a separate window.

Projects											12/1/2018 till 12/20/2019	
Project document	Document number	Date	Commission	Customer	Phone	Nettotal	Gross total	Paid	Openbalance	beards		
Closing invoice	0/201912/8907	12/01/2019		John Doe	+00 123 456 987	10,785.27 €	10,785.27 €	0.00 €	10,785.27 €	<input type="checkbox"/>		
Partpayment invoice	0/201912/8915	12/01/2019		John Doe	+00 123 456 987	10,785.27 €	10,785.27 €	0.00 €	10,785.27 €	<input type="checkbox"/>		
Invoice	0/201912/8912	12/19/2019		John Doe	+00 123 456 987	15,034.22 €	15,034.22 €	0.00 €	15,034.22 €	<input type="checkbox"/>		
Invoice	0/201912/8915	12/19/2019	B456m945	Matt Model	+49 341 228210	2,894.00 €	2,894.00 €	0.00 €	2,894.00 €	<input type="checkbox"/>		
Invoice	0/201912/8911	11/18/2019		John Doe	+00 123 456 987	9,616.97 €	9,616.97 €	0.00 €	9,616.97 €	<input type="checkbox"/>		
Invoice	0/201912/8910	9/9/2019		John Doe	+00 123 456 987	7,789.75 €	7,789.75 €	0.00 €	7,789.75 €	<input type="checkbox"/>		
Orderconfirmation	0201906/0061	6/20/2019		John Doe	+00 123 456 987	21,410.54 €	21,410.54 €	0.00 €	21,410.54 €	<input type="checkbox"/>		
Orderconfirmation	0201906/0066	6/20/2019		John Doe	+00 123 456 987	7,020.20 €	7,020.20 €	0.00 €	7,020.20 €	<input type="checkbox"/>		
Orderconfirmation	0201906/0060	6/19/2019		John Doe	+00 123 456 987	17,084.92 €	17,084.92 €	0.00 €	17,084.92 €	<input type="checkbox"/>		
Orderconfirmation	0201906/0062	6/19/2019		John Doe	+00 123 456 987	15,034.22 €	15,034.22 €	0.00 €	15,034.22 €	<input checked="" type="checkbox"/>		
Orderconfirmation	0201906/0059	6/19/2019		John Doe	+00 123 456 987	15,913.47 €	15,913.47 €	0.00 €	15,913.47 €	<input type="checkbox"/>		
Orderconfirmation	0201906/0064	6/19/2019		John Doe	+00 123 456 987	7,789.75 €	7,789.75 €	0.00 €	7,789.75 €	<input checked="" type="checkbox"/>		
Orderconfirmation	0201906/0063	6/19/2019		John Doe	+00 123 456 987	4,485.56 €	4,485.56 €	0.00 €	4,485.56 €	<input type="checkbox"/>		
Orderconfirmation	0201906/0058	6/19/2019		John Doe	+00 123 456 987	6,379.26 €	6,379.26 €	0.00 €	6,379.26 €	<input type="checkbox"/>		
Orderconfirmation	0201906/0065	6/19/2019		John Doe	+00 123 456 987	8,811.15 €	8,811.15 €	0.00 €	8,811.15 €	<input type="checkbox"/>		
Orderconfirmation	0201906/0057	6/14/2019	Cutting	John Doe	+00 123 456 987	63.55 €	63.55 €	0.00 €	63.55 €	<input type="checkbox"/>		
Orderconfirmation	0201906/0056	6/13/2019		John Doe	+00 123 456 987	9,616.97 €	9,616.97 €	0.00 €	9,616.97 €	<input checked="" type="checkbox"/>		
Invoice	0/201912/8914	5/13/2019	A452499	Matt Model	+49 341 228210	8,648.16 €	8,648.16 €	0.00 €	8,648.16 €	<input type="checkbox"/>		
Orderconfirmation	0201902/0055	2/25/2019	Demo PPS 2	John Doe	+00 123 456 987	11,397.74 €	11,397.74 €	0.00 €	11,397.74 €	<input type="checkbox"/>		
Orderconfirmation	0201902/0054	2/25/2019	Demo PPS 1	John Doe	+00 123 456 987	13,931.12 €	13,931.12 €	0.00 €	13,931.12 €	<input type="checkbox"/>		
Invoice	0/201902/8909	2/21/2019	RollShutter	John Doe	+00 123 456 987	2,757.03 €	2,757.03 €	0.00 €	2,757.03 €	<input type="checkbox"/>		
Invoice	0/201902/8909	2/21/2019	RollShutter	John Doe	+00 123 456 987	269.11 €	269.11 €	269.11 €	0.00 €	<input checked="" type="checkbox"/>		
Orderconfirmation	0201812/0049	12/18/2018	Demo	John Doe	+00 123 456 987	450.00 €	535.50 €	0.00 €	535.50 €	<input type="checkbox"/>		
						297,446.23 €	297,563.73 €		297,314.62 €			

Report created with ingenious basic Page 1 of 1 12/20/2019

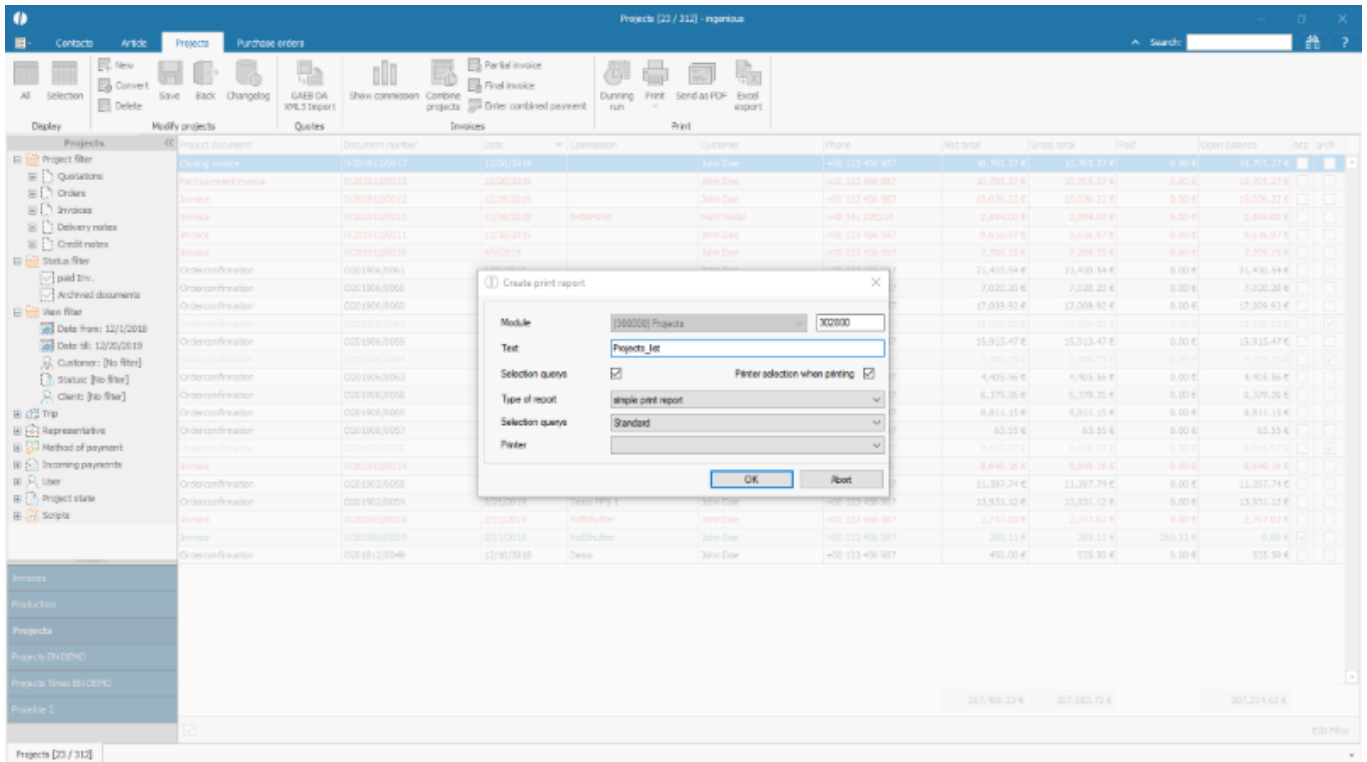
## 3. Profit Contribution Analysis

With the profit contribution analysis a report about all sales of all fiscal years can be generated. The years to be included need to be selected by the buttons.

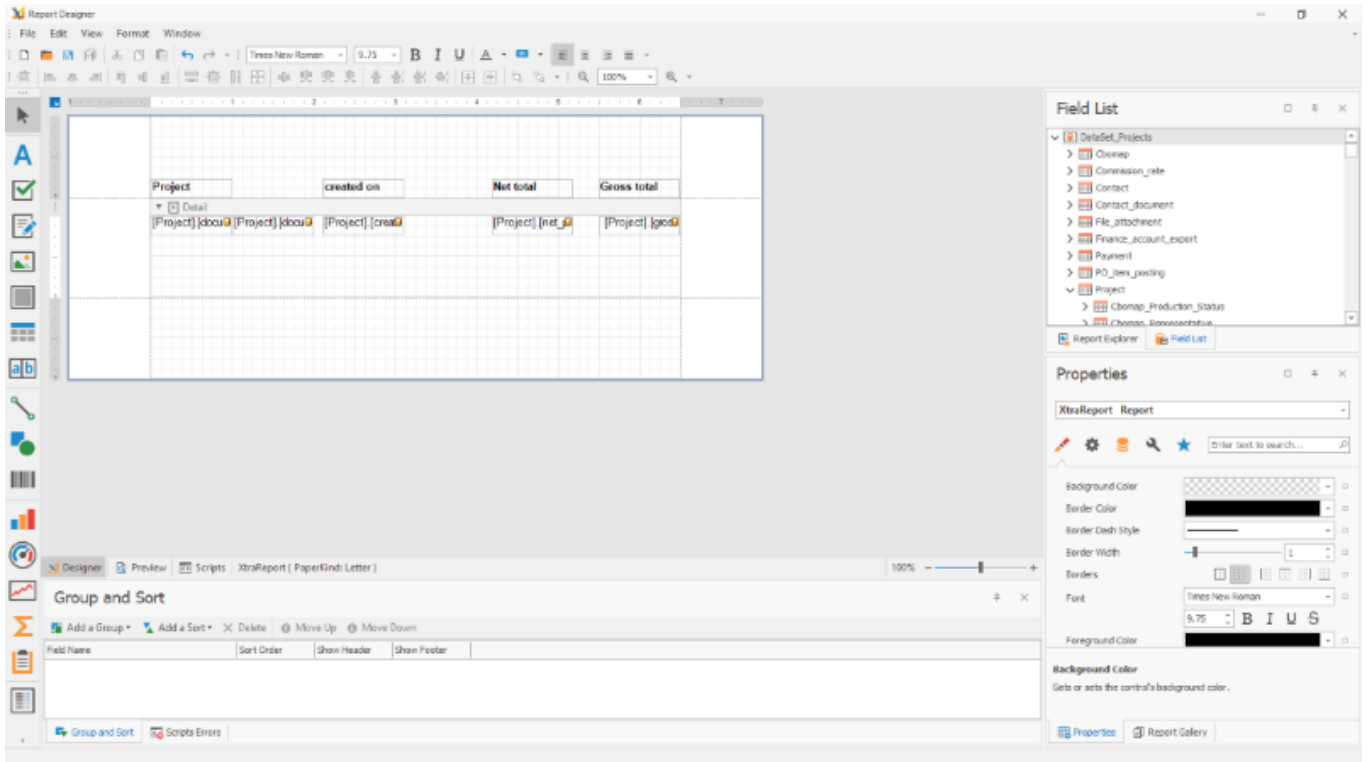


#### 4. Create a new report

Besides the predefined print reports also individual analyses can be created and added. With first dialogue the print report is stored in the global program settings. In this step some preconfiguration is made, e.g. on which printer the report should be printed on.




Afterwards the print report designer is opened. Here all needed content can be added: static texts, data by field selection, own scripts,...

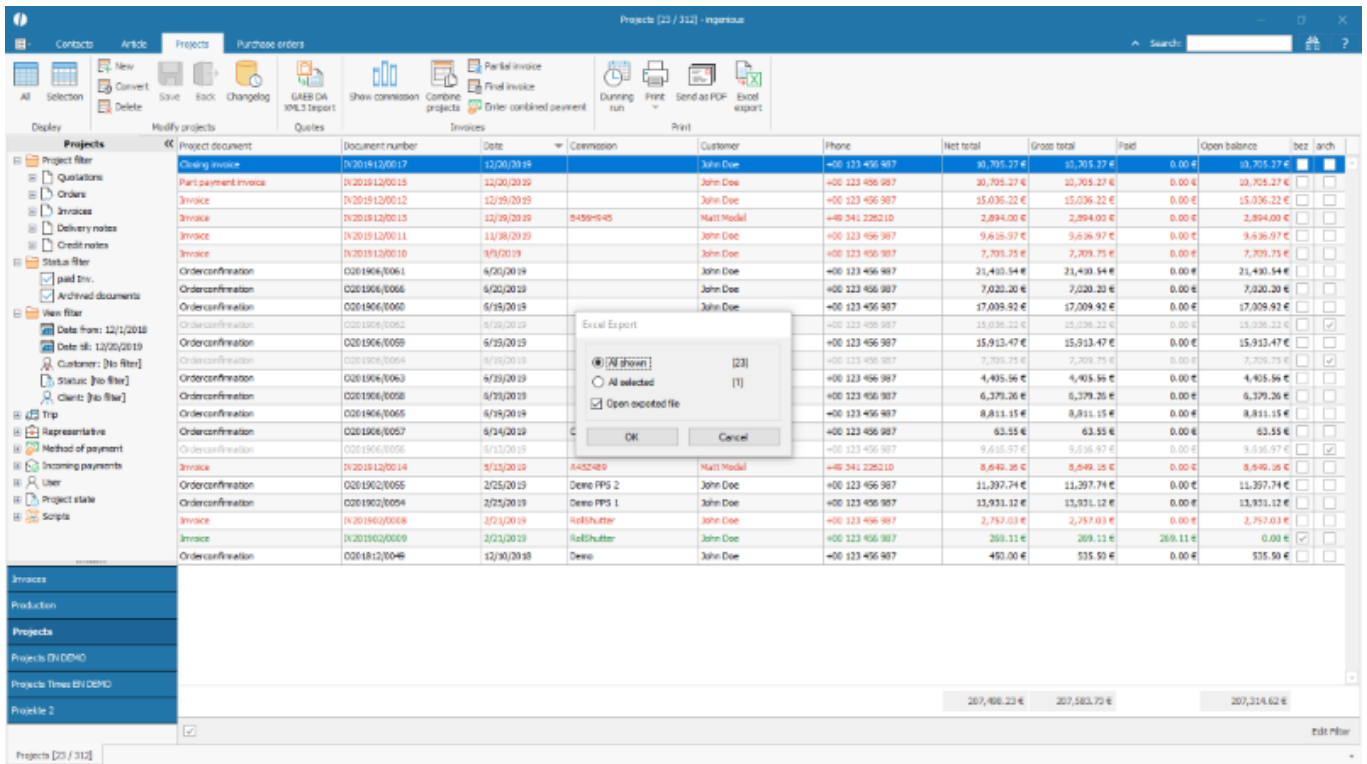


### 4.3.1.8 Projects Excel export

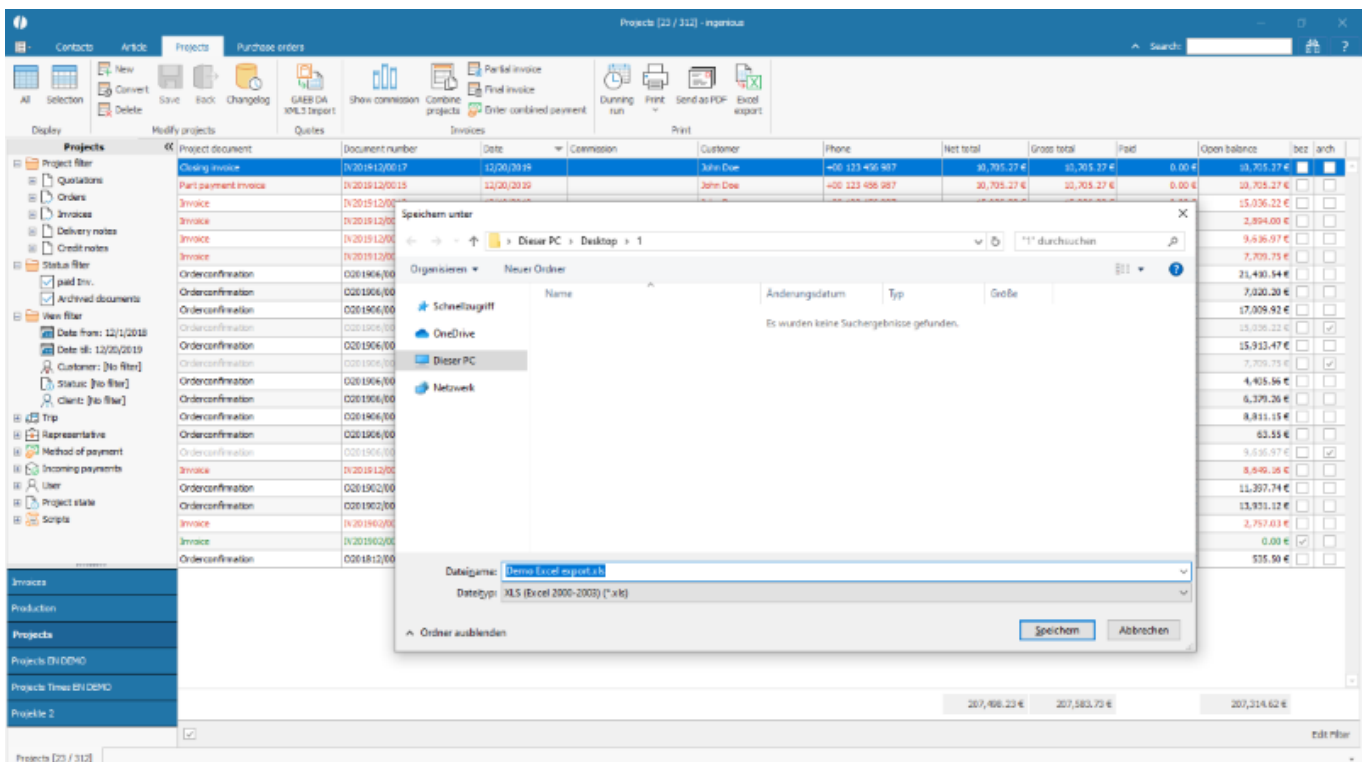
With the function Excel export of projects list view any individual list with all shown content can be exported to a Microsoft Excel file for further modification.

When starting the export with button  from icon bar, a dialogue appears where the data for export is selected.

The generated file can be directly opened.



After clicking OK the Windows standard dialogue for saving a file appears.



Afterwards the file is opened.

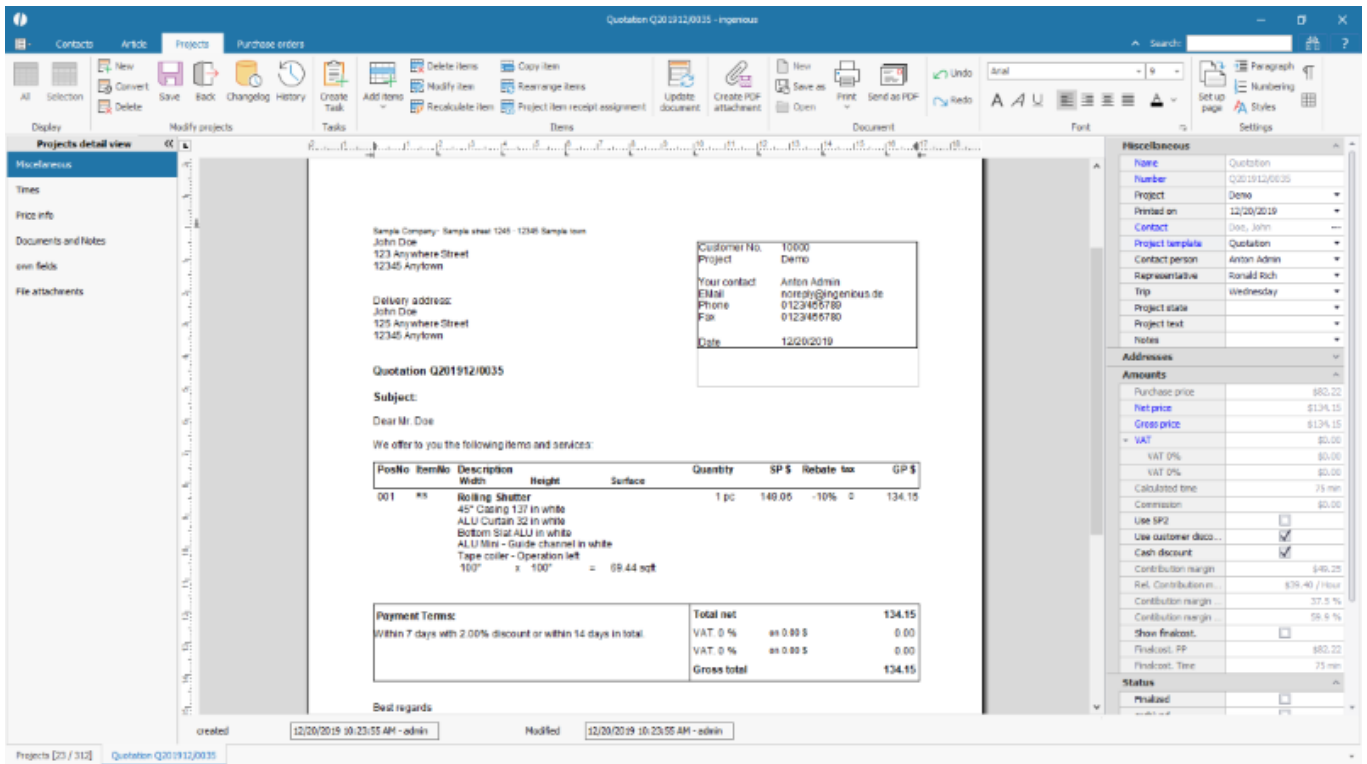
Project document	Document number	Date	Commission	Customer	Phone	net total	Gross total	Paid	Open balance	bezahl
Closing invoice	JV2019120017	12.20.2019		John Doe	+60 123 456 987	10.705,27 €	10.705,27 €	0,00 €	10.705,27 €	
Final payment invoice	JV2019120015	12.20.2019		John Doe	+60 123 456 987	10.705,27 €	10.705,27 €	0,00 €	10.705,27 €	
Invoice	JV2019120012	12.19.2019		John Doe	+60 123 456 987	15.036,22 €	15.036,22 €	0,00 €	15.036,22 €	
Invoice	JV2019120013	12.19.2019	9456/945	Matt Model	+49 341 228210	2.894,00 €	2.894,00 €	0,00 €	2.894,00 €	
Invoice	JV2019120011	11.18.2019		John Doe	+60 123 456 987	9.616,97 €	9.616,97 €	0,00 €	9.616,97 €	
Invoice	JV2019120030	9.9.2019		John Doe	+60 123 456 987	7.709,75 €	7.709,75 €	0,00 €	7.709,75 €	
Orderconfirmation	O2019060051	5.20.2019		John Doe	+60 123 456 987	21.410,54 €	21.410,54 €	0,00 €	21.410,54 €	
Orderconfirmation	O2019060056	6.20.2019		John Doe	+60 123 456 987	7.020,20 €	7.020,20 €	0,00 €	7.020,20 €	
Orderconfirmation	O2019060050	5.20.2019		John Doe	+60 123 456 987	17.009,92 €	17.009,92 €	0,00 €	17.009,92 €	
Orderconfirmation	O2019060052	6.20.2019		John Doe	+60 123 456 987	15.036,22 €	15.036,22 €	0,00 €	15.036,22 €	X
Orderconfirmation	O2019060059	6.19.2019		John Doe	+60 123 456 987	15.913,47 €	15.913,47 €	0,00 €	15.913,47 €	
Orderconfirmation	O2019060054	6.19.2019		John Doe	+60 123 456 987	7.709,75 €	7.709,75 €	0,00 €	7.709,75 €	X
Orderconfirmation	O2019060053	6.19.2019		John Doe	+60 123 456 987	4.405,56 €	4.405,56 €	0,00 €	4.405,56 €	
Orderconfirmation	O2019060058	6.19.2019		John Doe	+60 123 456 987	6.379,26 €	6.379,26 €	0,00 €	6.379,26 €	
Orderconfirmation	O2019060055	6.19.2019		John Doe	+60 123 456 987	8.811,15 €	8.811,15 €	0,00 €	8.811,15 €	
Orderconfirmation	O2019060057	6.14.2019	Cutting	John Doe	+60 123 456 987	63,55 €	63,55 €	0,00 €	63,55 €	
Orderconfirmation	O2019060055	6.13.2019		John Doe	+60 123 456 987	9.616,97 €	9.616,97 €	0,00 €	9.616,97 €	X
Invoice	JV2019120014	5.13.2019	A452/89	Matt Model	+49 341 228210	8.649,16 €	8.649,16 €	0,00 €	8.649,16 €	
Orderconfirmation	O2019020055	2.25.2019	Demo PPS 2	John Doe	+60 123 456 987	11.397,74 €	11.397,74 €	0,00 €	11.397,74 €	
Orderconfirmation	O2019020054	2.25.2019	Demo PPS 1	John Doe	+60 123 456 987	13.931,12 €	13.931,12 €	0,00 €	13.931,12 €	
Invoice	JV2019020008	2.21.2019	RollShutter	John Doe	+60 123 456 987	2.757,03 €	2.757,03 €	0,00 €	2.757,03 €	
Invoice	JV2019020009	2.21.2019	RollShutter	John Doe	+60 123 456 987	269,11 €	269,11 €	269,11 €	0,00 €	X
Orderconfirmation	O2019120049	12.20.2018	Demo	John Doe	+60 123 456 987	490,00 €	535,50 €	0,00 €	535,50 €	
						207.496,23 €	207.583,72 €		207.334,62 €	

## 4.3.2 Projects detail view

### 4.3.2.1 The project detail view

The project detail view gives an overview about all stored details of a single project. The user interface is splitted into the navigation on the left side and the data area on the right.





The following functions are provided in the project detail view (+ additional, depending on the selected navigation point):

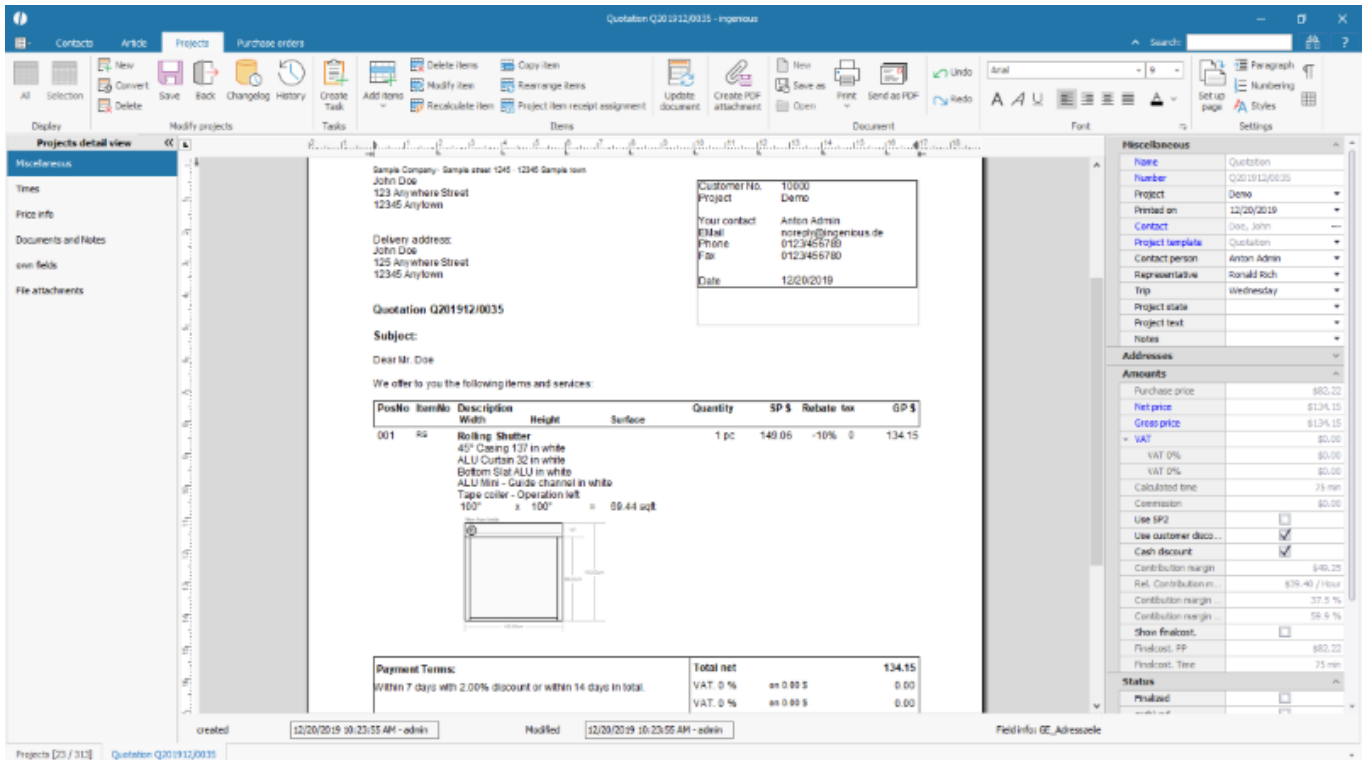
	Creates a new project document
	Converts an existing project document
	Deletes the selected project document
	Saves the changes of that project document
	Closes the detail view of the project document
	Opens the changelog for administrators (user right required)
	Opens the project history of the document, in which the source and follow-up documents are visible and can be assigned or deleted.
	Creates a new task that is linked to that project document

## 4.3.2.2 Miscellaneous project details

In the "miscellaneous project details", the project document is shown in an editable print preview. Depending on the









configuration of the template, the document contains the customer's data, internal information, e.g. contact person and project related details like document number, ...





Likewise the project items are entered here.



The following functions are provided:

	<p>Adds a project item - with click on that button, the type ahead search is started for finding items of the product catalogue. With click on the little triangle below the button additional options can be selected (or with the related short key). Project items are always inserted below the marked item or if no item is selected it is inserted in the last position.</p>		
Direct invoice piece	<table border="1"> <tr> <td>Ctrl + 1</td> <td>A direct invoice piece item is an individual item that is not stored as article in the ingenious product catalogue. Texts and prices are directly entered here in this item. The price calculation is done per piece.</td> </tr> </table>	Ctrl + 1	A direct invoice piece item is an individual item that is not stored as article in the ingenious product catalogue. Texts and prices are directly entered here in this item. The price calculation is done per piece.
Ctrl + 1	A direct invoice piece item is an individual item that is not stored as article in the ingenious product catalogue. Texts and prices are directly entered here in this item. The price calculation is done per piece.		
Direct invoice length	<table border="1"> <tr> <td>Ctrl + 2</td> <td>A direct invoice length item is an individual item that is not stored as an article in the product catalogue. Texts and prices are directly entered here in this item line. The price calculation is done per meters / feet.</td> </tr> </table>	Ctrl + 2	A direct invoice length item is an individual item that is not stored as an article in the product catalogue. Texts and prices are directly entered here in this item line. The price calculation is done per meters / feet.
Ctrl + 2	A direct invoice length item is an individual item that is not stored as an article in the product catalogue. Texts and prices are directly entered here in this item line. The price calculation is done per meters / feet.		
Direct invoice area	<table border="1"> <tr> <td>Ctrl + 3</td> <td>A direct invoice area item is an individual item that is not stored as an article in the product catalogue. Texts and prices are directly entered here in this item line. The price calculation is done per square meters / square feet.</td> </tr> </table>	Ctrl + 3	A direct invoice area item is an individual item that is not stored as an article in the product catalogue. Texts and prices are directly entered here in this item line. The price calculation is done per square meters / square feet.
Ctrl + 3	A direct invoice area item is an individual item that is not stored as an article in the product catalogue. Texts and prices are directly entered here in this item line. The price calculation is done per square meters / square feet.		
Article	<table border="1"> <tr> <td>Ctrl + A</td> <td>Adds an article that is stored in the product catalogue. A type ahead search field is opened, where the matchcode or the article number of that article is entered. With entering a wildcard * the product catalogue is opened, where the needed article can be selected from the list. The user can search for articles, that are not flagged as a "blocked" article. Blocked articles will not be listet.</td> </tr> </table>	Ctrl + A	Adds an article that is stored in the product catalogue. A type ahead search field is opened, where the matchcode or the article number of that article is entered. With entering a wildcard * the product catalogue is opened, where the needed article can be selected from the list. The user can search for articles, that are not flagged as a "blocked" article. Blocked articles will not be listet.
Ctrl + A	Adds an article that is stored in the product catalogue. A type ahead search field is opened, where the matchcode or the article number of that article is entered. With entering a wildcard * the product catalogue is opened, where the needed article can be selected from the list. The user can search for articles, that are not flagged as a "blocked" article. Blocked articles will not be listet.		
Multi	<table border="1"> <tr> <td>Ctrl</td> <td>For adding multiple project items of the same article of the product catalogue but in</td> </tr> </table>	Ctrl	For adding multiple project items of the same article of the product catalogue but in
Ctrl	For adding multiple project items of the same article of the product catalogue but in		

	item + M	different variants and sizes. A type ahead search field is opened, where the matchcode or the article number of that article is entered. With entering a wildcard * the product catalogue is opened, where the needed article can be selected from the list. After the configuration of the article the variants and measurements of each single project item is entered in a table.
	Text Ctrl + T	Adds a free text line
	Headline Ctrl + H	Adds a headline
	Rebate Ctrl + R	Adds a percental rebate. The rebate is always calculated from the project item directly above. If the rebate should be calculated from multiple successional items, these items first has to be finalised with a subtotal or running sum. A rebate that is entered with a negative sign will be added as a surcharge in the project document.
	Subtotal Ctrl + Z	A subtotal summarizes all items above up to the preceding subtotal or running sum.
	Running sum Ctrl + L	A running sum always summarizes all project items above undependant whether they are grouped by previous subtotals or running sums or not.
	Lot sum Ctrl + Shift + L	The lot sum integrates all items above up to the preceding lot sum, undependant whether they are grouped by previous subtotals or not. Lot sums can have rebates.
	(Ctrl + D)	Deletes the selected item(s).
	(F7)	Opens the product configurator / checklist of part list items for changing the parameters. If multiple items are selected that have the same part list as base, its parameters can be modified at the same time. With a checkbox behind each parameters those will be selected that should be changed. Afterwards the value itself is changed.
	(F8)	Recalculates the marked item (s) if they have been changed manually, for example in the text and / or price, or if changes have been made to an article in the meantime, e.g. text or price changes for a simple article or modified variants of a parts list ,
	(F6)	Copies the selected project item and adds the new item below the original one. If the original item is a part list item the product configurator is opened for the modification of the parameters of the new item.
		For rearrangement of the project items. In the opening window the project items can be rearranged by drag&drop.
		Links a project item to an incoming document. In the event of a warranty claim, for example, the correct incoming invoice from the supplier can be quickly determined.
		Updates the document. If changes in the document template were made the project document can be update to load the new template. This function can also be used when general texts or formattings of the project document was changed by accident. (Changes to project items are saved)
		Saves the current document as a PDF and attaches it as a file attachment.
(*)		Diverse functions for formatting the document (see text template administration)

	<p>(A) Prints the document on a printer that is to be selected in the Windows print dialogue. The document can also be printed and saved at the same time using the small triangle below the button, and your own print reports (e.g. measurement sheets) can be created and started. (Variant A or B is configured in the program settings / projects)</p>
	<p>B) Prints the project document on a printer that can be selected in the subsequent dialog and at the same time saves it as a PDF file attachment. The document can also only be printed using the small triangle below the button and your own print reports (e.g. measurement sheets) can be created and started. (Variant A or B is configured in the program settings / projects)</p>
	<p>(A) Directly sends the document to the customer by email. Sending takes place via MAPI (Microsoft Outlook) or SMTP according to the configuration in the program settings. The recipient email address is taken from the project address. The document can also be sent and saved at the same time using the small triangle below the button. (Variant A or B is configured in the program settings / projects)</p>
	<p>B) Sends the project document to the customer and at the same time saves it as a PDF file attachment. Sending takes place via MAPI (Microsoft Outlook) or SMTP according to the configuration in the program settings. The recipient email address is taken from the project address. The document can also only be sent using the small triangle below the button. (Variant A or B is configured in the program settings / projects)</p>

On the right side, the so called sidebar, all information are grouped in a list. The content of that list changes depending on the position of the cursor in the document.

If no project item is selected, the data of the complete project is shown:

## In the block Miscellaneous:

Name	Protected input field	Name of the project document, depending on the specification in the global program settings
Number	Protected input field	Document number, that is given depending on the counter definition in the global program settings
Project	Simple input field	Individual project name or number; Can get an automatic number if configured in the global program settings
Printed on	Date field	Input field and calendar tool for choosing the date of the document. The actual date is automatically set when the document is created, but can manually be changed.
Contact	Protected input field	Matchcode of the contact that is linked to the project. With double click on the field title and entering the matchcode of a different contact, a new customer can be inserted. By clicking the button beside the matchcode the contact's detail view can be opened.
Project template	Protected selection list	Name of the document template, that is assigned the project type in the global program settings. A different template can be chosen after double-clicking the field title.
Contact person	Selection list	This field is automatically filled with the name of the user that is logged in. A different contact person can be chosen from the drop down list.
Representative	Selection list	If a representative is set for this customer it is loaded. A different representative can be chosen from the drop down list. The values of the selection list are to be defined in the global program settings.
Trip	Selection list	If a trip is set for this customer it is loaded. A different trip can be chosen from the drop down list. The values of the selection list are to be defined in the global program

		settings.
Project state	Selection list	The project state may contain an internal categorization about the state of the project, e.g. the offering phase, ready for account... The values in the selection/pick list can be defined manually in the program settings.
Project text	Simple input field	The project text depends on the project type, which is defined according to the contact and transferred to the project document accordingly (e.g. different phrasing of payment conditions, offers, orders and receipts).
Notes	Simple input field	In "notes" internal comments on the project can be saved.

## In the block addresses

Address	Protected input field / Selection list	Through the assignment of a client to a project his contact, addresses are implemented in the document via the selection list, different contact addresses can be chosen interchangeably: client address, billing address, delivery address, additional address1, additional address2. The standard addresses can be overwritten with other addresses stored in the contact by double-clicking on the field description and selecting an address stored in the contact. In addition, the address of another contact stored in the database can be used as the delivery address, for example. To do this, after double-clicking the field name in the Address selection window, the matchcode of the desired contact is entered. With Enter or the Refresh button, its saved addresses are also displayed in the list. The desired address is selected by double-clicking it or by confirming with the OK button.
Name (or single fields)	Simple input field(s)	name of assigned contact (resp. singular fields for first name, surname, company, company2).
Street	Simple input field	street of assigned contact
Zip	Simple input field	postcode of assigned contact
City	Simple input field	Location of assigned contact
District	Simple input field	District of assigned contact
Country code	Simple input field	country of assigned contact
Contact person	Simple input field	contact person of assigned contact
Telephone	Simple input field	telephone number of assigned contact
E-Mail	Simple input field	e-mail address of assigned contact

## In the block tour planning

The tour planning block is only displayed if the module has been licensed.

trip	Selection list	If a tour is stored for the assigned contact, this is automatically transferred to the project field. Another tour can be selected via the selection list (possibly limited by the allowed trips of the contact, see <b>additional addresses/ Trips (Section 4.1.2.3)</b> ). The values of the selection list are defined in the <b>program settings (Section 8.6.4)</b> and configured in the <b>trip configuration (Section 7.6.2)</b> . For example, when setting the planned delivery date, it is checked whether this tour will be carried out on the corresponding day of the week. Otherwise, a corresponding error message is issued.
driver	Selection list	Selection of a driver (a user created in the <b>user administration (Section 8.5.2)</b> who has been designated as the driver). Usually, the driver is first assigned to the <b>resource planning (Section 7.6.4)</b> in the <b>trip planning (Section 7.6.1)</b> and is then included in the project for information purposes.
vehicle	Selection list	Selection of a vehicle to be assigned to the tour and driver. As a rule, the vehicle is only set via resource planning in route planning and is then included in the project for information purposes.
Delivery notice	Simple input field	Entry of a delivery note for the driver, which can be printed on the delivery documents, for example.

## In the block amounts

Purchase price	Protected input field	Total purchase price of all items.
Net price	Protected input field	Sum of the net selling prices of all items. Double-click on the field name, the field can be unlocked and the net price can be overwritten. Subsequently, the prices are adapted automatically to the total percentage price change.
Gross price	Protected input field	Total deposited gross sales prices of all positions. With a double-click on the field name, the field can be unlocked and the net price can be overwritten. Subsequently, the prices are recalculated automatically according to the total percentage price change.
VAT	Protected input field	Sum of VAT of all positions. Via the small triangle in front of the field name, the display can be expanded to display the reported half and full VAT rates. With a double-click on the field label, the project can be set from "taxable for VAT" to "free from VAT".
Calculated time	Protected input field	If time items are included in the positions, the sum of time of all project position will be displayed here.
Commission	Protected input field	yet without function
Use SP2	Checkbox	yet without function
Use customer discount	Checkbox	This checkbox determines, whether the individual discounts assigned to the customer shall be taken into account for this project.

Cash discount	Checkbox	If this checkbox is enabled, a discount deduction recorded for the project/contact will be taken into account for the calculation of the deposit margin recorded
Lock surcharge	Checkbox	If the checkbox is activated, the surcharge stored in the project is retained when recalculating, even if the original surcharge was changed in the <b>contact details (Section 4.1.2.4)</b> or the <b>program settings (Section 8.6.11)</b> .
Without surcharge	Checkbox	Removes the surcharge from this project document.
Surcharge	Simple input field	Percentage of surcharge loaded from contact details or program settings. Can be overwritten for the project.
Contribution margin	Protected input field	Calculation of the contribution margin of the project (net price - purchase price - calculated time * hourly rate - discount).
Contribution margin %	Protected input field	Calculation of the percentage contribution margin of the project.
Contribution margin / SP	Protected field	Percentage evaluation of the contribution margin based on the sales price
Contribution margin / PP	Protected field	Percentage evaluation of the contribution margin based on the purchase price
Show final cost.	Checkbox	Shows or hides all post-calculation items in a project. Post-calculation items should be specially formatted in the text modules (own item category) to prevent the printing of an invoice with the post-calculation item shown. The post-calculation items are always included in the calculations, regardless of whether they are visible or invisible.
Final cost. PP	Protected field	Sum of the purchase price of all post-calculation items of the document
Final cost. time	Protected field	Sum of the working minutes of all post-calculation items of the document

## In the block exchange rate

(only visible with active currency module license)

Currency	protected selection list	Selection of a project currency if it differs from the system currency. You can choose from the currencies that you created yourself in the <b>program settings (Section 8.6.16)</b> .
Exchange rate	protected input field	After selecting the appropriate currency, the exchange rate stored in the program settings or queried online is automatically entered here. The exchange rate can be manually overwritten after unlocking the field, if necessary.
Freeze exchange rate	Checkbox	If the check mark is set, the exchange rate for this project is fixed with the currently stored value. The price is then considered to be firmly agreed in this currency. Exchange rate fluctuations until the receipt of the payment are at the expense of the

biller.


## In the block history

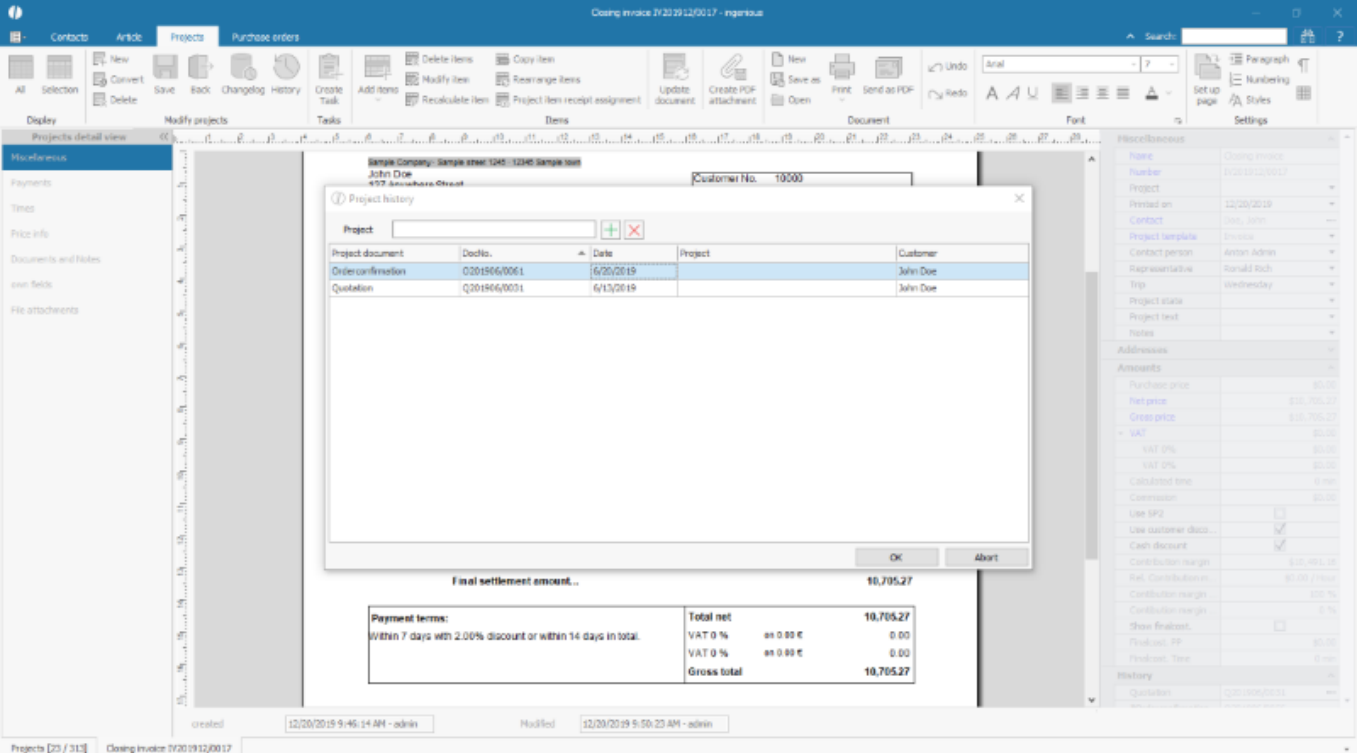
If a project document has been converted from another, it is documented in the project history which documents have been used to create the current.

The course of a project can be seen in the history block of each document.

The direct predecessor of the document is marked with an arrow after the document name, the direct successor with an arrow in front of the document name.

The original document can be accessed via the respective button.

Additionally, via the button  in the toolbar, a detailed project history can be opened. There single entries may be removed via double-click or added via project search.



The screenshot displays the 'ingenious' software interface. A 'Project History' dialog box is open, showing a table of project documents:

Project document	DocId	Date	Project	Customer
Order confirmation	Q201966/0061	6/20/2019		John Doe
Question	Q201966/0031	6/13/2019		John Doe

Below the table, the 'Final settlement amount..' is 10,705.27. The 'Payment terms' section states: 'Within 7 days with 2.00% discount or within 14 days in total.' The 'Total net' is 10,705.27, and the 'Gross total' is 10,705.27.

## In block status

Reserved	Checkbox	All included articles for which the automatic stock management has been enabled in the article parameters, a reservation of the volume of the project consumption is recorded in the warehouse monitor, if this checkbox is checked. The stock is not going to be reduced yet.
Stock booked	Checkbox	All included articles for which the automatic stock management has been enabled in the article parameters, will be deducted from the stock in the quantities of the project



		consumption, if this checkbox is checked. The stock will be reduced accordingly.
Finalized	Checkbox	If no more changes shall be made to the project, it is completed. The entry is then locked (except the entry of new payments and times).
Archived	Checkbox	If a project is completed (or was not accepted by the customer), it can be marked as archived, e.g. in order to exclude it from different lists via the respective filters.
openTRANS order export	Simple input field and button	The openTRANS export of the ORDERRESPONSE is started via the button with the 3 dots. The field then shows the timestamp of the export. Requires user rights: 353000 - Projects - View openTRANS order export 353100 - Projects - Start openTRANS order export
openTRANS delivery note export	Simple input field and button	The openTRANS export of the DISPATCHNOTIFICATION is started via the button with the 3 dots. The field then shows the timestamp of the export. Requires user rights: 353000 - Projects - View openTRANS order export 353200 - Projects - Start openTRANS delivery note export

## In block complaint

The block complaint is only visible for project type complaint.

Cause	Selection list	Selection of the cause for the complaint. The individual causes that were created in the <b>program settings / selection lists (Section 8.6.4)</b> are available.
Description	Simple input field	Further description of the cause of the complaint
Analysis	Selection list	Analysis of the complaint. The individual possibilities that were created in the <b>program settings / selection lists (Section 8.6.4)</b> are available.
Analysis description	Simple input field	Further description for the analysis of the complaint
Causer	Selection list	Causer of the complaint. The individual values that were created in the <b>program settings / selection lists (Section 8.6.4)</b> are available.
Solution	Selection list	Selection of the possible solution. The individual solutions that were created in the <b>program settings / selection lists (Section 8.6.4)</b> are available.
Internal responsible	Selection list	Responsible internal user - Selection from the users that were created in the <b>user administration (Section 8.5.1)</b>
External responsible	Selection list	Selection of the external responsible. The individual parties that were created in the <b>program settings / selection lists (Section 8.6.4)</b> are available.

## In block position

If the cursor points out a project position in the document, additional information concerning this position is displayed. The scope of display depends on the position type (for example, no prices are shown for headings). The following fields can be displayed:

Position type	Protected field	The position type depends on the inserted position.
Auto. number	Checkbox	If this checkbox is active, all positions are numbered automatically.
Position number	Simple input field	If the checkbox "auto. number" is deactivated, a position number can be inserted here manually.
Matchcode	Protected field	Matchcode of the item inserted from item catalog
Article number	Protected field	Article number of the item inserted from item catalog
Quantity	Simple input field	Amount of items
Dimension + Single fields		Measurements of the item in cases of length and face items. Clicking the small triangle next to the field label the editable individual fields are displayed.
Weight	Protected field	Weight of the position taken over or calculated from the item details.
List price	Simple input field	List price of the item without discounts or special prices.
Flat price	Simple input field	Flat price of the item (e.g. 1,00 € per meter). If the flat price is changed, other prices in this position will be recalculated accordingly.
Piece price	Simple input field	Piece price of the item (e.g. 2,00 € for 1 piece of 2 meters). If the piece price is changed, other prices in this position will be recalculated accordingly.
Net price	Simple input field	Net total price of this position (e.g. 6,00 € for 3 pieces of 2 meters each). If the net price is changed, other prices in this position will be recalculated accordingly.
VAT %	Protected field	VAT rate of the position, according to the settings for the article respectively the presetting by the project.
Gross price	Simple input field	Gross rate of the position, incl. VAT. If the gross price is changed, other prices in this position will be recalculated accordingly.
SP conversion	Simple input field	Absolute or percentage surcharge or discount on or from the sales list price. The SP is recalculated.
Purchase price	Simple input field	Total purchase price of the position.
PP conversion	Simple input field	Absolute or percentage surcharge or discount on or from the purchase list price for items from the product catalog. The PP is recalculated. In the case of direct billing items, the PP list price is always assumed to be 0, which must be taken into account when converting. -> Entering% values always leads to an PP of 0.
Time	Protected field	Calculated time of the position in case of BOM and time items.

Cash discount	Simple input field	Absolute discount of the position, calculated from the special prices recorded or by direct input.
Cash discount %	Simple input field	Percentage discount of the position, calculated from the special prices recorded or by direct input.
Commission	Simple input field	Absolute commission of the position, calculated from the commission rate stored for the representative / commission group combination or by direct entry. Direct entry freezes the commission; it is not recalculated when the position is recalculated (except entry = 0.00).
Commission %	Simple input field	Percentage commission of the item from the commission rate stored for the representative / commission group combination or via direct entry. Direct entry freezes the commission; it is not reloaded from the configuration when the item is recalculated (except entry = 0.00).
Contribution margin	Protected field	Contribution margin of the position (net price -purchase price- calculated time * hourly rate-early payment discount).
Contribution margin %	Protected field	Percentage contribution margin of the position.
Contribution margin / SP	Protected field	Percentage evaluation of the contribution margin based on the sales price
Contribution margin / PP	Protected field	Percentage evaluation of the contribution margin based on the purchase price
Variants + Single fields	Checkboxes	<p>A position can be marked as "special variant" through the small triangle in front of the field name. These are:</p> <p><b>Optional position:</b> An "optional position" is not included in the calculation of the total project costs and can receive its own formatting in project documents. An optional position is only available for projects of the project type "offer". When proceeding to a higher project type, optional positions will not be adopted.</p> <p><b>Alternative position:</b> An "alternative position" is not included in the calculation of the project sum and can receive its own formatting in project documents. An alternative position is only available for projects of the project type "offer". When proceeding to a higher project type, optional positions will not be adopted.</p> <p><b>Final costing:</b> Identifies an item as a final costing item, i.e. an article or a service that was used in the project but is not charged to the customer. Final-costing items should be specially formatted in the text modules (own item category) to prevent the invoice from being printed with the post-calculation item displayed. The post-calculation items are shown or hidden using the "Show final costing" checkbox in the "Amounts" block of the overall document (no individual item selected). They are always included in the calculations, regardless of whether they are visible or invisible.</p> <p><b>Multi position:</b> The "multi position" is, depending on the formatting of the text modules, a shorthand description of the item that has been mentioned in a similar version with full description before. The position price is included in the calculation of the project price.</p> <p><b>Item group:</b> With the item groups, the presentation and content of the documents can be determined for different articles if they should deviate from the standard. This is particularly used for various parts lists. For each position group to be used, a separate</p>

		position module with the desired content must be created in the respective project template. The position group itself is created as a "prefix position format" in the program settings / selection lists and assigned to the respective articles via the selection list "item group" in the article details / article texts.
Fix sales price	Checkbox	Via the checkbox "fix selling price", the selling prices will be fixed, and the prices will not be recalculated/adapted, despite further changes of the positions (e.g. changes of the options in BOM).
Fix text	Checkbox	Via the checkbox "fix text" the position text is fixed and the prices are not recalculated/adapted, despite further changes of the position (e.g. changes of the options in BOM).
Use SP2	Checkbox	An SP1 and an SP2 can be stored for each article, for example under different conditions for end customers and resellers. The SP1 is always used by default. Via this checkbox the article SP2 is loaded and the position is recalculated.
Without surcharge	Checkbox	Removes a surcharge stored for the item from the selected item
Stock is	Protected field	Current stock of a warehouse item.
Reserved	Protected field	Current reserved quantity of the item in stock from all projects.
Available	Protected field	Current free stock of the item in the warehouse ("Stock is" minus "Reserved")

The order of the blocks can be adjusted via the sidebar settings in the **program settings / selection lists (Section 8.6.4)**.

### 4.3.2.3 Project payments

In documents of the type "order confirmation", "invoice" or "credit payments", payments by the customers can be recorded and viewed. At the same time, outstanding amounts (red), payment dates and dunning runs are visible.

Payment that have already been made are displayed in table format.

The other fields are:

Last incoming payment	Info	The date of the last recorded payment will be displayed here.
Order sum	Info	The order sum equals the gross total of the project.
Open payments	Info	The outstanding amount of the payments is calculated from contract price and already received payments.
Cash discount deduction	Protected input field	A double-click on the field label opens a separate window in which the discount is already calculated in accordance with the discount rate stored in the project. The discount amount or rate can also be changed. The discount deduction for calculations or analyses can be recorded already when the project is created or just when the payment is received.

		
Full payment	Checkbox	If payment received for the project equal the contract value, the checkbox "full payment" is activated automatically. If the checkbox is hit manually, a query if the open amount is a security deposit (common in the construction industry) appears. When confirming the question, the date for the security deposit is calculated. This amount will not be dunned. If the dialog is negated, a payment of the outstanding amount is applied.
Method payment	Selection list	The payment method is imported from the contact record to the project and can be changed as required. The values of the selection list can be defined individually in the program settings.
Net paym. term [days]	Simple input field	The net payment term (number of days) is imported from the contact record into the project and can be changed as required. Based on the net payment term, e.g. for printing on customer documents, payment deadlines can be calculated. The net paym. term also determines, from when on a project is considered in the dunning run.
Discount deadl. [days]	Simple input field	The discount deadline (number of days) is imported from the contact record to the project and can be changed as required. Based on the discount deadline, payment deadlines, e.g. for printing on customer documents, can be calculated.
Cash discount %	Simple input field	The discount percentage is transferred from the contact record to the project and can be changed as required here.
Security deposit until	Date field	In the construction industry it is common to retain a security deposit from the invoice amount for a contractually specified period of time. To ensure that this amount is not dunned ahead of schedule, it is marked as security deposit and the due date is recorded.
Warranty guarantee till	Date field	In the field "warranty guarantee till" the date is selected, when the security deposit shall be redeemed after transferring the record and this is reclaimed.
Remove project from the dunning run	Checkbox	If a separate payment agreement has been made with a customer, e.g. if deferred payment was granted, the outstanding amount shall sometimes temporarily not be dunned. Through activating the checkbox this invoice is exempted from the automatic dunning run.
Default interest %	Simple input field	The percentage default interest is transferred from the contact record to the project and can be changed as required here. Based on it, the default charges for the dunning steps 2 and 3 are calculated.
Reminder fee [€]	Simple	The reminder fee (total amount) is transferred from the contact record to

	input field	the project and can be changed as required. For each 2. and 3. reminder the reminder fee is claimed from the customer.
Dunning status	Selection list	The dunning status is automatically set in the project after printing a reminder. A manual change causes that reminders are skipped or repeated.
Dunning status 1 [days]	Simple input field	The number of days for the reminder 1 is taken from the contact record. The bill is considered in the dunning run once the deadline has elapsed (Printed on + net paym. term + dunning 1)
Printed on	Date field	If the 1. reminder has already been printed, the printing date is annotated here.
Dunning status 2 [days]	Simple input field	The number of days for the 2. reminder is imported from the contact record. The invoice will be newly considered in the dunning run, once the deadline has passed. The deadline is calculated depending on the configuration in the program settings / projects/ dunning run from the invoice date (printed net paym. term + dunning state 2) or from the date of the last reminder (printed on reminder 1 + dunning status 2).
Printed on	Date field	If a 2. reminder has been printed, the printing date is annotated here.
Dunning status 3 [days]	Simple input field	The number of days for reminder 3 is imported from the contact record. The invoice will be newly considered in the dunning run, once the deadline has passed. The deadline is calculated depending on the configuration in the program settings / projects/dunning run from the invoice date (printed on + net paym. term + dunning state 3) or from the date of the last reminder (printed on reminder 2 + dunning status 2).
Printed on	Date field	If a 3. reminder has been printed, the printing date is annotated here.
Finance account	Selection list	When using the Fibu exports (Datev), a revenue account can be selected, to which the billings shall be posted. The values of the selection list are defined in the program settings. No selection is required if the revenues are always posted to the standard account.
Fibu Export on	Simple information field	If the Fibu export has been executed already, the date of export is indicated here. When using the differentiated export, this project is not included in a following export. Via double-click on the field label, the export date can be reset or set manually.
as document number	Simple information field	If the Fibu export has been executed, it is annotated here, with which document number the project document has been exported.

In "payments" the following additional functions are available via the toolbar:

	Record a new payment
	Delete marked payment

### Record a new payment

The recording of a new payment takes place in a separate window, in which the details of a payment are deposited. Here, the date of the payment (the current day is preset), the payment amount, the payment method and any notes are entered. For the payment amount, the currently open amount is preset and for a partial payment the amount has to be adjusted accordingly. The additional fields are of informative character here.

The screenshot displays the 'ingenious' software interface. The main window is titled 'Closing Invoice IV2019120017 - ingenious'. A 'new Payment' dialog box is open in the foreground, showing fields for 'Miscellaneous', 'Amounts', and 'Assignment'. The 'Amounts' section includes fields for 'Amount' (5,491.16), 'Net amount' (5,491.16), 'Gross with VAT' (5,491.16), 'Gross reduced VAT' (0.00), 'Gross full VAT' (0.00), 'Net with VAT' (5,491.16), 'Net reduced VAT' (0.00), and 'Net full VAT' (0.00). The 'Assignment' section includes 'Receipt no.', 'Invoice number' (IV201912-0017), 'Supplier', 'Customer' (Die, John), 'Terms of payment' (EN\_Cash), and 'Finance account'. The background form shows a table of payments with columns for 'Payment date', 'Method of payment', 'Comment', 'Finance account no.', and 'Amount'. The 'Amount' column shows a value of \$5,000.00. The bottom right of the form displays financial totals: \$10,705.27, \$214.11, \$5,491.16, and 51%.

### 4.3.2.4 Times

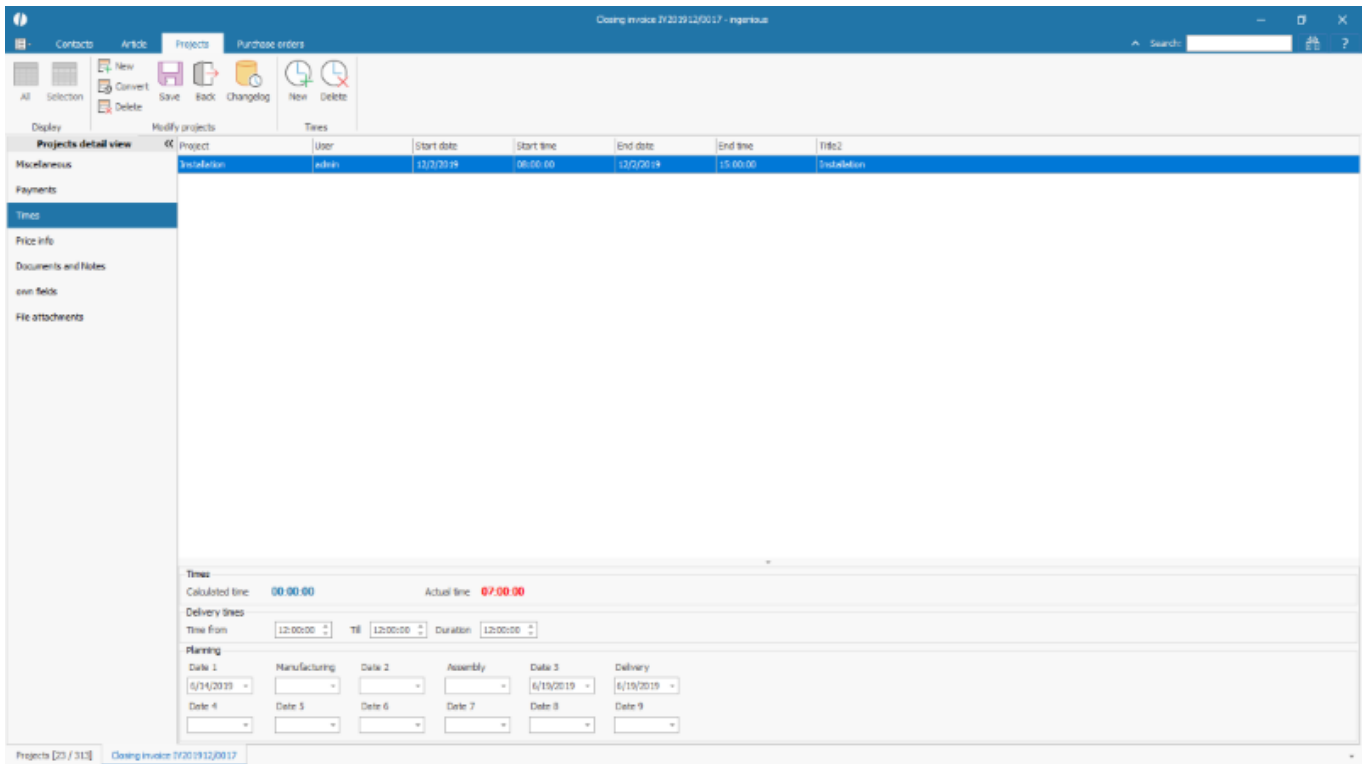
In the column "Times" all project relevant appointments, calculated and real times are summed.

Real times are listed in table format and contain all working times assigned to the project in the project time tracking.

Below the table, the calculated times are added up (from time articles and BOMs) and compared with the real time. Here can be seen, whether the time required of the project was well calculated or whether rework was required.

In the area "planning" up to 12 appointments can be stored. For the production, assembly and delivery date fields are predefined. The remaining fields can be configured individually, adjusting the labeling takes place in the localization module. The dates deposited here can be issued in customer documents, project documents etc. and used for list filters.





In "Times", the following additional functions are available via the toolbar:

	Record a new project time input.
	Deletes the marked project time input.

## Record of a new project time

In the detail window of a project time input, all hours and details of the work of an employee are recorded.

The screenshot displays the 'Project time for Installation' dialog box within the ingenious software. The dialog is titled 'Project time for Installation' and contains the following fields and sections:

- Resource:** John
- Employee:** admin
- Start:** 12/2/2019 08:00:00
- End:** 12/2/2019 15:00:00
- Duration:** 07:00:00
- Work unit:** 28
- Break from:** 00:00:00 to 00:00:00
- Reminder:** No reminder
- Full-time:**
- Title:** Installation
- Text:** Installation
- Inked with:** IV201912/0017
- Document project:** [Empty field]
- Billed to:** Doe, John
- Status:** Not settled
- created:** 12/20/2019 10:36:53 AM - admin
- Modified:** 12/20/2019 10:37:37 AM - admin

Below the dialog, the 'Time' section shows:

- Calculated time:** 00:00:00
- Actual time:** 07:00:00

The 'Delivery times' section includes:

- Time from:** 12:00:00
- To:** 12:00:00
- Duration:** 12:00:00

The 'Planning' section shows a grid of dates for Manufacturing, Assembly, and Delivery:

Date 1	Manufacturing	Date 2	Assembly	Date 3	Delivery
5/14/2019				6/19/2019	6/19/2019
Date 4	Date 5	Date 6	Date 7	Date 8	Date 9



### 4.3.2.5 Inventory posting

Via the "inventory posting" option of a project, type order confirmation or higher, all single items consumed in a project (also from BOM's) are listed with their amounts with total consumption (column: "total amount"). If the stock item entry has been carried out for a project, the consumption is displayed in the column "stock is".

Projects detail view	Hotcode	Quantity	X [inch]	Y [inch]	Z [inch]	Total amount	Stock posted	from	Stock in	Stock Min	Proposal	Unit	PP	PP Total	SP	SP To
Miscellaneous	Bottom slot Standard Alu white	0.15	600.00			0.89	0.00		-10.29	0.00	0.00	m	3.00	0.00	4.80	
Payments	Shutter casing PVC 45° 137 mm white	0.09	100.00			0.89	0.00		-4.13	0.00	0.00	m	16.00	0.00	21.00	
	Side cap Set PVC 45° 137 mm white	1.00				1.00	0.00		-81.00	20.00	100.00	piece	1.00	0.00	2.00	
Times	Slat Alu 32 mm white	4.17	600.00			25.63	0.00		-64.94	12.00	36.00	m	2.00	0.00	3.00	
Inventory posting	Tape coiler rotatable	1.00				1.00	0.00		-8.00	0.00	0.00	Stock	8.00	0.00	11.00	
	Tape white	1.00	100.00			1.00	0.00		-8.00	0.00	0.00	m	1.00	0.00	1.00	
Price info	Working time assembly shutter	0.30				0.50	0.00		-5.50	0.00	0.00	Std	0.00	0.00	20.00	
	Working time production curtain	0.75				0.75	0.00		-6.75	0.00	0.00	Std	0.00	0.00	20.00	
Documents and Notes	Mini guide channel Alu white	0.29	600.00			1.75	0.00		-11.08	0.00	0.00	m	3.00	0.00	4.00	

The "inventory posting" proceeds for all items, for which the option "automatic stock management" is activated in their parameters.

The following additional options are available for the list "stock posting"

Position selection	The list of inventory postings can be displayed for all positions in sum for single project positions.
	Starts the printing of the listed stock movements
	Exports the listed stock movements into a Microsoft Excel file.

## Inventory posts of order filling articles

Order filling articles are purchased exactly for one order but not stored in the stock. The stock monitor of each project gives an overview about the consumption of that article all the same. Order filling articles are displayed with blue text in this view.

The screenshot shows the 'Projects detail view' in the ingenious software. The table below represents the data shown in the interface.

Projects detail view	Materialcode	Quantity	X [inch]	Y [inch]	Z [inch]	Total amount	Stock posted	from	Stock in	Stock Min	Proposal	UNIT	PP	PP Total	SP	SP To
Miscellaneous	Bottom slot Standard Alu white	0.15	600.00			0.89	0.89	12/26/2019	-11.19	0.00	0.00	m	3.00	2.00	4.80	
	Motor with remote control max. 16 kg	1.00				1.00	1.00	12/26/2019	-1.00	0.00	0.00	Stack	55.00	55.00	72.00	
Payments	Shutter casing PVC 45° 137 mm white	0.89	100.00			0.89	0.89	12/26/2019	-5.25	0.00	0.00	m	16.00	14.30	21.00	
Times	Slide cap set PVC 45° 137 mm white	1.00				1.00	1.00	12/26/2019	-62.00	20.00	100.00	piece	1.00	1.00	2.00	
Inventory posting	Slot Alu 32 mm white	4.17	600.00			25.63	26.28	12/26/2019	-691.22	12.00	36.00	m	2.00	52.56	3.00	
	Tapc color rotatable	1.00				1.00	1.00	12/26/2019	-0.00	0.00	0.00	Stack	8.00	8.00	11.00	
	Tapc white	1.00	100.00			1.00	1.00	12/26/2019	-0.00	0.00	0.00	m	1.00	1.00	1.00	
Price info	Working time assembly shutter	0.50				0.50	0.50	12/26/2019	-6.00	0.00	0.00	Std	0.00	0.00	26.00	
Documents and Notes	Working time production curtain	0.75				0.75	0.75	12/26/2019	-7.50	0.00	0.00	Std	0.00	0.00	26.00	
own fields	Mini guide channel Alu white	0.29	600.00			1.73	1.73	12/26/2019	-12.81	0.00	0.00	m	3.00	5.18	4.00	

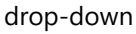


At the bottom of the interface, there is an 'Order filling' section with a dropdown menu set to 'without' and a 'Create purchase order' button.

### 4.3.2.6 Price info in the project

Part lists are products that can be configured from different parts in different variants. The price info in the project gives information about which single articles and supplementary items are used for calculating the price.




	Hotchoud/haare	Quantity	X cm	Y cm	Z cm	SP	PP	Time (min)	Rebate	VK OSP
Miscellaneous	Shutter casing PVC 45° 137 mm white	1.00	89.40	0.00	0.00	\$18.77	\$14.30	0.00	\$0.00	\$18.77
	Side cap Set PVC 45° 137 mm white	1.00	0.00	0.00	0.00	\$2.00	\$1.00	0.00	\$0.00	\$2.00
Payments	Start Alu 52 mm white	28.00	89.40	0.00	0.00	\$75.00	\$50.06	0.00	\$0.00	\$75.00
Times	Bottom rail Standard Alu white	1.00	89.40	0.00	0.00	\$4.29	\$2.68	0.00	\$0.00	\$4.29
Inventory posting	Mini guide channel Alu white	2.00	86.30	0.00	0.00	\$6.90	\$5.18	0.00	\$0.00	\$6.90
	Track color rotatable	1.00	0.00	0.00	0.00	\$11.00	\$0.00	0.00	\$0.00	\$11.00
Price info	Track white	1.00	100.00	0.00	0.00	\$1.00	\$1.00	0.00	\$0.00	\$1.00
Documents and Notes	Working time production curtain	0.75	0.00	0.00	0.00	\$15.00	\$0.00	45.00	\$0.00	\$15.00
	Working time assembly shutter	0.30	0.00	0.00	0.00	\$15.00	\$0.00	30.00	\$0.00	\$15.00

The following functions are available:

	Selection list for choosing the item position that should be charted. Only part list items are listed.
	Printing the list of the price details
	Export of the list of the price details to an Excel file

### 4.3.2.7 Documents and Notes of the projects

In "Documents and Notes", general letters, faxes and memos are created for the project and stored chronologically. It provides the following functions:

	Create a new document / a new note
	Delete marked document / marked note
Show from linked projects	Also shows the documents and notes of the projects linked via the project history in the list. For these documents, the additional column Document Origin is displayed, which contains the document name and document number of the linked project.
	Searches for matches within the topic of the documents.

full-text  
research

When creating a new document / a new note, different types, which are marked with the according icon from the list, can be selected.

	Note or simple note
	Letter
	Fax

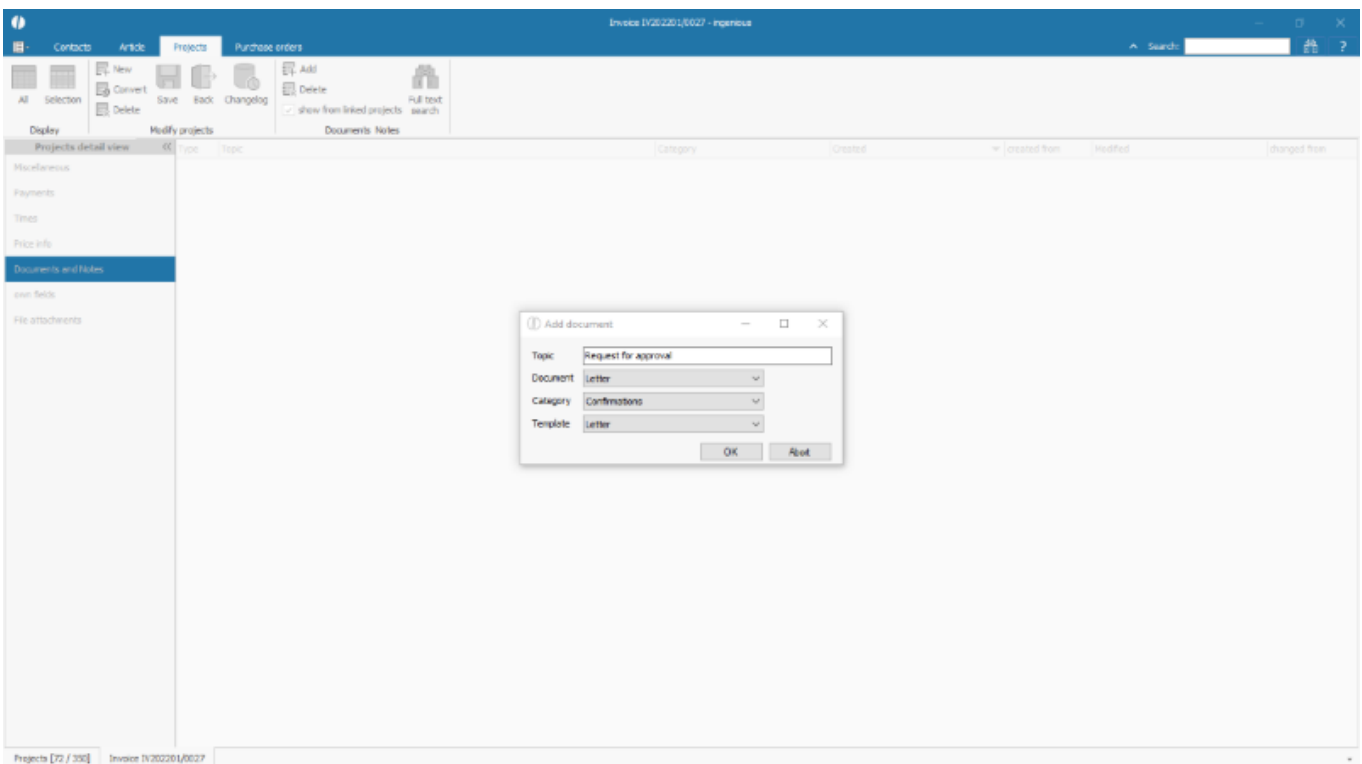
A note is summarized as a title with a heading and further described in an additional text field.

The simple note, on the other hand, consists of a single text field, which is also the title.

For letters and faxes, any document templates can be selected from the **text templates (Section 8.1.3)** as a base.

In addition to a simple standard template, it is advisable to deposit corresponding pattern for recurring /serial letters.

Each document and each note can be assigned to a category defined in the program settings / selection lists.



For the editing of letters or faxes, further functions of the text editor are also available.

The screenshot displays the 'ingenious' software interface. At the top, there is a navigation bar with tabs for 'Contacts', 'Article', 'Projects', 'Purchase orders', and 'Settings'. Below this is a toolbar with various icons for document management, including 'New', 'Save', 'Back', 'Change log', 'Delete', 'Full text search', 'Open', 'Print', and 'Send as PDF'. A search bar is located on the right side of the toolbar.

The main area is divided into two sections. The top section is a table with columns: 'Type', 'Topic', 'Category', 'Created', 'created from', 'Modified', and 'changed from'. The table contains two rows:

Type	Topic	Category	Created	created from	Modified	changed from
Phone call	1/11/2022	Phone notes	1/11/2022 7:09:41 AM	admin	1/11/2022 7:37:31 AM	admin
Request for approval		Contributions	1/11/2022 7:02:38 AM	admin	1/11/2022 7:02:38 AM	admin

The bottom section shows a preview of the selected document, 'Request for approval'. The document content is as follows:

John Doe  
123 Anywhere Street  
12345 Anytown

1/11/2022

Request for approval

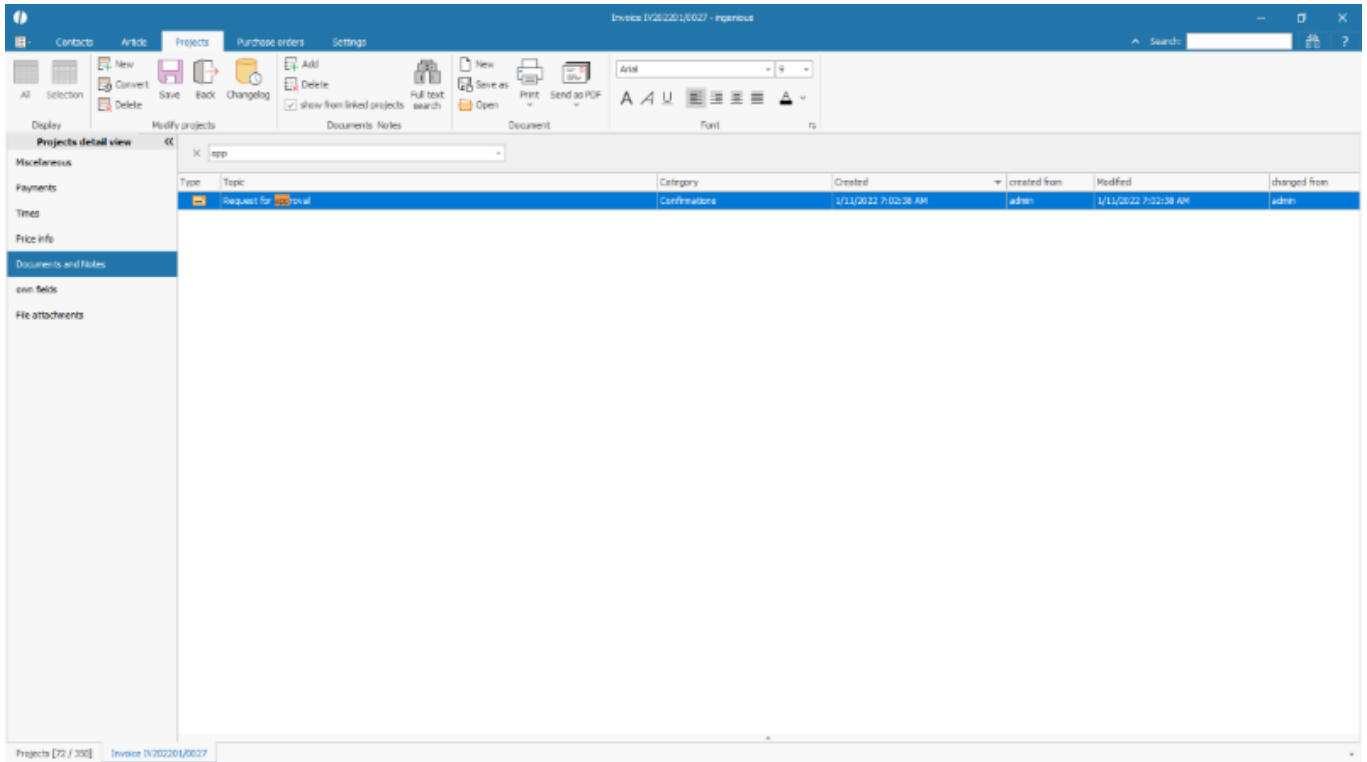
Dear Mr. Doe

With best regards

At the bottom of the document preview, it shows 'Created: 1/11/2022 7:02:38 AM - admin' and 'Changed: 1/11/2022 7:02:38 AM - admin'.

### Full text research

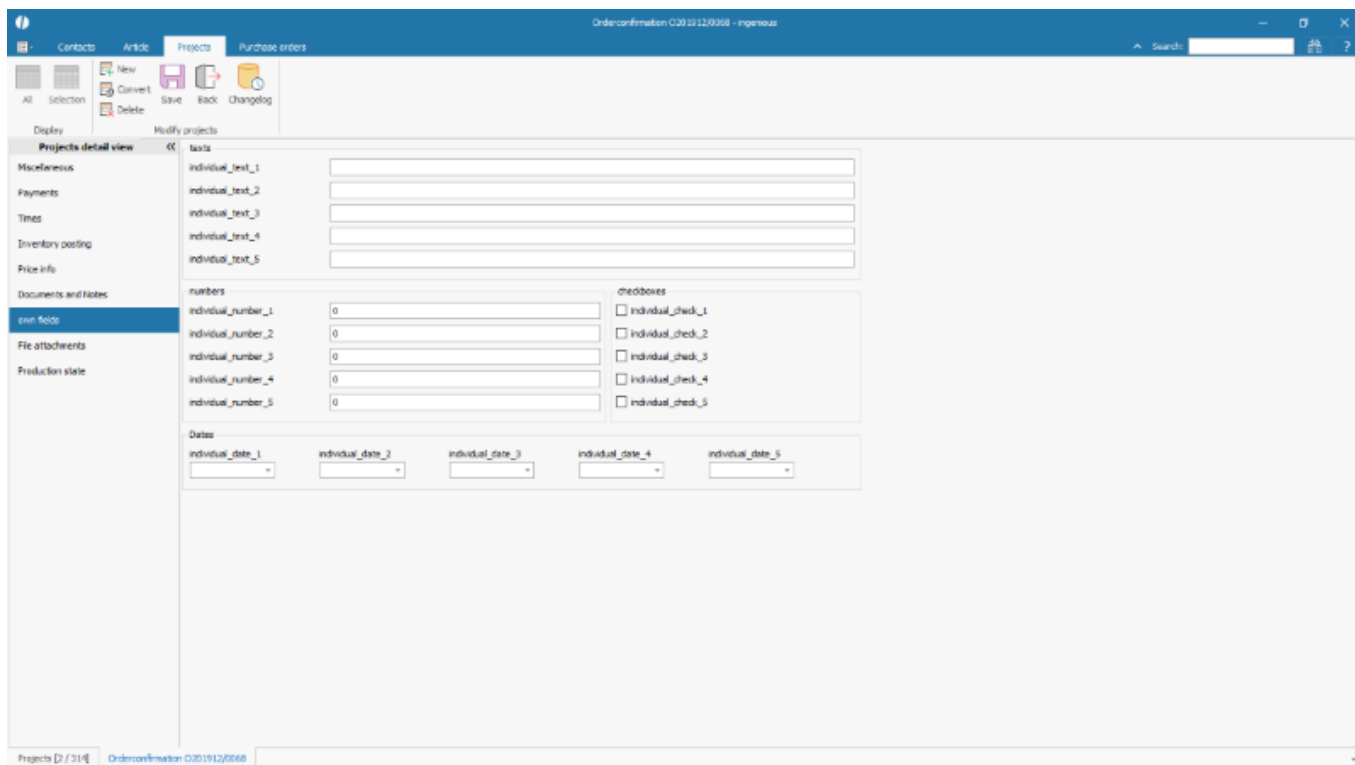
If for a project record very many documents and notes have been created, the full text research facilitates finding a document with an uncertain date of creation. A given keyword is entered into the search field. All documents which contain the wanted expression in the topic are displayed and the word is highlighted. The selection can be reset via the small X next the search box.



### 4.3.2.8 own project fields

Own or individual fields can be used as required to store data, for which no suitable standard box is available. Five text fields, numeric fields, date fields and checkboxes can be occupied each. The fields can be renamed according to the requirements in the localization module. The contents of the fields can be issued in the project documents and printing reports and displayed in list views.









### 4.3.2.9 File attachments of the projects

In the file attachments, various external documents can be saved to your project. This may have different documents and media data, e.g. PDF catalogs, video company presentations, emails, scanned documents and Web addresses.

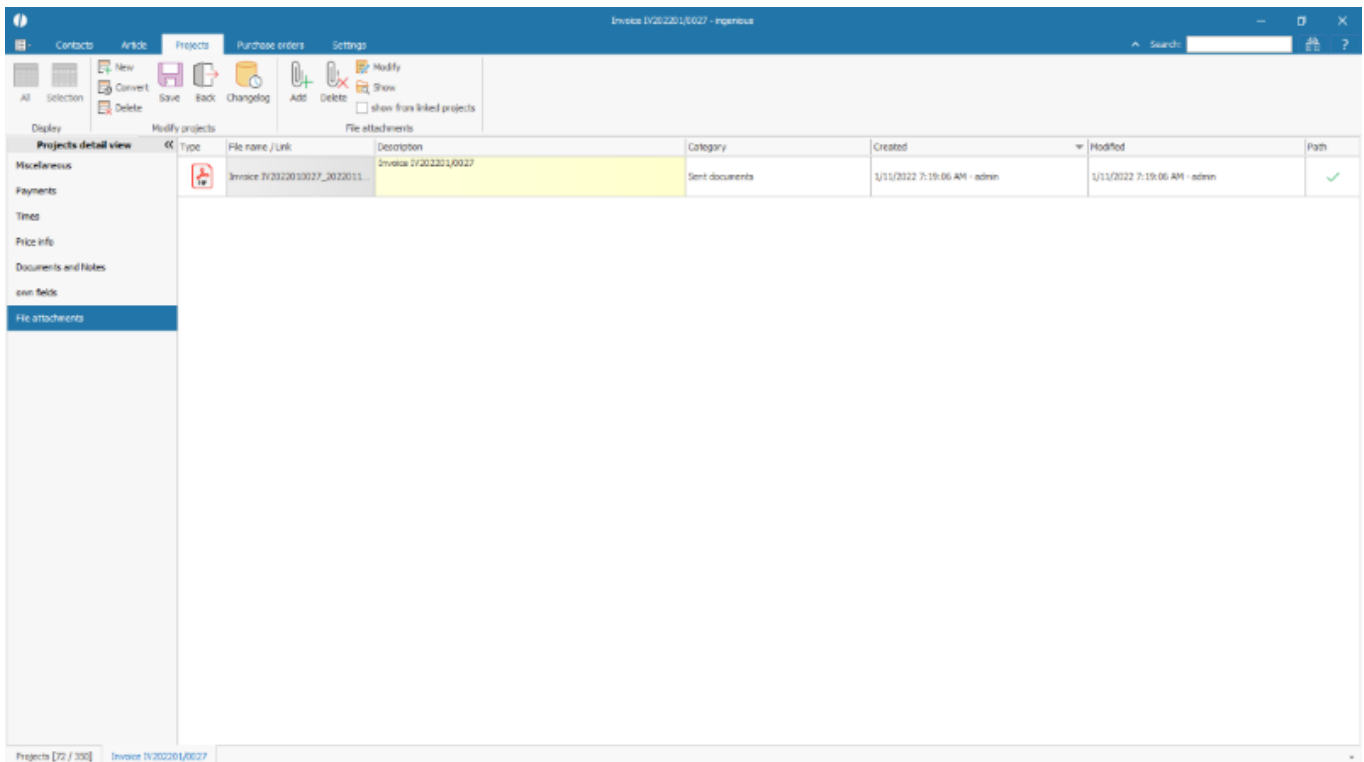
In the file attachments, the following additional functions are available:

	Add a new file attachment. A dialog for selecting an external file attachment or an external URL opens. In addition, the file attachment can be assigned to a category and a description can be stored. After confirming the dialog, another dialog for entering the URL opens for an external URL and the standard Windows dialog for opening a file appears for an external file attachment.
	Delete marked file attachment.
	Edit the text description of the selected file attachment.
	Display the location in which the selected file attachment recorded.
show from linked projects	Also shows the file attachments of the projects linked via the project history in the list.

A new file attachment can be added via the button or drag&drop.

In list view, all available file attachments of a project are displayed. An icon in the first column indicates the type of file attachment. The entries can be sorted by clicking the column headings. It is also possible to group the list according

to one of the columns.



An already created file attachment is opened by double-clicking on the file name / reference.

A simple click on a file attachment of the type Image shows a preview of the image below the file attachment list.

In the column "Path" the symbol ✓ indicates that the file attachment is available at the stored path. The symbol

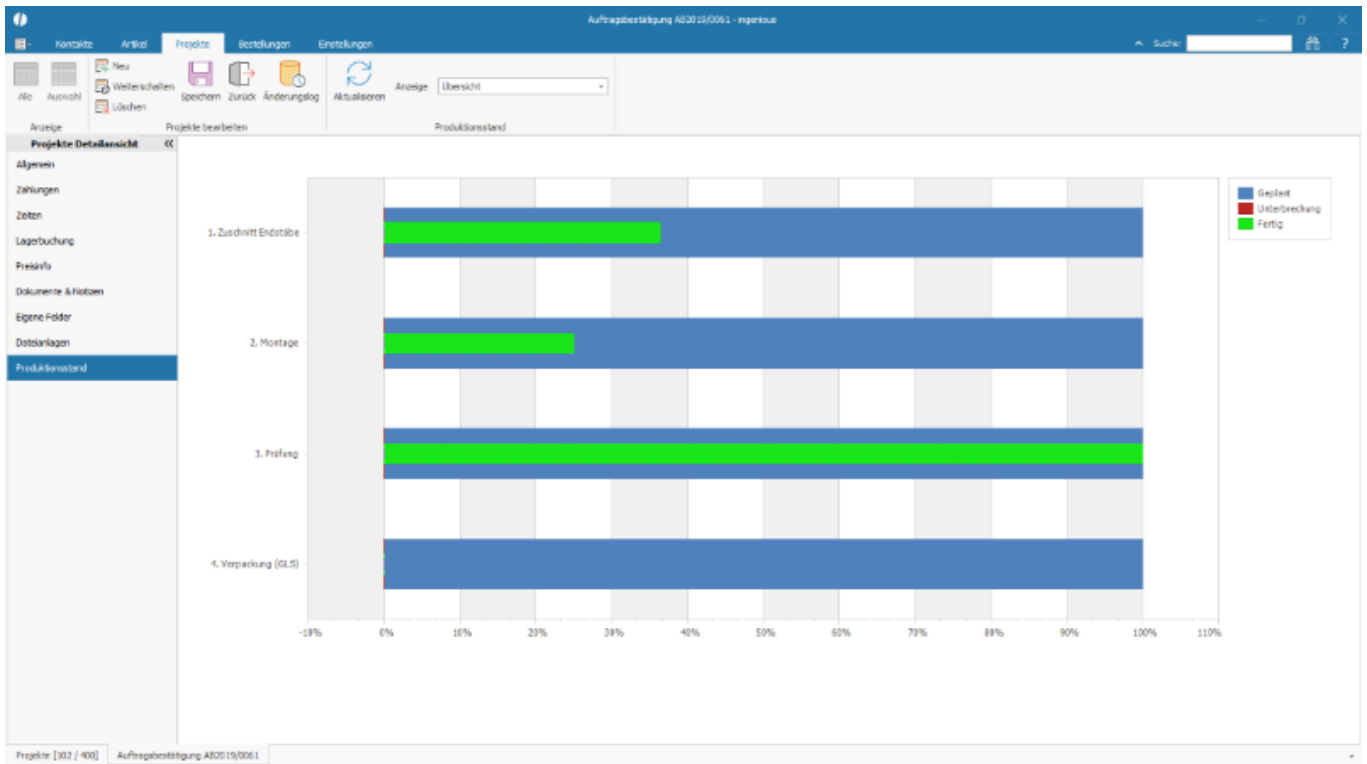
✗ shows, that the file attachment or the path is not available.

A little database symbol shows that the information is directly stored in the database.

The paths for the file attachments must be configured in the program settings under Network / Web Server. It must be ensured that all users of the same database have access to these paths.


### 4.3.2.10 Production state

When using the ingenious PPS system, the status of the work steps in production is reported back to the project document. The progress of the work can be seen as an overview and can be viewed for each individual work station concerned.

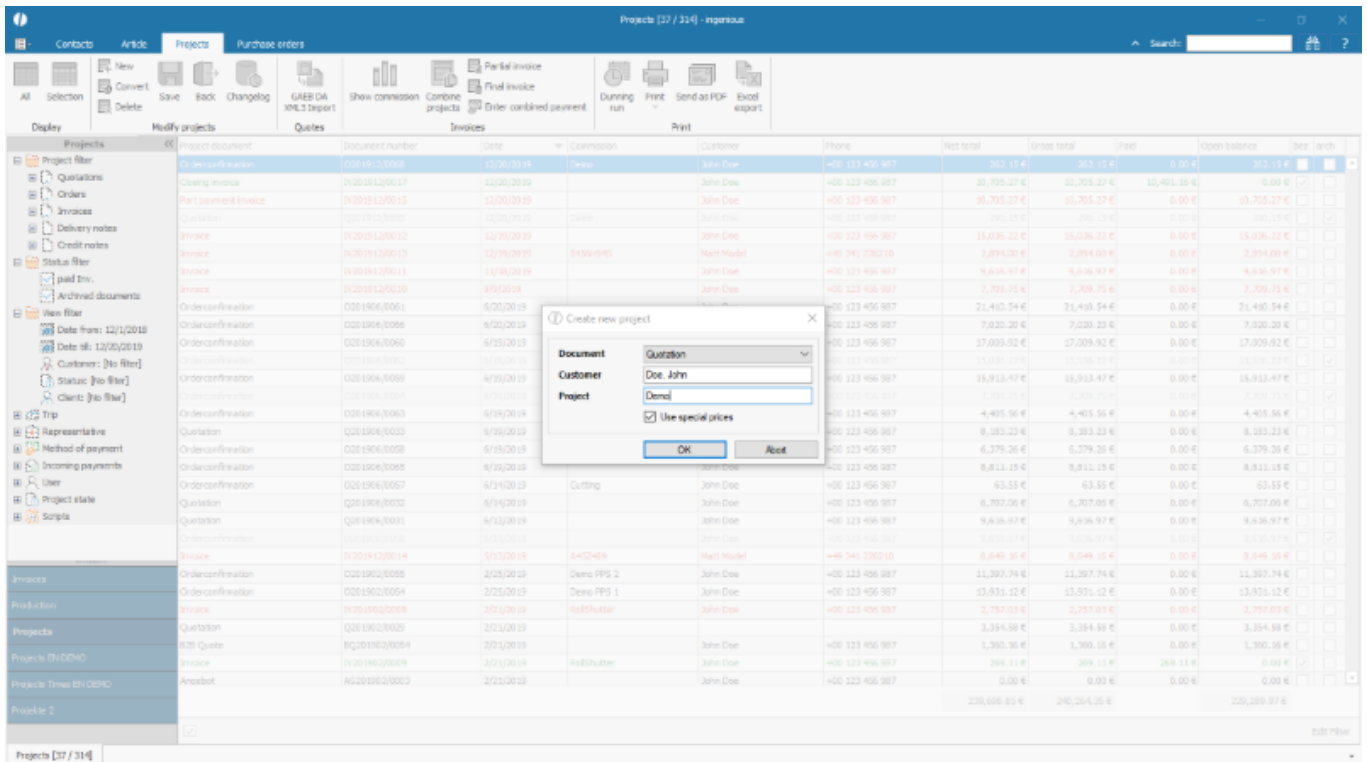


## 4.3.3 Projects How-to

### 4.3.3.1 Create a new project

The creation of a new project starts with the button  in the projects list- or detail view. In the appearing dialogue e.g. the project type is selected and the customer that shall be linked to the project.

If the project creation was started from the detail view or from a list view that was filtered for a customer (e.g. when the project list was opened from the contacts with "Show projects"), the customer is already preselected in the creation dialogue.

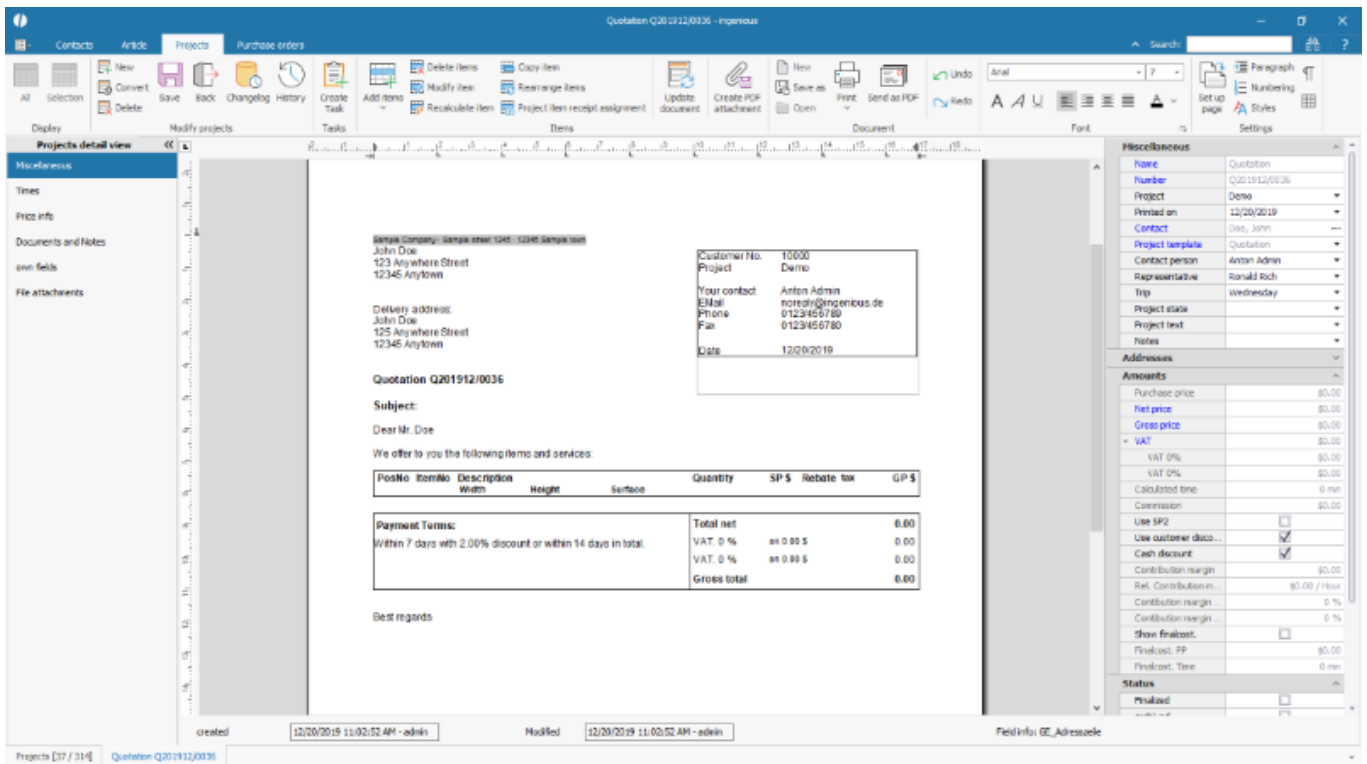


The following details are queried:

Document	<p>All project types that were configured in the program settings in projects and reminders are to choose from. Usually these are quotation, order confirmation, invoice, delivery note and credit note.</p> <p><b>A common workflow starts with a quote, from that the following project types will be generated.</b> See also <b>Convert an existing project (Section 4.3.3.2)</b></p> <p>Also all other project states can directly be created, e.g. when a customer "just now" comes to take away items on stock. Then simply an invoice is created that doesn't need any other status.</p>
Customer	<p>In the field customer the matchcode of that contact has to be entered, for that the project shall be created. With entering the first letters, the type-ahead-search starts and all contacts with type customer are listed that starts with those letters. This way the matchcode can be selected from the list, even if only a part of it is known. If the matchcode is completely unknown and/or the customer shall be searched for by filters from the database, the contact list can be opened by entering the wildcard "*". With double click the selected customer will be taken over.</p> <p>Alternatively also the customer number can be used for searching the contact. If exactly one customer exists with that customer number, he will directly be taken. If more than one is found, the contact list will be opened with the search results and the customer can be selected with double click.</p>
Commission	<p>In the field commission a short name for the project can be entered.</p>
Use special prices	<p>Special prices can be stored in the contact details for customers. They will be used, when the checkbox is activated. If the flag is removed, the project prices are calculated with the list prices instead.</p>

After the confirmation of the project creation dialogue with clicking OK, the project document is generated and opened.

The document is opened in a **What-You-See-Is-What-You-Get** view. You directly see the document preview where you can work on.



Each change on project relevant fields, on a project item or on the sums etc. is directly visible. Nearly all project fields can be changed in the right sidebar or directly on the document when they were placed there by placeholders.

If alle changes should be made on the document, it's recommended to navigate from field to field bu tab key.

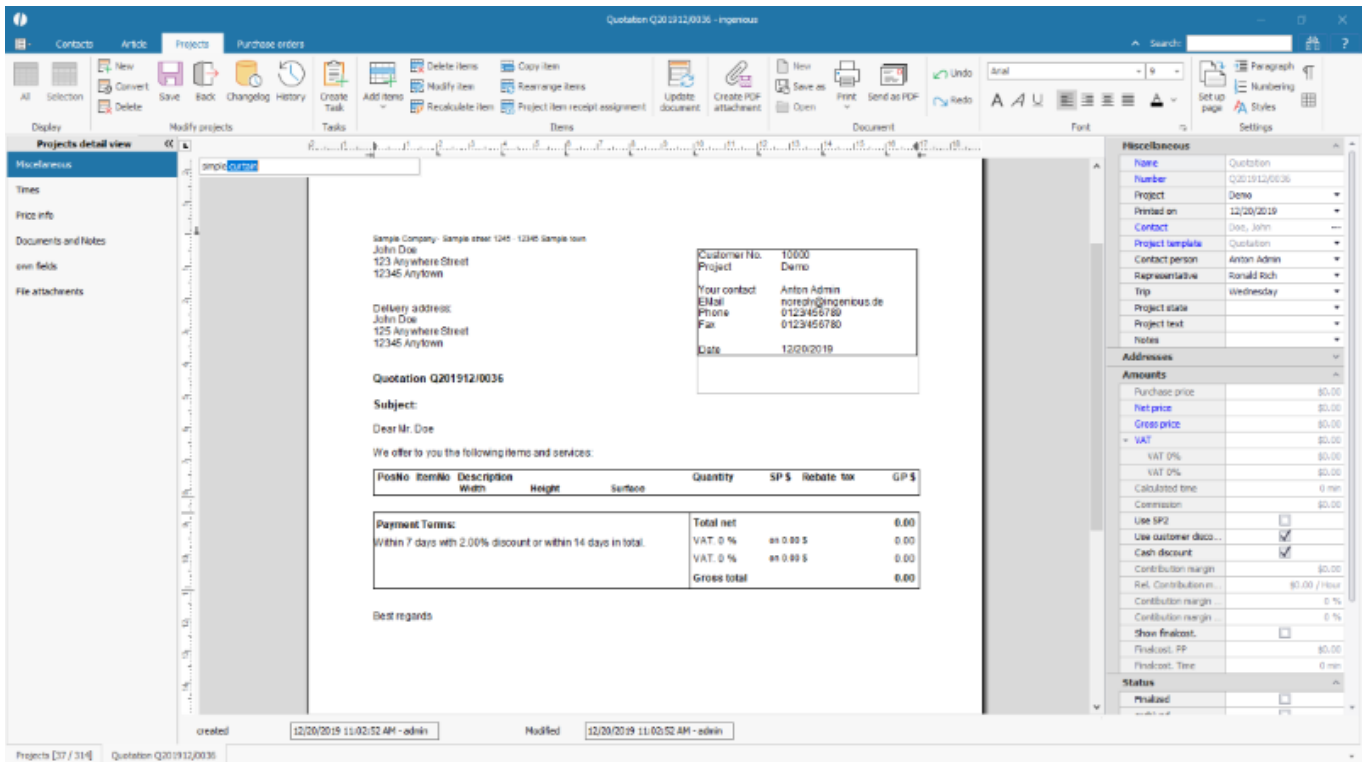
Note: Only changes on fields are stored in the database. If texts are entered at any point of the document, they get lost with a refresh of the document. Arbitrarily writing on the document can be prevented by the configuration "free text entry in projects" -> "not possible". See also **Program settings / Projects and reminders (Section 8.6.11)**

Also single fields can be protected from changes. For that the place holders in the text template administration need to get the property "text entry blocked". See also **Text templates / project templates (Section 8.1.2)**

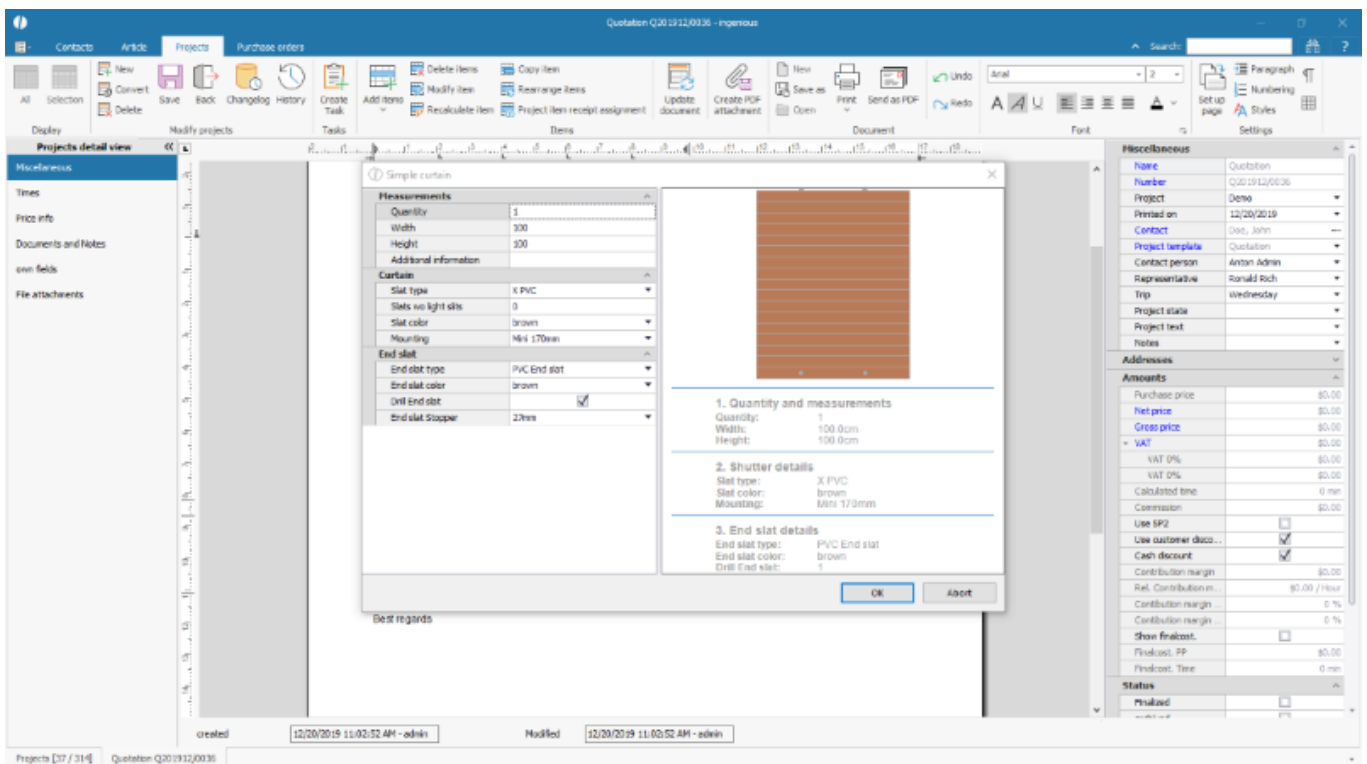
After setting all miscellaneous project data and texts the project related items will be entered. This is done with the btttons from icon bar or with the known shortcuts. See also **Projects / Miscellaneous project data (Section 4.3.2.2)**

With headlines, free texts, sums and rebates the project items can be grouped logically.

When entering the items the ingenious product catalogue can be used. Amongst other things with the shortcut Ctrl + A a little search field will be opened, with that the needed article is searched for by using the matchcode and a type-ahead-search.



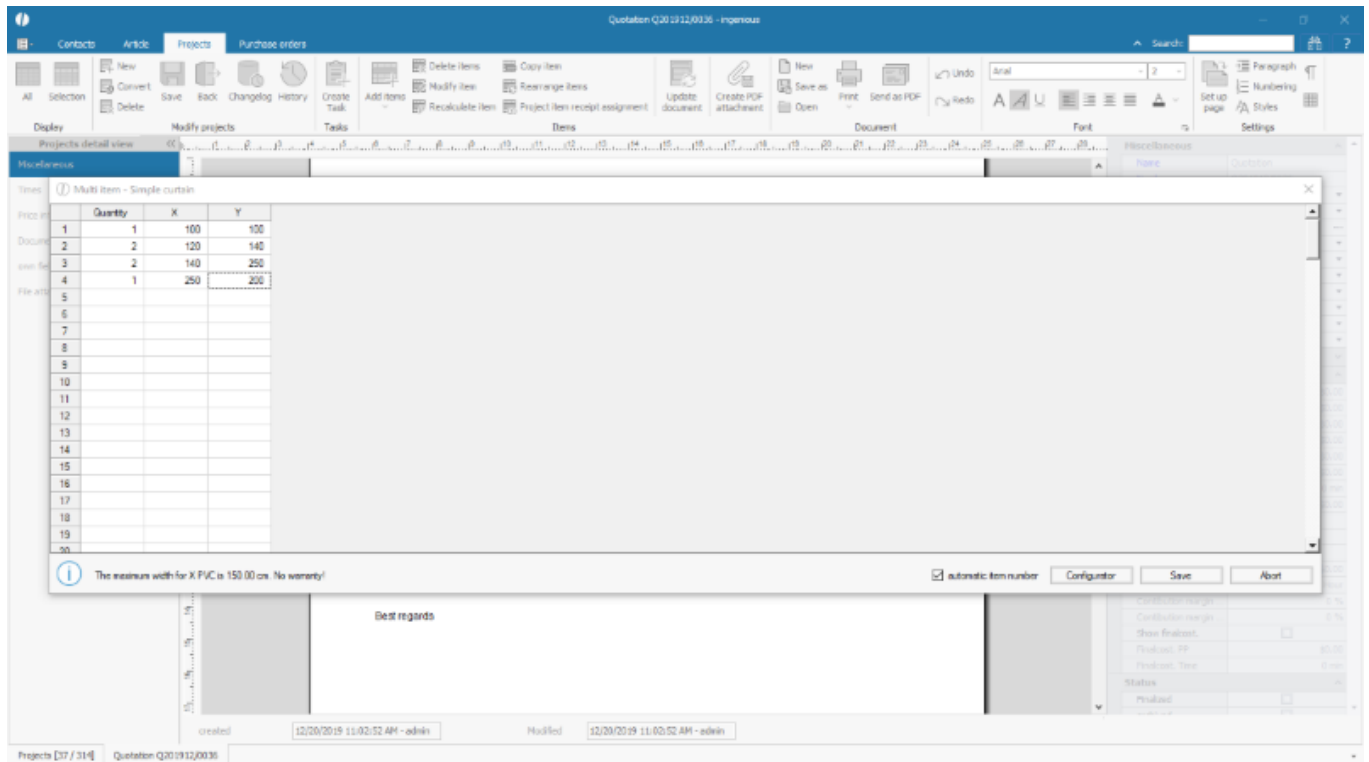
Simple articles will directly be inserted in the document. For part lists a configurator is opened where the needed quantity, measurements and options can be entered and selected.



If multiple similar products shall be entered into the project, it's recommended to use the function multi item. With

shortcut Ctrl + M and search first an article is loaded from product catalogue and configured in a separate table afterwards. That applies equally for simple articles that are needed in different lengths for example and also for part lists that can have different variants besides the measurements, e.g. the control side of a rolling shutter (depending on the scripting code of the part list).

Once configured in the base, entering the measurements and quantities (+ possibly additional options) is done in a minimalist table. Possible part list notes or errors are already checked for and displayed here.





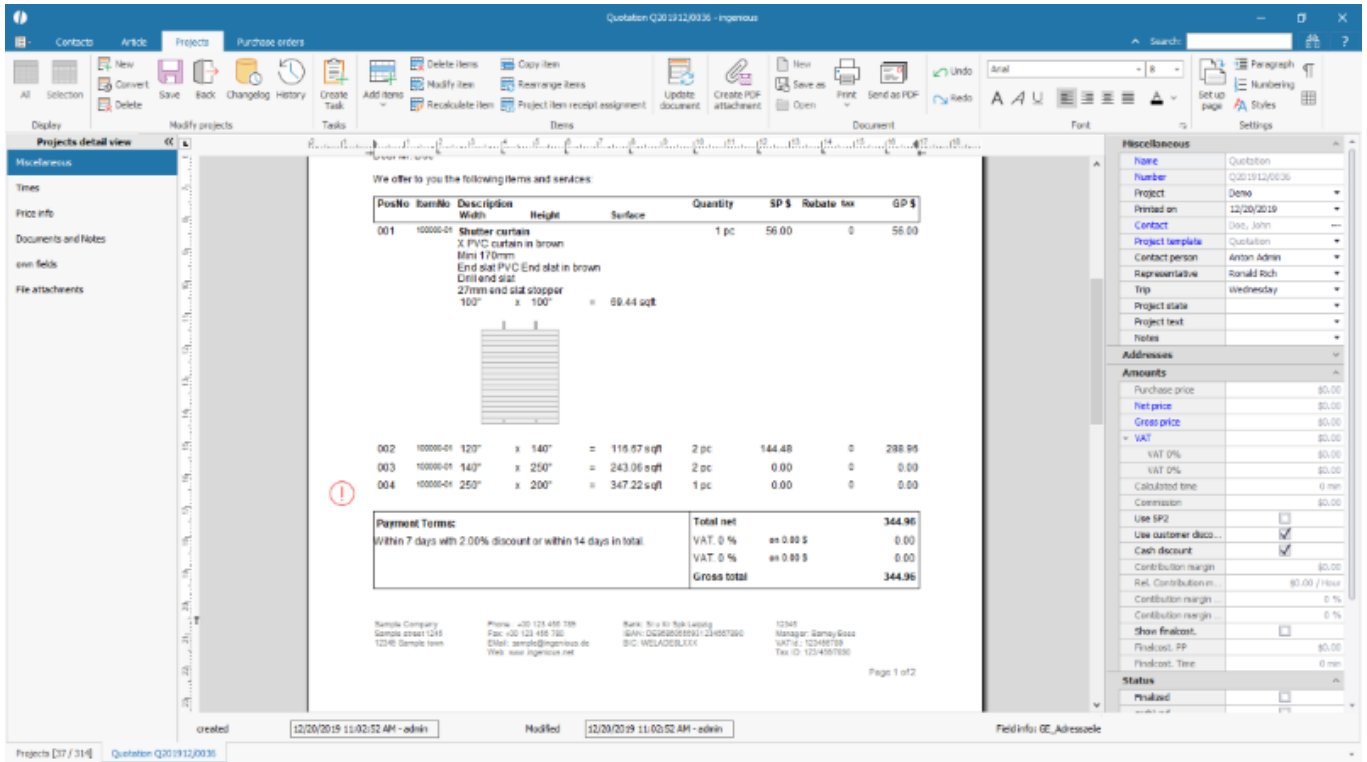
The screenshot shows the 'ingenious' software interface. The main window displays a table with the following data:

Quantity	X	Y
1	100	100
2	120	140
2	140	250
1	250	200

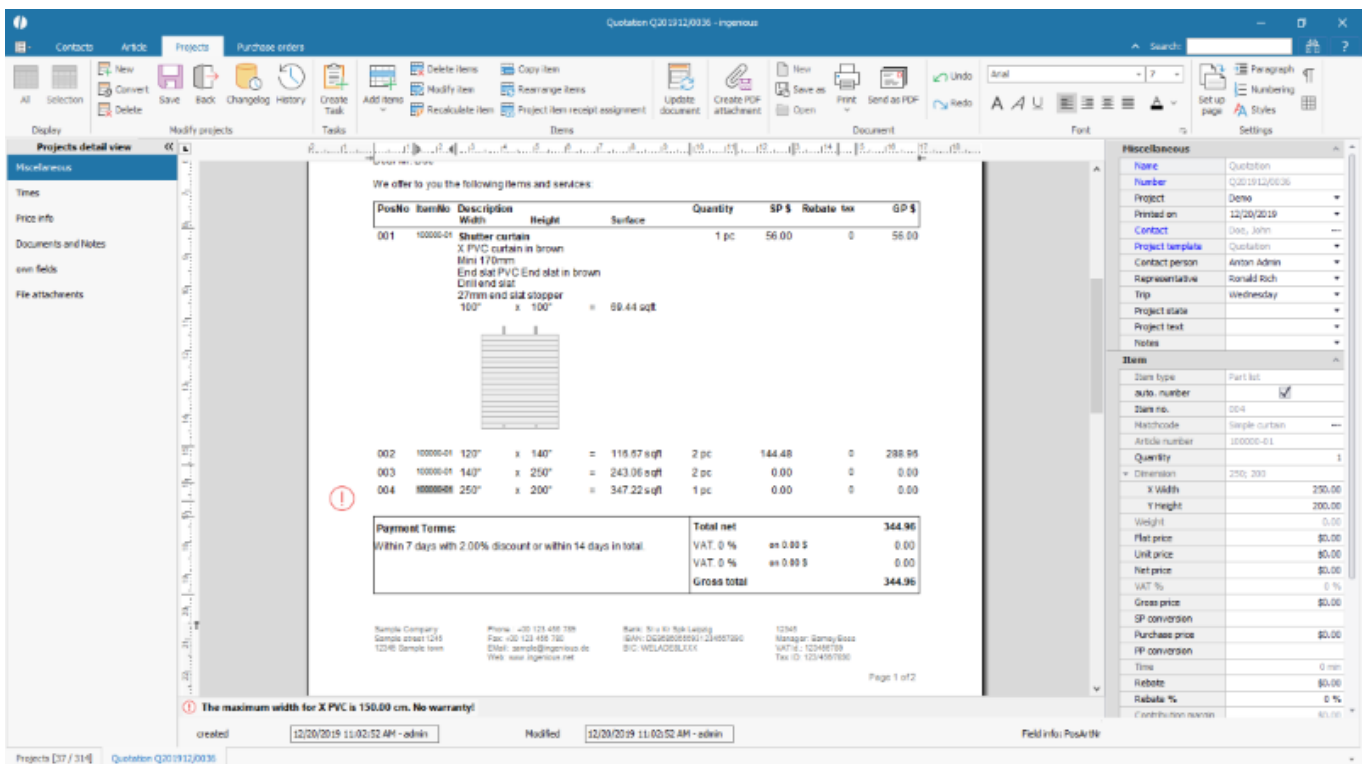
Below the table, there is a warning message: "The maximum width for X PVC is 150.00 cm. No warranty!". The interface also shows a toolbar with various icons and a status bar at the bottom.

Also in the document possibly errors in the product configuration are indicated.

A little warning symbol  on the document marks an item line that contains a note. A forbidden sign  shows that an item is faulty.




When the faulty project item is selected - by clicking on it or by navigation with tab key, the related note or error message is shown below the document. The notes and also the symbols will not be printed with the document.

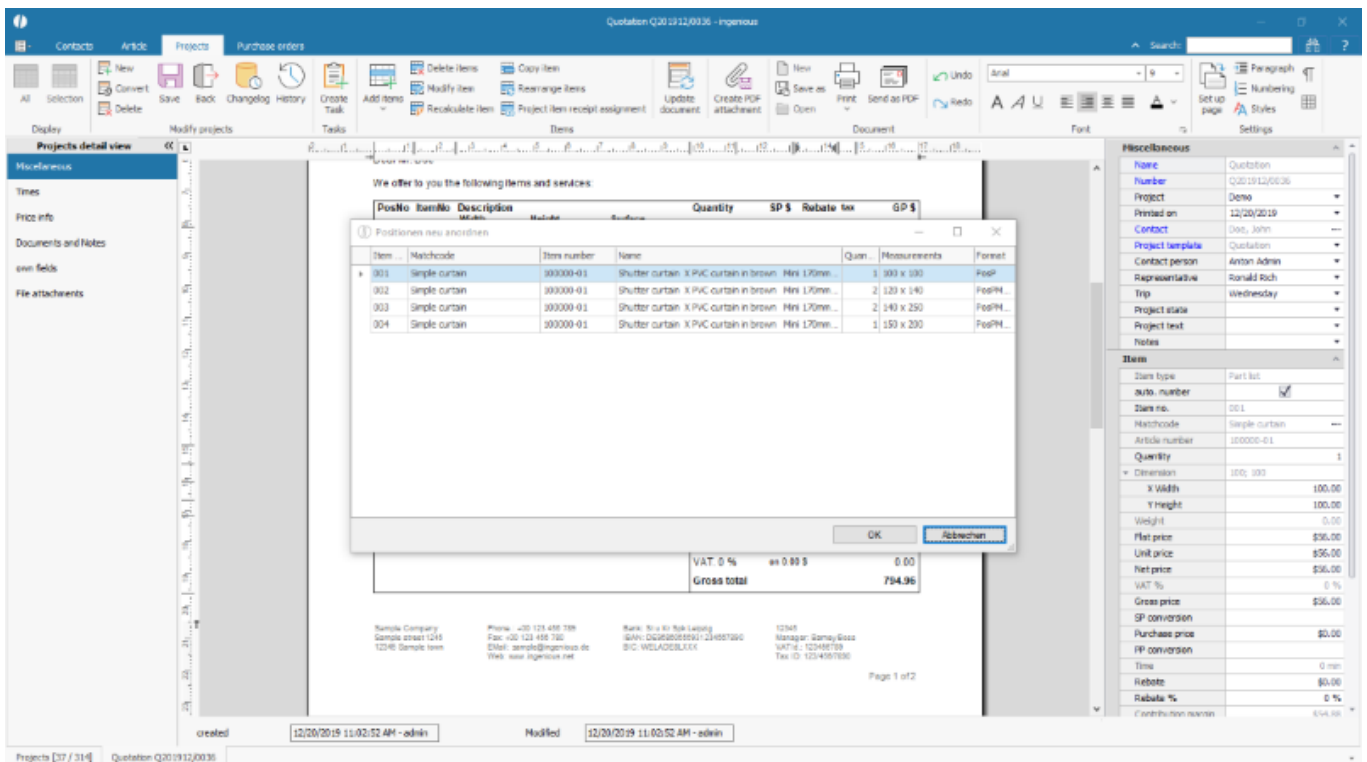





## Rearrange items

New project items always will be inserted below a marked item line or, if the cursor is placed at any point of the document outside the item table, it's inserted in the last line below all other items. If the order does not correspond to the intended possibly because of entering project items or explanatory texts later, the items also can simply be rearranged.

With the button  in the symbol bar or with the function key F5 a pop-up is opened, wherein the items can be rearranged arbitrarily with drag&drop. With OK the new order is confirmed, with Abort it's discarded.



## Send project document by email

A completed project document can be sent directly to the customer as a PDF attachment to an email using the button .

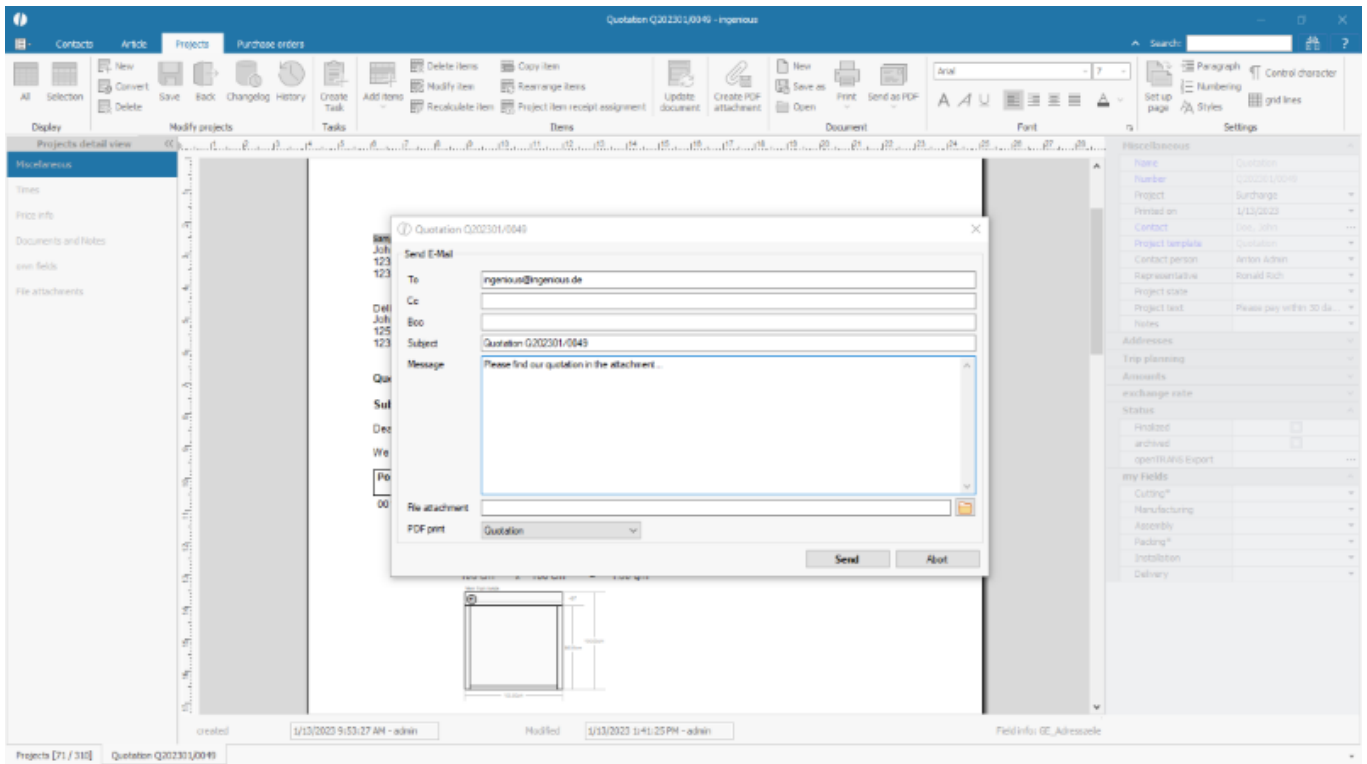
Depending on the configuration in the program settings, the email is sent with predefined texts via SMTP or via MAPI.

If the corresponding tick is set in the program settings, a window will also open in which texts can be edited and recipients can be added.

Another file attachment can also be added from the computer's folder structure.

The PDF of the project document is created using the project template selected in the project as seen in the project preview.

A different project template can be selected in the Send Email window.

**Note:**


The form for sending the e-mail can be adapted using a script, e.g. expanded.

If changes are made to the form on the program side, the form sizes set in the script may no longer fit.

If individual elements are missing from the form, please contact ingenious support.

### 4.3.3.2 Convert an existing project

The advantage of the ingenious project workflow is for example that all project data needs to be entered only once and all related documents are generated of it.

This is done with the function "Convert" that is started with button  of the icon bar.

If multiple projects are selected for converting, each will be converted to a single document of the selected type.

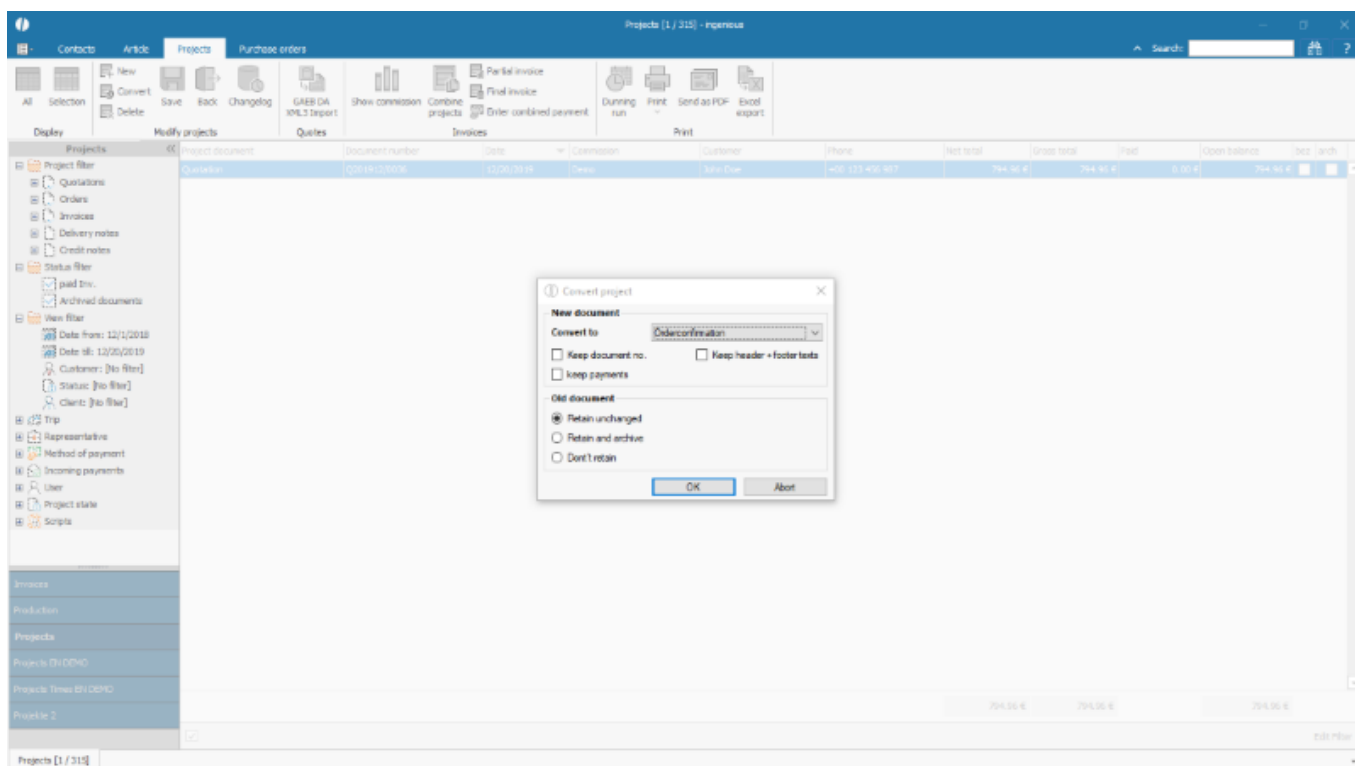
However, if several projects are to be combined into one collective document, the Combine Projects function should be selected instead.

Depending of the selected option for the old document the complete workflow can be comprehended at any time (with the options "Retain unchanged" and "Retain and archive").

The following options are possible:

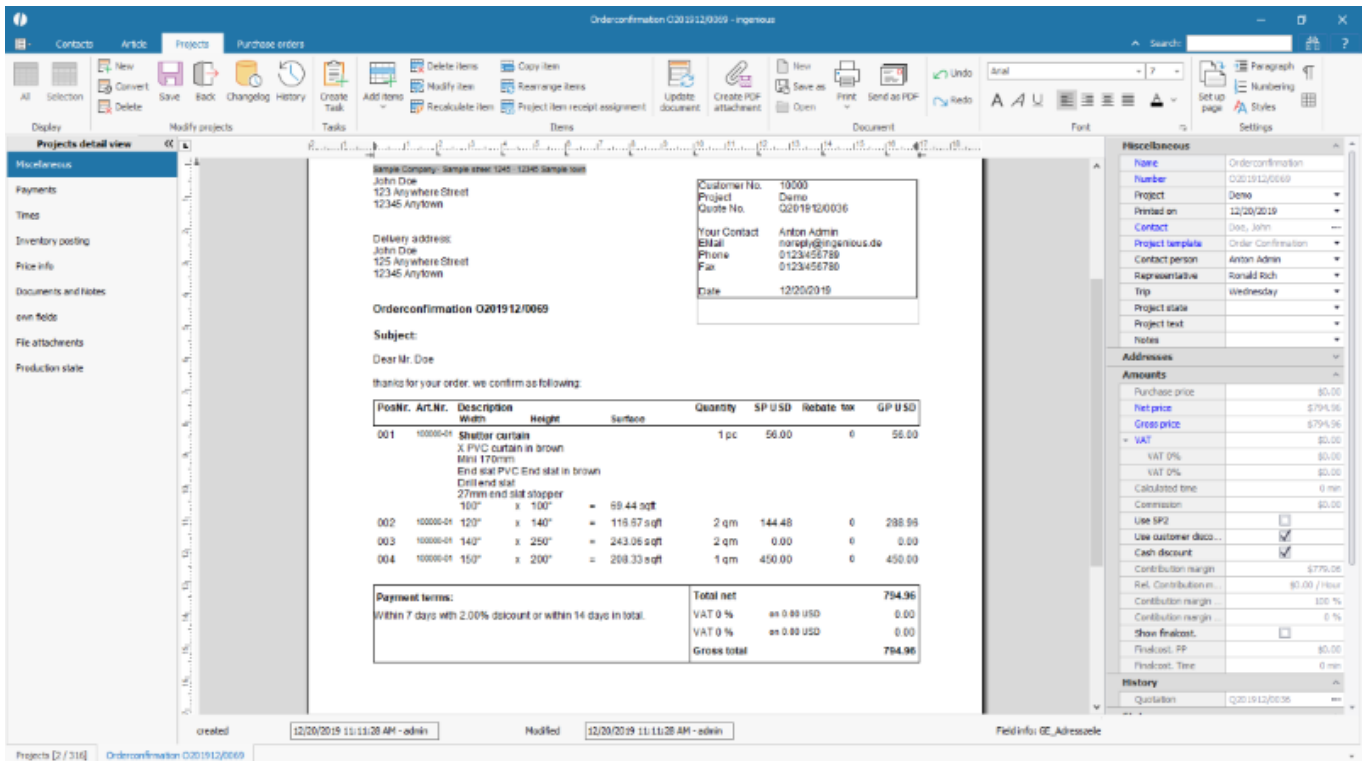
Convert to	Drop down with all available project types that are configured in the program settings. Always the next
------------	---

	logical project type is preselected (Quotation -> order confirmation -> Invoice -> delivery note -> credit note), respectively this one that is defined in the project documents as ensuing document.
Keep document no.	The new document keeps the document number from the old one.
Keep header + footer texts	The new document keeps the header and footer text of the old document.
Keep payments	Payments that was entered for the original document will be transferred to the new document. That makes sense e.g. to take over a deposit payment from an order confirmation to the invoice to be created. But activating the checkbox is not recommended if the function "Convert project" is used to copy a document into another / different process with similar items to only save effort e.g. when a customer purchases the same products twice. If the payment is taken over in that case, demands can get lost, because an invoice with kept (full) payment is not recognized by the dunning run.
Retain unchanged	Defines by radio buttons, whether the old document should be kept as it is...
Retain and archive	... or the document should be kept but archived. In this case the flag "archived" is set and the document is displayed with grey color in list views. Archived documents can be faded in and out by status filters.
Don't retain	If the option "Don't retain" is selected, the original document will be deleted from database.



The new project document usually contains the same items as the original document. Only alternative and optional items will not be taken over from a quotation to a higher project status.

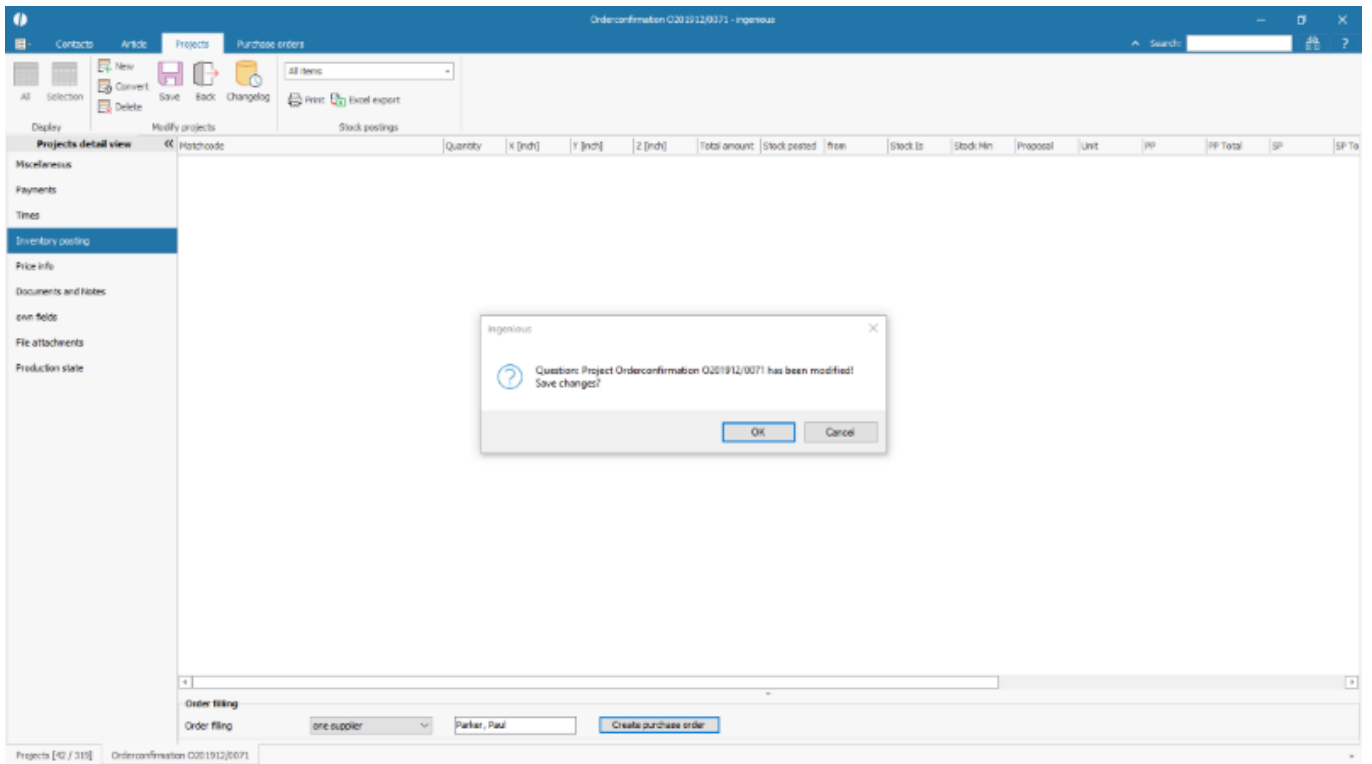
The new document is generated depending on the project and item data and on the stored text template. Afterwards you can follow up on it.



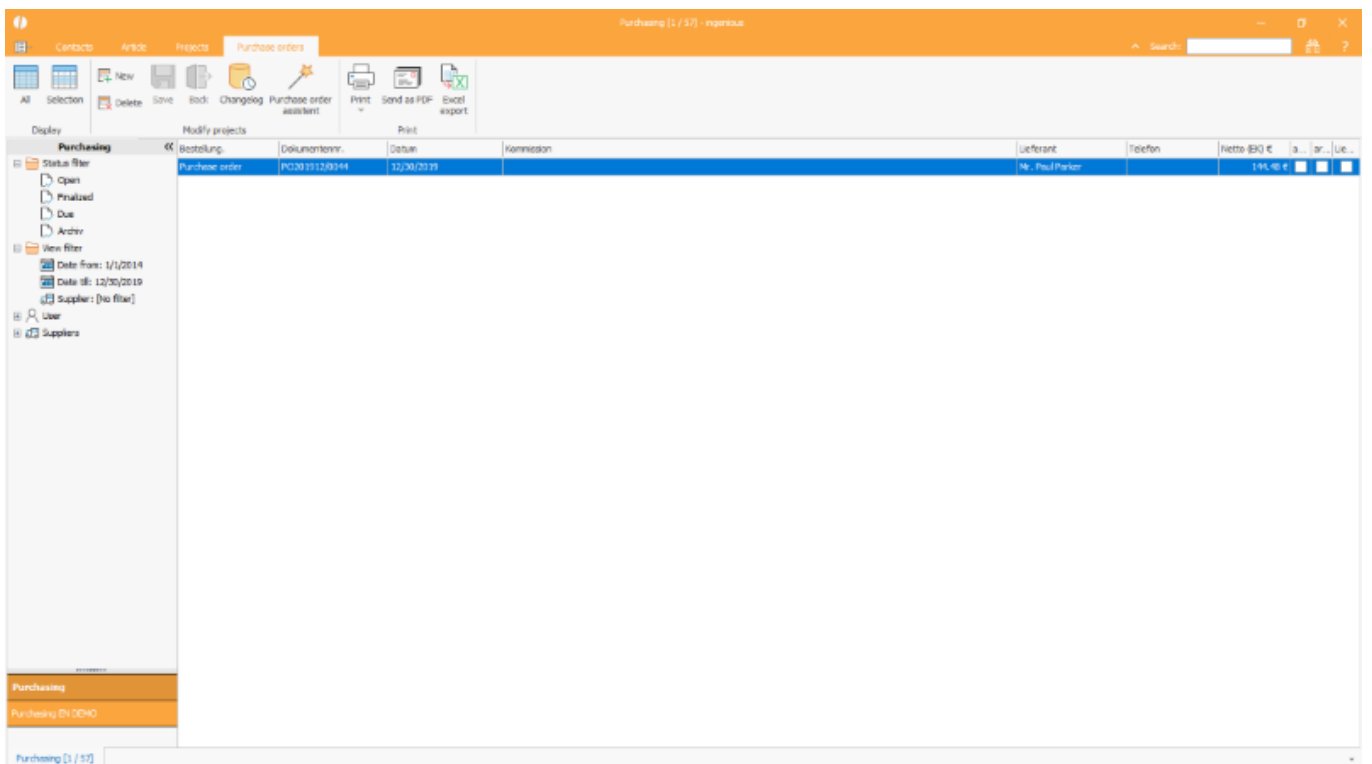
### 4.3.3.3 Commission order

In companies that do not produce themselves, but sell finished products and order them on an order commission basis, the function of commission ordering can be used as an alternative to the order assistant. At the push of a button, the order assistant checks all orders that have been booked in stock for commission goods for which the automatic warehouse booking is activated, and automatically creates all orders to be placed with the relevant suppliers. A commission order, on the other hand, is specifically created manually for an order. This can be done independently of an automatic warehouse posting, then no entry / no posting is created in the item's warehouse monitor.

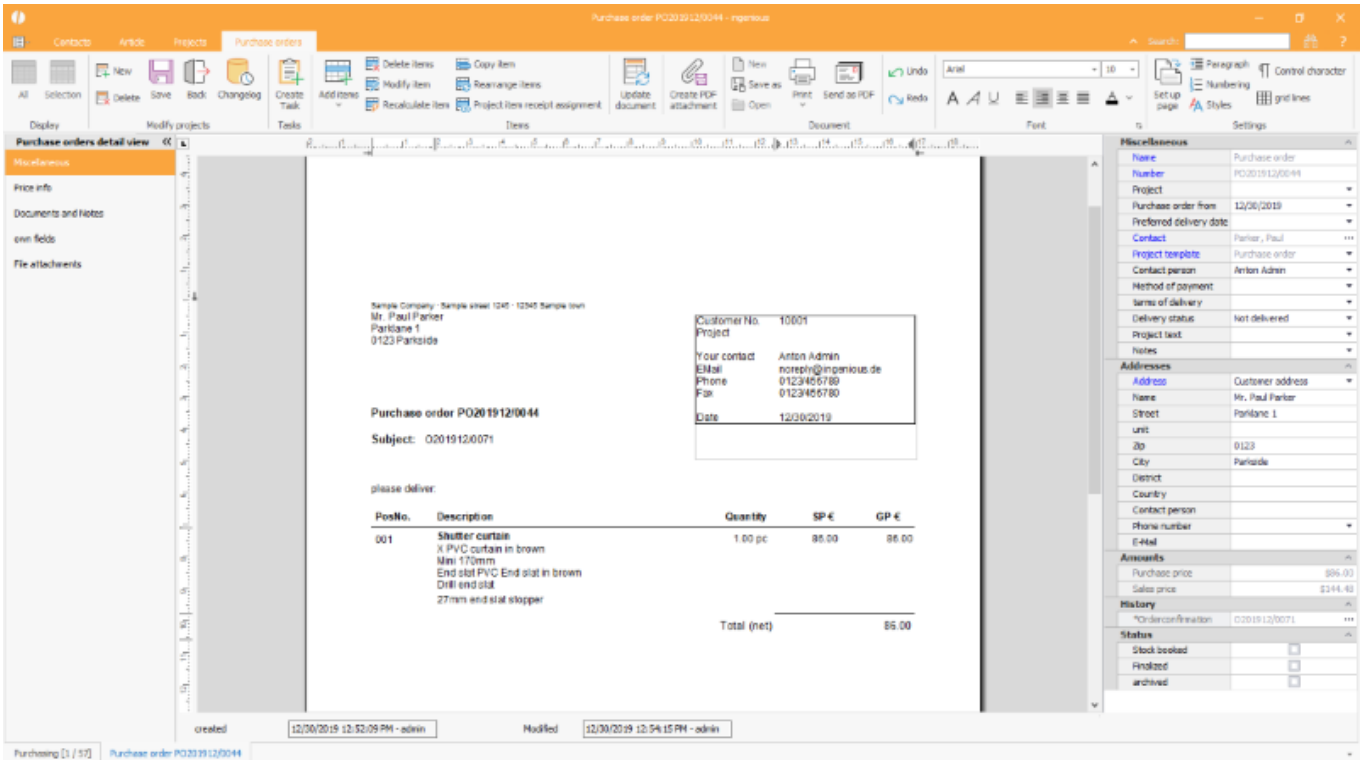
To create a commission order, click the "Create purchase order" button in the "Inventory postings" tab of the order.



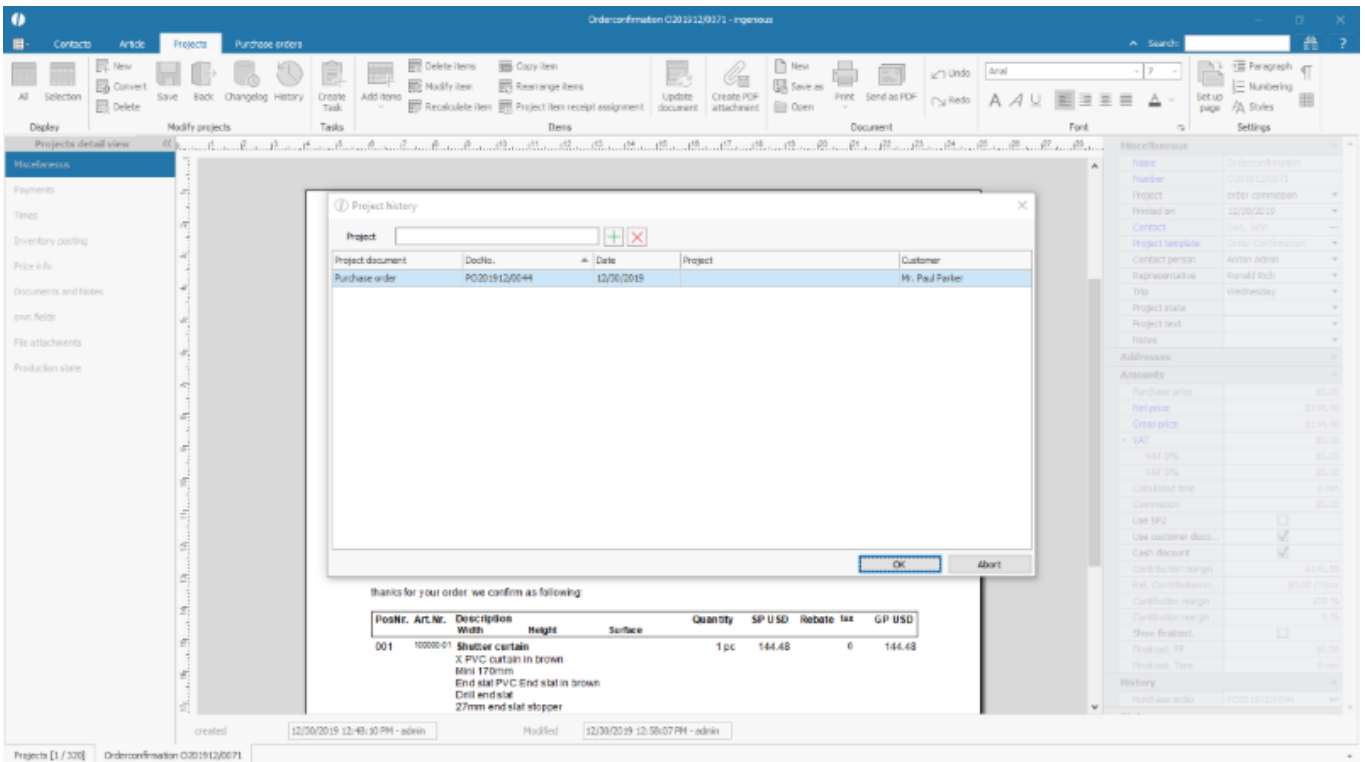
After confirming a possible change to the order, the purchase order is created and it is switched to the purchase orders module.



The link to the respective order can always be traced via the history in the sidebar.



In the order the link can also be viewed via the project history.

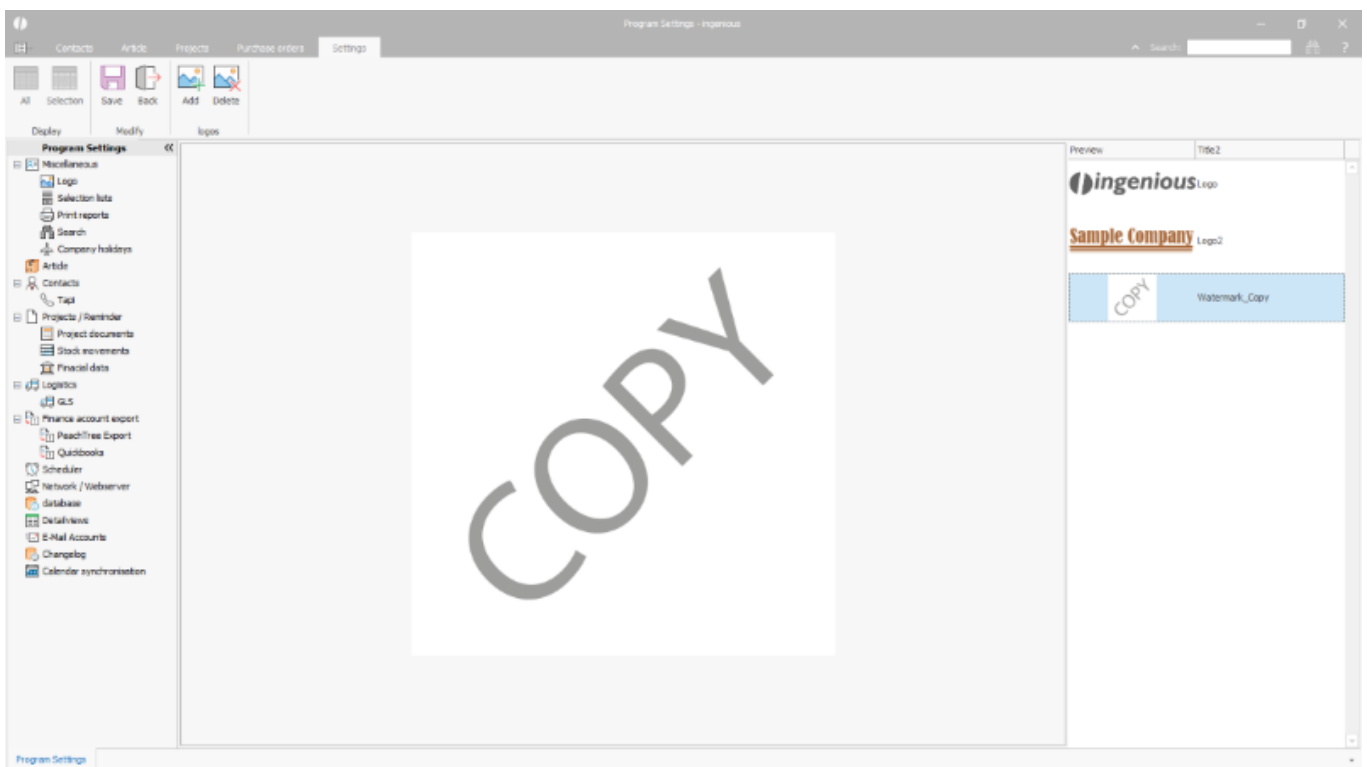


### 4.3.3.4 Watermark

Using a special script type, watermarks can be automatically inserted into project documents when saving as and when printing.

The watermark is not visible while the document is being edited. The watermark is inserted in the background only after a printing or saving as command.

The watermark itself is saved as an image file in the program settings / logo.



A script for the text templates module determines which logo should be inserted as a watermark on which document.

#### Script GetWatermark

```
public override System.Drawing.Bitmap GetWatermark(DataSet dataSet)
{
    if(ingenious.net.DataSets.DSTools.getFieldValue<String>(DB.Project.document_template,
dataSet.Tables[DB.Project].Rows[0]) == "Quotation_Demo")
    {
        System.Drawing.Image logo = Globals.getLogo("Watermark_Copy");
        System.Drawing.Bitmap _logo = new System.Drawing.Bitmap(logo);
        return _logo;
    }
    else
        return null;
}
```

}

Quotation Q2019120036\_0119120151602.pdf - Adobe Acrobat Reader DC  
 Datei Bearbeiten Anzeige Fenster Hilfe  
 Start Werkzeuge Quotation Q20191... x Anmelden  
 Freigeben

**Subject:**

Dear Mr. Doe

We offer to you the following items and services:

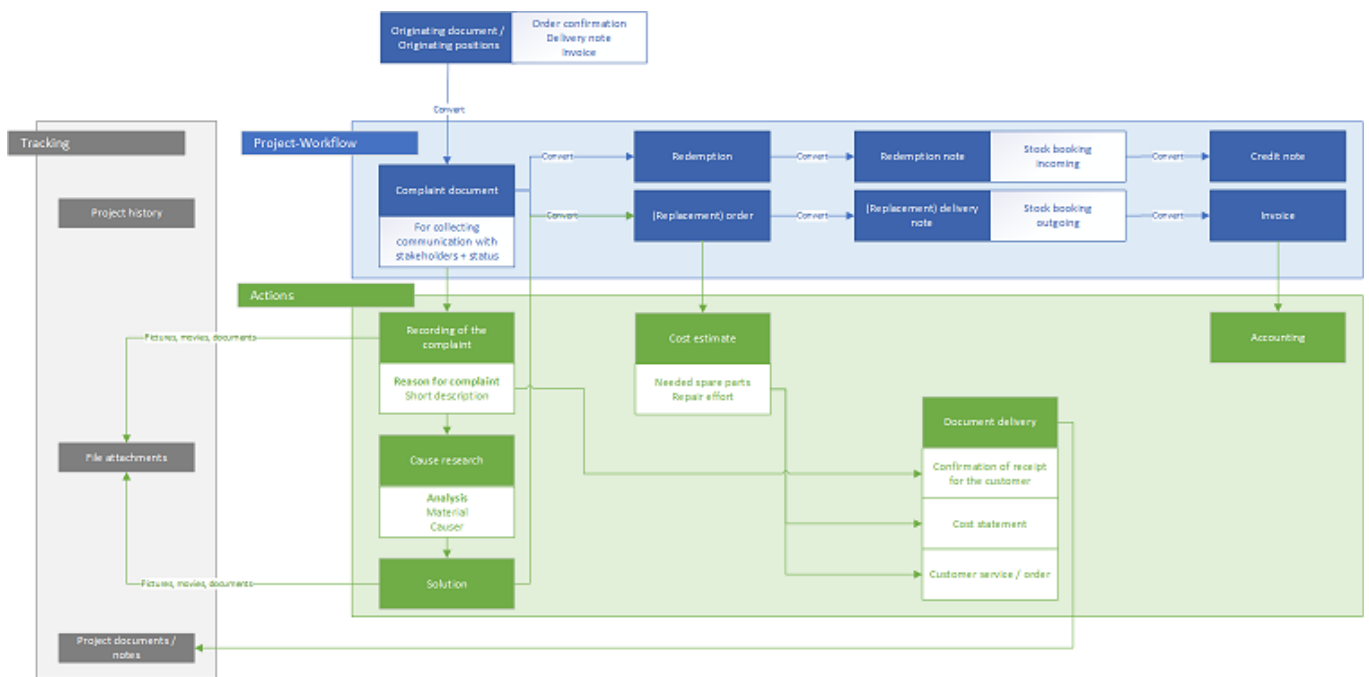
PosNo	ItemNo	Description	Width	Height	Surface	Quantity	SP \$	Rebate	tax	GP \$
001	100000-01	100" x 100"			= 69.44 sqft	1 pc	56.00	0		56.00
002	100000-01	120" x 140"			= 116.67 sqft	2 pc	144.48	0		288.96
003	100000-01	140" x 250"			= 243.06 sqft	2 pc	0.00	0		0.00
004	100000-01	150" x 200"			= 208.33 sqft	1 pc	450.00	0		450.00

Payment Terms:	Total net	GP \$
Within 7 days with 2.00% discount or within 14 days in total.		<b>794.96</b>
	VAT. 0 % on 0.00 \$	0.00
	VAT. 0 % on 0.00 \$	0.00
	<b>Gross total</b>	<b>794.96</b>

Best regards

### 4.3.3.5 Complaint process





Complaints can be created as independent project documents in order to have a central document available for tracking the complaint process.

In the complaints, the relationship to the original and subsequent documents is documented in the project history. Items complained about are marked accordingly in the original project.

The complaint documents are evaluated internally with negative quantities and amounts and can be evaluated separately.

## Requirements

The prerequisite for using the complaint process is that at least the new project document type "Complaint" has been created in the **program settings / project documents (Section 8.6.12)**.

In addition, the project document types "return" - the counterpart to the order confirmation and "return note" as the counterpart to the delivery note are required for further processing.

For a simple description and later evaluation of the complaints, possible contents for

- Cause for complaint
- Complaint analysis
- Complaint causer
- Complaint solution
- and complaint external responsible


can be defined in the **program settings / selection lists (Section 8.6.4)**.

In the text module management **project templates (Section 8.1.2)** are to create for the new project documents.

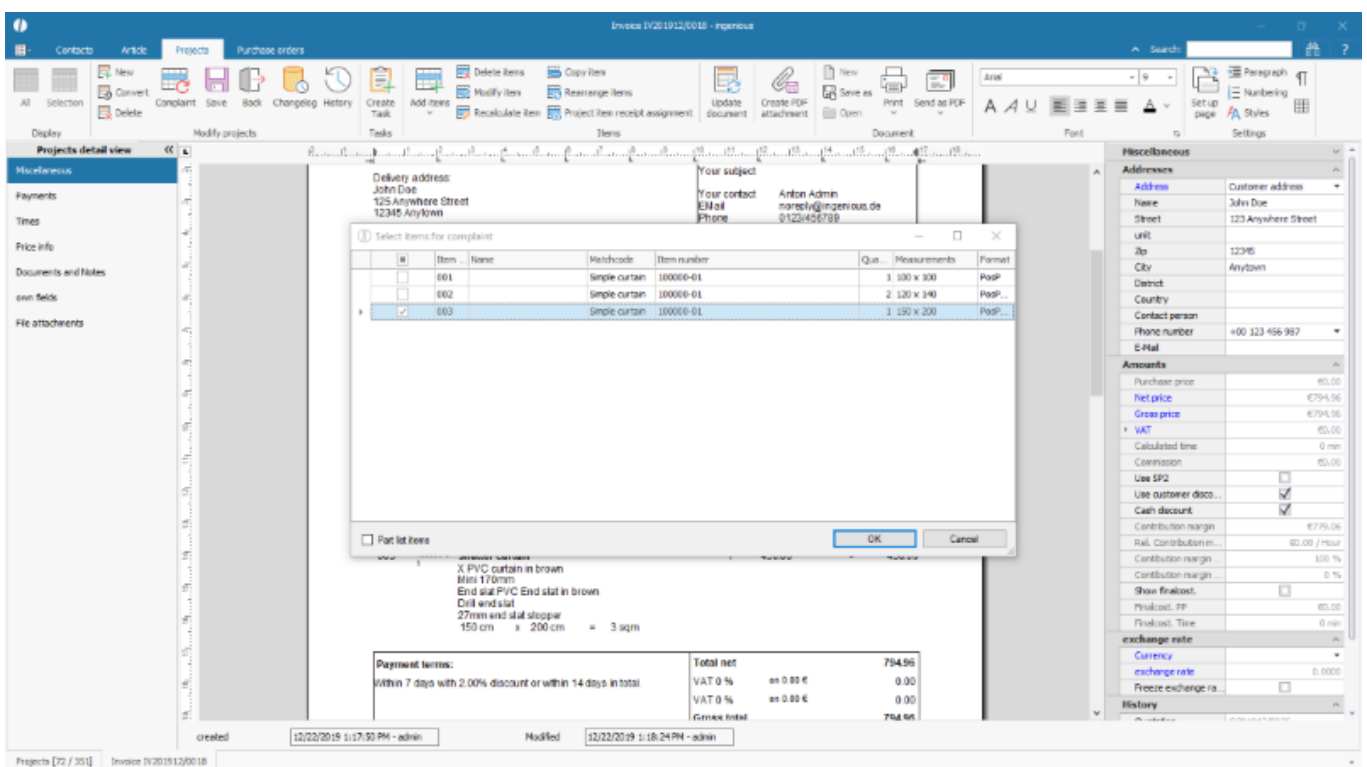
## Initiate a complaint process

The entire advantages of the integrated complaint process come into play if a complaint is not created as a new project, but started from the original document.

The complaint process is possible for every sales document - except for offers and the complaint itself.

In the detailed view of the document with the item (s) complained about, the complaint button  is clicked in the icon bar.

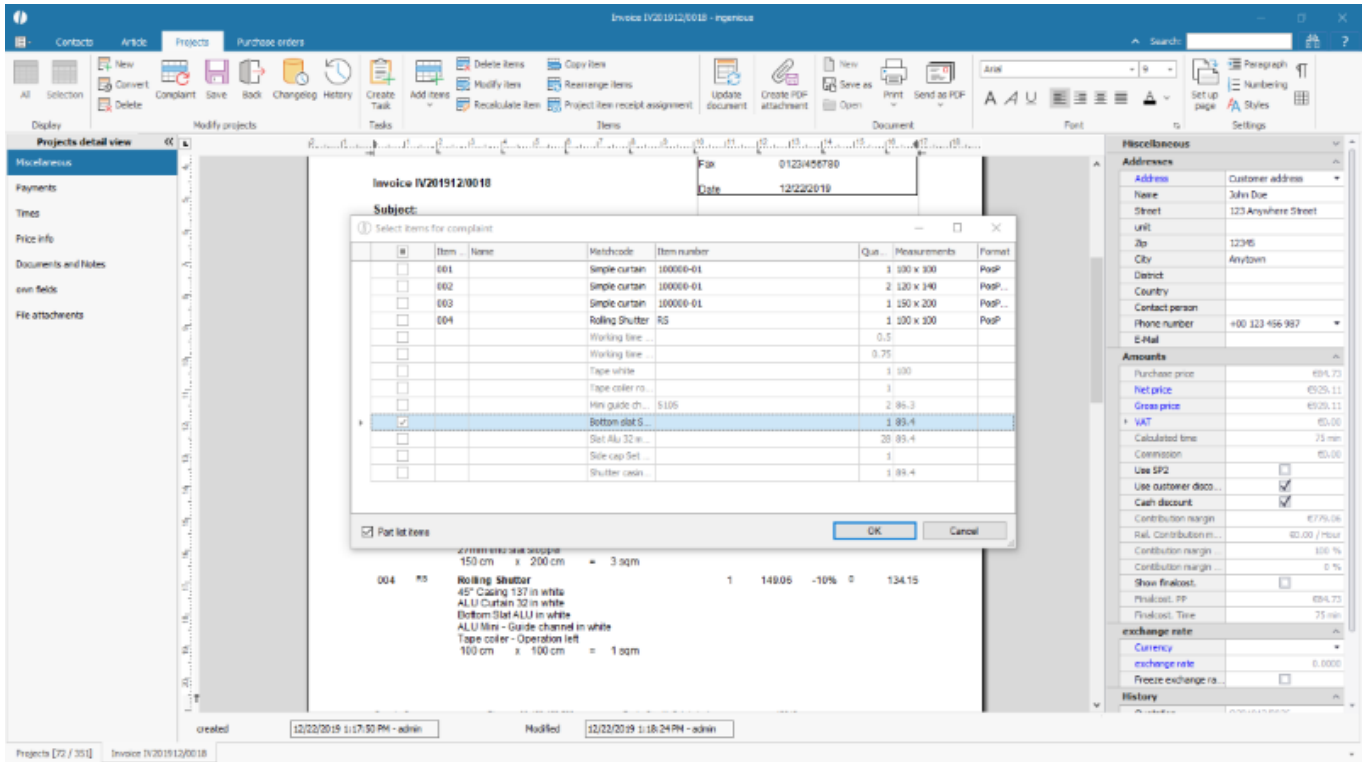
A tabular overview opens for the selection of the positions.



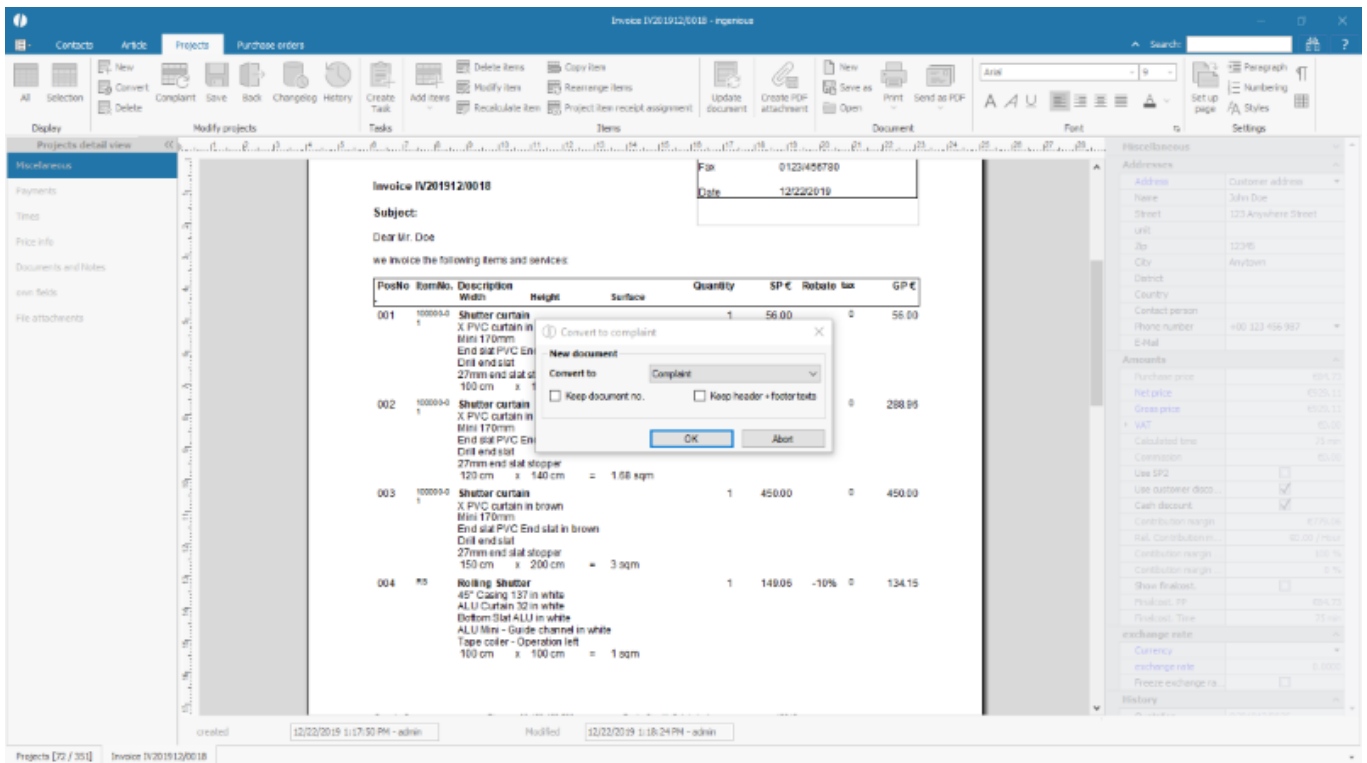
The complained items can be selected via the checkbox in the first column.

For parts list items, it is also possible to only complain about individual parts.

To do this, the checkbox "Parts list items" is ticked and the individual items are listed for each position.



After clicking OK the document selection for conversion appears.



*Alternative: If exactly one position or several consecutive positions without individual parts are to be complained about, these can also be marked in the document.*

After clicking on the complaint button, the tabular position selection does not open, but the conversion to the complaint document is initiated directly.

## The complaint document

In the created complaint document, the details of the complaint can be recorded in the sidebar block "Complaint": cause, analysis, causer, solution and responsibilities.

These details are printed on the complaint documents, provided if they were inserted in the project templates using placeholders.

The screenshot shows the 'ingenious' software interface. The main window displays a complaint document with the following details:

Complaint No.: 202201/00002  
Date: 1/11/2022

Customer:  
John Doe  
123 Anywhere Street  
12345 Anytown

Complaint items from IV201912/0018

PosNo.	Description	Quantity	SP €	GP €
003	Shutter curtain X PVC curtain in brown Mini 170mm End slot PVC End slot in brown Drill end slot 27mm end slot stopper Measurements: 150.0000cm x 200.0000cm	1 St.	450.00	450.00

Complaint reason: Transport damage  
Description: The curtain was delivered crushed  
Responsible internal: Alex Miller

Analysis:  
Description:  
Causer:  
Solution:  
Responsible external:


The sidebar on the right contains a 'Complaint' section with the following details:

Complaint:  
Cause: Transport damage  
Description: The curtain was deliver...  
Analysis:  
Analysis description:  
Causer:  
Solution:  
Internal responsible: Alex Miller  
External responsi...

Depending on the cause and solution of the individual complaint, the document can be switched to a redemption (confirmation) with a subsequent redemption note or a new order confirmation and a (subsequent) delivery note.

Refunds are shown - as far as they are entitled - via credits. Cost sharing is reflected in the total purchase price and total sales price of the documents.

## Identification of complaint items

In the original document, complained items are marked with a preceding complaint symbol .



For further evaluations, e.g. to uncover weak points (share of transport damage, share of production errors, ...), separate lists or print reports can be created.

### 4.3.3.6 Surcharges

Surcharges may become necessary for short-term and frequent price increases or for subsequent surcharges on freshly printed price lists/catalogues.

In order not to have to change the article prices for every price increase, these can be taken into account in projects as surcharges.

This means that these are also listed as such in extra positions in the documents.

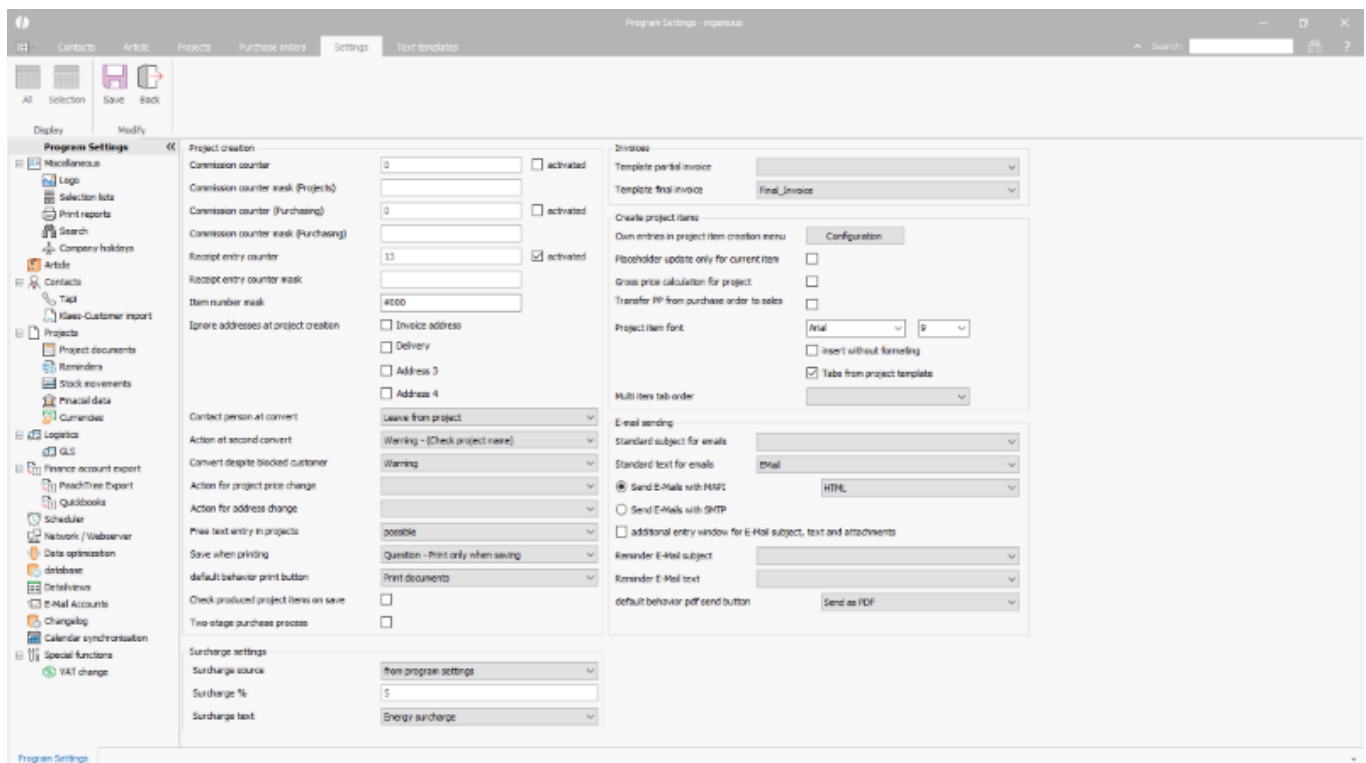
In the case of long-term price changes, on the other hand, the article prices should actually be adjusted themselves, since the price increases can then also be evaluated in statistics.

Surcharges are not included in the sales analysis in article statistics.

### Project-related surcharge

In the program settings is stored whether a project-related surcharge should be applied and if so, which one.

A general surcharge can be used, which is entered as a percentage in the program settings.



Or "from contact" is specified as the origin, then each customer is individually checked to see whether and at what level a surcharge has been configured.

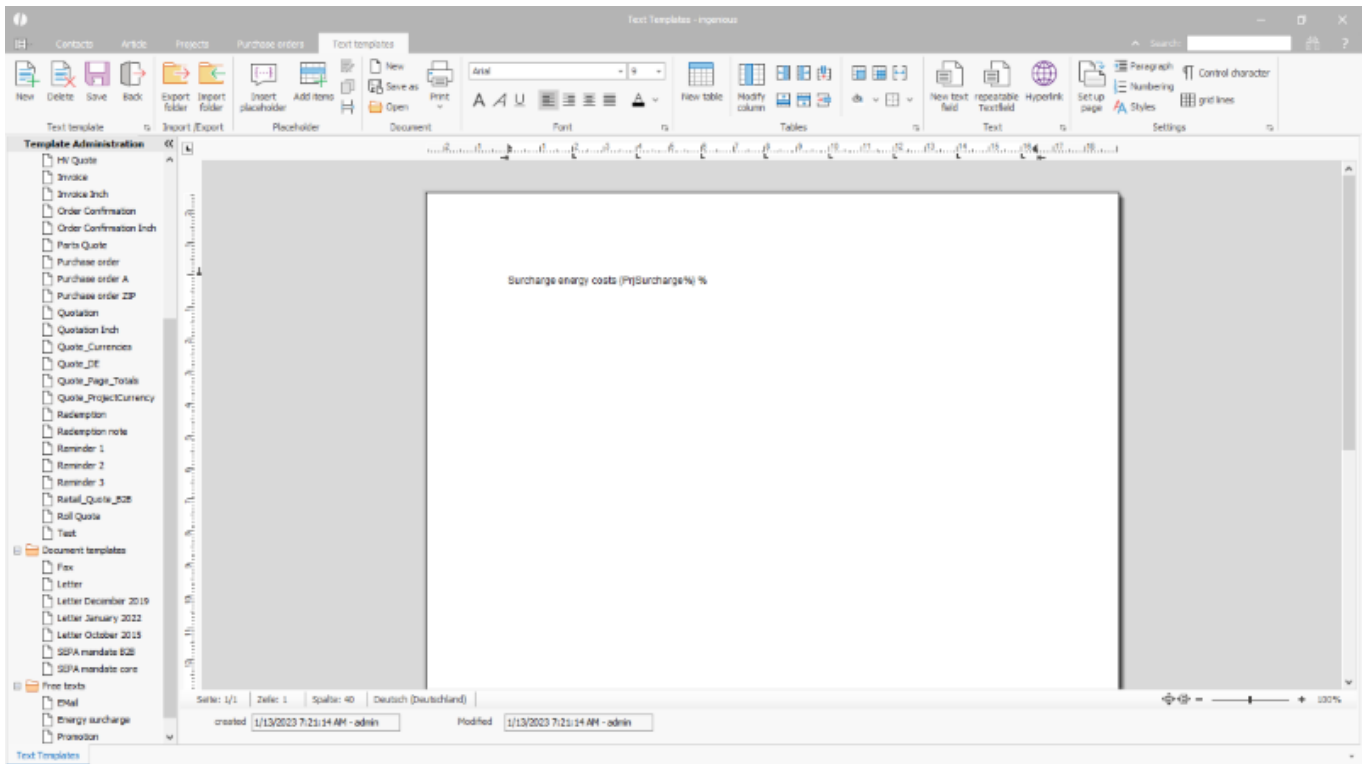
The percentage of the surcharge must then be entered in the financial data of the respective contact.

Texts bound to document status	
Project title	test
Invoice	Please pay within 30 days net total
Order confirmation	Please pay within 30 days net total
Quotation	Please pay within 30 days net total

In addition, the surcharge text is selected in the program settings.

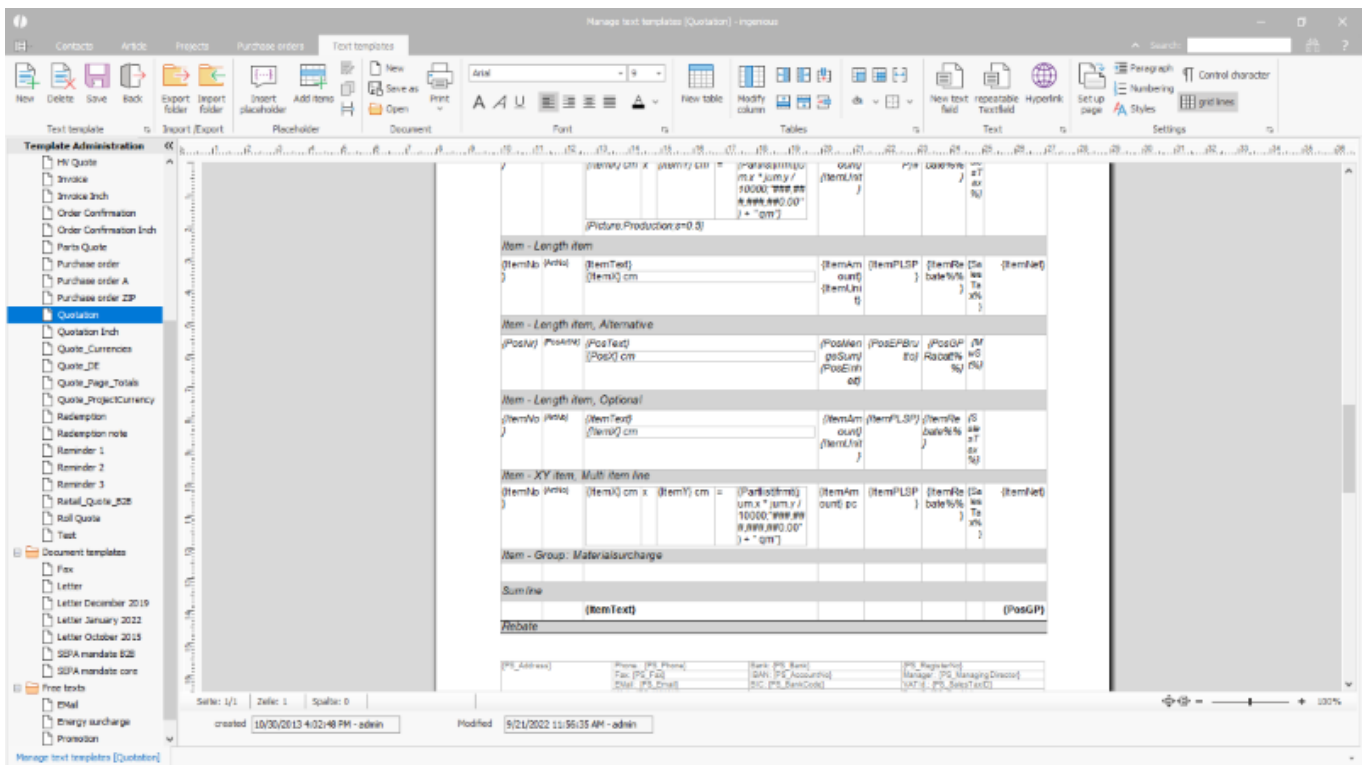
This must first be created and defined in the free texts of the text templates module.

The stored surcharge is used via the placeholder {PrjSurcharge%}.



In all project templates on which a surcharge is to be shown, an item for the "Materialsurcharge" group must also be inserted.

If the group does not yet exist, it must be created in the program settings / **selection lists (Section 8.6.4)**.





Once a surcharge is configured, it is automatically inserted into each project document. The calculation and the insertion or update always take place **after saving** the project. The surcharge is inserted as the last item in the project document.

Whether and to what extent a surcharge is added to a project can also be changed later.

In the Contributions block of the project sidebar, the surcharge can be removed via the checkbox "Without surcharge".

The percentage taken from the program settings or contact can be overwritten in the field of surcharge.

The screenshot displays the 'ingenious' software interface for creating a quotation. The main window shows a document titled 'Quotation Q2023010049'. The document content includes a subject line, a salutation, and a list of items. The first item is a 'Rolling Shutter' with a quantity of 1 pc, a net price of 919.54, a 20% rebate, and a gross price of 735.63. The second item is a 'Surcharge energy costs 5%' with a quantity of 1 PC, a net price of 36.78, and a gross price of 36.78. The document also includes payment terms, a total net amount of 772.41, and VAT calculations. The interface includes a sidebar with 'Projects detail view' and 'Miscellaneous' sections, and a top menu with options like 'New', 'Save', 'Print', and 'Send as PDF'.

PosNo	ItemNo	Description	Height	Surface	Quantity	SP \$	Rebate %	GP \$
001	00	Rolling Shutter 45° Casing 137 in white ALU Custom 32 in white Bottom Slat ALU in white ALU Mini - Guide channel in white Tape roller - Operation left 100 cm x 100 cm = 1.00 qm			1 pc	919.54	-20% 19	735.63
002		Surcharge energy costs 5%			1 PC	36.78	19	36.78

<b>Payment Terms:</b> Within 7 days with 2.00% discount or within 14 days in total.	<b>Total net</b>	<b>772.41</b>
	VAT: 19 %	as 772.41 \$
	VAT: 7 %	as 0.00 \$
	<b>Gross total</b>	<b>919.17</b>

## Surcharge per article (group)

Increased raw material prices can also be shown directly for the articles concerned.

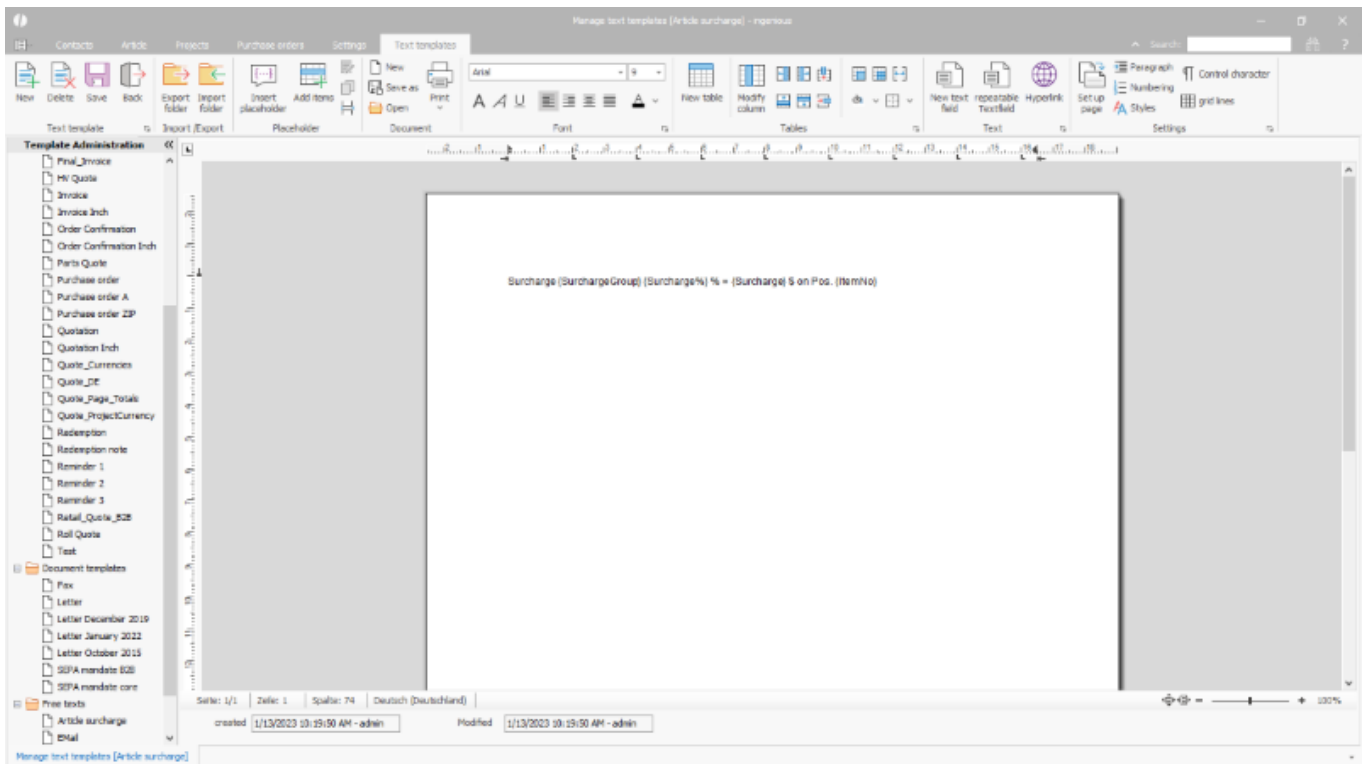
These surcharges are also added as the last items in the project document **after the project is saved**.

The surcharges are combined in previously individually defined groups.

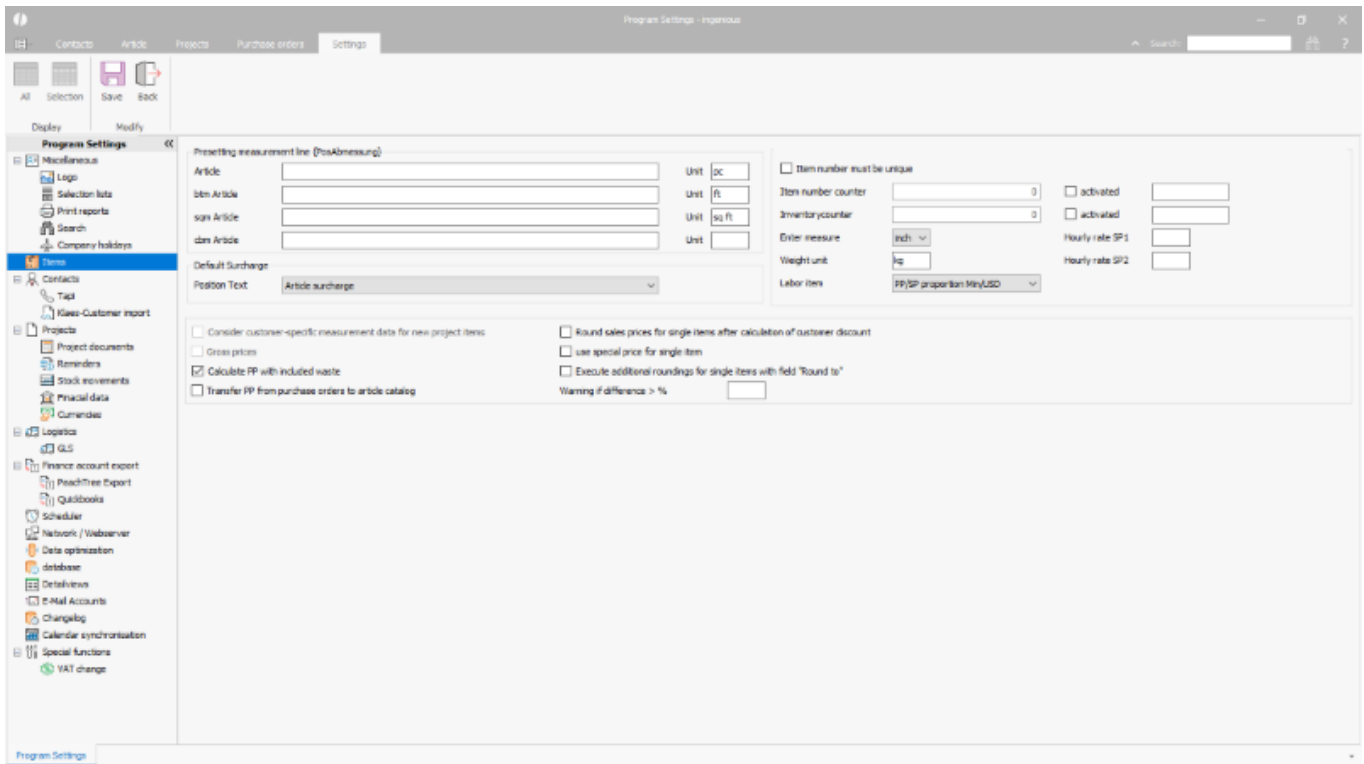
First of all, the surcharge groups must be created in the **program settings/selection lists (Section 8.6.4)**.



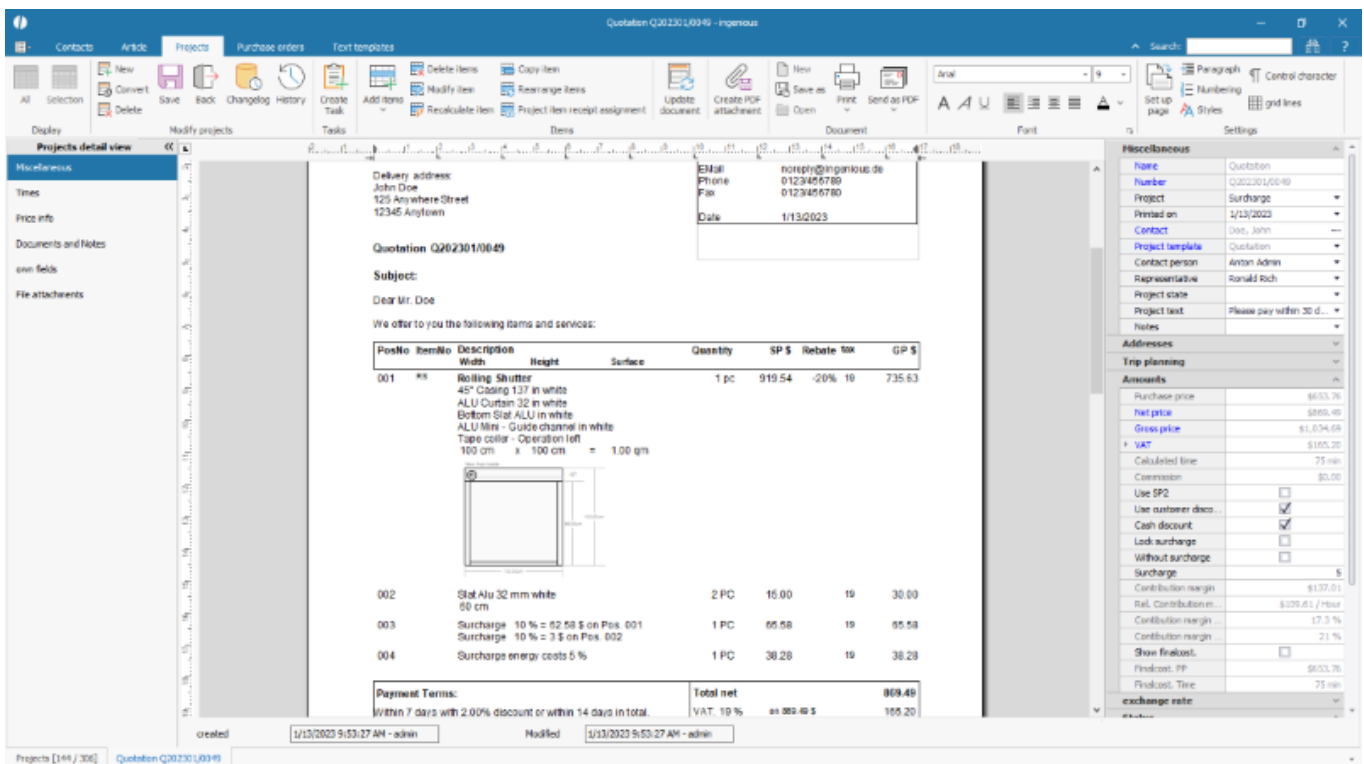
A free text template containing the desired text and placeholders must be created for display on the project documents.



This free text template is to be set in the **program settings / items (Section 8.6.8)** as position text for the surcharge.



In the following example, a surcharge of 10% is configured for the Slat Alu 32 mm white, which is calculated both for sale as a single item and for use in the roller shutter curtain parts list.



The surcharge can be switched off for each individual item via the checkbox "Without surcharge" in the sidebar.

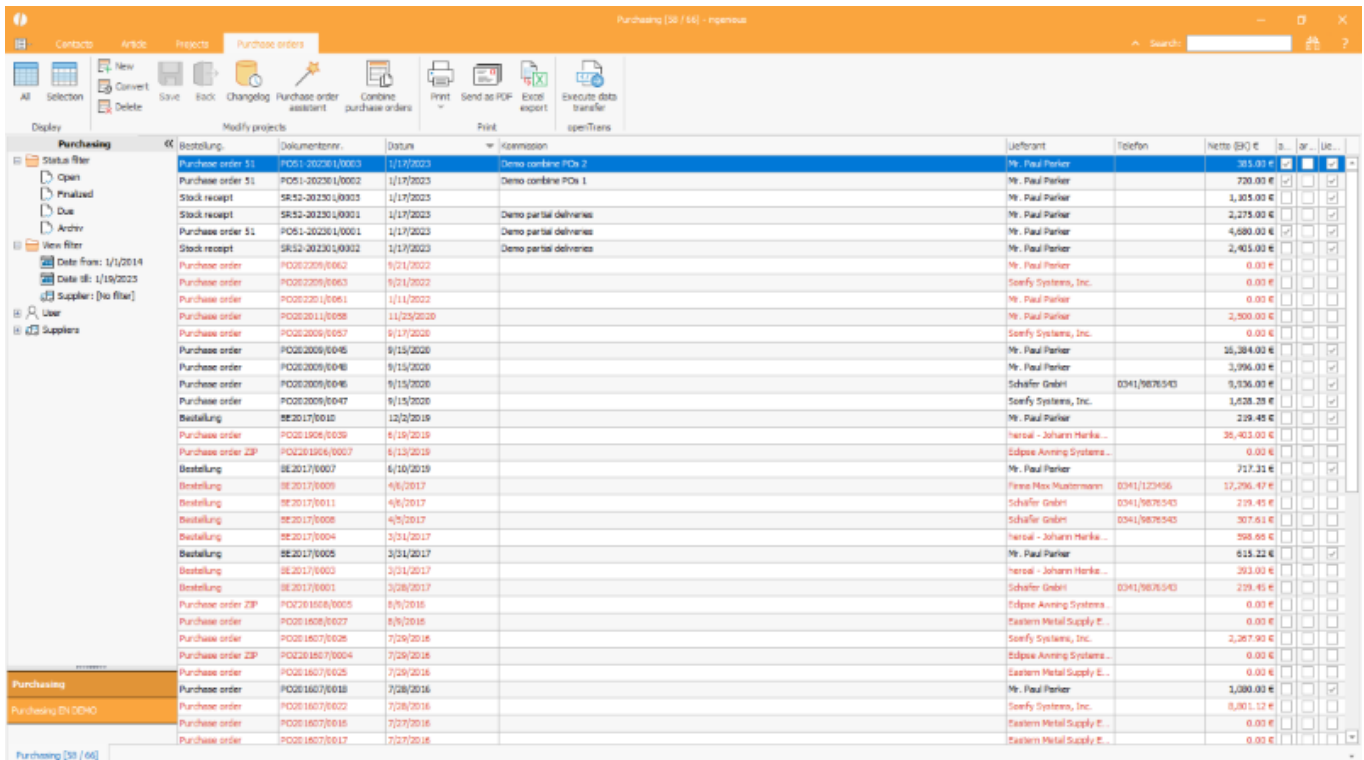
## 4.4 Purchase orders

### 4.4.1 Purchase orders list view

#### 4.4.1.1 Purchase orders list view

The purchase orders displayed in the standard list view are highlighted according to their status.

Black font	Order without special characteristics.
Red font	Order with due or exceeded desired delivery date. If no desired delivery date has been set, immediate delivery is expected and the order is also highlighted in red.
Grey font	Order that has been marked as "archived".















Meaning of the status filters

Open	If this filter is active, orders for which the inbound delivery was not booked yet are displayed.
Finalized	If this filter is active, orders which have been marked as "finalized" are displayed.

Due	If this filter is active, orders with a due or exceeded desired delivery date are displayed.
Archive	If this filter is active, orders which have been marked as "archived" are displayed.


In the list view, the following functions are available via the toolbar:

	Show all datasets
	Limit the displayed datasets to the selected
	Create a new purchase order
	(small icon) Convert a purchase order from status 51 to a stock receipt document
	Delete selected purchase order
	Opens the changelog for administrators (user right required)
	Create an automatic order with the purchase order assistant
	(large symbol) Combines the selected purchase orders from a supplier with status 51 into a stock receipt document
	Various printing report / Open printing report designer
	Send selected purchase order(s) as PDF (to the email address saved with the contact)
	Export list view to Microsoft Excel
	Starts the transmission of the selected purchase order to the supplier according to the openTRANS standard, if configured for the supplier in the <b>contact details (Section 4.1.2.12.1)</b> . (module license required)

## 4.4.1.2 Purchase order assistant

The purchase order assistant supports the user in the optimized automatic reordering of required items. The requirements are calculated on the basis of the current stock and project consumption, including, if applicable, the deduction of already triggered orders.

Automatic purchase orders can be created with regard to the stock requisites or project related (part-picked).

The purchase order assistant can be started in "orders, list view" via the  button.

**Prerequisites to use the purchase order assistant**

The purchase order assistant only takes items into account for which certain parameters have been set.

For items kept in stock:

Purchase order articles	An order can only be prepared (manually or automatically) for items that are marked as order items.
Automatic inventory management	If the automatic inventory management is activated, the consumption of a project is registered when clicking the checkbox "stock booked" in the warehouse monitor.
Automatic purchase order	If the checkbox is activated, the warehouse monitor controls the stock. When the minimum stock level is reached, the order assistant will order the respective item in the next order automatically.
Minimum stock level	The minimum stock level states how many pieces of an item have to be at least in stock frequently.
Supplier	The different items have to be assigned to a supplier, from whom a product is usually ordered.
Optional: purchase order suggestion	To ensure that the order assistant not only reorders the exact immediate requirements (minimum stock level + project consumption), but works towards the optimum stock level, a item value for the order suggestion can be stated. This way, also packaging and scale prices can be taken into account.

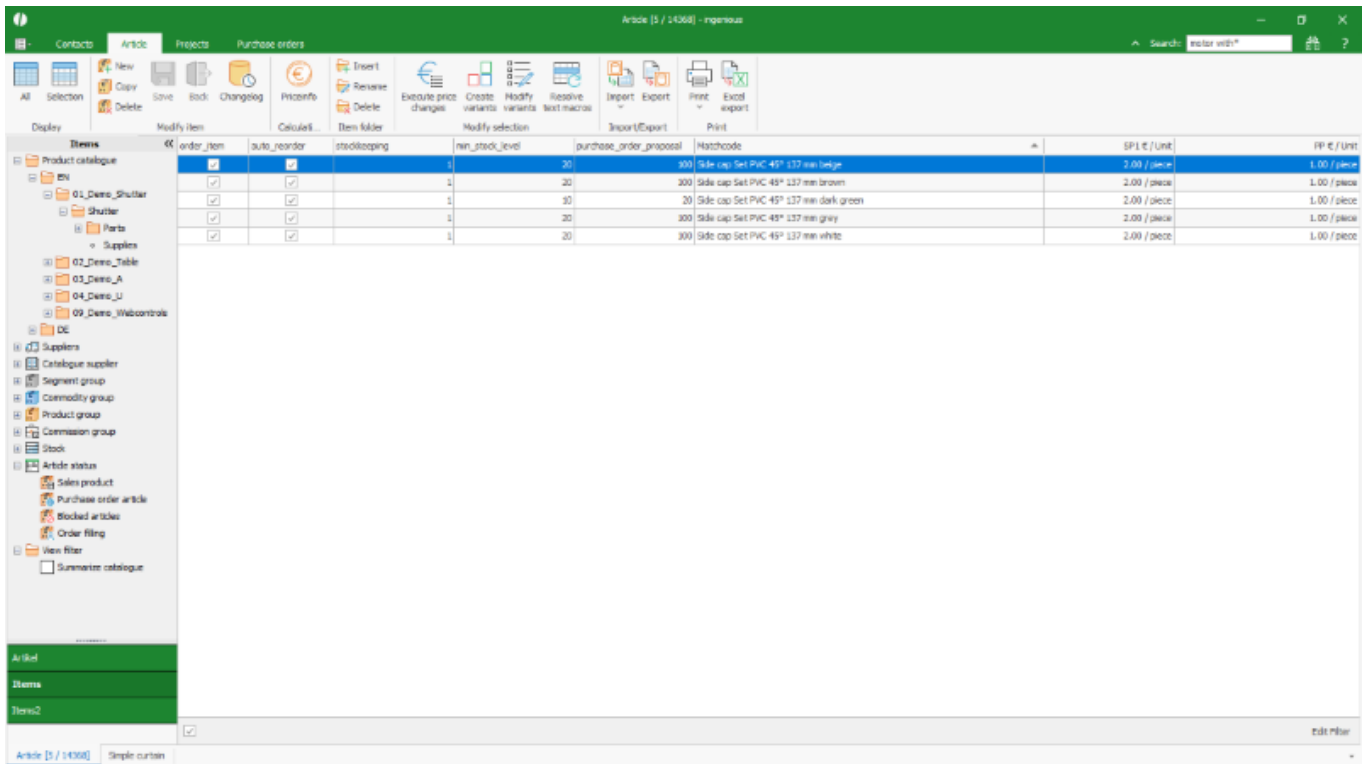
Commissioning order items:

Purchase order articles	An order can only be prepared (manually or automatically) for items that are marked as order items.
Automatic purchase order	If the automatic inventory management is activated, the consumption of a project is registered when clicking the checkbox "stock booked" in the warehouse monitor.
Purchase order commissioning	If the checkbox is activated, the order assistant monitors the order-related requirements and triggers the order.
Supplier	The different items have to be assigned to a supplier, from whom a product is usually ordered.

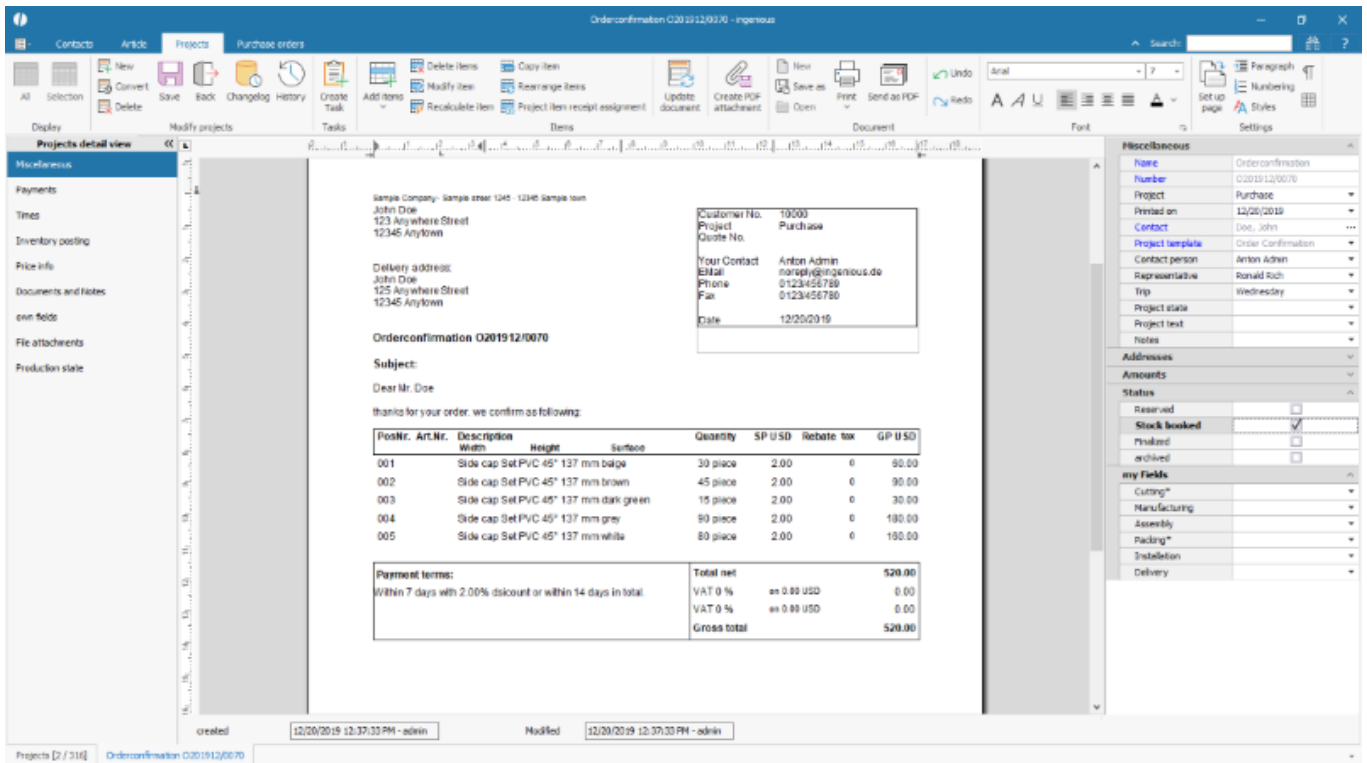
The respective project consumption will only be taken into account when the checkbox "store booked" or "reserved" has been activated for the respective projects. If the checkbox is disabled, the inventory transaction is cleared and the respective items will no longer be taken into account when ordering.

#### Example for the autofill of a stock (warehouse)

In the example, the necessary parameters have been set for only five items. Four items have a minimum stock level of twenty pieces, one has a lesser consumption and is not supposed to be available in large quantities. Its minimum stock level is ten pieces. The initial stock for all of the five items is zero.

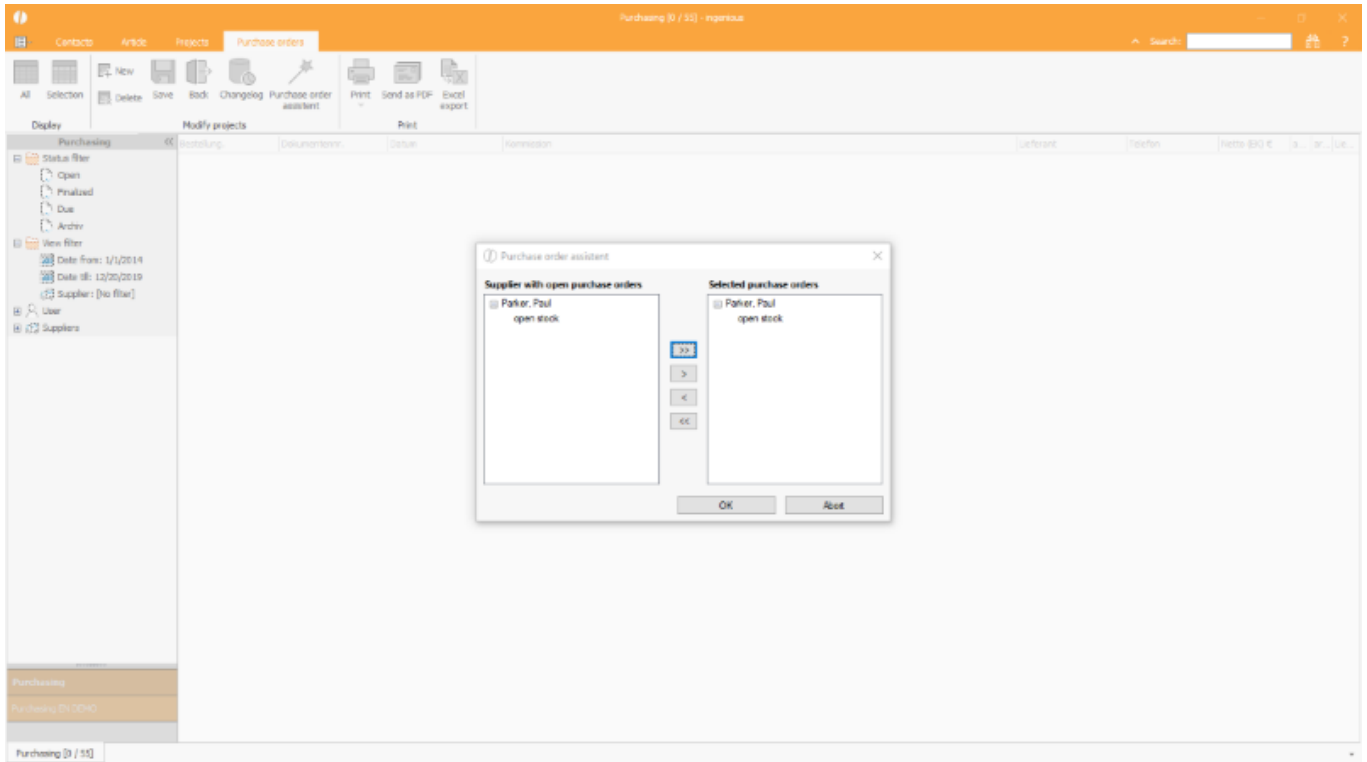


On day X an order is received, for which an order confirmation is created. After all items have been registered, the project becomes "store booked" via the respective checkbox.

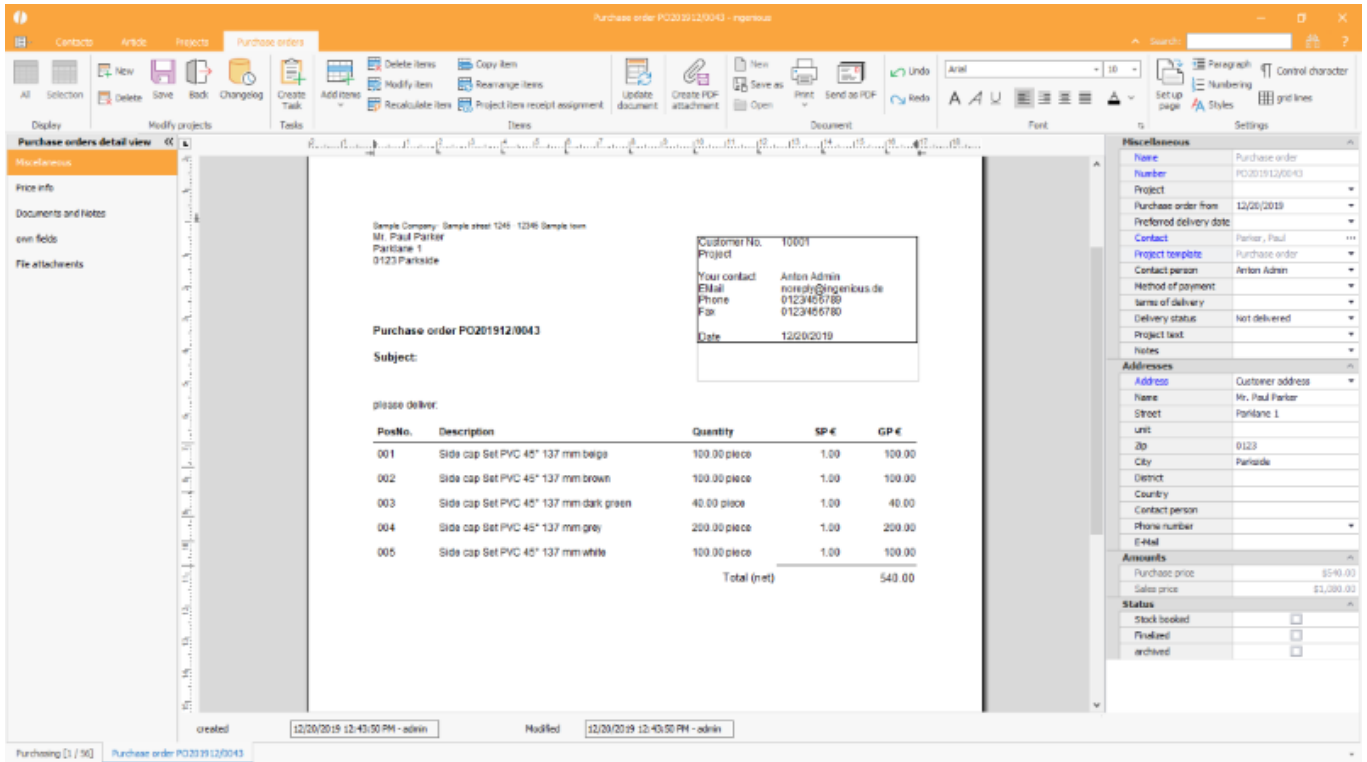




The purchase order assistant is started in the interface "purchase orders". After a brief examination, a list of all suppliers for whom items with an open inventory exist, is displayed. Either per drag&drop or via the arrow buttons, the suppliers, for whom orders shall be created, are moved into the right selection.



After clicking "OK", one purchase order for each one chosen supplier will be created.



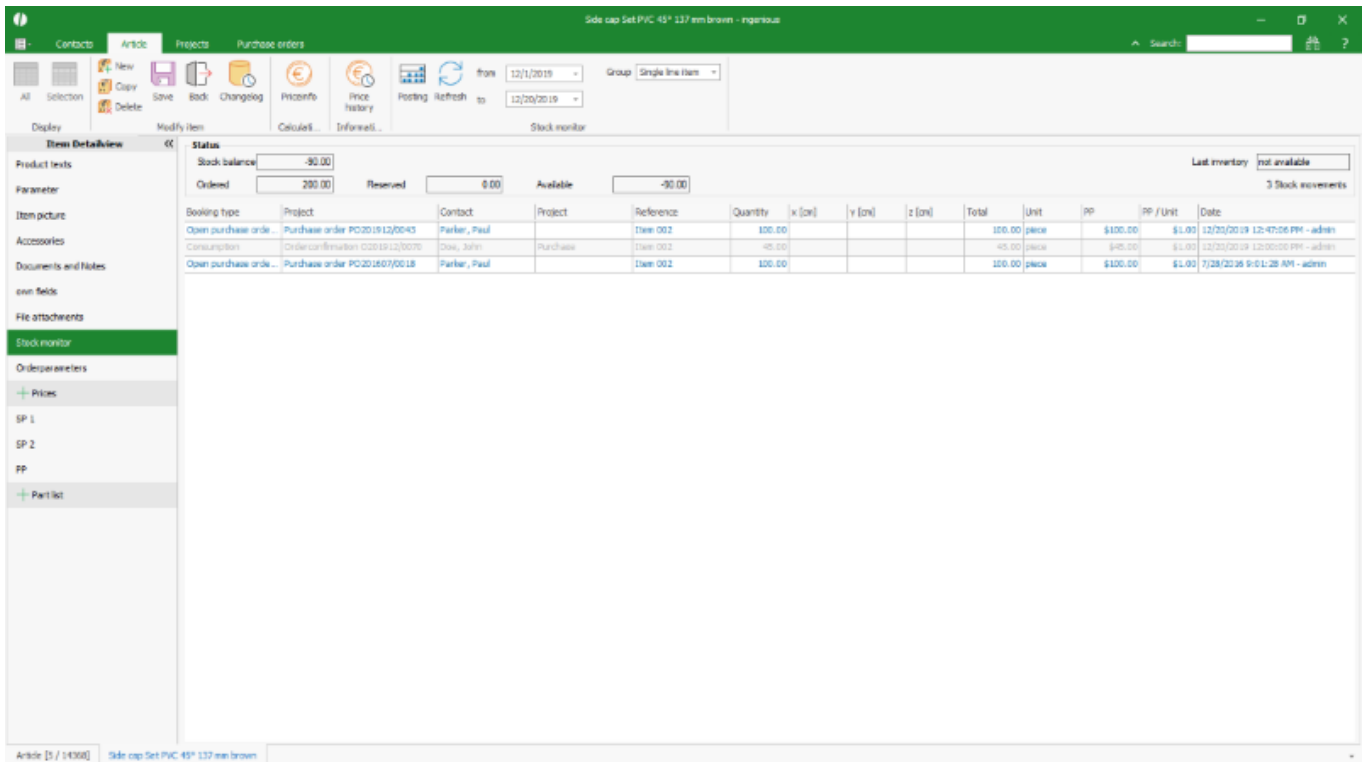
The order has been carried out as follows:

Item	Minimum stock level	+ project consumption	= total requirement	Purchase order proposal	Order
Side cap Set PVC 45° 137 mm beige	20	30	50	100	100
Side cap Set PVC 45° 137 mm brown	20	45	65	100	100
Side cap Set PVC 45° 137 mm dark green	10	15	25	20	40
Side cap Set PVC 45° 137 mm grey	20	90	110	100	200
Side cap Set PVC 45° 137 mm white	20	80	100	100	100

For the items in dark green and grey, the simple purchase order suggestion would not have been sufficient to cover the requirements. For this reason the order has been doubled.

This simple example exemplifies how the purchase order assistant operates. In practice, all consumption of all projects are taken into account (including the material consumption within BOM (bills of materials) items and bundled in each one order per supplier. Also items that have fallen below their minimum stock level are incorporated in the order automatically, without a separate order having to be triggered (e.g. through a manual store booking). If the project consumption does not cause the minimum stock level to be undercut, no purchase order will be triggered.

In the items themselves, the history of project consumption and purchase orders are visible via the stock monitor.



## 4.4.1.3 Combine purchase orders

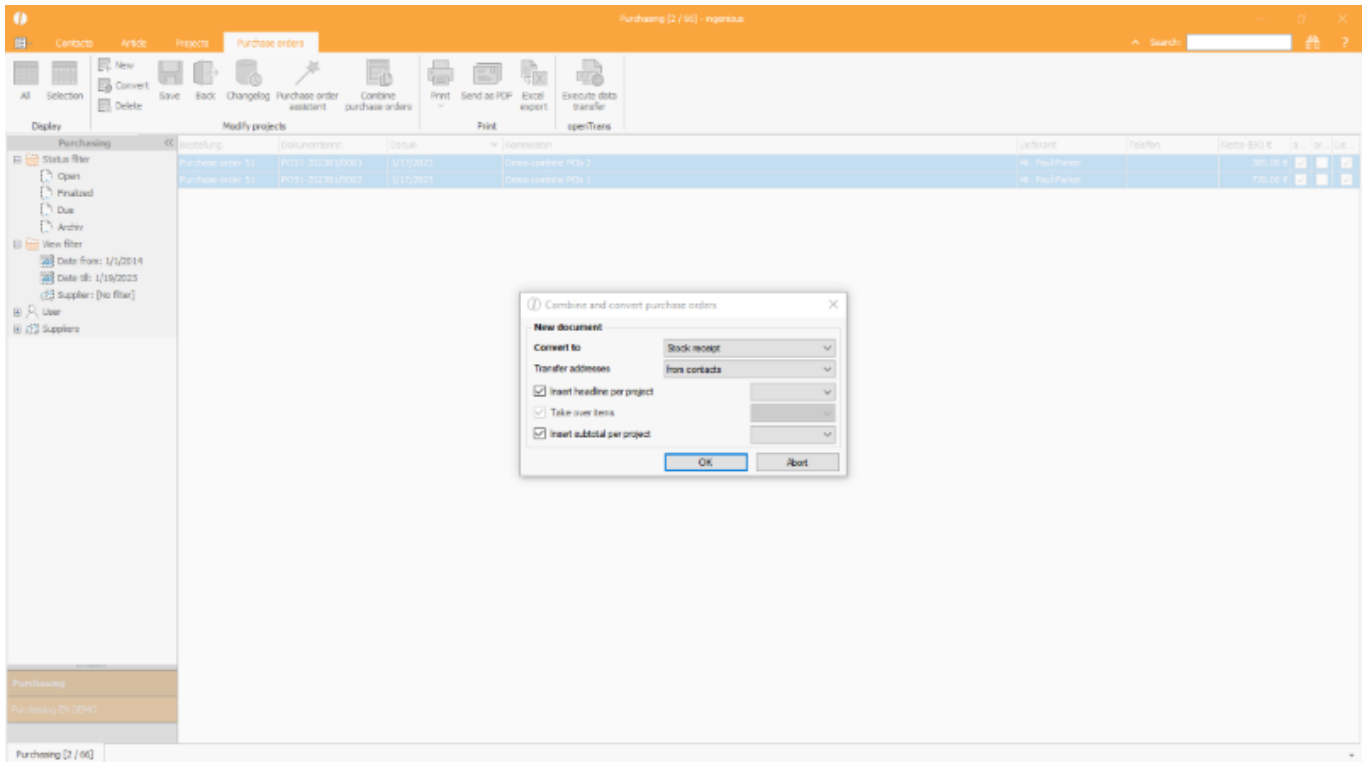
The "Combine and convert purchase orders" function is available for creating a stock receipt document from several purchase orders of type 51 from a supplier.

To create the combined document, the purchase orders to be summarized are first marked and the function is called up via the button.

The following options are available in the selection that appears:

Convert to	The selected documents can be converted into any stock receipt document defined in the <b>program settings (Section 8.6.12)</b> . The desired document type is selected via the drop-down box.
Transfer addresses	The target document can either load the addresses from the contact record or (if the addresses of the source documents are identical) also use the addresses from the source documents.
Insert headline per project	In order to delimit the positions of the individual original documents with a heading, a heading can be inserted, which is made up of the following placeholders by default: {DocumentNo} from {PrintedOn}, Project: {Project} Deviating from this, an individual heading can be formed from static text and various placeholders. This free text can be selected from the selection list here.
Take over items	The collective document will contain every single position of the original documents.
Insert	A subtotal completes the items of an original project. By default, the subtotal contains the text

subtotal per project "Subtotal" but can also be created individually with placeholders and static text in the free texts.



According to the configuration, the combined document is created with the subheadings and subtotals as a reference to the respective original document.

Stock receipt SR52-2023010003 - ingenious

**Purchase orders detail view**

**Miscellaneous**

Name: Stock receipt  
 Number: SR52-2023010003  
 Project:   
 Purchase order from: 1/17/2023  
 Preferred delivery date:   
 Confirmed delivery date:   
 Contact: Parlor, Paul  
 Project template: Purchase order  
 Contact person: Anton Admin  
 Method of payment:   
 Terms of payment:   
 Delivery status: Fully delivered  
 Project text:   
 Notes:

**Address**

Address: Customer address  
 Name: Mr. Paul Parlor  
 Street: Parlane 1  
 Unit:   
 Zip: 0123  
 City: Parkeide  
 District:   
 Country:   
 Contact person:   
 Phone number:   
 E-Mail:

**Amounts**

Purchase price:   
 Sales price: \$1,305.00

**History**

Purchase order 51 ► PO51-2023010003  
 Purchase order 51 ► PO51-2023010002

**Status**

Printed:   
 Archived:

Customer No. 10001  
 Project:   
 Your contact: Anton Admin  
 E-Mail: anton@ingenious.de  
 Phone: 0123456780  
 Fax: 0123456780  
 Date: 1/17/2023

Sample Company: Sample Street 12345 Sample town  
 Mr. Paul Parlor  
 Parlane 1  
 0123 Parkeide

Stock receipt SR52-2023010003  
 Subject:   
 please deliver:

PosNo.	Description	Quantity	SP €	GP €
	Purchase order 51 PO51-2023010003 from 1/17/2023, Project: Demo combine POs 2			
001	Motor with remote control max. 28 kg	5.00 piece	90.00	300.00
	Purchase order 51 PO51-2023010002 from 1/17/2023, Project: Demo combine POs 1			
001	Motor with remote control max. 16 kg	10.00 piece	55.00	550.00
	<b>Total (net)</b>			<b>850.00</b>

created: 1/17/2023 12:14:17 PM - admin  
 Modified: 1/17/2023 12:14:17 PM - admin  
 Field info: GE\_Adressele

Purchasing 01 / 60 | Stock receipt SR52-2023010003

#### 4.4.1.4 Printing purchase orders lists

In "purchase orders - list view" different options to print lists and analyses of the purchase orders are available via the toolbar.

Bestellung	Dokumentnr.	Datum	Kommission	Lieferant	Telefon	Netto (B) €	...	ar...	Uc...
Purchase order	PO051912/0040	12/20/2019		Mr. Paul Parke		1,580.00 €			
Purchase order	PO051912/0042	12/20/2019		Mr. Paul Parke		15,984.00 €			
Purchase order	PO051912/0041	12/20/2019		Seerfy Systems, Inc.		1,628.28 €			
Purchase order	PO051912/0040	12/20/2019		Schäfer GmbH	0341/9876543	9,336.00 €			
Bestellung	BE2017/0010	9/16/2019		Mr. Paul Parke		229.45 €			
Purchase order	PO051906/0039	6/19/2019		herold - Johann Herke		36,403.00 €			
Purchase order	PO051906/0038	6/19/2019		PL-CE - Alutec Intern		12,300.00 €			
Purchase order ZFP	POZ201904/0007	6/13/2019		Edpoc Anning Systems...		0.00 €			
Bestellung	BE2017/0007	6/16/2019		Mr. Paul Parke		717.31 €			
Bestellung	BE2017/0011	4/8/2017		Schäfer GmbH	0341/9876543	229.45 €			
Bestellung	BE2017/0009	4/8/2017		Fines Max Mustermann	0341/123456	17,296.47 €			
Bestellung	BE2017/0008	4/5/2017		Schäfer GmbH	0341/9876543	307.61 €			
Bestellung	BE2017/0005	3/21/2017		Mr. Paul Parke		615.22 €			
Bestellung	BE2017/0004	3/21/2017		herold - Johann Herke		598.66 €			
Bestellung	BE2017/0003	3/21/2017		herold - Johann Herke		343.00 €			
Bestellung	BE2017/0001	3/28/2017		Schäfer GmbH	0341/9876543	229.45 €			
Purchase order ZFP	POZ201608/0005	8/5/2016		Edpoc Anning Systems...		0.00 €			
Purchase order	PO051808/0027	8/9/2018		Eastern Metal Supply E...		0.00 €			
Purchase order ZFP	POZ201607/0004	7/29/2016		Edpoc Anning Systems...		0.00 €			
Purchase order	PO051807/0026	7/29/2016		Seerfy Systems, Inc.		2,367.93 €			
Purchase order	PO051807/0025	7/29/2016		Eastern Metal Supply B...		0.00 €			
Purchase order	PO051807/0022	7/28/2016		Seerfy Systems, Inc.		8,281.12 €			
Purchase order	PO051807/0018	7/28/2016		Mr. Paul Parke		1,080.00 €			
Purchase order ZFP	POZ201607/0003	7/27/2016		Edpoc Anning Systems...		0.00 €			
Purchase order ZFP	POZ201607/0002	7/27/2016		Edpoc Anning Systems...		0.00 €			
Purchase order ZFP	POZ201607/0001	7/27/2016		Edpoc Anning Systems...		0.00 €			
Purchase order	PO051807/0017	7/27/2016		Eastern Metal Supply E...		0.00 €			
Purchase order	PO051807/0016	7/27/2016		Eastern Metal Supply E...		0.00 €			
Purchase order	PO051807/0015	7/27/2016		Eastern Metal Supply E...		0.00 €			
Purchase order	PO051807/0013	7/27/2016		Eastern Metal Supply E...		0.00 €			
Purchase order	PO051606/0009	6/23/2016		Fines Max Mustermann	0341/123456	2.31 €			
Purchase order	BE201806/0008	6/22/2018		Mr. Paul Parke		796.00 €			
Bestellung	BE201605/0027	5/24/2016		Fines Max Mustermann	0341/123456	8.94 €			

## 1. Printing

Via "Print", the complete list displayed, with all selected columns will be printed. After selecting this option, the Windows printing dialog appears, in which the printing device can be chosen. Further settings, e.g. duplex printing, are possible depending on the printer model and hardware driver.

The screenshot shows the 'Purchase orders' window with the 'Print' dialog box open. The dialog box contains the following settings:

- Printer name: Adobe PDF
- Status: The printer is ready.
- Location: (empty)
- Comment: (empty)
- Document(s) in queue: 0
- Number of copies: 1
- Collate:
- Page range:  All,  Current page,  Selection,  Pages: 1-2
- Print on both sides:
- Paper source: Automatisch auswählen
- Print to file:
- File path: (empty)

The background table shows the same list of purchase orders as in the previous screenshot, with the 'Print' button highlighted in the toolbar.

## 2. Print preview

Via the print preview, the list displayed can be printed with the precise selection of columns and contents. Before the actual printing, a preview is shown in a separate window.

Purchasing							1/5/2014 till 12/20/2019	
Bestellung	Dokumenten	Datum	Kommission	Lieferant	Telefon	Netto (EK) abgchieder		
Purchase order	PO201912/0040	12/20/2019		Mr. Paul Parker		1.080,00 €	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	PO201912/0042	12/20/2019		Mr. Paul Parker		15.994,00	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	PO201912/0041	12/20/2019		Softy Systems, I		1.628,28 €	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	PO201912/0040	12/20/2019		Schafer Gebel	0341/9879543	8.936,00 €	<input type="checkbox"/>	<input type="checkbox"/>
Bestellung	BE2817/0818	8/16/2019		Mr. Paul Parker		218,45 €	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	PO201906/0029	6/19/2019		herosal - Johann H		26.483,00	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	PO201906/0038	6/19/2019		PL DE - Alutech I		12.289,00	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order Z	PO2201906/0007	6/13/2019		Eclipse Awing Sv		0,00 €	<input type="checkbox"/>	<input type="checkbox"/>
Bestellung	BE2817/0887	6/10/2019		Mr. Paul Parker		717,31 €	<input type="checkbox"/>	<input type="checkbox"/>
Bestellung	BE2817/0811	4/9/2017		Schafer Gebel	0341/9879543	218,45 €	<input type="checkbox"/>	<input type="checkbox"/>
Bestellung	BE2817/0889	4/6/2017		Firma Max Hoster	0341/323456	17.296,47	<input type="checkbox"/>	<input type="checkbox"/>
Bestellung	BE2817/0888	4/5/2017		Schafer Gebel	0341/9879543	307,81 €	<input type="checkbox"/>	<input type="checkbox"/>
Bestellung	BE2817/0885	3/31/2017		Mr. Paul Parker		615,22 €	<input type="checkbox"/>	<input type="checkbox"/>
Bestellung	BE2817/0884	3/31/2017		herosal - Johann H		598,56 €	<input type="checkbox"/>	<input type="checkbox"/>
Bestellung	BE2817/0883	3/31/2017		herosal - Johann H		393,00 €	<input type="checkbox"/>	<input type="checkbox"/>
Bestellung	BE2817/0881	3/28/2017		Schafer Gebel	0341/9879543	218,45 €	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order Z	PO2201608/0005	8/9/2016		Eclipse Awing Sv		0,00 €	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	PO201608/0027	8/9/2016		Eastern Metal Sep		0,00 €	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order Z	PO2201607/0004	7/29/2016		Eclipse Awing Sv		0,00 €	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	PO201607/0026	7/29/2016		Softy Systems, I		2.267,90 €	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	PO201607/0025	7/29/2016		Eastern Metal Sep		0,00 €	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	PO201607/0022	7/28/2016		Softy Systems, I		8.801,12 €	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	PO201607/0018	7/28/2016		Mr. Paul Parker		1.080,00 €	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order Z	PO2201607/0003	7/27/2016		Eclipse Awing Sv		0,00 €	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order Z	PO2201607/0002	7/27/2016		Eclipse Awing Sv		0,00 €	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order Z	PO2201607/0001	7/27/2016		Eclipse Awing Sv		0,00 €	<input type="checkbox"/>	<input type="checkbox"/>
Purchase order	PO201607/0017	7/27/2016		Eastern Metal Sep		0,00 €	<input type="checkbox"/>	<input type="checkbox"/>

Within the print preview, further actions (e.g. the modification of header and footer, immediate print on the standard printing device, printer selection...) are possible.

## 3. Create a new report

Besides the predefined print reports, own analyses can be created and added. In order to do this, the printing report is recorded with an individual name in the program settings. Already during this step, pre-settings can be chosen, e.g. which printing device shall be used for printing.





### 4.4.1.5 Purchase orders Excel export

Through the Excel export of the purchase orders list view, any selected individual list with all rows and data can be exported to Microsoft Excel for further processing.

During the export can be selected if all datasets displayed or all marked datasets are exported and if the created Excel file is opened immediately.

The screenshot displays the 'Purchase orders' list view in the ingenious software. The table contains the following data:

Document	Document No.	Date	Project	Supplier	Phone	Net total €	Pr...	arc...	Deliv...
Purchase order	PO201912/0041	12/00/2019		Mr. Paul Parker		140.00			
Purchase order	PO201912/0042	12/00/2019		Mr. Paul Parker		30,659.00			
Purchase order	PO201912/0041	12/00/2019		Somfy Systems, Inc.		651.32			
Purchase order	PO201912/0040	12/00/2019		Schäfer GmbH	0341/9876543	7,632.00			
Purchase order	PO201906/0039	6/13/2019		horoal - Johann Henckersmann GmbH		36,493.00			
Purchase order	PO201906/0038	6/13/2019		ITL - ICI - Alutech Internal order		3,612.00			
Purchase order ZFP	PO201906/0007	6/13/2019		Edipse Aviring Systems®, LLC		0.00			
Purchase order ZFP	PO201608/0005	8/9/2016		Edipse Aviring Systems®, LLC		0.00			
Purchase order	PO201608/0027	8/9/2016		Eastern Metal Supply EMS Florida serv.		69.12			
Purchase order ZFP	PO201607/0004	7/25/2016		Edipse Aviring Systems®, LLC		0.00			
Purchase order	PO201607/0036	7/25/2016		Somfy Systems, Inc.		907.36			
Purchase order	PO201607/0025	7/25/2016		Eastern Metal Supply EMS Florida serv.		33.70			
Purchase order	PO201607/0022	7/26/2016		Somfy Systems, Inc.		2,946.61			
Purchase order	PO201607/0018	7/26/2016		Mr. Paul Parker		540.00			
Purchase order ZFP	PO201607/0003	7/27/2016		Edipse Aviring Systems®, LLC		0.00			
Purchase order ZFP	PO201607/0002	7/27/2016		Edipse Aviring Systems®, LLC		0.00			
Purchase order ZFP	PO201607/0001	7/27/2016		Edipse Aviring Systems®, LLC		0.00			
Purchase order	PO201607/0017	7/27/2016		Eastern Metal Supply EMS Florida serv.		33.70			
Purchase order	PO201607/0016	7/27/2016		Eastern Metal Supply EMS Florida serv.		33.70			
Purchase order	PO201607/0015	7/27/2016		Eastern Metal Supply EMS Florida serv.		33.70			
Purchase order	PO201607/0013	7/27/2016		Eastern Metal Supply EMS Florida serv.		33.70			
Purchase order	BE201606/0009	6/22/2016		Formo Max Mustermann	0341/123456	2.21			
Purchase order	BE201606/0008	6/22/2016		Mr. Paul Parker		504.00			
Purchase order	BE201511/0007	11/06/2015		Mr. Paul Parker		360.00			
Purchase order	BE201511/0006	11/13/2015		Mr. Paul Parker		72.00			
Purchase order	BE201511/0005	11/13/2015		Mr. Paul Parker		344.00			
Purchase order	BE201510/0003	10/29/2015	Demo3	Mr. Paul Parker		1,248.00			
Purchase order	BE201510/0002	10/29/2015	Demo2	Mr. Paul Parker		2,496.00			
Purchase order	BE201510/0001	10/29/2015	Demo1	Mr. Paul Parker		457.25			

Through clicking "OK", the standard Windows dialog for recording a file on an individually defined path appears. The file is opened subsequently.

Document	Document No.	Date	Project	Supplier	Phone	Net total \$	Invoiced	archived	Delivery status
Purchase order	PO2019120043	12.26.2019		Mr. Paul Parker		\$40,00			
Purchase order	PO2019120042	12.26.2019		Mr. Paul Parker		30.656,00			
Purchase order	PO2019120041	12.26.2019		Sony Systems, Inc.		651,32			
Purchase order	PO2019120040	12.26.2019		Schefer GmbH	0341/8876543	7.632,00			
Purchase order	PO2019060039	6.15.2019		herzol - Johann Henckertzmann GmbH & Co. KG		26.493,00			
Purchase order	PO2019060038	6.15.2019		PL-CE - Aluwach internal order		3.612,00			
Purchase order ZP	PO2019060037	6.15.2019		Edgose Avining Systems®, LLC		0,00			
Purchase order ZP	PO2019060035	8.9.2016		Edgose Avining Systems®, LLC		0,00			
Purchase order	PO2019060027	8.9.2016		Eastern Metal Supply EMS Florida services		69,12			
Purchase order ZP	PO2019070004	7.26.2016		Edgose Avining Systems®, LLC		0,00			
Purchase order	PO2019070026	7.26.2016		Sony Systems, Inc.		407,96			
Purchase order	PO2019070025	7.26.2016		Eastern Metal Supply EMS Florida services		30,70			
Purchase order	PO2019070022	7.26.2016		Sony Systems, Inc.		2.945,61			
Purchase order	PO2019070018	7.26.2016		Mr. Paul Parker		\$40,00			
Purchase order ZP	PO2019070003	7.27.2016		Edgose Avining Systems®, LLC		0,00			
Purchase order ZP	PO2019070002	7.27.2016		Edgose Avining Systems®, LLC		0,00			
Purchase order ZP	PO2019070001	7.27.2016		Edgose Avining Systems®, LLC		0,00			
Purchase order	PO2019070017	7.27.2016		Eastern Metal Supply EMS Florida services		30,70			
Purchase order	PO2019070016	7.27.2016		Eastern Metal Supply EMS Florida services		30,70			
Purchase order	PO2019070015	7.27.2016		Eastern Metal Supply EMS Florida services		30,70			
Purchase order	PO2019070013	7.27.2016		Eastern Metal Supply EMS Florida services		30,70			
Purchase order	BE2016060009	6.22.2016		Firma Max Mustermann	0341/123456	2,21		X	
Purchase order	BE2016060008	6.22.2016		Mr. Paul Parker		504,00			
Purchase order	BE2015110207	11.16.2015		Mr. Paul Parker		260,00			
Purchase order	BE2015110206	11.13.2015		Mr. Paul Parker		70,00			
Purchase order	BE2015110205	11.13.2015		Mr. Paul Parker		144,00		X	
Purchase order	BE2014100203	10.26.2014		Mr. Paul Parker		1.142,00		X	

## 4.4.2 Purchase orders detail view

### 4.4.2.1 Purchase orders detail view

The "Purchase orders detail view" contains the details of a singular purchase order. The detail view is arranged as a navigation part and a data part with a preview of the purchase order document.

The screenshot shows the 'Purchase order detail view' in the ingenious software. The interface includes a toolbar with various actions, a main content area displaying purchase order details, and a right sidebar with 'Miscellaneous' and 'Addresses' sections.







**Purchase order details:**

Customer No. 10001  
Project  
Your contact Anton Admin  
E-Mail anton@ingenious.de  
Phone 0123456780  
Fax 0123456780  
Date 12/09/2019

**Items Table:**

PosNo.	Description	Quantity	SP €	GP €	
001	Side cap Sat PVC 45° 137 mm beige	100.00 piece	1.00	100.00	
002	Side cap Sat PVC 45° 137 mm brown	100.00 piece	1.00	100.00	
003	Side cap Sat PVC 45° 137 mm dark green	40.00 piece	1.00	40.00	
004	Side cap Sat PVC 45° 137 mm grey	200.00 piece	1.00	200.00	
005	Side cap Sat PVC 45° 137 mm white	100.00 piece	1.00	100.00	
Total (net)					549.00

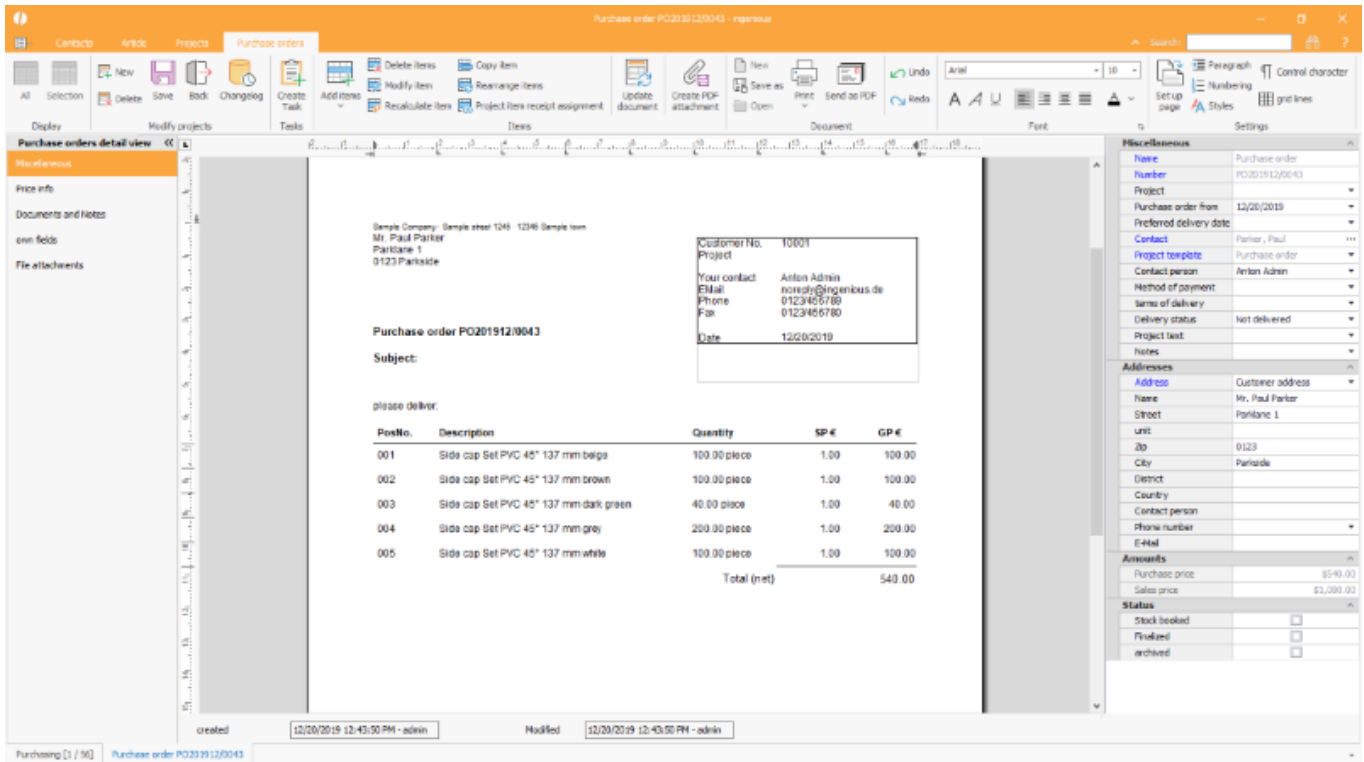
In "Purchase order detail view", the following functions are available via the toolbar (+ more, depending on the selected navigation point):

	Add a new purchase order
	Delete current purchase order
	Save purchase order
	Close purchase order
	Opens the changelog for administrators (user right required)
	Create a task for this purchase order

## 4.4.2.2 Miscellaneous purchase order information











In the "miscellaneous purchase order information" the order document is displayed in an editable print preview. According to the settings in the printing template, contact information of the supplier, internal information, e.g. employee, general data relevant for the order (purchase order number, etc.) are listed here.



The acquisition of the purchase order positions takes place also here.



The following functions are available:

	<p>Insert position - Through clicking this button, the type ahead search starts in the item catalogue. Via the small triangle of the button (or the respective keyboard shortcut), more options can be selected. Positions are always inserted below the marked positions, respectively, at last, if no position has been selected.</p>		
<p>Direct invoice piece</p>	<p>Ctrl + 1</p>	<p>A direct invoice-piece-position is an individual position, which is not deposited in the ingenious product catalogue. Texts and prices are inserted directly in the order position. The price calculation proceeds by piece.</p>	
<p>Direct invoice length</p>	<p>Ctrl + 2</p>	<p>A direct invoice-length-position is an individual position, which is not deposited in the ingenious product catalogue. Texts and prices are inserted directly in the order position. The price calculation proceeds by the meter.</p>	
<p>Direct invoice area</p>	<p>Ctrl + 3</p>	<p>A direct invoice-area-position is an individual position, which is not deposited in the ingenious product catalogue. Texts and prices are inserted directly in the order position. The price calculation proceeds by square meters.</p>	
<p>Article</p>	<p>Ctrl +</p>	<p>To insert an article from the recorded product catalogue. A type</p>	

	A	ahead search field is opened, through which the matchcode or the item number of the article is inserted. Through entering a * the product catalogue is opened and the desired article can be selected from the list. Only articles with the property "order article" and only those for that the supplier is listed at the articles are available.
Multi position	Ctrl + M	To insert several positions of one recorded article in different varieties/different measurements from the product catalog. A type-ahead-search-field is opened, through which the matchcode or the item number of the article is inserted. Through entering a * the product catalog is opened and the desired article can be selected from the list. After configuration of the article, measurements and varieties of the positions are recorded in a separate table. Only articles with the property "order article" and only those for that the supplier is listed at the articles are available.
Text	Ctrl + T	Applying a text position
Headline	Ctrl + H	Applying a headline
	(Ctrl + D) Deletes the marked position(s)	
	(F7) Opens the product configurator for the modification of the selected parameters for BOM positions.	
	(F8) Recalculates the marked item(s) if they have been changed manually, for example in the text and / or price, or if changes have been made to an article in the meantime, e.g. text or price changes for a simple article or modified variants of a parts list.	
	(F6) Copies the marked position and inserts it below into the purchase order. In case of a BOM position, the product configurator for the modification of parameters opens simultaneously.	
	For reordering the positions. Via an opening window, the positions can be rearranged via drag&drop.	
	Links a project item to an incoming document. In the event of a warranty claim, for example, the correct incoming invoice from the supplier can be quickly determined.	
	For updating the document. If general texts and formats have been changed in the template by accident, the template can be reloaded (while modifications in the positions are saved).	
	Saves the actual document as PDF and stores it as a file attachment.	
	A) Prints the purchase order document on a printer that can be selected in the subsequent dialog. The document can also be printed and saved at the same time using the small triangle below the button, and your own print reports (e.g. measurement sheets) can be created and started. (Variant A or B is configured in the program settings / projects)	
	B) Prints the purchase order document on a printer that can be selected in the subsequent dialog and at the same time saves it as a PDF file attachment. The document can also only be printed using the small triangle below the button and your own print reports (e.g. measurement sheets) can be created and started. (Variant A or B is configured in the program settings / projects)	

	A) Sends the purchase order document to the customer. Sending takes place via MAPI (Microsoft Outlook) or SMTP according to the configuration in the program settings. The recipient email address is taken from the project address. The document can also be sent and saved at the same time using the small triangle below the button. (Variant A or B is configured in the program settings / projects)
	B) Sends the project document to the customer and at the same time saves it as a PDF file attachment. Sending takes place via MAPI (Microsoft Outlook) or SMTP according to the configuration in the program settings. The recipient email address is taken from the project address. The document can also only be sent using the small triangle below the button. (Variant A or B is configured in the program settings / projects)
(*)	Diverse functions for formatting a document (see "Text templates").

On the right side in the so-called sidebar, all general information is combined in a list. The content of the list changes according to the cursor position in the document.

If no purchase order position is selected, the data for the whole order is displayed: These are:

**In the block "miscellaneous":**

Name	Protected input field	Name of the project document, according to the configuration in the program settings.
Number	Protected input field	Number of document, depending on the counting definitions predefined in the program settings.
Commission	Simple input field	Individual commission designation, resp. number, if the commission number count is activated (program settings)
Purchase order from	Date field	Input field resp. calendar tool to set the documentation date, automatically, the date when the purchase order was created is inserted.
Desired delivery date	Date field	Input field resp. calendar tool to set a desired delivery date. The desired delivery date can be printed onto the order via a placeholder. It is further used to determine the due date of a delivery, for the color highlighting in the purchase order list.
Confirmed delivery date	Date field	Input field resp. calendar tool to set a confirmed delivery date. (= internal date 2)
Contact	Protected input field	Matchcode of the contact assigned to the order. Through a double-click on the field name and inserting the matchcode another contact can be inserted. Via the small button next to the matchcode, it is possible to switch to the contact detail view.
Project template	Protected selection list	Name of the printing template, which is regularly assigned to the project type in the program settings. Through a double-click on the field name, another printing template can be selected.
Contact person	Selection list	In this field, the name of the contact person /employee signed in is inserted automatically. Another contact person can be selected via the selection list.
Method of payment	Selection list	Selection of the payment method, e.g. for printing on the purchase order: the options in the selection list can be adapted in the program settings.
Terms of	Selection	Selection of the terms of delivery e.g. for printing on the purchase order: the options in the

delivery	list	selection list can be adapted in the program settings.
Delivery state	Selection list	Selection of the delivery state for labeling in the list view; the singular states are predefined.
Project text	Simple input field	The project text depends on the project type, is defined according to the contact and transferred to the order document respectively.
Notes	Simple input field	Internal comments in relation to the order can be recorded in "notes".

### In block addresses

Address	Protected input field/ selection list	Through the assignment of a supplier to a project his contact, his contact addresses are implemented in the document. Via the selection list singular standard addresses can be chosen interchangeably: client address, billing address, delivery address, additional address1, additional address2. Standard addresses can be overwritten with other addresses deposited by the contact through a double click on the field name and the address saved in the connection to the contact is selected.
Name (or singular fields)	Simple input field	Name of assigned contact (resp. singular fields for first name, surname, company, company2)
Street	Simple input field	Street of assigned contact
Zip	Simple input field	Postcode of assigned contact
City	Simple input field	Location of assigned contact
Country	Simple input field	Country of assigned contact
Contact person	Simple input field	Contact person of assigned contact
Telephone	Simple input field	Telephone number of assigned contact
E-mail	Simple input field	E-mail address of assigned contact

### In block amounts

Purchase price	Protected field	Sum of the deposited purchase prices of all positions
Selling price	Protected input field	Sum of the deposited net selling prices of all positions

### In block status

Stock booked	Checkbox	If this checkbox is activated, all items for which the automatic stock management has been activated, are booked into the stock in the ordered/delivered quantities. The stock is raised accordingly. At the same time the delivery status of the order is changed to "finalized".
Finalized	Checkbox	If no modifications shall be added to an order anymore, it is finalized. The input fields are protected then.
Archived	Checkbox	If an order is finalized, it can be marked as "archived", e.g. in order to be able to exclude it from lists via the respective filters.
booked	Checkbox	If this checkbox is activated, all items for which the automatic stock management has been activated, are booked into the stock in the ordered/delivered quantities. The stock is raised accordingly. At the same time the delivery status of the order is changed to "finalized".
Finalized	Checkbox	If no modifications shall be added to an order anymore, it is finalized. The input fields are protected then.
Archived	Checkbox	If an order is finalized, it can be marked as "archived", e.g. in order to be able to exclude it from lists via the respective filters.

### In block positions

If the cursor points at an order position in the document, additional information that is relevant for the position will be displayed. The extent of the display depends on the position type, (e.g. no prices are shown for headlines). The following fields can be displayed:

Position type	Protected field	The position type depends on the position inserted.
Auto. number	Checkbox	If this checkbox is active, all positions are numbered automatically.
Position number	Simple input field	If no automatic numbering is activated, an individual position number can be assigned.
Matchcode	Protected field	Matchcode of the article inserted from the article catalog.
Purchase order number	Protected field	Purchase order number the article inserted from the article catalog.
Quantity	Simple input field	Quantity of the article
Measurements + and Single fields		Measurements of the article in case of length and surface articles). When clicking the small triangle next to the field name, all editable single fields are displayed.
Flat price	Simple input field	The flat price of the article (e.g. 1,00 € per meter). If the flat price is changed, the other prices are recalculated according to the position.






Piece price	Simple input field	Piece price of the article (e.g. 2,00 € for 1 piece à 2 meters). If the piece price is changed the other prices are recalculated according to the position.
Net price	Simple input field	The total net price of the position (e.g. 6,00 € for 3 pieces à 2 meters). If the net price is changed, all other prices will be recalculated according to their position.

The order of the blocks can be adjusted via the sidebar settings in the **program settings / selection lists (Section 8.6.4)**.

### 4.4.2.3 Documents and notes of purchase orders

In "documents" and "notes" general letters, faxes and notes in relation to the project are created and recorded chronologically. The following functions are available:

	Create a new document/ a new note
	Delete the marked document/ the marked note
Show from linked projects	Also shows in the list the documents that are created in projects linked via the project history. For these documents, the additional column Document Origin is displayed, which contains the document name and document number of the linked project.
 Full text search	Searches for text matches within the topic

When creating a new document / a new note, different types can be selected and designated with the respective icon from the list.

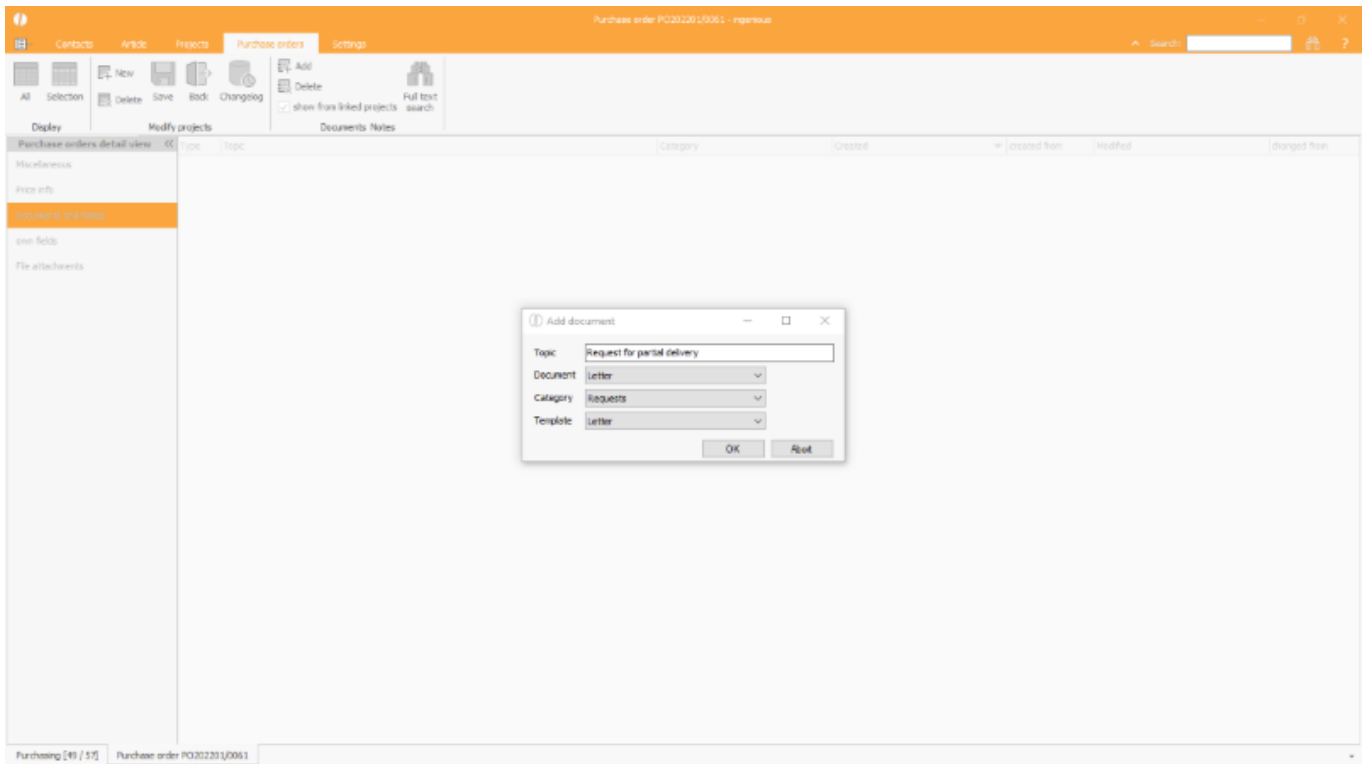
	Note or simple note
	Letter
	Fax

A note is summarized as a title with a heading and further described in an additional text field.

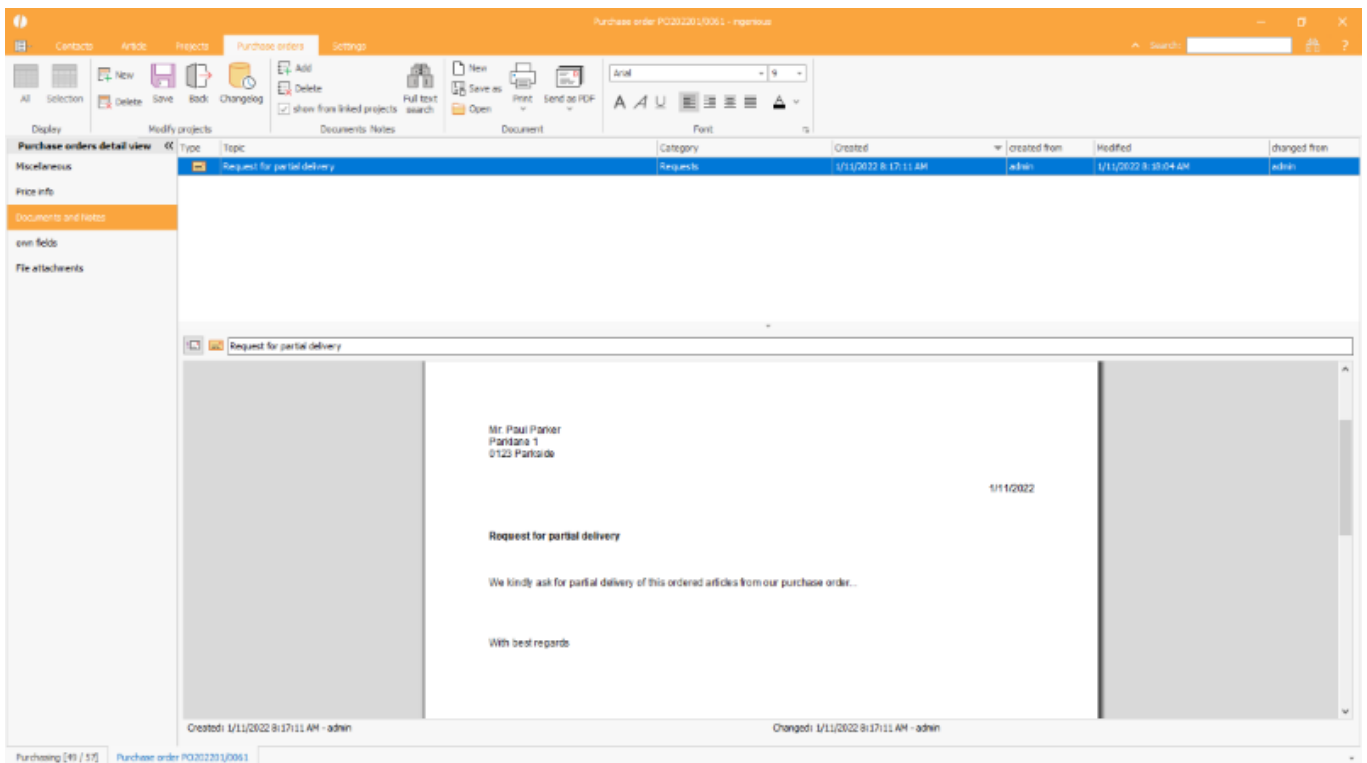
The simple note, on the other hand, consists of a single text field, which is also the title.

Every document and every note can be assigned to a category created in the program settings/selection lists.

For letters and faxes, any template can be selected from the template manager as a basis. Besides the simple standard template, it is recommended to record respective samples for recurring / serial letters.



For processing a letter or fax, further functions of the text editor are available:



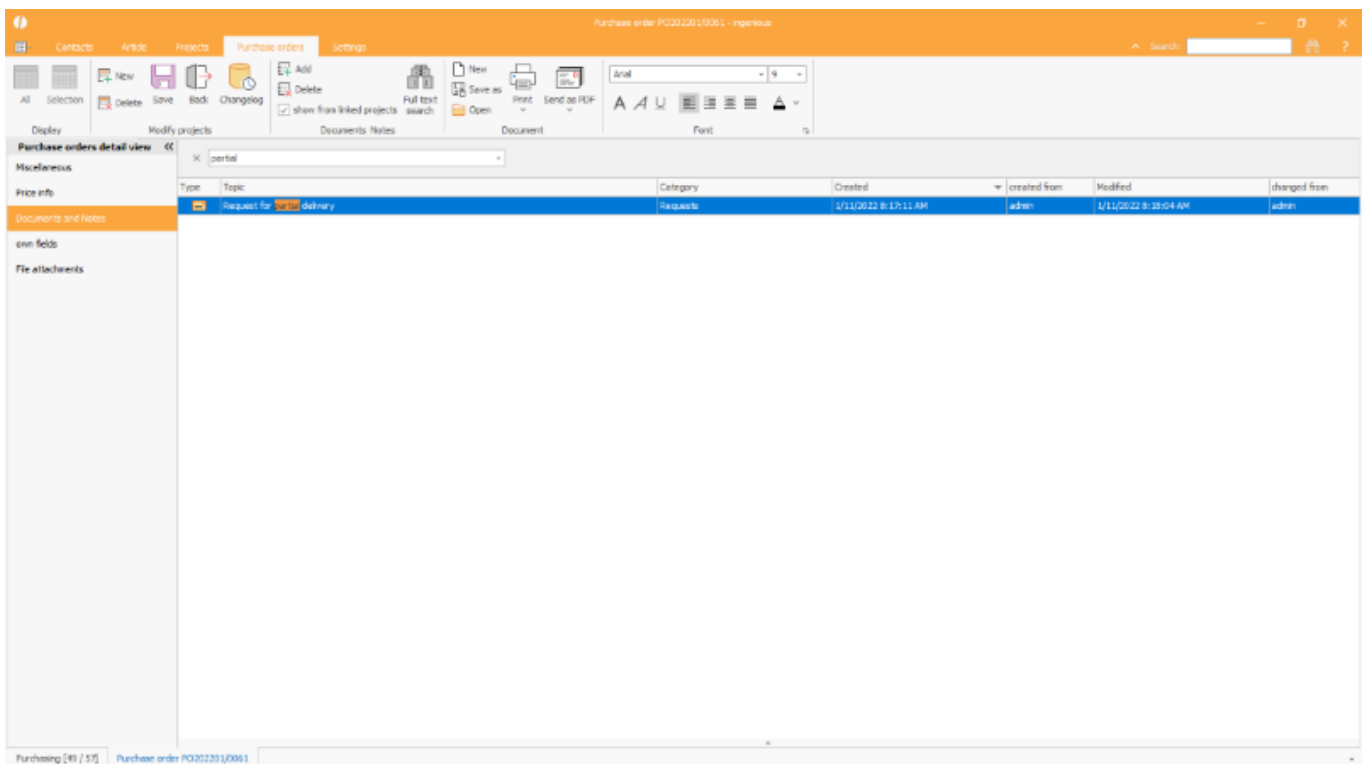
The list of documents and notes can be sorted, filtered and grouped (e.g. by category).

Simply click on a document or note to open it for viewing / editing.

By double-clicking in the Category column, the assignment to a category can be set or changed afterwards.

### Full text search

If already very many documents and notes have been created for a singular order, the full text search facilitates the finding of a documents with an unknown creation date. A keyword is inserted into the search field then. All documents that contain the wanted term in their topic will be displayed and the key word will be highlighted. The selection can be reset via the small x next to the search field.



### 4.4.2.4 own fields of purchase orders

Individual fields are each 5 text fields, numeric fields, date fields and checkboxes, in which additional own information of the singular orders can be recorded.





The inscription of the individual fields can be modified in the localization module according to own requirements.

The contents of the own fields can be printed with the printing of the purchase order and in printing reports and displayed in the list views.

#### 4.4.2.5 File attachments of purchase orders

In "file attachments" various external documents for an order can be recorded. This can be different documents and media data, e.g. PDF-catalogs, video company presentations, e-mails, scanned documents and web addresses.

In "file attachments" the following additional functions are available:

	Add a new file attachment
	Delete marked file attachment
	Modify the description text of the marked file
	Displays the location of the marked file attachment
Show from linked projects	Also shows in the list the file attachments that are stored in projects linked via the project history. For these attachments, the additional column Document Origin is displayed, which contains the document name and document number of the linked project.

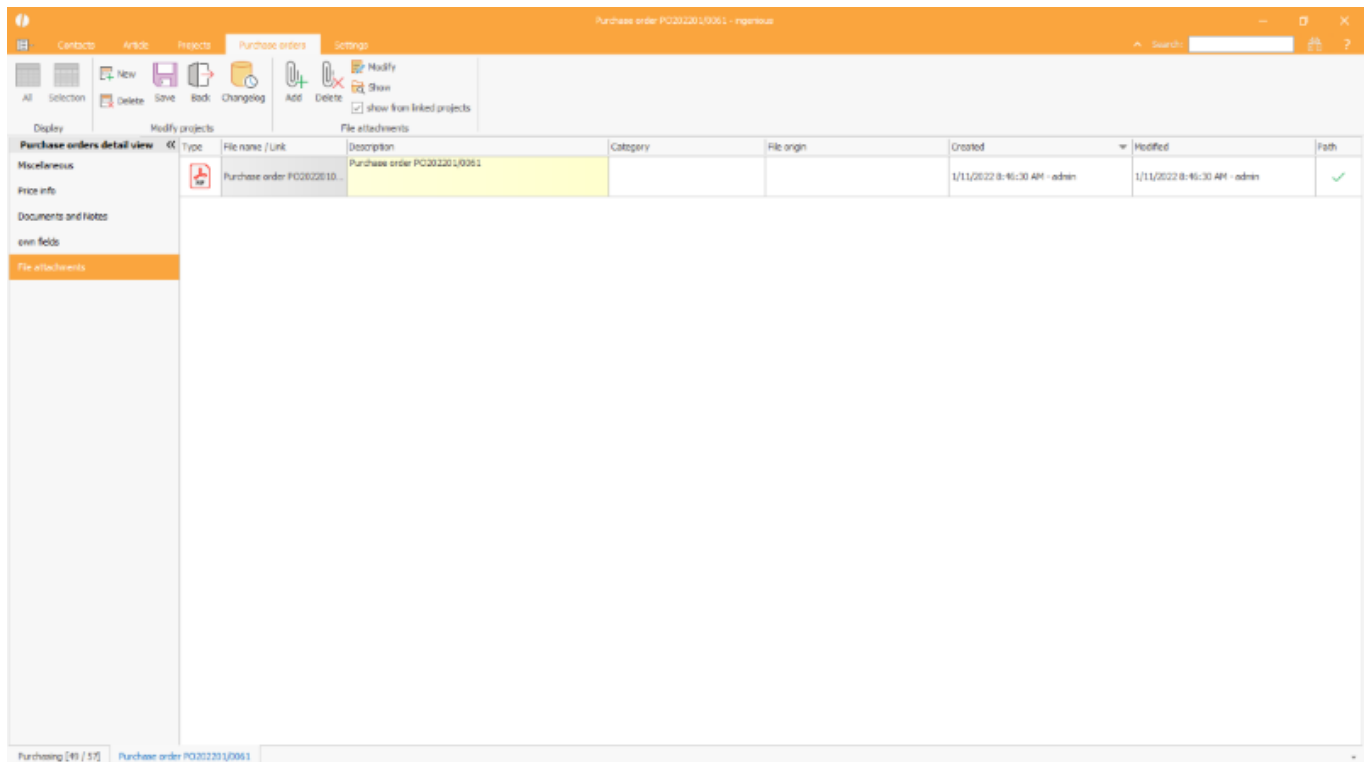
A new file attachment can be added via the button or through drag&drop.

A dialog opens for selecting an external file attachment or an external URL.

In the dialog, the file attachment can be assigned to a category and a description can be stored.

After confirming the dialog, another dialog for entering the URL opens for an external URL and the standard Windows dialog for opening a file appears for an external file attachment.

In the list view, all attachments available for a project are displayed. A symbol in the first column marks the type of file attachment. The entries can be sorted through a click on the designations of the columns.



An already created file attachment is opened by double-clicking on its file name / reference.

A simple click on a file attachment of the type Image shows a preview of the image below the file attachment list.

In the column "Path" the symbol indicates that the file attachment is available at the stored path. The symbol

shows, that the file attachment or the path is not available.

A little database symbol shows that the information is directly stored in the database.

## 4.4.3 Purchase orders How-to

### 4.4.3.1 Purchase orders with partial delivery

A separate process was created for the traceability of purchase orders and (partial) deliveries.

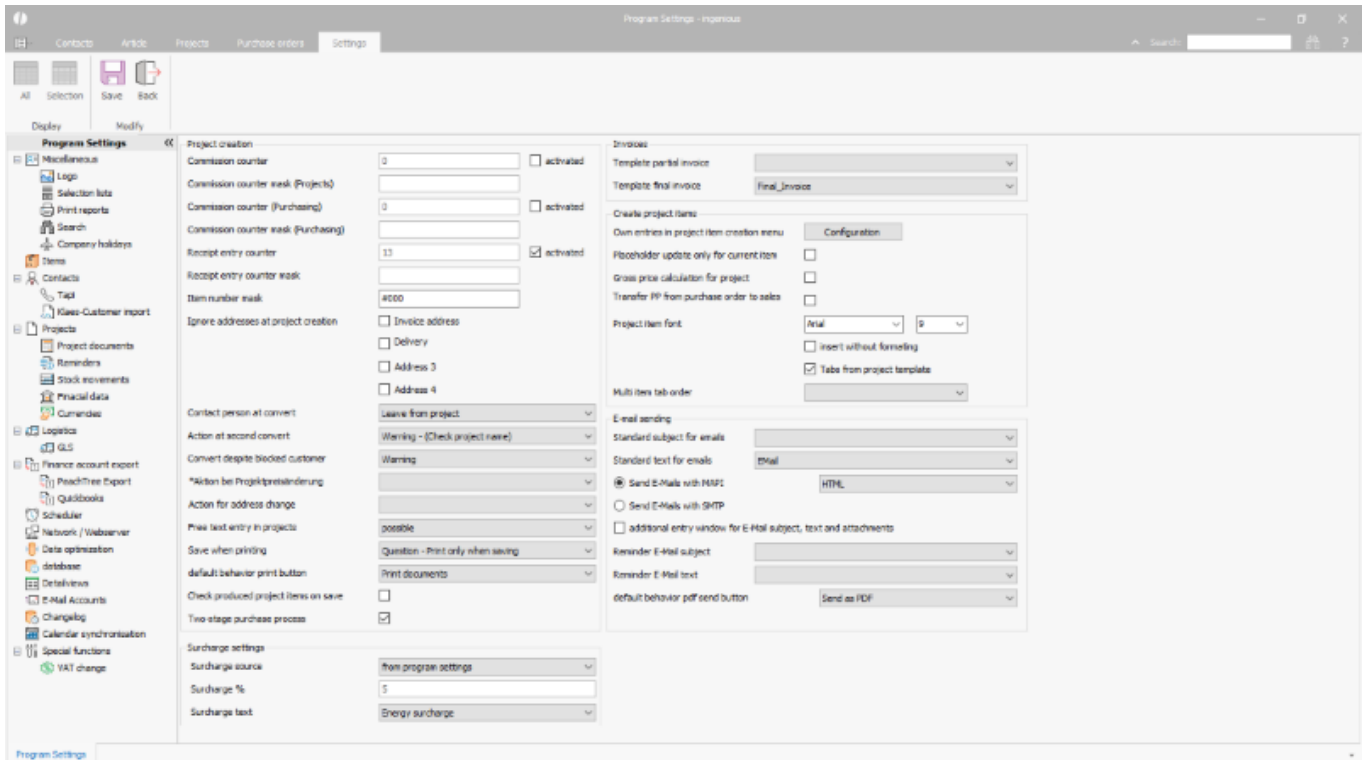
The project documents 51 purchase order and 52 stock receipt are firmly linked, their quantities are compared with each other.

This means that the purchase order always shows which quantities are still open.

The document types 51 and 52 are to be created separately, the "simple" purchase order type 50 works as before.

## Activation of partial deliveries

The Two-stage purchase process can be activated by checkbox in the **Program Settings / Projects (Section 8.6.11)**:



In older installation it also can have been activated by script:

### Activation of partial deliveries via script

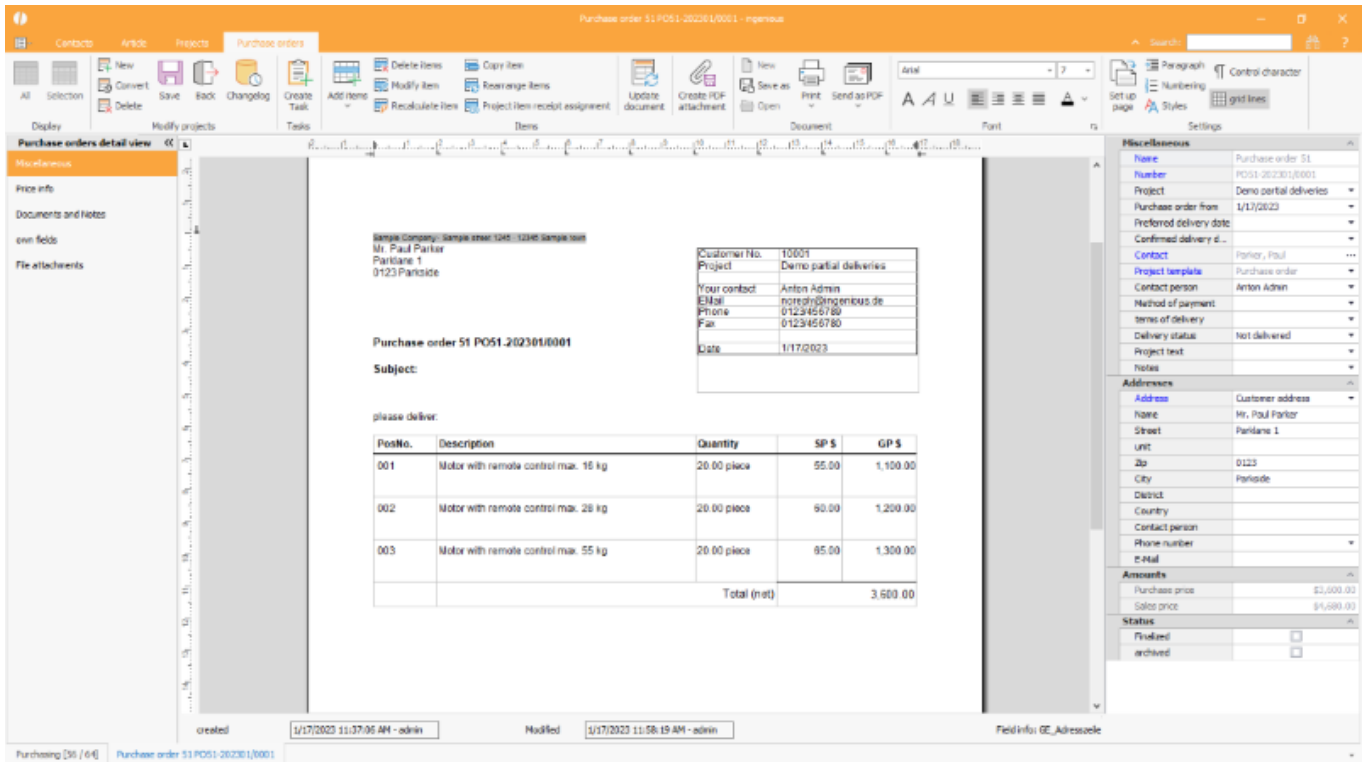
```
public override void ClientStart()
{
    Globals.bExtendedPurchasing = true;
}
```

This means that project types 51 and 52 are available in the program settings.

The corresponding project documents can then be set up there.



All required parts are inserted into the purchase order document.



The screenshot displays the 'Purchase orders detail view' in the ingenious software. The main content area shows a purchase order for 'Purchase order 51 PO51-202301/0001'. The document includes the following information:

**Company:** Sample Company, Sample street 12345, 12345 Sample town  
**Customer:** Mr. Paul Parker, Parklane 1, 0123 Parkside  
**Your contact:** Anton Admin, Email: notso@ingenious.de, Phone: 0123456780, Fax: 0123456780, Date: 1/17/2023

**Customer No.:** 10001  
**Project:** Demo partial deliveries

**Subject:**

please deliver:

PosNo.	Description	Quantity	SP \$	GP \$
001	Motor with remote control max. 16 kg	20.00 piece	55.00	1,100.00
002	Motor with remote control max. 28 kg	20.00 piece	60.00	1,200.00
003	Motor with remote control max. 55 kg	20.00 piece	65.00	1,300.00
			<b>Total (net)</b>	<b>3,600.00</b>

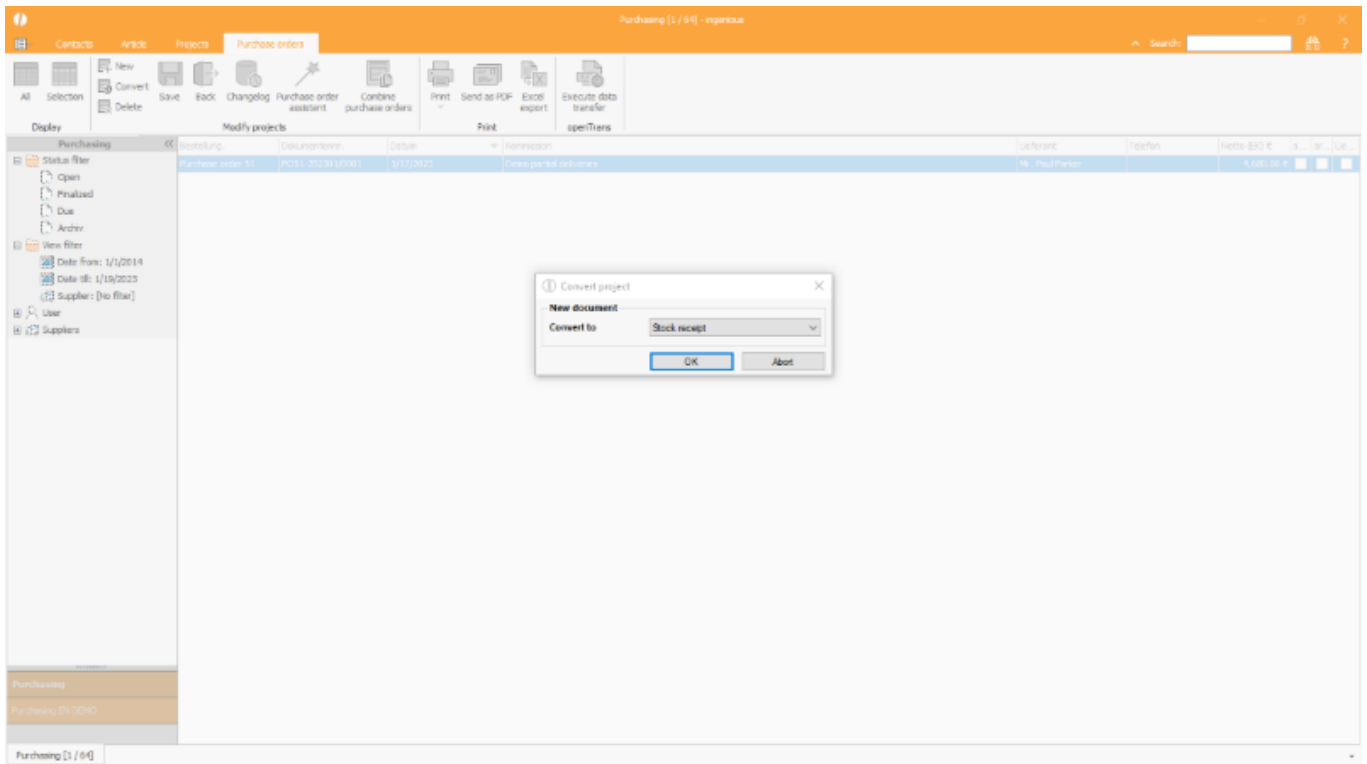
The interface also shows a sidebar with navigation options (Price info, Documents and Notes, etc.) and a right-hand panel with 'Miscellaneous' and 'Address' details. The status bar at the bottom indicates the document was created on 1/17/2023 at 11:07:05 AM and modified at 11:58:19 AM.

## Recording the stock receipt

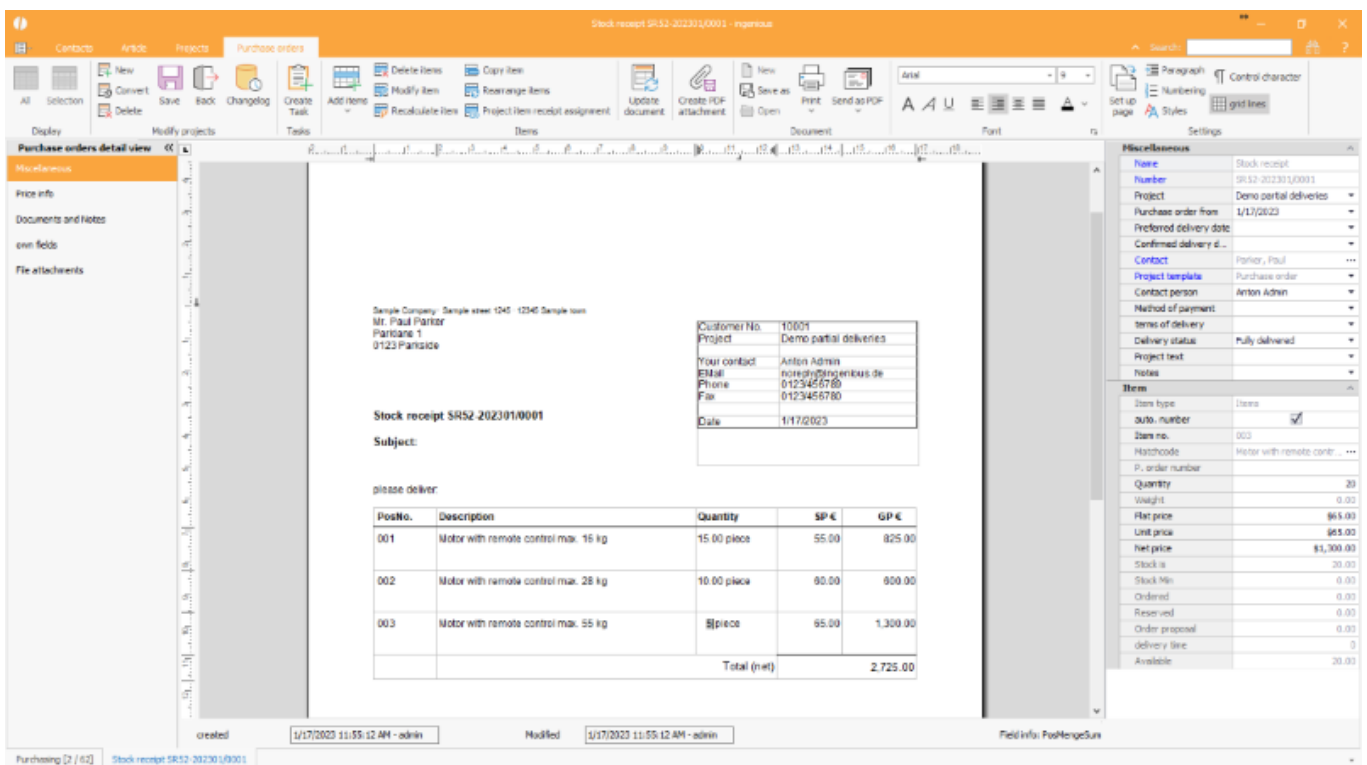
Upon delivery, the corresponding purchase order document is switched to a stock receipt document via the button







The stock receipt document contains all open items and quantities from the original purchase order. The delivered quantities are recorded via the quantity.



*Note: While the stock receipt document is being processed, the original purchase order is blocked for processing.*

After saving the stock receipt document, the stock receipt can be seen in the original order for each item in the sidebar.

Sample Company - Sample street 1245 - 12345 Sample town  
Mr. Paul Partner  
Partisans 1  
0123 Partside

Customer No. 10001  
Project Demo partial deliveries

Your contact Anton Admin  
E-Mail anton@ingenious.de  
Phone 0123456780  
Fax 0123456780  
Date 1/17/2023

**Purchase order 51 PO51-202301/0001**  
**Subject:**

please deliver:

PosNo.	Description	Quantity	SP \$	GP \$
001	Motor with remote control max. 16 kg	20.00 pieces	55.00	1,100.00
002	Motor with remote control max. 28 kg	20.00 piece	60.00	1,200.00
003	Motor with remote control max. 55 kg	20.00 pieces	65.00	1,300.00
<b>Total (net)</b>				<b>3,600.00</b>

created 1/17/2023 11:07:05 AM - admin Modified 1/17/2023 11:41:31 AM - admin Field Info: PoText

Purchasing [2 / 62] Purchase order 51 PO51-202301/0001

**Miscellaneous**

- Name: Purchase order 51
- Number: PO51-202301/0001
- Project: Demo partial deliveries
- Purchase order from: 1/17/2023
- Preferred delivery date:
- Confirmed delivery d.:
- Contact: Partner, Paul
- Project template: Purchase order
- Contact person: Anton Admin
- Method of payment:
- Terms of delivery:
- Delivery status: Partial delivery
- Project text:
- Notes:

**Items**

- Item type: Items
- Auto. number:
- Item no.: 001
- Matchcode: Motor with remote contr...
- P. order number:
- Quantity: 20
- Weight: 0.00
- Flat price: \$55.00
- Unit price: \$55.00
- Net price: \$1,100.00
- Stock receipt: 15
- Stock in: 13.00
- Stock in: 0.00
- Order in: 9.00
- Reserved: 0.00
- Order proposal: 0.00
- delivery time: 0
- Available: 12.00

If a new stock receipt document is then created for the next delivery, this will only contain the items and quantities that are still open.

The screenshot displays the 'Stock receipt' document in the ingenious software. The document content is as follows:

Supplier Company: Sample stein 1245 12345 Sample sdn  
 Mr. Paul Partner  
 Parlane 1  
 0123 Parlane

Customer No: 10001  
 Project: Demo partial deliveries

Your contact: Anton Admin  
 EMail: anton@ingenious.de  
 Phone: 0123456789  
 Fax: 0123456789  
 Date: 1/17/2023

Stock receipt SR52-2023010002  
 Subject:

please deliver:

Positio.	Description	Quantity	SP €	GP €
001	Motor with remote control max. 16 kg	5.00 piece	55.00	275.00
002	Motor with remote control max. 28 kg	10.00 piece	80.00	800.00
003	Motor with remote control max. 55 kg	15.00 piece	65.00	975.00
			Total (net)	1.850.00

created: 1/17/2023 11:58:24 AM - admin  
 Modified: 1/17/2023 11:58:24 AM - admin  
 Field info: GE\_Adresseuche

If an purchase order is delivered completely in one delivery, the stock receipt document can be saved immediately after switching to the next step without any changes.

The order is then applied to have been delivered in full.

## Transfer of the prices to the order after stock receipt

Price changes of the item positions can be recorded via a stock receipt document.

In order to transfer the updated prices to the original purchase order document, the following global variable must be set:

Activation of the price transfer via script

```
public override void ClientStart()
{
    Globals.bExtendedPurchasingItemUpdate = true;
}
```









## 5 Production

### 5.1 Capacity planning

In "capacity planning" the production capacity of a company is recorded in order to display its actual workload in a wall chart to be able to react to shortages.

In the module "capacity planning" several wall charts can be configured.

The following functions are available via the toolbar:

	List all configurations
	Display only the current marked configuration
	Configure a new capacity wall chart
	Delete marked configuration
	Close module
	Display configuration details of the marked capacity wall chart.
	Configuration of employee, groups and workdays
	Ressource planning - Assignment of employees to groups (on daily basis)

#### Configuration of a capacity wall chart

In the configuration of a capacity planning

- title and a description are assigned
- the working days of a company are defined
- company holidays are recorded, if appropriate
- project documents which will be taken into account are selected
- the display is formatted

The various work groups are defined in the middle block Groups.

The name, the active checkbox and the following date fields must be defined for each group:

- Bind to date: The date, on which the project will be displayed in the capacity planning
- Production finalized: Beyond this date, the project is not displayed anymore in the capacity planning
- Planned delivery date: If a project is extended beyond this delivery date in the capacity planning, a warning, takes place.
- Date Dispo 1: free date for an informative display in the capacity planning

- Date Dispo 2: free date for an informative display in the capacity planning
- Date Dispo 3: free date for an informative display in the capacity planning

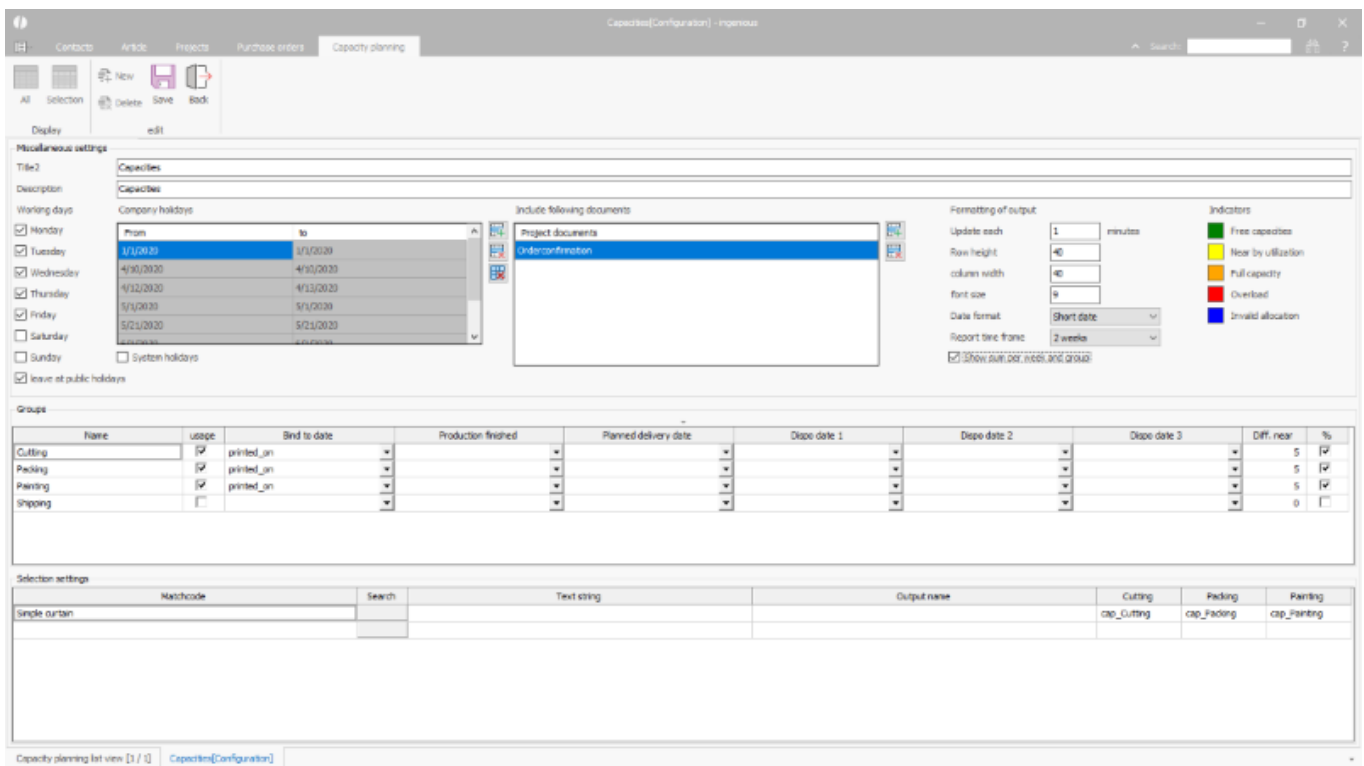
If no group is explicitly defined, the date fields are entered above the group section and apply to the entire capacity planning

In the lower block, the singular capacities for the products to be manufactured are shown. Every product to be observed is to be inserted with its matchcode. Several product can be inserted in one row, set apart by semicolon, e.g. if the day capacity counts at the same time for two products, which are manufactured through the same device.

Via the text string the selection can be refined, e.g. in order to analyze products only in certain colors in order to plan the workload of the color facility.

In "Name for output" the text to be displayed in the chart is recorded.

For each product resp. each product group, a "maximum capacity" and a value for "near by utilization" per day + and the unit of the product have to be inserted. According to these values, the chart is colored.



## Configuration employees and groups

Following settings are possible

- Workstations can be defined in section groups
- In the Employees section, workers, their standard workstation and their qualifications can be defined for each workstation (the standard workstation can be changed later on a daily basis, see next section)
- Definition of working units for each day and employee

**Groups**

Group	available	Indicator
Absent	<input type="checkbox"/>	
Cutting	<input checked="" type="checkbox"/>	
Packing	<input checked="" type="checkbox"/>	
Finishing	<input checked="" type="checkbox"/>	
Shipping	<input checked="" type="checkbox"/>	

**Weekday Units per day**

Weekday	Units per day
Monday	450
Tuesday	450
Wednesday	450
Thursday	450
Friday	420
Saturday	0
Sunday	0

**Employees**

Employee	Login	PPS Login	Default group	Cutting	Packing	Finishing	Shipping
Carl Winter	cwinter		Cutting	0	0	0	0
Danny Smith	dsmith		Packing	0	0	0	0
Edward Beck	ebeck		Packing	0	0	0	0
Samuel Schneider	schneider		Shipping	0	0	0	0

## Resource planning

For each day (1st column) employees can be assigned to different workstations (right window section)

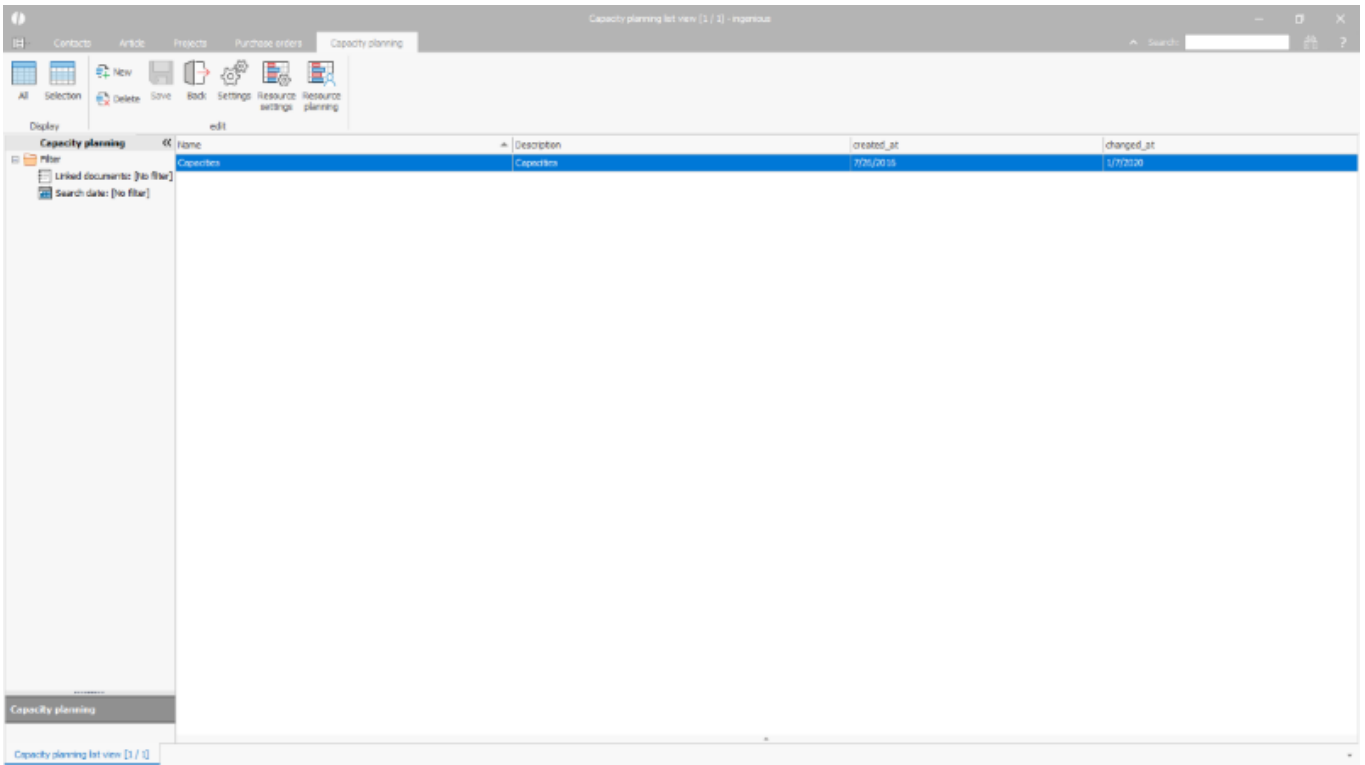
For information the working units are added for each workstation (left window section)

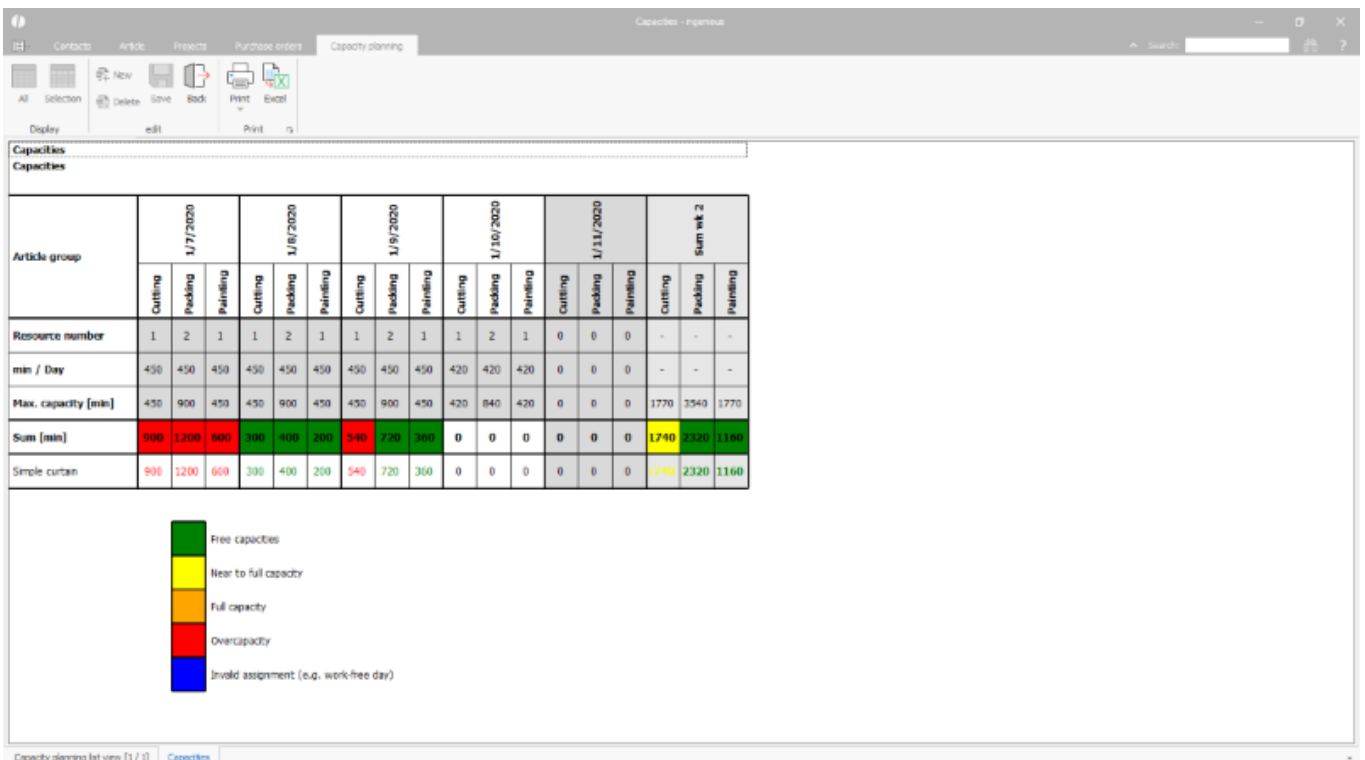
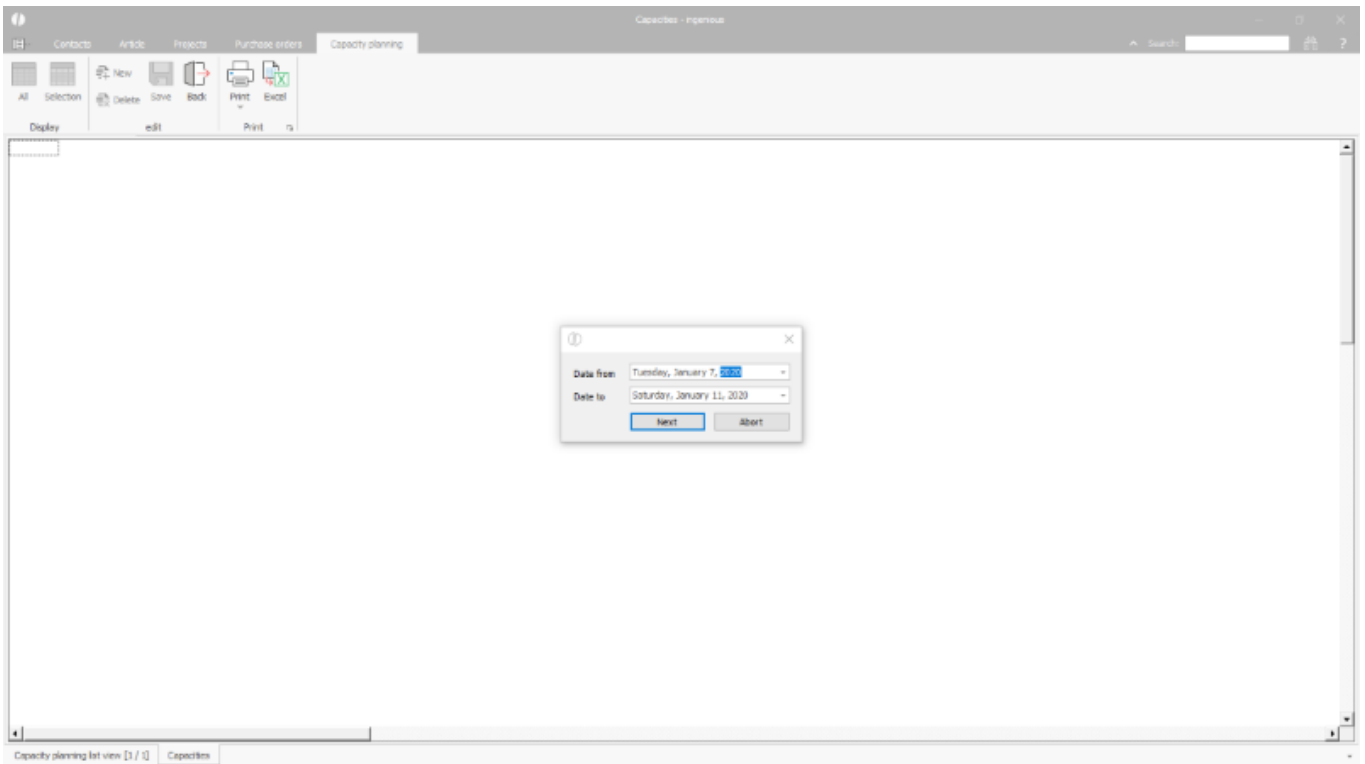
**Capacity planning - Resource planning**

Datum	Std / P / T	Summe Konfektionierung	Summe Lackierung	Summe Zuschneit	Summe Versand	Konrad Kaufmann Lackierung	John Meyer Zuschneit	Samuel Schneider Konfektionierung
01.11.2019	420	420	420	420	0	Lackierung	Zuschneit	Konfektionierung
02.11.2019	0	0	0	0	0	Lackierung	Zuschneit	Konfektionierung
03.11.2019	0	0	0	0	0	Lackierung	Zuschneit	Konfektionierung
04.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
05.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
06.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
07.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
08.11.2019	420	420	420	420	0	Lackierung	Zuschneit	Konfektionierung
09.11.2019	0	0	0	0	0	Lackierung	Zuschneit	Konfektionierung
10.11.2019	0	0	0	0	0	Lackierung	Zuschneit	Konfektionierung
11.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
12.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
13.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
14.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
15.11.2019	420	420	420	420	0	Lackierung	Zuschneit	Konfektionierung
16.11.2019	0	0	0	0	0	Lackierung	Zuschneit	Konfektionierung
17.11.2019	0	0	0	0	0	Lackierung	Zuschneit	Konfektionierung
18.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
19.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
20.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
21.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
22.11.2019	420	420	420	420	0	Lackierung	Zuschneit	Konfektionierung
23.11.2019	0	0	0	0	0	Lackierung	Zuschneit	Konfektionierung
24.11.2019	0	0	0	0	0	Lackierung	Zuschneit	Konfektionierung
25.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
26.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
27.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
28.11.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
29.11.2019	420	420	420	420	0	Lackierung	Zuschneit	Konfektionierung
30.11.2019	0	0	0	0	0	Lackierung	Zuschneit	Konfektionierung
01.12.2019	0	0	0	0	0	Lackierung	Zuschneit	Konfektionierung
02.12.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
03.12.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
04.12.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
05.12.2019	450	450	450	450	0	Lackierung	Zuschneit	Konfektionierung
06.12.2019	420	420	420	420	0	Lackierung	Zuschneit	Konfektionierung

## Capacity planning in detail view

With double-clicking on a configured capacity planning, a date query for limiting the time span that is to be checked opens. All products with the binding date set and which are due in in this time span are taking into account for the planning.





## Disposition view

If a capacity is overloaded on one day or an intervention is necessary for other reasons, single projects can be moved to another production day. In order to do so, double-click on the respective entry. The disposition view opens, in



which all projects with the respective number and due dates are listed.

The screenshot displays the 'Capacity planning disposition view' in the ingenious software. The main window features a table with the following data:

Article group	1/7/2020			
	Cutting	Packing	Painting	Cutting
Resource number	1	2	1	1
min / Day	450	450	450	450
Max. capacity [min]	450	900	450	450
Sum [min]	900	1200	600	300
Simple curtain	900	1200	600	300

Legend for capacity status:

- Free capacity (Green)
- Near to full (Yellow)
- Full capacity (Orange)
- Overcapacity (Red)
- Invalid assignment (e.g. work-free day) (Blue)

The inset window 'Capacity planning disposition view' shows the following table:

Quantity	Project document	Kommission	Contact	Article group
250	C2020010972	Cap2	Doe, John	
600	C2020010972	Cap3	Doe, John	
400	C2020010974	cap3	Doe, John	

The 'Selection new date' dialog shows:

Date	Amount
1/8/2020	500 min
1/10/2020	840 min

The displayed projects can be moved each by each or together to another production day (click while pressing "shift").

*Note:* The moving concern always all article positions in a project. Single articles can only be moved, if they are assigned to a separate project (delivery note / order confirmation).

## 5.2 Production planning

### 5.2.1 Production planning list view

In the production planning, the information from all reserved / stock posted order confirmations is collected and broken down into its individual work steps. They are summarized and arranged in order for the individual workstations of the PPS web module (= production planning and control system) using various sorting criteria and urgency filters.

At the workstations, the relevant details are displayed on a webpage and can be processed step by step. The output takes place on any browser-compatible end device, such as an industrial touch screen, a tablet or a barcode scanner with a display.


In the list view of the production planning, the created workstations with the respective number of open, planned and finished positions for the selected key date are displayed according to the filters set.

The filters allow the display to be restricted to individual statuses.




Via the icon bar the following functions are available:

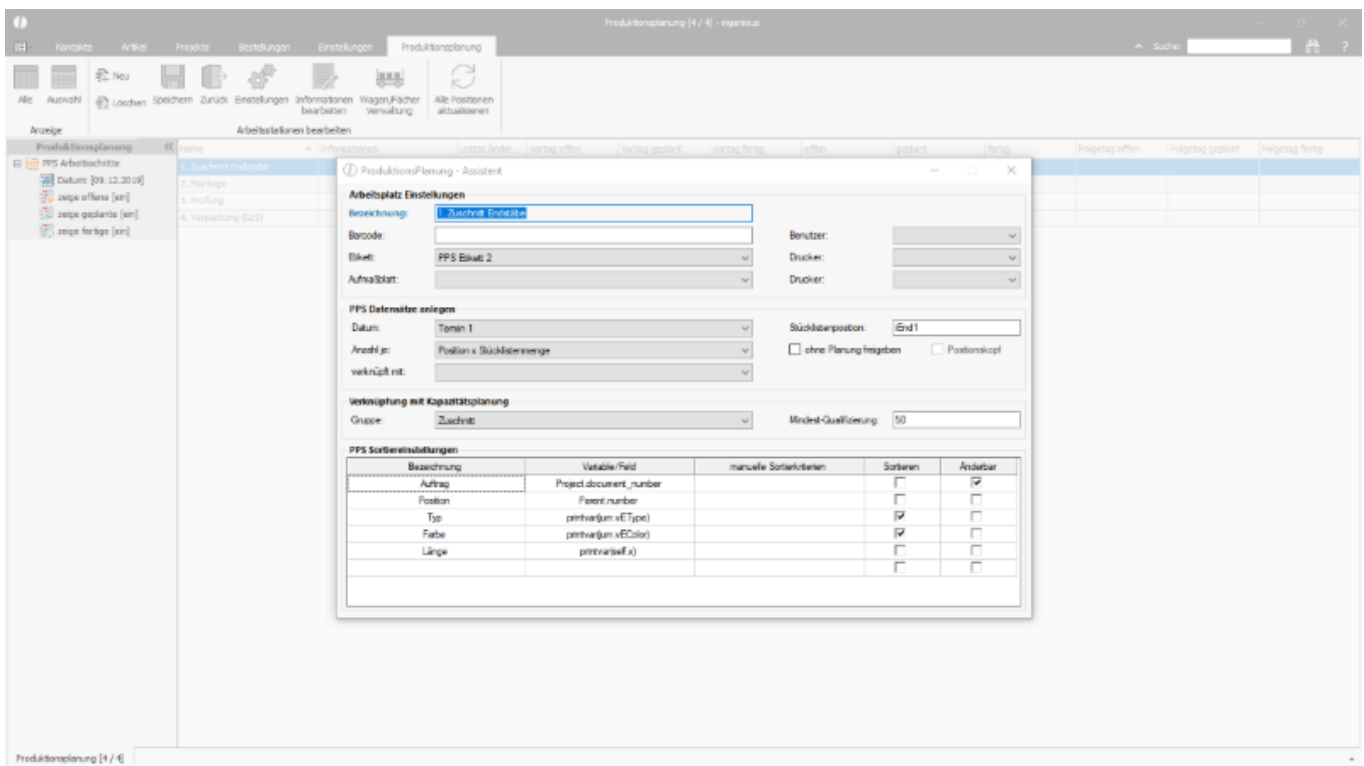
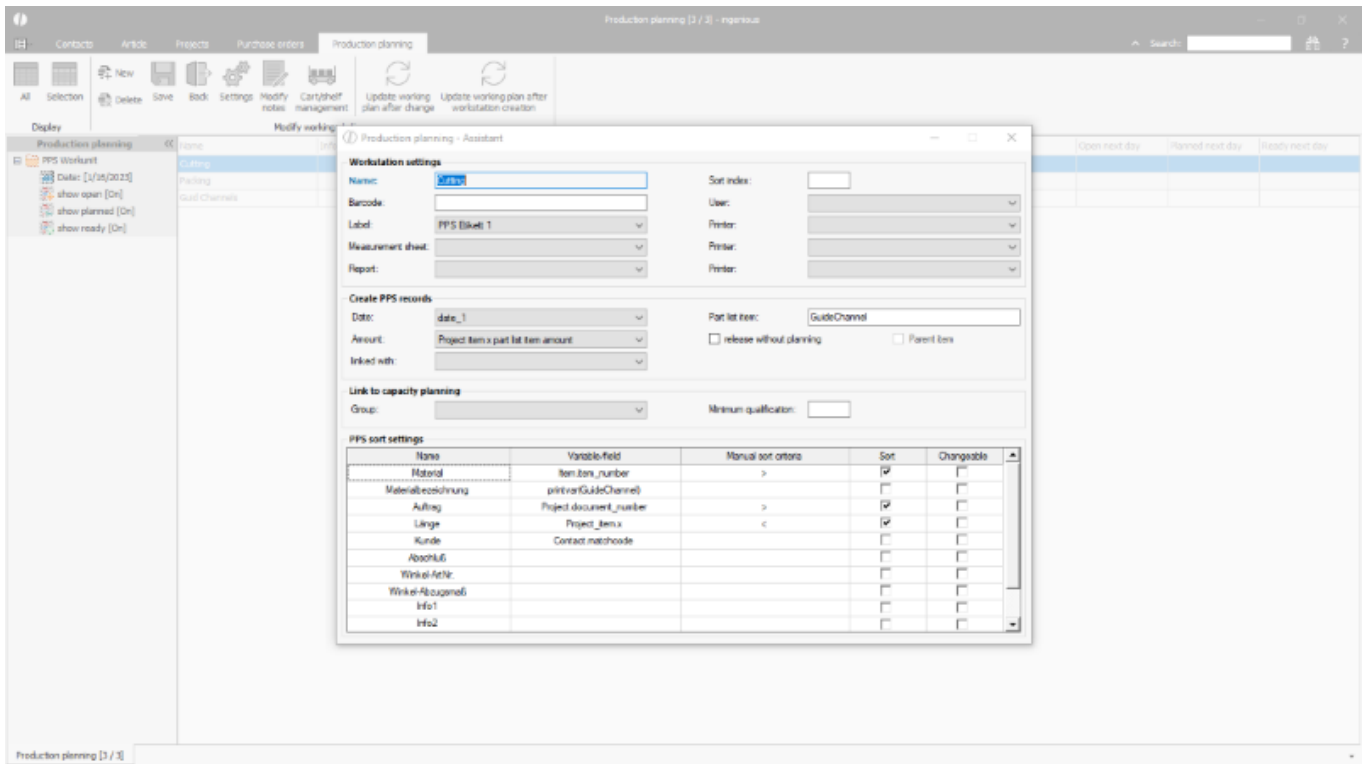
	Show all entries according to the filters set.
	Reduce the view to the marked entries
	Create a new workstation
	Delete the selected workstation
	Close the module
	Open the configuration mask of the selected workstation
	Open a simple text field to modify / delete individual information. These are in particular information, that were entered at the workstation, e.g. to request support or to explain reasons for non-processing (e.g. missing or damaged material).
	Open the cart and shelf administration
	Refresh of the number of open, planned and finished positions of an individual timeframe, that is defined via a separate dialogue.

## 5.2.2 Workstation configuration

The configuration of a workstation in the production planning is started via the button  of the icon bar. The production planning assistant is opened, where the relevant settings can be made.

Name	Protected input field	Allocation of a unique name for the workstation. The field is active when a new system is created. As soon as a name has been assigned, the field is protected and must be unlocked for any changes by double-clicking on the field name.	
Barcode	Simple input field	Definition of a unique barcode for scanning the PPS position. As identification features e.g. the project document number and project position number, or a combination of both can serve. All linked placeholders (with their English names) and fields that are written in curly brackets can be used. E.g.:{Project.document_number} {Project_item.number}	
User	Selection list	Selection of a user when only he shall get access to the workstation.	
Label + Printer	Selection lists	Selection of a label that shall be displayed/printed with the processing or completion of a PPS position + Selection of the printer where the label should be printed.	
Measurement sheet + Printer	Selection lists	Selection of a measurement sheet that shall be displayed/printed with the processing or completion of a PPS position + Selection of the printer where the measurement sheet should be printed.	
Date	Selection list	Selection of the date field to which the work step of the workstation is linked. If the date is set in this field in a project and the project has been marked as booked or reserved, the PPS positions are created for this date when the project is saved. If the date is later removed or the warehouse booking / reservation is canceled, the PPS items will also be removed (if they have not yet been processed).	
Part list item	Simple input field	Entry of the part list item, which must be included in the PPS item, so that it is recorded by the workstation. Items that are sold separately can also be considered. For these, the same value must be entered in the part list name field in the <b>article parameters (Section 4.2.2.4)</b> .	
Amount	Selection list	Definition of the number of the PPS positions	
		Project	One PPS item per project is created.
		Item	One PPS item per project item is created.
		Project item x (multiplied by) item amount	The PPS items are created in the amount of the project items
		Project item x (multiplied by) part list item amount	The PPS items are created in the amount of the part list item amount of the project items, e.g. Number of profile bars of a shutter curtain - > Amount = 3 curtains in the project item * 37 bars per curtain = 111
No creation			

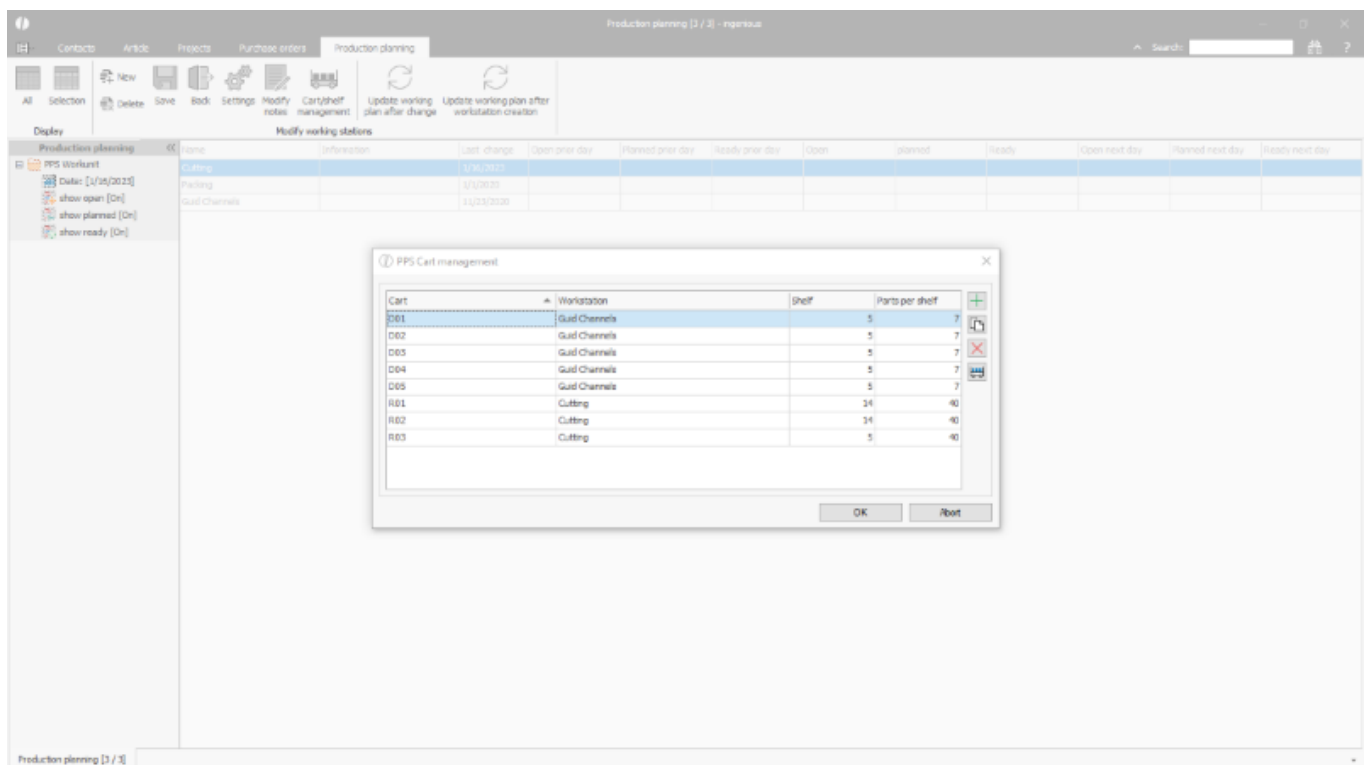
Release without planning	Checkbox	If the checkbox is deactivated, every day plan must be approved by the production management, e.g. even after cutting optimization or employee assignment. If the check mark is set, the PPS positions will appear at the workstations even without completing the daily schedule.															
Parent item	Checkbox	Selectable for number per "Item" and "Project item x item amount". For both options, both the item header data and the parts list values are available for evaluation. With a check mark in the checkbox, you decide to create the PPS items with only the item header data.															
Linked with	Selection list	No function yet															
Group	Selection list	If the workstation is to be released for a group of users, capacity planning / resource planning can be used to determine which employees are available in which group. The affiliation can vary depending on the day, so that jumpers are also taken into account and absenteeism due to vacation and illness can be compensated.															
Minimum qualification	Simple input field	Entry of the minimum qualification that an employee needs to be assigned to the workstation / PPS position.															
Sort settings	List	Definition of the display and evaluation of individual values in the daily schedule and on the webpage of the workstation.															
		<table border="1"> <tr> <td>Name</td> <td>Input field</td> <td>Determination of the column name</td> </tr> <tr> <td>Variable/field</td> <td>Input field</td> <td>Entry of the data field or the variable name whose value is to be displayed.</td> </tr> <tr> <td>manual sort criteria</td> <td>Input field</td> <td>Entry of a "&lt;" for descending and "&gt;" for ascending sorting; without entry values are sorted ascending.</td> </tr> <tr> <td>Sort</td> <td>Checkbox</td> <td>Determine whether the positions should be sorted or not.</td> </tr> <tr> <td>Changeable</td> <td>Checkbox</td> <td>Determine whether a value of a PPS item should be changed or not. This is possible on the webpage of the workstation, if it's integrated there. In the daily schedule the value can be changed via the button </td> </tr> </table>	Name	Input field	Determination of the column name	Variable/field	Input field	Entry of the data field or the variable name whose value is to be displayed.	manual sort criteria	Input field	Entry of a "<" for descending and ">" for ascending sorting; without entry values are sorted ascending.	Sort	Checkbox	Determine whether the positions should be sorted or not.	Changeable	Checkbox	Determine whether a value of a PPS item should be changed or not. This is possible on the webpage of the workstation, if it's integrated there. In the daily schedule the value can be changed via the button 
		Name	Input field	Determination of the column name													
		Variable/field	Input field	Entry of the data field or the variable name whose value is to be displayed.													
		manual sort criteria	Input field	Entry of a "<" for descending and ">" for ascending sorting; without entry values are sorted ascending.													
		Sort	Checkbox	Determine whether the positions should be sorted or not.													
Changeable	Checkbox	Determine whether a value of a PPS item should be changed or not. This is possible on the webpage of the workstation, if it's integrated there. In the daily schedule the value can be changed via the button 															







## 5.2.3 Cart management

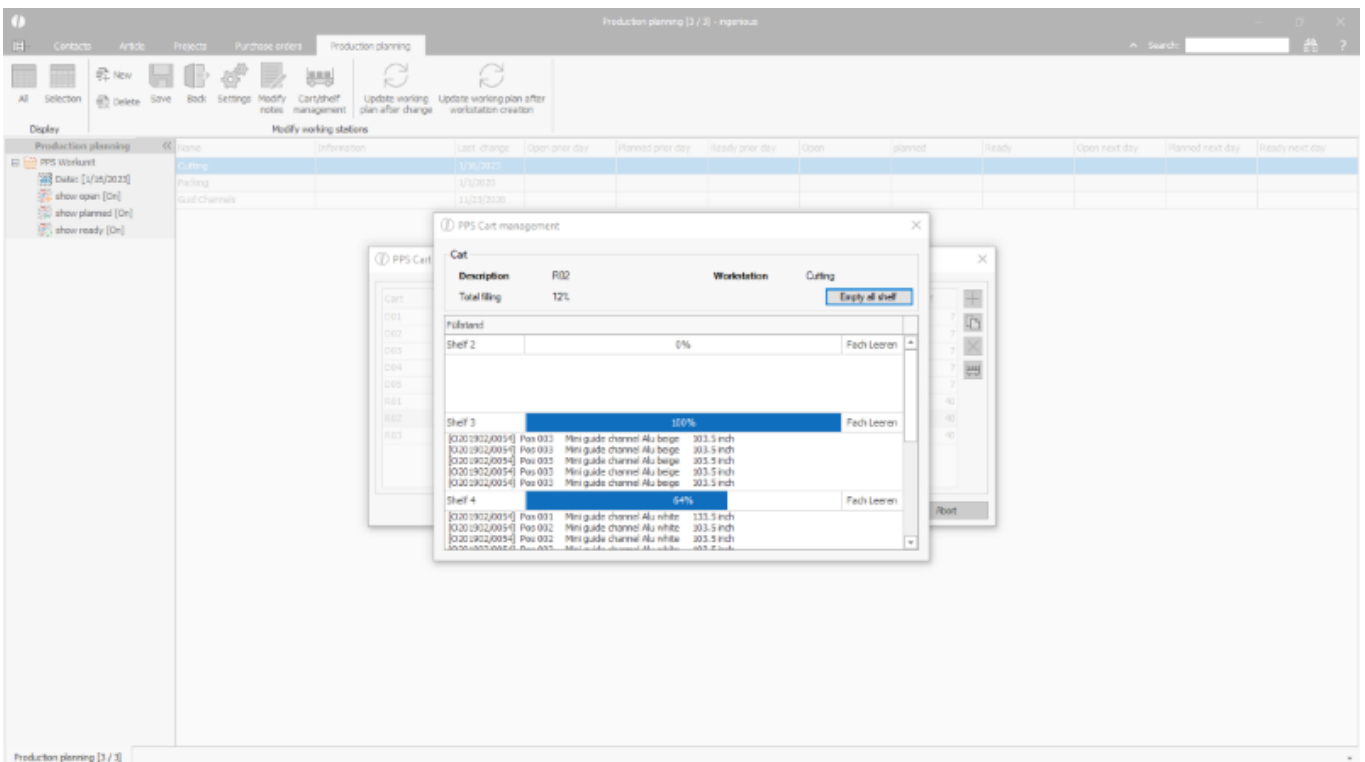
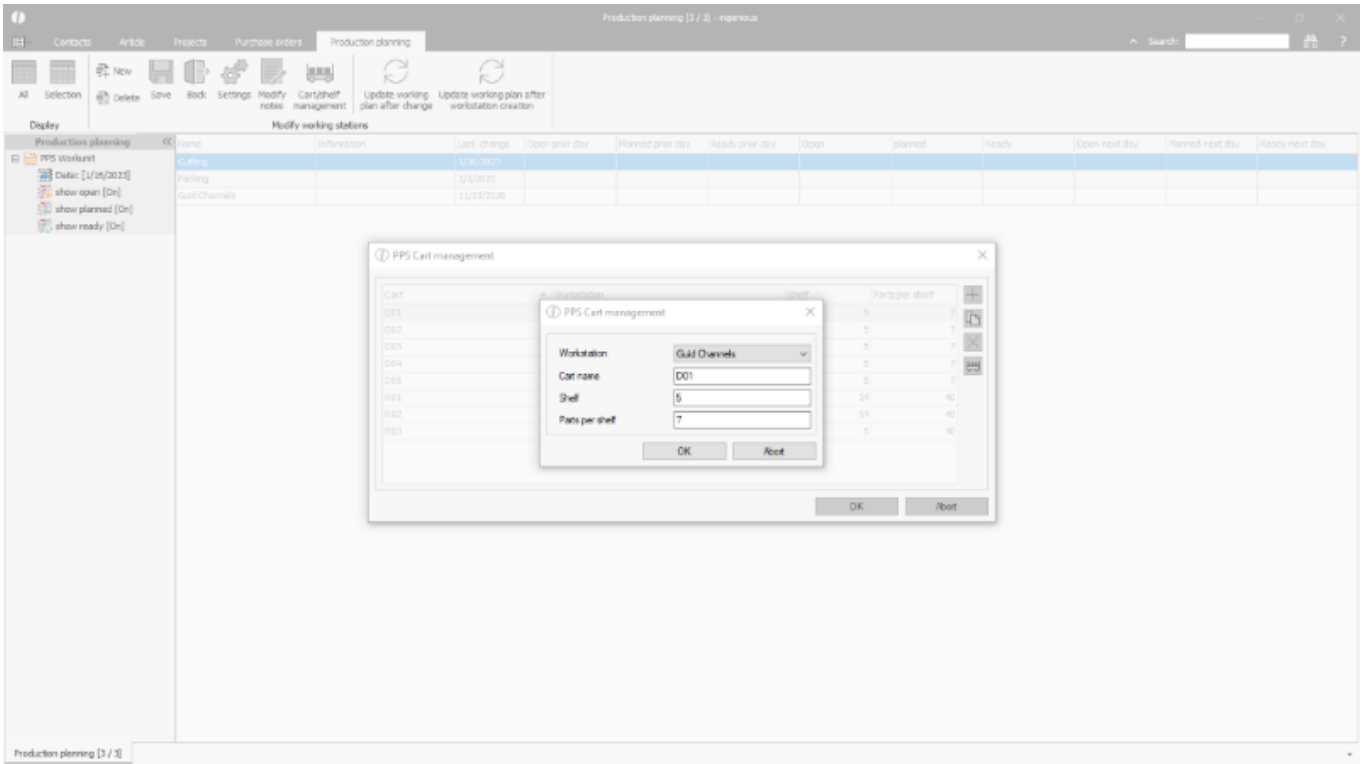
In the cart/shelf management, carts, mesh boxes, shelves, etc. are managed, which are used to bring the parts together again into a parts list, a position or a project and are used in production to be passed on between the workstations. For example, Individual bars of a parts list from the cut collected in one compartment, even after cutting optimization. The worker is given the cart and compartment numbers in which the parts are to be placed. He can overwrite them if necessary. The numbers are saved so that the worker at the next station knows in which compartment he can find the parts necessary for his work step.

The cart management gives an overview of all created carts with their names, the assignment to a work station, their number of compartments and how many parts fit into a compartment.



The following functions are available for editing:

	Create a new cart. The creation takes place with closing and saving the cart management.
	Duplicate the selected cart. The creation finally takes place with closing and saving the cart management.
	Delete the selected cart. The final deletion takes place with closing and saving the cart management.
	Open the detail view / level indicator of the selected cart. There you can see in which cart or compartment certain parts of a project / position are located. If required, a compartment or the entire cart can be emptied unscheduled using a button.



## 5.2.4 Daily schedule

The daily schedule shows a list of all PPS positions accumulated for a workstation. The affected orders are listed in the upper area on the left, the items contained in the selected order to the right.

The list below gives information about the individual items with their processing status.

black font color	PPS items that does not have to be planned separately or that are not yet included in the daily schedule, e.g. because they were created later.
grey font color	PPS items that are included in the completed daily schedule.
green font color	Processed PPS items
red font color	PPS item, for which the worker needs support or has reported a problem and stored an "information".

1. Zuschnitt Endstöße [09.12.2019]

Positionen	Auftrag	Position	Typ	Farbe	Länge	Mitarbeiter	Wagen
[AB2019/0061]Pos 004	AB2019/0061	004	ALU-Endleiste	beige	185	John Meyer	ausgefñhrt
[AB2019/0061]Pos 002	AB2019/0061	002	ALU-Endleiste	beige	125	John Meyer	John Meyer
[AB2019/0061]Pos 002	AB2019/0061	002	ALU-Endleiste	beige	125	John Meyer	John Meyer
[AB2019/0061]Pos 001	AB2019/0061	001	ALU-Endleiste	beige	120	John Meyer	John Meyer
[AB2019/0061]Pos 004	AB2019/0061	004	ALU-Endleiste	beige	185	John Meyer	
[AB2019/0061]Pos 004	AB2019/0061	004	ALU-Endleiste	beige	185	John Meyer	
[AB2019/0061]Pos 003	AB2019/0061	003	ALU-Endleiste	beige	180	John Meyer	
[AB2019/0061]Pos 003	AB2019/0061	003	ALU-Endleiste	beige	180	John Meyer	
[AB2019/0061]Pos 001	AB2019/0061	001	ALU-Endleiste	beige	120	John Meyer	
[AB2019/0061]Pos 001	AB2019/0061	001	ALU-Endleiste	beige	120	John Meyer	
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau	97,6	John Meyer	
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau	97,6	John Meyer	
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau	97,6	John Meyer	
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau	97,6	John Meyer	
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau	97,6	John Meyer	
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau	97,6	John Meyer	
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau	97,6	John Meyer	
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau	97,6	John Meyer	
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau	97,6	John Meyer	
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau	97,6	John Meyer	
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau	97,6	John Meyer	

Via the icon bar the following functions are available:

	Save the changes of the daily schedule.
	Close the daily schedule view.
	For allocation of an employee, when this was determined in the configuration of the workstation.



	For the allocation of a value
	Open a simple text field to modify / delete individual information. These are in particular information, that were entered at the workstation, e.g. to request support or to explain reasons for non-processing (e.g. missing or damaged material).
	Groups individual items for the collected processing independent of other sorting criteria and possible cutting optimization.
	Calculates the optimal cut for all items included in the daily schedule and groups the items according to their consumption of a full length.
	Closes the daily schedule and releases it for processing (if required in the workstation configuration).
	Prints assigned reports, such as repeated printing of labels and measurement sheets.

## Allocation of an employee

In the capacity planning / resource planning, the attendances and responsibilities or possible uses of the employees can be planned. In addition to assigning a standard group, the qualification levels (percentages) of the employees can be stored for each individual work station / group.

If the link to capacity planning is set in the workstation configuration of production planning, all employees who have been assigned to the work group or are qualified for it are displayed when the employees are assigned to the individual work steps of the daily plan.

The screenshot shows the 'Produktionsplanung' (Production Planning) window. The main table displays the following data:

Positionen	Auftrag	Position	Typ	Farbe	Länge	Mitarbeiter	Wagen
[AB2019/0061]Pos 004	AB2019/0061	004	ALU-Endleiste	beige	185	John Meyer	ausgew. / John Meyer
[AB2019/0061]Pos 002	AB2019/0061	002	ALU-Endleiste	beige	125	John Meyer	ausgew. / John Meyer
[AB2019/0061]Pos 002	AB2019/0061	002	ALU-Endleiste	beige	125	John Meyer	ausgew. / John Meyer
[AB2019/0061]Pos 001	AB2019/0061	001	ALU-Endleiste	beige	120	John Meyer	ausgew. / John Meyer
[AB2019/0061]Pos 004	AB2019/0061	004	ALU-Endleiste	beige		John Meyer	ausgew. / John Meyer
[AB2019/0061]Pos 004	AB2019/0061	004	ALU-Endleiste	beige		John Meyer	ausgew. / John Meyer
[AB2019/0061]Pos 003	AB2019/0061	003	ALU-Endleiste	beige		John Meyer	ausgew. / John Meyer
[AB2019/0061]Pos 003	AB2019/0061	003	ALU-Endleiste	beige		John Meyer	ausgew. / John Meyer
[AB2019/0061]Pos 001	AB2019/0061	001	ALU-Endleiste	beige		John Meyer	ausgew. / John Meyer
[AB2019/0061]Pos 001	AB2019/0061	001	ALU-Endleiste	beige		John Meyer	ausgew. / John Meyer
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau		John Meyer	ausgew. / John Meyer
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau		John Meyer	ausgew. / John Meyer
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau		John Meyer	ausgew. / John Meyer
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau		John Meyer	ausgew. / John Meyer
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau		John Meyer	ausgew. / John Meyer
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau		John Meyer	ausgew. / John Meyer
[AB2019/0062]Pos 001	AB2019/0062	001	PVC-Endleiste	grau	57,6	John Meyer	ausgew. / John Meyer

An 'Auswahl' (Selection) dialog box is open, showing 'Keine Zurechnung' (No assignment) as the selected option. The dialog has 'Übernehmen' (OK) and 'Abbrechen' (Cancel) buttons.



## 6 Accounting modules

### 6.1 Fibu Export manager

#### 6.1.1 Accounting export manager

With the Accounting export manager you start the export of the sales figures to the accountancy program DATEV. In the export manager, you can choose in which format and for which time span the data is exported and where the export file will be saved. These values are preset according to the configuration in the program settings.

Project document	Document number	Date	Commission	Customer	Phone	Net total	Gross total	Paid	Open balance	St.
Closing invoice	12/20191200117	12/20/2019		John Doe	+49 342 456 987	10,705.27 €	10,705.27 €	10,493.10 €	0.00 €	✓
Part payment invoice	12/20191200115	12/20/2019		John Doe	+49 342 456 987	10,705.27 €	10,705.27 €	0.00 €	10,705.27 €	✓
Invoice	12/20191200112	12/19/2019		John Doe	+49 342 456 987	15,036.22 €	15,036.22 €	0.00 €	15,036.22 €	✓
Invoice	12/20191200113	12/19/2019	B4589545	Mart Model	+49 342 226210	2,894.00 €	2,894.00 €	0.00 €	2,894.00 €	✓
Invoice	12/20191200111	11/28/2019		John Doe	+49 342 456 987	9,536.97 €	9,536.97 €	0.00 €	9,536.97 €	✓
Invoice	12/20191200110	9/9/2019		John Doe	+49 342 456 987	7,709.75 €	7,709.75 €	0.00 €	7,709.75 €	✓
Invoice	12/20191200114	1/13/2019	A452489	Mart Model	+49 342 226210	8,549.16 €	8,549.16 €	0.00 €	8,549.16 €	✓
Invoice	12/20191200108	2/21/2019	RokShutter	John Doe	+49 342 456 987	2,757.03 €	2,757.03 €	0.00 €	2,757.03 €	✓
Invoice	12/20191200109	2/21/2019		John Doe	+49 342 456 987	269.11 €	269.11 €	269.11 €	0.00 €	✓

All invoices and credit items with the status "completed" are incorporated in the export. The booking of revenues depends on the configurations. Those will be either be booked on the billing account of the article (target format: differentiated billing accounts) or the billing account of the project (target format: unified billing account), respectively, always on the standard account unless otherwise configured or the account of the article or the project are not within the range of allowable accounts.

#### Target formats

DATEV; Standard proceeds account	With this configuration, the revenues will be booked in the project or standard accounts, respectively in their bonus and sales deduction discounts. The booking will be made for the entire document. The generated file is orientated on the requirements of DATEV.
DATEV;	With this option, the revenues of a document can be booked on to different accounts,

Differentiated billing account	according to the assignments of the respective articles. The generated file is orientated on the requirements of DATEV.
IBM (df2); Standard proceeds account	With this configuration, the revenues will be booked in the project or standard accounts, respectively in their bonus and sales deduction discounts. The booking will be made for the entire document. The generated file is orientated on the requirements of IBM (df2).

### Export type

Complete export	Everything in time period. The complete export takes into account all documents with a "printed on" date within the selected time span.
Differential export	Only not yet exported in time period. The differential export takes into account only documents with a "printed on" date within the selected time span AND which have not been exported during an earlier run.

## 6.2 Incoming receipts

### 6.2.1 Receipt entry list view

#### 6.2.1.1 Receipt entry list view

The receipts entry list view provides an overview about all receipt documents (receipts from suppliers) received by the company.









The receipts are recorded with their values and due dates and can be evaluated in different forms.

In "list view", the documents are highlighted according to their due dates:

black font	not yet / not fully paid receipt, due long term
green font	fully paid receipt
orange font	not yet / not fully paid receipt, due short term within discount period
red font	not yet / not fully paid receipt, due short term within net period or overdue

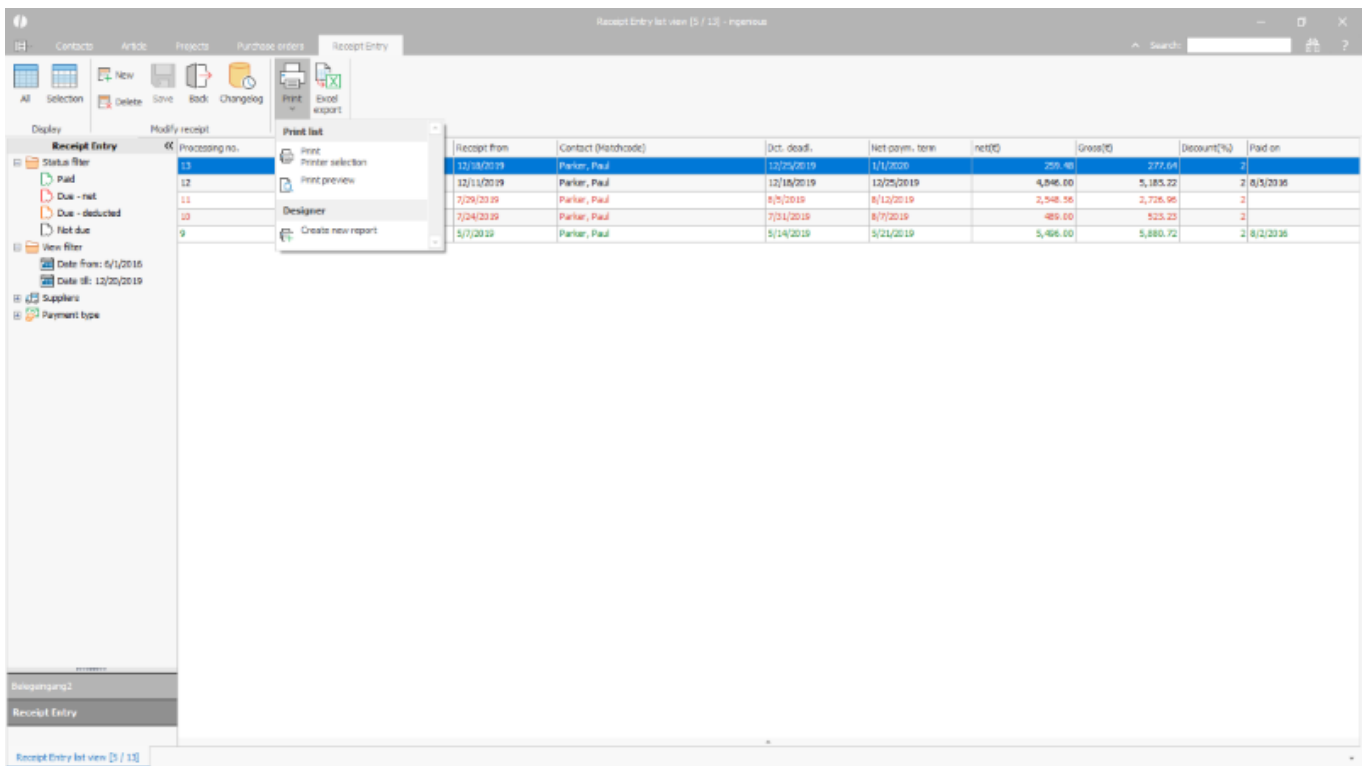
Processing no.	Receipt no.	Receipt from	Contact (Matchcode)	Dct. deadl.	Net paym. term	net(€)	Gross(€)	Discount(%)	Paid on
13	65465	12/18/2019	Parker, Paul	12/25/2019	1/1/2020	256.48	277.64	-	
12	4854	12/11/2019	Parker, Paul	12/18/2019	12/25/2019	4,846.60	5,185.22	-	8/5/2019
11	54855	7/29/2019	Parker, Paul	8/5/2019	8/12/2019	2,548.56	2,726.96	-	
10	58765	7/24/2019	Parker, Paul	7/31/2019	8/7/2019	489.60	525.23	-	
9	554621	5/7/2019	Parker, Paul	5/14/2019	5/21/2019	5,456.60	5,880.72	-	8/2/2019

In the document entry "list view" the following functions are available through the toolbar:


	Show all records
	Limit displayed records to the selected
	Create new receipt
	Delete selected receipt
	Close module "receipt entry"
	Open the changelog for administrators (user right required)
	Various printing reports / Open "printing report designer"
	Export list view to Microsoft Excel

## 6.2.1.2 Receipt entry list printing

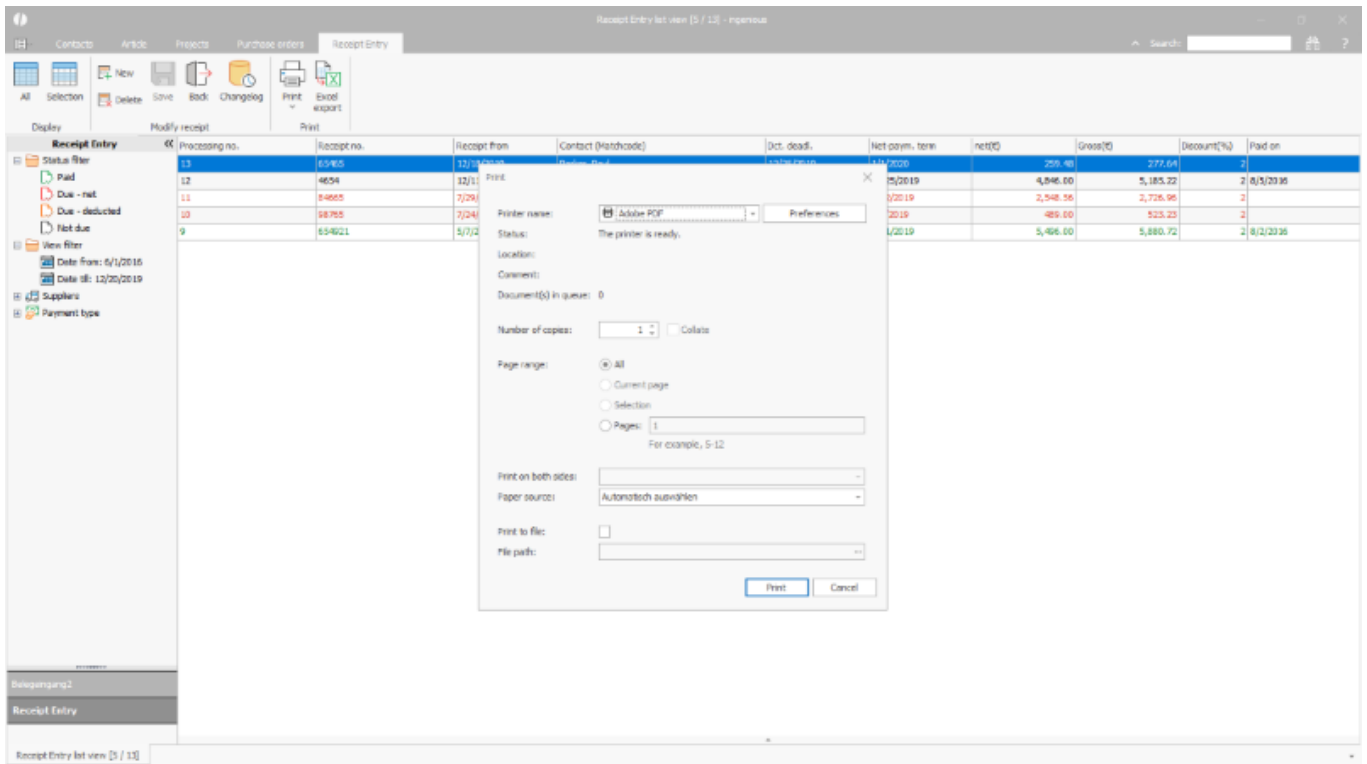
To access the receipt entry data, different printing options are available at the tool bar. Clicking the small triangle below the printer symbol will open a context menu through which singular functions can be selected.



## 1. Printing

Via the button , the receipt entry "list view" will be issued with all displayed columns and records on any printer.

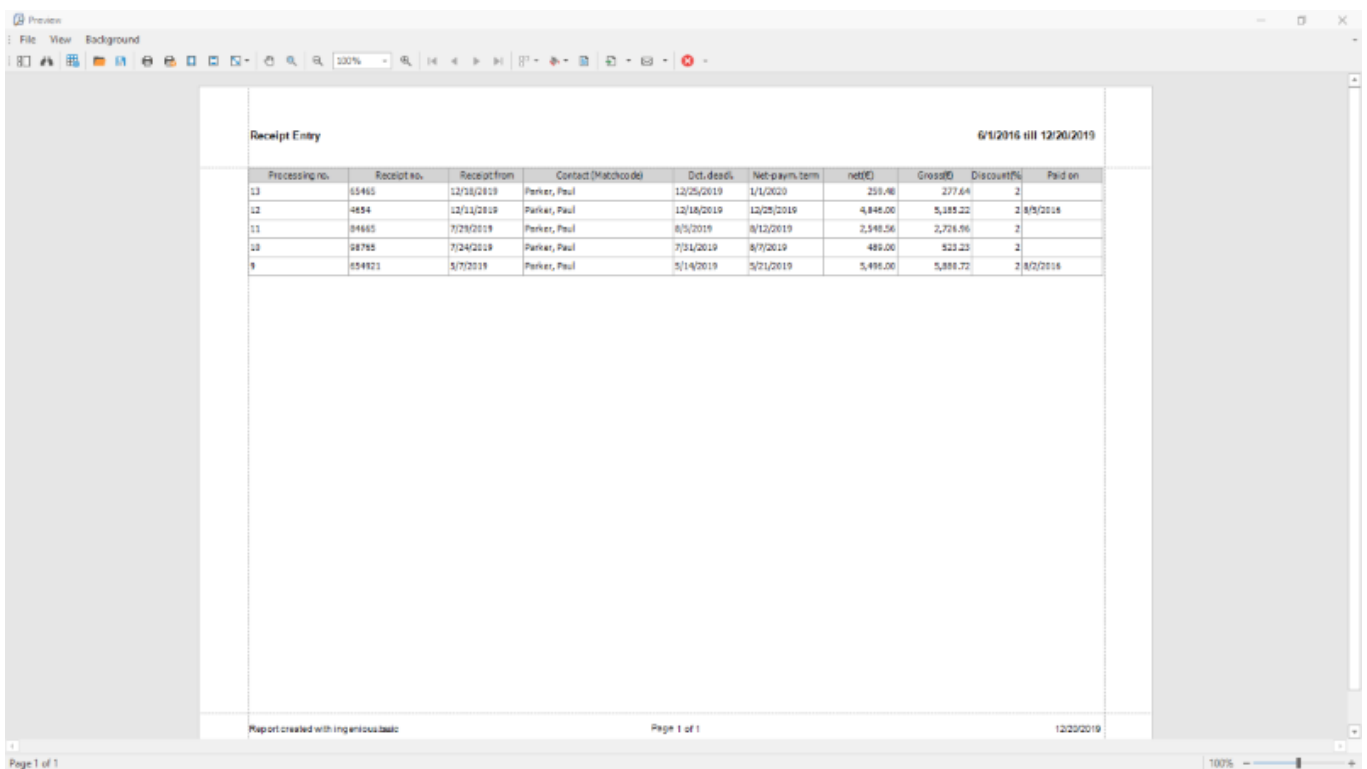
Via the Windows printing dialog the desired printer as well as other printing options can be selected according to the printer driver.



## 2. Print preview

The print preview displays the document input list with all columns and records like on one sheet of paper. The print preview can be selected through the small triangle beneath the printer button.

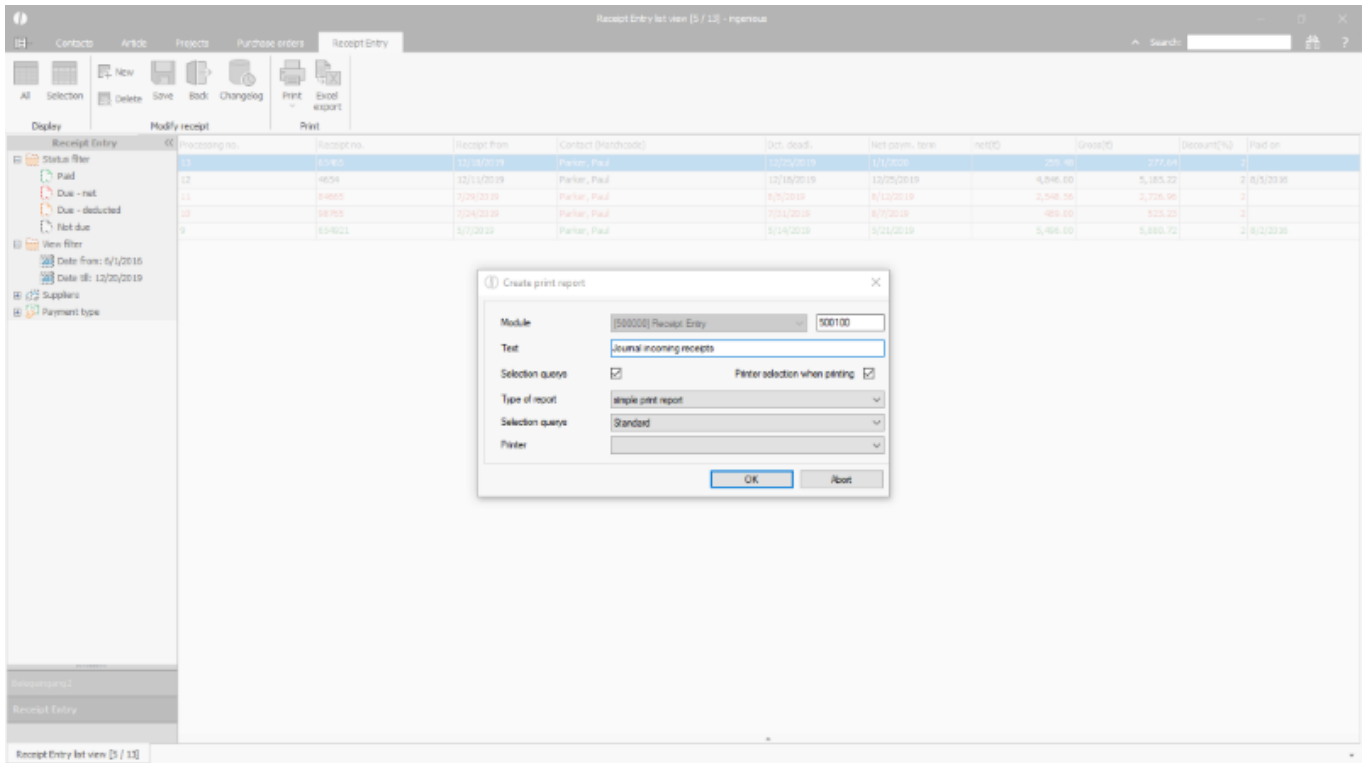
Before the actual printing, adjustments may be made (e.g. change the header and footer, etc.).



### 3. Create a separate print report

For individual assessments and formatting, different printing reports can be created. Those can be accessed at any time and do not have to be configured anew each time.

The printing report will be saved in the print report management within the program settings. A name for the report can be assigned and various preferences will be recorded, such as on which printer the report is to be issued.




Through clicking "OK" the printing report designer opens, where the desired data (custom scripts, static texts etc.) can be inserted in the field selection.

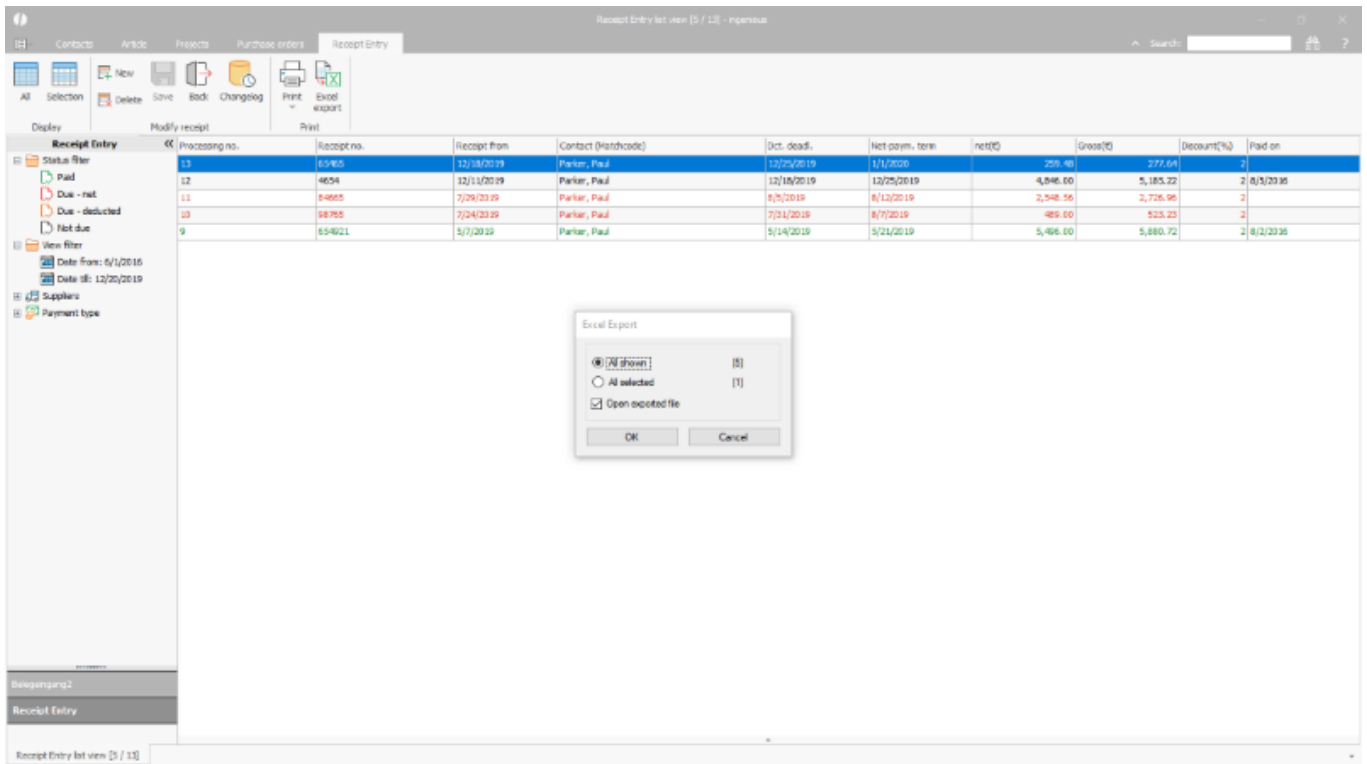


Processing no.	Receipt no.	Receipt from	Contact (Matchcode)	Dct. deadl.	Net paym. term	net(€)	Gross(€)	Discount(%)	Paid on
13	65465	12/18/2019	Parker, Paul	12/25/2019	1/1/2020	256.48	277.64	-	
12	4854	12/11/2019	Parker, Paul	12/18/2019	12/25/2019	4,846.60	5,185.22	-	8/5/2016
11	54855	7/29/2019	Parker, Paul	8/5/2019	8/12/2019	2,548.56	2,726.96	-	
10	58765	7/24/2019	Parker, Paul	7/31/2019	8/7/2019	489.60	525.23	-	
9	554821	5/7/2019	Parker, Paul	5/14/2019	5/21/2019	5,456.60	5,880.72	-	8/2/2016

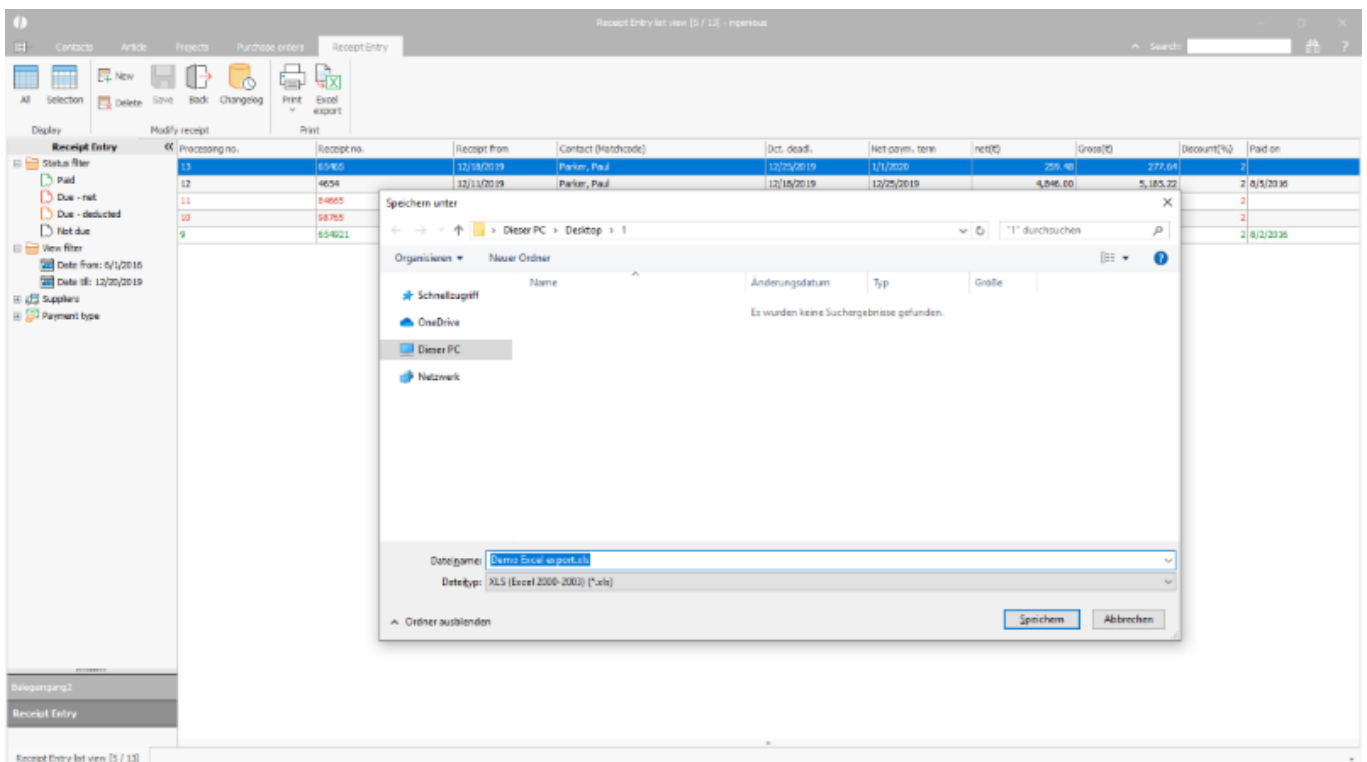
### 6.2.1.3 Receipt entry Excel export

The list view "receipt entry" provides various possibilities for grouping, filtering, summation, etc. of data sets. If assessments that demand advanced functions (such as subtotals) are required, the receipt entry list can be exported to Microsoft Excel.

The export is started via the button . In the "select query" screen that appears, you can determine whether all displayed data or only the selected shall be exported. If the respective check box is activated, the file is opened after it has been saved.



After clicking "OK", the Windows saving catalog opens, in which the storage path and a file name can be chosen.



After saving, the export file will be opened according to the settings in the select query and can now be further edited.

Processing no.	Receipt no.	Receipt from	Contact (Matchcode)	Oct. dead.	Net-paym. term	net(W)	Gross(W)	Discount(%)	Paid on
13	65465	12.18.2019	Parker, Paul	12.25.2019	1.1.2020	299,48	277,64	2	
12	4654	12.11.2019	Parker, Paul	12.25.2019	12.25.2019	4.846,00	5.185,22	2	8.5.2016
11	8465	7.29.2019	Parker, Paul	8.5.2019	8.12.2019	2.546,96	2.726,96	2	
10	88265	7.24.2019	Parker, Paul	7.31.2019	8.7.2019	489,00	523,23	2	
9	654921	5.7.2019	Parker, Paul	5.14.2019	5.21.2019	5.496,00	5.880,72	2	8.2.2016

## 6.2.2 Receipt entry detail view

### 6.2.2.1 Receipt entry detail view

In the detail view, all information is combined to a single receipt entry.

It is divided into a navigation pane (left) and a data pane (right).

The screenshot displays the 'Receipt entry detail view' in the ingenious application. The interface is organized into several sections:

- Navigation:** Top bar with 'Receipt Entry' and a search field. A toolbar below contains icons for 'New', 'Delete', 'Save', 'Back', and 'Changelog'.
- Receipt Data:** Fields for 'Processing no.' (13), 'Receipt no.' (1302), 'Posting date', 'Receipt date' (12/28/2019), 'VAT rate % [reduced]' (7), and 'VAT rate % [full]' (19).
- Supplier address / Notes:** A section for 'Supplier' (Parker, Paul) and 'Address' (Mr. Paul Parker, Parklane 1, 0123 Parkside). A 'Notes' field contains the text 'test'.
- Invoice amounts:** A table of financial values:
 

Net witho. VAT	\$0.00	Gross witho. VAT	\$0.00	Reduce VAT	\$18.16
Net reduced VAT	\$259.48	Gross reduced VAT	\$277.64	Full VAT	\$0.00
Net full VAT	\$0.00	Gross full VAT	\$0.00	Sum VAT	\$18.16
Sum net	\$259.48	Sum Gross	\$277.64		
- Terms:** 'Discount date' (12/25/2019) and 'Target del.' (1/1/2020).
- Payment:** 'Dct. rate %' (2.00%), 'Payment' (\$0.00), 'Payment date', 'Meth. of payment' (Bl\_Cash), 'Sum after dct.' (\$272.09), and 'Abs. amt. dct.' (\$0.55). There are also checkboxes for 'SEPA exported' and 'Finalized'.
- Metadata:** 'created' (8/5/2016 11:46:16 AM - admin) and 'Modified' (12/20/2019 1:10:47 PM - admin).

In the receipt entry detail view, the following functions are available:

	Create a new receipt entry
	Delete current receipt entry
	Save receipt entry
	Close detailed view of receipt entry
	Opens the changelog for administrators (user right required)

### 6.2.2.2 Miscellaneous receipt data

In the miscellaneous receipt data, all direct information from incoming receipts is recorded.

These are in particular:

Processing number	Protected input field	The processing number is an internal document number that facilitates the filing and recovering of documents. If the corresponding counter is activated in the program settings, the entry number is automatically assigned consecutively.
Document number	Simple input field	The document number is the external number of the incoming document, this is the receipt number of the supplier.
Booking date	Date field with pop-up calendar	The booking date is an internal date, which can be set as soon as the document has been recorded in the accountancy.
Document date	Date field with pop-up calendar	The document date is the invoice date printed on the receipt document.
VAT rates	Protected input fields	The VAT rates are imported from the program settings. For foreign receipts the rates can be customized by document. The fields are changeable after a double-click on the field names.
Supplier	Protected input field / button	In the field "supplier", the matchcode of the invoicing party is entered or searched via the Joker-symbol*. Information about the assigned supplier can be accessed via the button behind the entry field. The address field below is informative and contains the address data of the assigned suppliers. Only contacts of the type "supplier" can be assigned in "incoming receipts".
Category	Selection list	Through "category", receipts can be grouped individually, for example, they can be assigned to different cost centers. Possible values of categories can be defined individually in the program settings.

Notes	Simple input field	Different informative details and notes concerning a receipt can be entered here.
Invoice amounts	Simple and locked input fields	The single net sums of the incoming invoices are recorded in the net fields, separately for each individual tax rates. In the gross fields and VAT fields, the gross and VAT amounts (based on the tax rates and net amounts) are displayed. Alternatively also the cross amounts can be entered. Then the VAT and net sums will be counted back.
Deadlines	Date field with pop-up calendar	If cash discounts and net terms have been deposited in the contact details of the supplier, the due dates will be calculated automatically from the receipt date of the incoming invoice. The due dates can be customized differently for every receipt.
Cash discount calculation	Simple and locked input fields	The discount rate is taken from the recorded contact details of the supplier or can be entered directly and modified. Based on the discount rate, the values for the sum after discount and the absolute discount value are calculated automatically. Alternatively an absolute discount amount can be entered. Then the discount rate is calculated automatically.
Payments	Simple input field	The "payment" field displays the sum of all partial payments. If the sum after discount and the payment amount match, the receipt will from now on be highlighted in green font = completely paid.
SEPA Export	Locked input field / checkbox	If the receipt has been exported via SEPA, the export date will be displayed here. Via the checkbox the date can also be entered or deleted manually (e.g. if the export has failed and shall be repeated).
Methods of payment	Selection list	The payment method can be selected from the list of payment options. The values available through the list are defined manually in the program settings.
Finalized	Checkbox	Through the checkbox "finalized", a document can be highlighted as completed.

### 6.2.2.3 Receipt entry payments

The recording of an executed (partial) payment of a receipt takes place in a separate area "payments".

The form contains a table with all executed payments of a receipt.

In "payments", the following additional functions are available via the toolbar:

	Record a new payment
	Delete marked payment

#### Record a new payment

The recording of a new payment takes place in separate window, in which the details of the payment are deposited. The date (the current day is preset), amount and type of payment are entered here as well as notes, if appropriate. For

the payment amount, the amount which is currently open is preset, for a partial payment the amount has to be adjusted accordingly. The additional field are of informative character.

The screenshot shows the 'New Payment' dialog box in the ingenious software. The dialog is titled 'New Payment' and is overlaid on the 'Receipt Entry' form. The 'Miscellaneous' section contains a 'Number' field with the value '00029' and a 'Payment date' field with the value '12/22/2019'. Below this is the 'Amounts' section, which includes fields for 'Amount' (272.09), 'Net amount' (272.09), 'Gross with VAT' (0.00), 'Net with VAT' (0.00), 'Gross reduced VAT' (0.00), 'Net reduced VAT' (0.00), 'Gross full VAT' (272.09), and 'Net full VAT' (272.09). There are also dropdown menus for 'Payment' (Out payment), 'VAT' (Full), and 'Reduce VAT' (0.00). The 'Assignment' section includes 'Receipt no.' (13), 'Supplier' (Parker Paul), 'Terms of payment' (EN\_Cash), 'Invoice number', 'Customer', and 'Finance account'. A 'Comment' text area is also present. At the bottom, it shows 'created' and 'Modified' timestamps (12/22/2019 12:30 PM - admin) and 'Save' and 'Abort' buttons.

## 6.2.2.4 own fields of the receipts

In the "own fields" of the incoming receipts, additional details, for which no predefined fields exist, can be deposited. Each five text fields, number fields, checkboxes and date field are available.

The field inscription can be modified individually in the localization module.

Receipt entry detail view

Miscellaneous

Payments

File attachments

Receipt assignment

individual\_text\_1

individual\_text\_2

individual\_text\_3

individual\_text\_4

individual\_text\_5

numbers

individual\_number\_1

individual\_number\_2

individual\_number\_3

individual\_number\_4

individual\_number\_5

checkboxes

individual\_check\_1

individual\_check\_2

individual\_check\_3

individual\_check\_4

individual\_check\_5

Data

individual\_data\_1

individual\_data\_2



individual\_data\_3

individual\_data\_4

individual\_data\_5

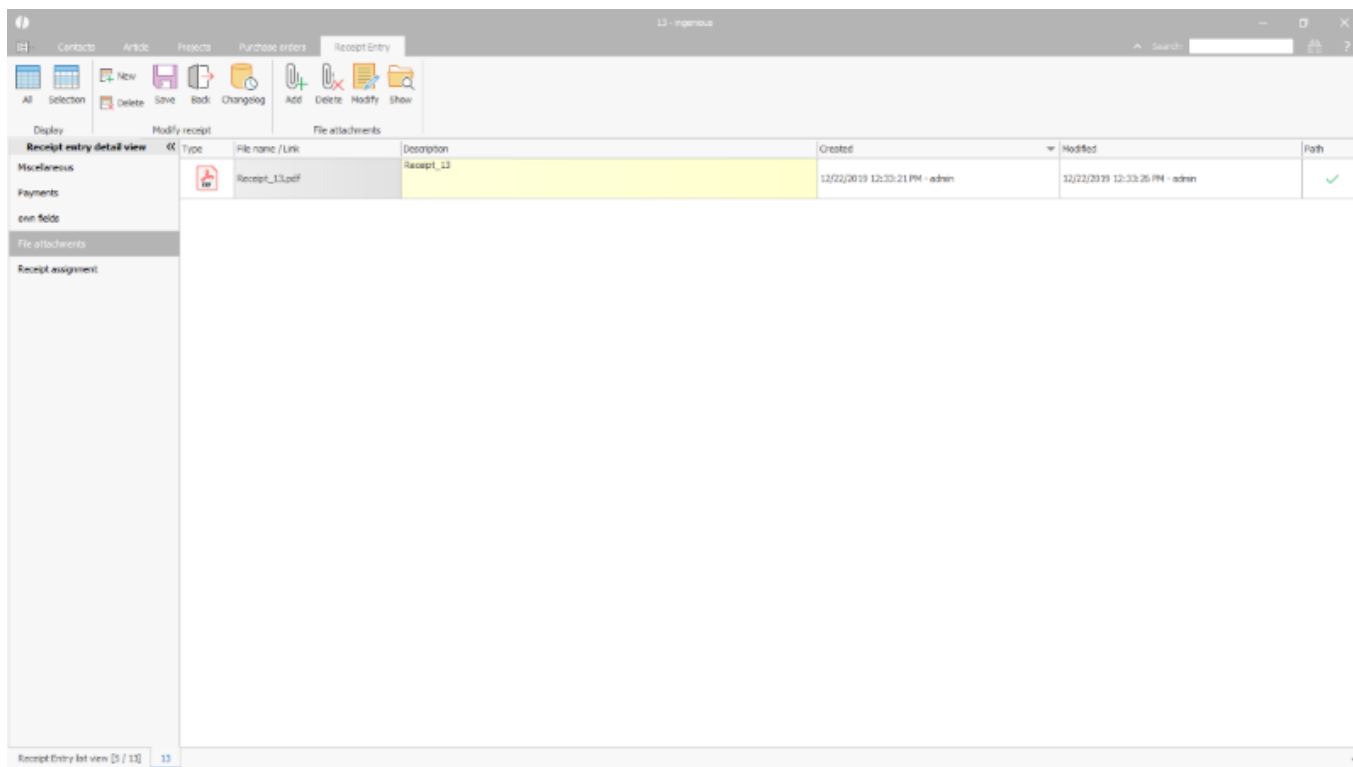
### 6.2.2.5 File attachments of the receipts

In the file attachments of a receipt, external documents can be deposited. This can be any file types, e.g. the scan of the incoming receipt as picture or PDF. A symbol in the first column of the list designates the type of file attachment. The entries can be sorted with click on the column name.





In the column "Path" the symbol  indicates that the file attachment is available at the stored path. The symbol  shows, that the file attachment or the path is not available.

A little database symbol shows that the information is directly stored in the database.





In the file attachments, the following functions are available:

	Add a new file attachment. Alternatively, a new attachment can be added to the list via drag&drop.
	Delete the marked file attachment
	Modify the description text of the marked file attachment
	Show the saving locale of the marked file attachment,

A new file attachment can be added using the button or drag & drop.

A description can be stored for each file attachment and the file attachment can be assigned to a category.

An already created file attachment is opened with a double-click on the file name / reference.

### 6.2.2.6 Receipt assignment

In the receipt assignment, a link is created between project items and those of an purchase order with the supplier's incoming invoice. On the one hand, in the event of a customer asserting warranty claims, the associated supplier receipt can easily be determined as proof of purchase. And in the opposite case, e.g. in the case of a recall campaign on the part of the manufacturer / supplier, it is easy to find out to whom the items were delivered, with a well-

maintained document assignment.

A receipt is assigned in the project / purchase order item itself. The document assignment within the receipt only provides information about the assigned project and purchase order items.

Project document	DocId	Date	Item no.	Name	Article text	Item PP	Assigned
Orderconfirmation	CI20191200368	12/2/2019	003	Rolling Shutter	Rolling Shutter	82.22	12/22/2019
Purchase order	PO2019120043	12/20/2019	003	Side cap Set PVC 45° S...	Side cap Set PVC 45° S...	100.00	12/22/2019

## 6.3 SEPA Export


### 6.3.1 The SEPA export

SEPA is the project for the unification of cashless cross-border payments within Europe, which sets the standard for this procedure. Bank transfers, direct debits and card payments are possible in the SEPA standard. The ingenious software creates an interface for the exchange of SEPA transfers and SEPA direct debits with banking programs or online banking.

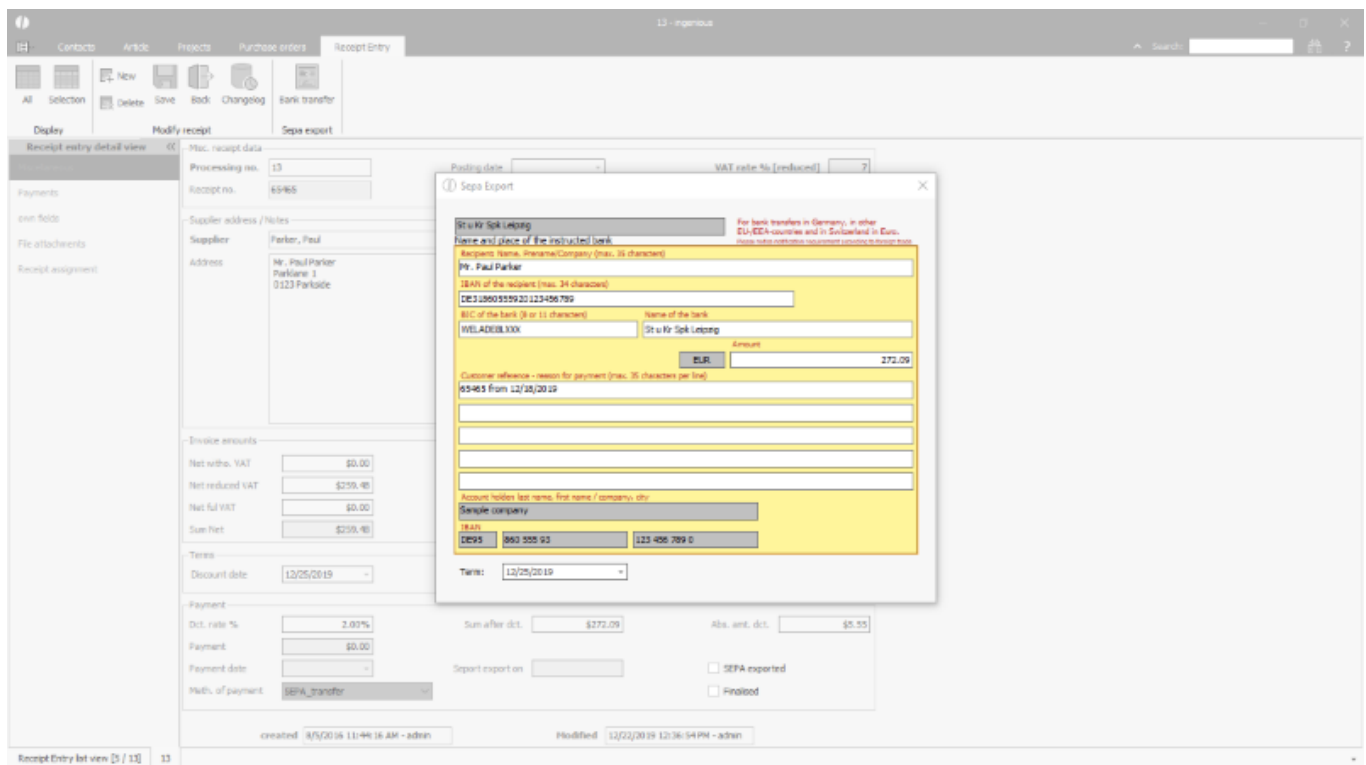
To use the SEPA export, the company's own financial data and the general configuration must first be entered in the program settings (see **Financial data (Section 8.6.15)**). In addition, the payment data of the customers or suppliers are required, which must be entered in the contact details (see **Financial data and classification (Section 4.1.2.4)**). If no details have yet been given in the contact details, the IBAN and BIC can also be inserted when creating the SEPA data record and transferred to the contact details.

### SEPA transfers

When using the SEPA export for SEPA transfers, a transfer is created for every incoming invoice that is recorded in the

Receipt entry module and to which the configured SEPA payment method has been assigned. In the detailed view of the receipt, when you select the payment method, the button  appears that opens a pre-filled transfer form.

Your own account data from the program settings and that of the supplier from the contact details are already loaded there. In addition, the document text is created according to the placeholders and the date is set according to the due dates. If individual details are missing, these can be added manually. If the supplier's account details are entered here for the first time, they can be transferred to the contact details when the form is closed.







The screenshot shows the 'Receipt Entry' module in the ingenious software. A 'Sepa Export' dialog box is open, displaying a pre-filled form for a SEPA transfer. The form includes fields for recipient name, IBAN, BIC, amount, and customer reference. The background shows the receipt entry details for a receipt with processing no. 13 and receipt no. 65465.

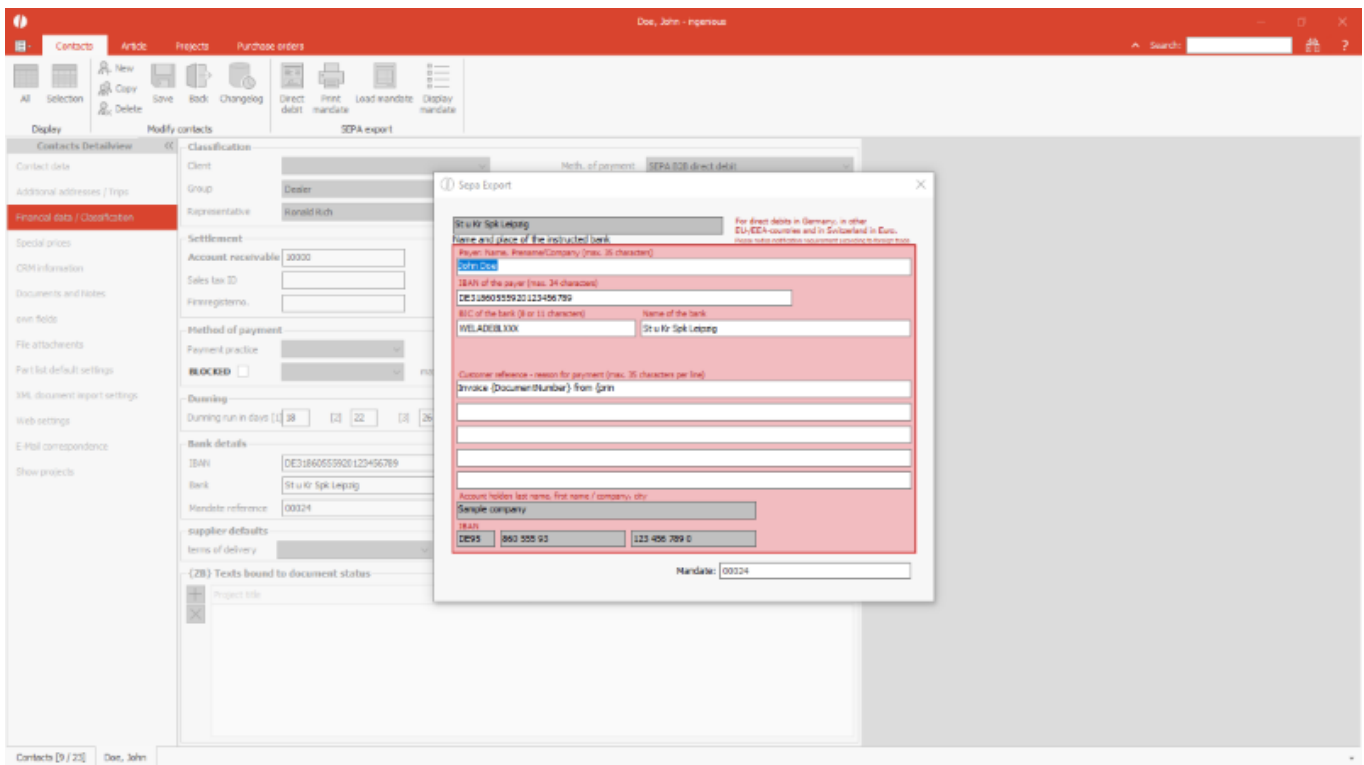
## SEPA B2B direct debit

If a customer issues a mandate for SEPA corporate direct debits, these direct debits can be generated by ingenious from the invoice data. The prerequisite is the storage of the account data and the mandate reference in the contact details. The mandate reference is a unique number under which the direct debit along with other details, e.g. the invoice number can be clearly identified. The mandate reference can be assigned automatically by ingenious via its own counter or it is entered manually.

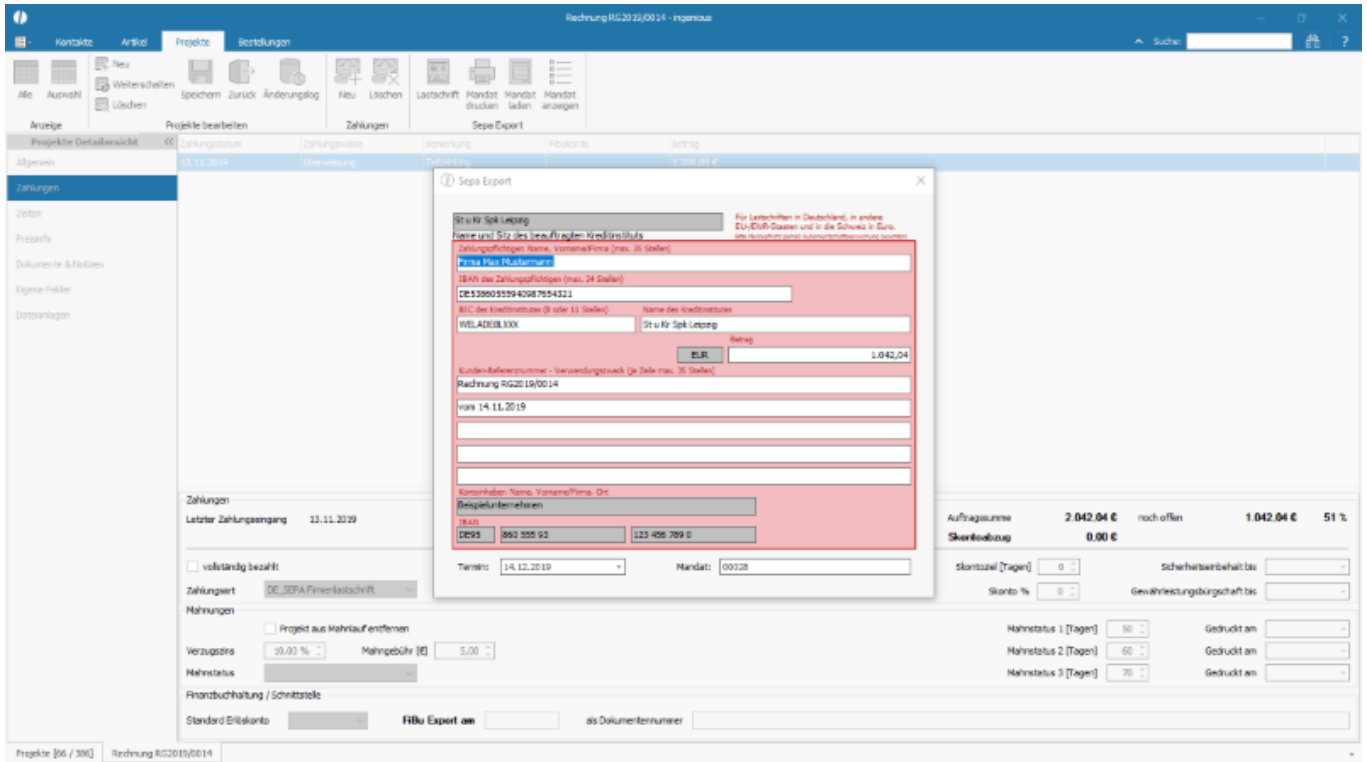
If you select the appropriate payment method in the contact details, additional buttons with the following functions are available in the icon bar:

	Opens a preview or entry mask of a direct debit form
	Prints the mandate template / debit authorization with new contract

	Loads the scanned mandate / the signed debit authorization from the computer into the file attachments
	Displays a mandate stored in the file attachments



In a project document (invoice or order confirmation), the preview of the direct debit in the typical form is also available when the assigned payment method is selected. Details can be added or corrected here.

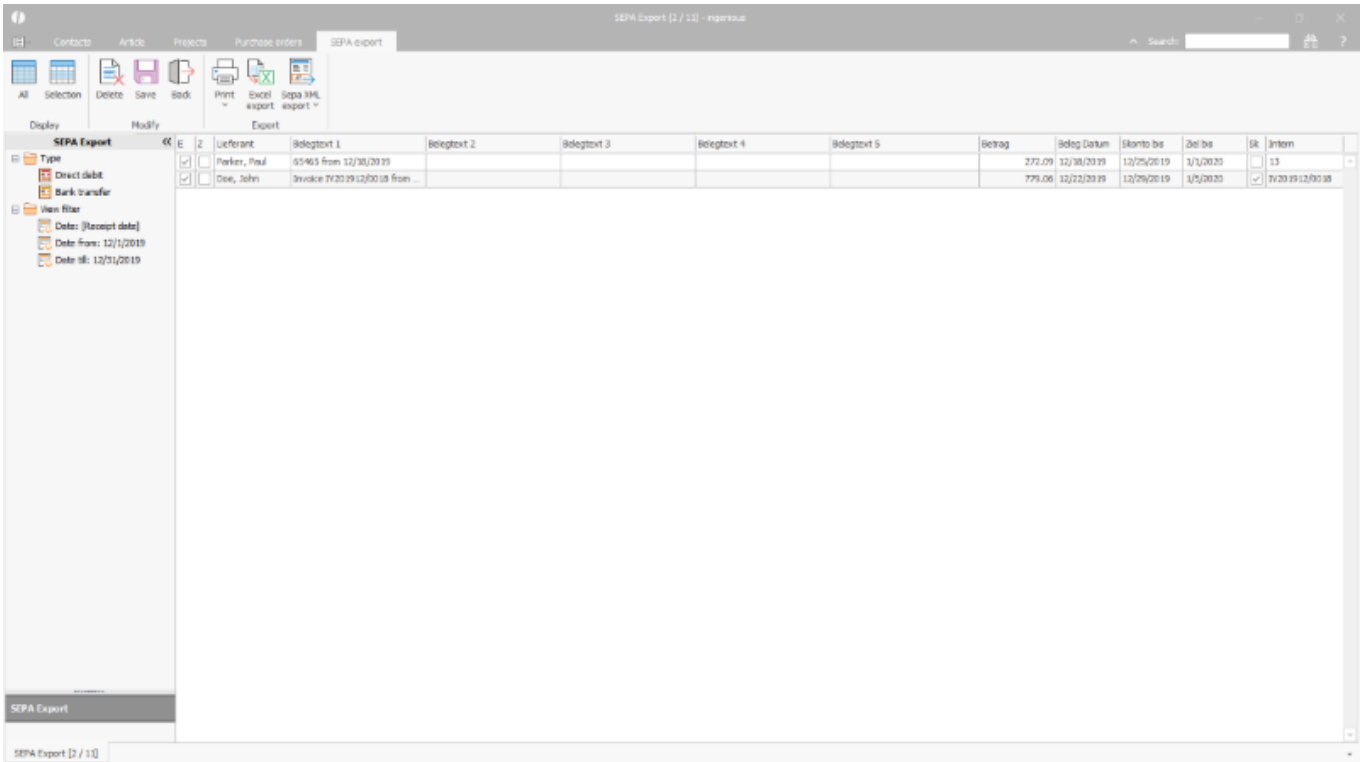


Any discounts are automatically deducted within the deadlines.

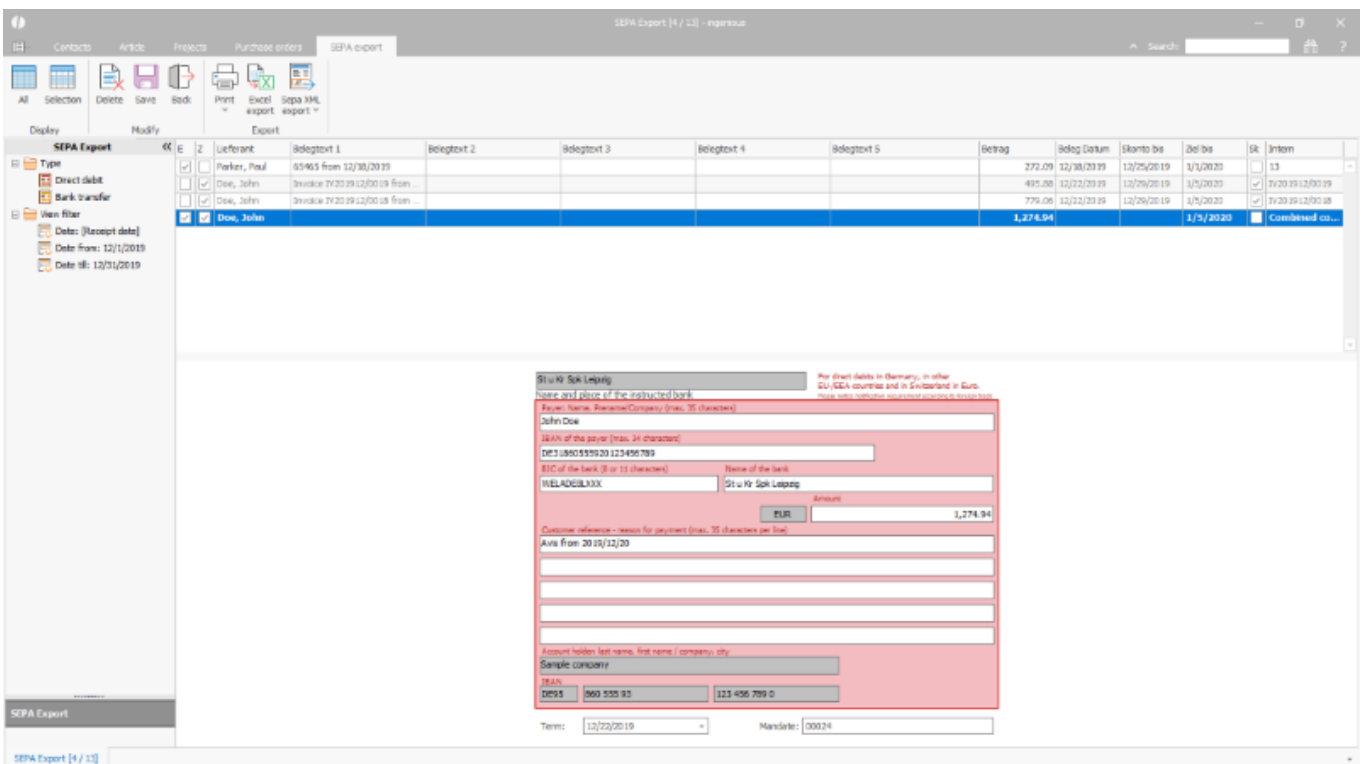
## Overview of the open SEPA data records

The SEPA export module provides an overview of all open SEPA data records from the outgoing and incoming documents that have not yet been exported.









The SEPA direct debits and SEPA transfers are displayed in a list view according to the filters set.



Click on a line entry to preview the transfer or direct debit. Payments from the same supplier or customer can be combined into one payment. To do this, check a relevant row in the second column "Z" (= summarize).



The SEPA data records can be edited via the icon bar as follows:

	Loads all open SEPA payments according to the filters set.
	Limits the display to the selected data records.
	Deletes the marked SEPA data record
	Saves the changes to the SEPA payment
	Closes the module
	Prints the list view of the displayed / marked SEPA payments or creates a preview of the list view (selection via the small triangle below the button, via which further individual print reports can also be called up)
	Exports the list view of the displayed / selected SEPA payments for Microsoft Excel
	Exports SEPA payments in the latest standard (previous formats can be selected using the small triangle below the button). The export file (s) will be saved in the folder that has been preset in the program settings.

## 6.4 Payments

### 6.4.1 Payments list view

#### 6.4.1.1 Payments list view

The module "payments list view" serves the central recording and analysis of incoming and outgoing payments of the projects and incoming receipts, as well as of receipts without an internal assignment.

All recorded payments are pooled chronologically in the list view. Via the filter and the individual list and sorting functions individual analyses can be created and used for different purposes, e.g. as cash book.

In the list view, revenues and expenses are highlighted:

Green font	incoming payment
Red font	outgoing payment

Date	No.	Income	Outgoings	Project	method_of_payment_ID
12/31/2019	00028	5,491.16		1/201912/0017	EN_Cash
12/31/2019	00027	5,000.00		1/201912/0017	EN_Cash
10/9/2019	00030		2,572.42		EN_Cash
2/21/2019	00024	8,113.55		RG2016/0046	EN_Cash
2/21/2019	00023	8,113.55		RG2016/0047	EN_Cash
2/21/2019	00022	795.10		RG2016/0049	EN_Cash
2/21/2019	00021	687.82		RG2016/0048	EN_Cash
2/21/2019	00020	5,438.76		1/201907/0036	EN_Cash
2/21/2019	00019	289.11		1/201902/0029	EN_Cash
8/31/2018	00012	10,000.00		1/201907/0036	EN_Cash

In the payments list view, the following functions are available via the toolbar:

	Show all data sets
	Limit shown data set to the selected
	Create a new payment
	Delete marked payment
	Close the module "payments"
	Recalculate the balance
	Diverse print reports / Open print report designer
	Export list view to Microsoft Excel

### 6.4.1.2 Payments list print

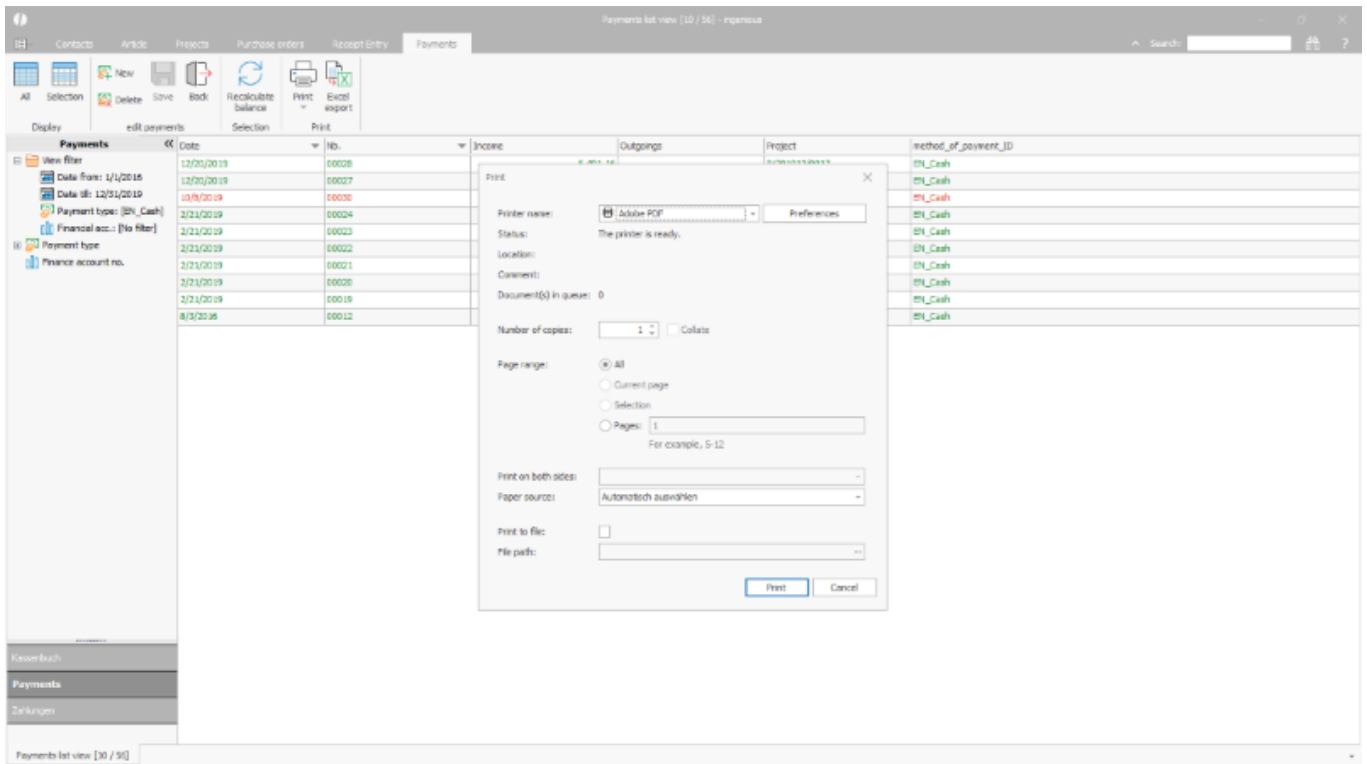


For the analysis of the payments different print functions are available via the toolbar. Through clicking the small triangle next to the printer symbol, a context menu, in which the different functions can be selected, opens.

Income	Outgoings	Project	method_of_payment_ID
5,491.16		0/201912/0017	BN_Cash
5,000.00		0/201912/0017	BN_Cash
	2,672.42		BN_Cash
8,113.55		RG2018/0046	BN_Cash
8,113.55		RG2018/0047	BN_Cash
795.10		RG2018/0049	BN_Cash
687.82		RG2018/0048	BN_Cash
5,438.76		0/201907/0036	BN_Cash
269.11		0/201907/0039	BN_Cash
	10,000.00	0/201907/0036	BN_Cash

## 1. Printing

Via this button, the payments list view with all columns and data sets displayed is issued through any printing device. Via the Windows print dialogue, the desired printing device and other printing options corresponding to the hardware driver can be selected.



## 2. Print preview

The print preview displays the shown payments list with all columns and data sets like on one sheet of paper. The print preview is selected via the small triangle next to the printer button.

Before the actual printing, modifications like changes in headers and footers, can be executed.

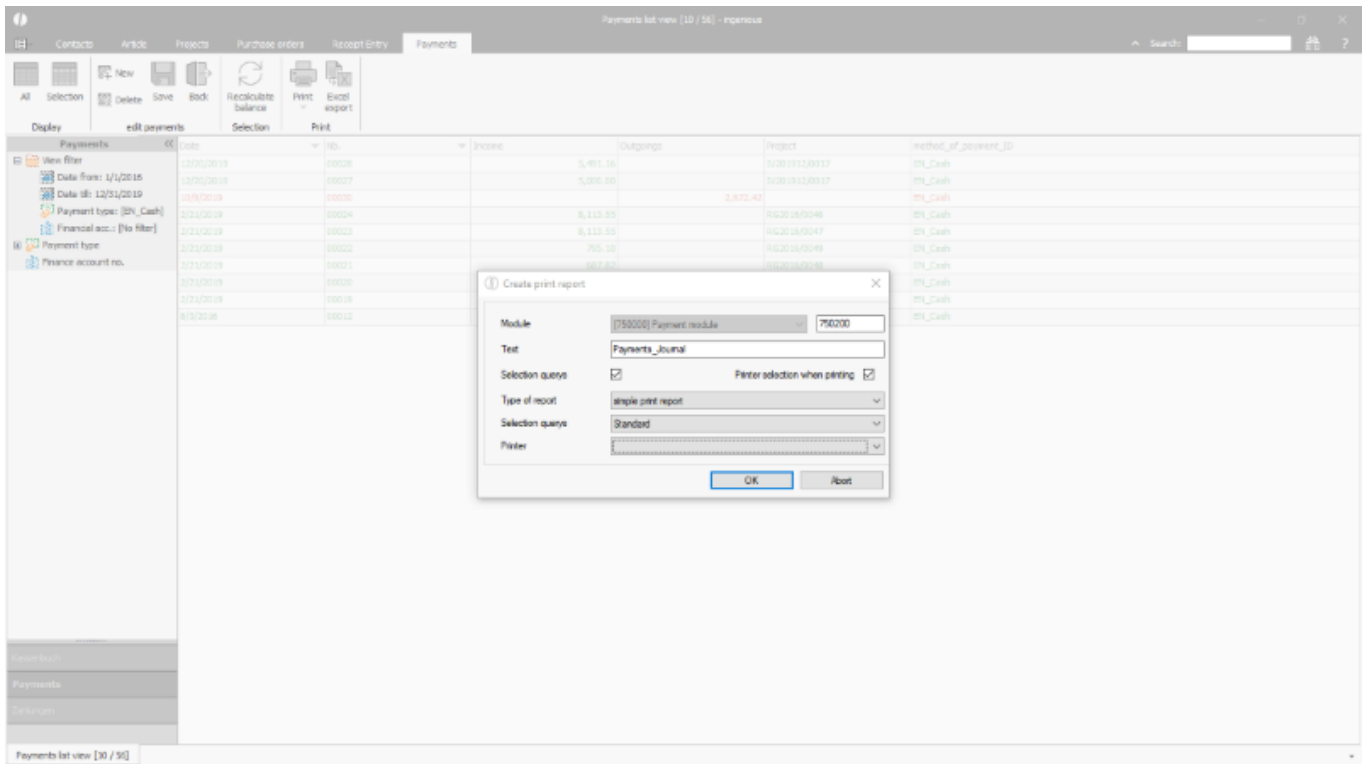
Date	No.	Income	Outgoing	Project	method_of_payment_ID
12/22/2019	00028	5,493.16		I\201912\0017	EM_Cash
12/22/2019	00027	5,806.00		I\201912\0017	EM_Cash
10/8/2019	00030		2,672.42		EM_Cash
2/21/2019	00024	8,113.58		RG2016/0046	EM_Cash
2/21/2019	00023	8,113.58		RG2016/0047	EM_Cash
2/21/2019	00022	795.10		RG2016/0049	EM_Cash
2/21/2019	00021	887.82		RG2016/0048	EM_Cash
2/21/2019	00020	5,438.76		I\201607\0006	EM_Cash
2/21/2019	00019	289.11		I\201602\0009	EM_Cash
8/3/2016	00012	10,806.00		I\201607\0006	EM_Cash

Report created with ingenious basic Page 1 of 1 12/22/2019

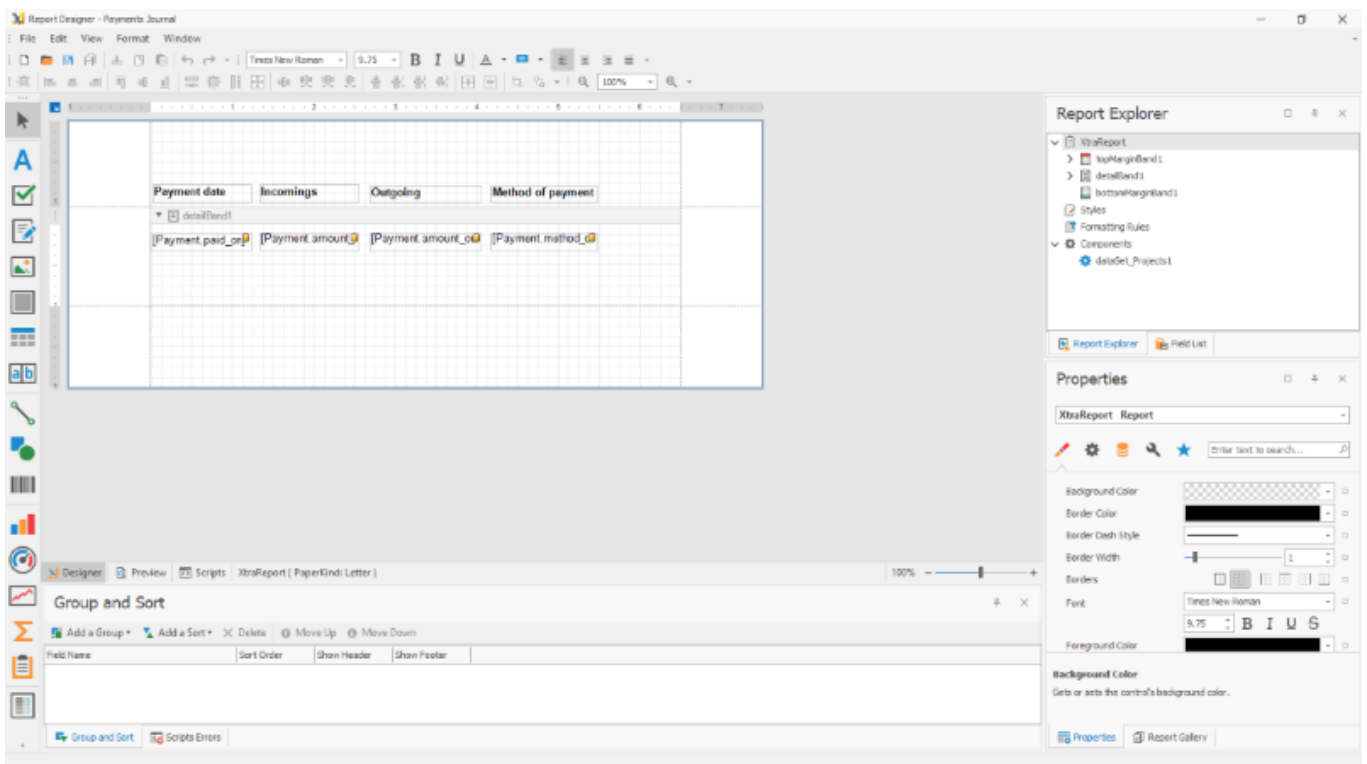
### 3. Create an own print report

For individual analyses and formatting, different print reports can be created, which can be accessed at any time and do not have to be configured anew every time.

The print report is saved in the print report management in the program settings. In order to do so, the report is named and different pre-settings are defined, e.g. on which printer the report shall be issued.




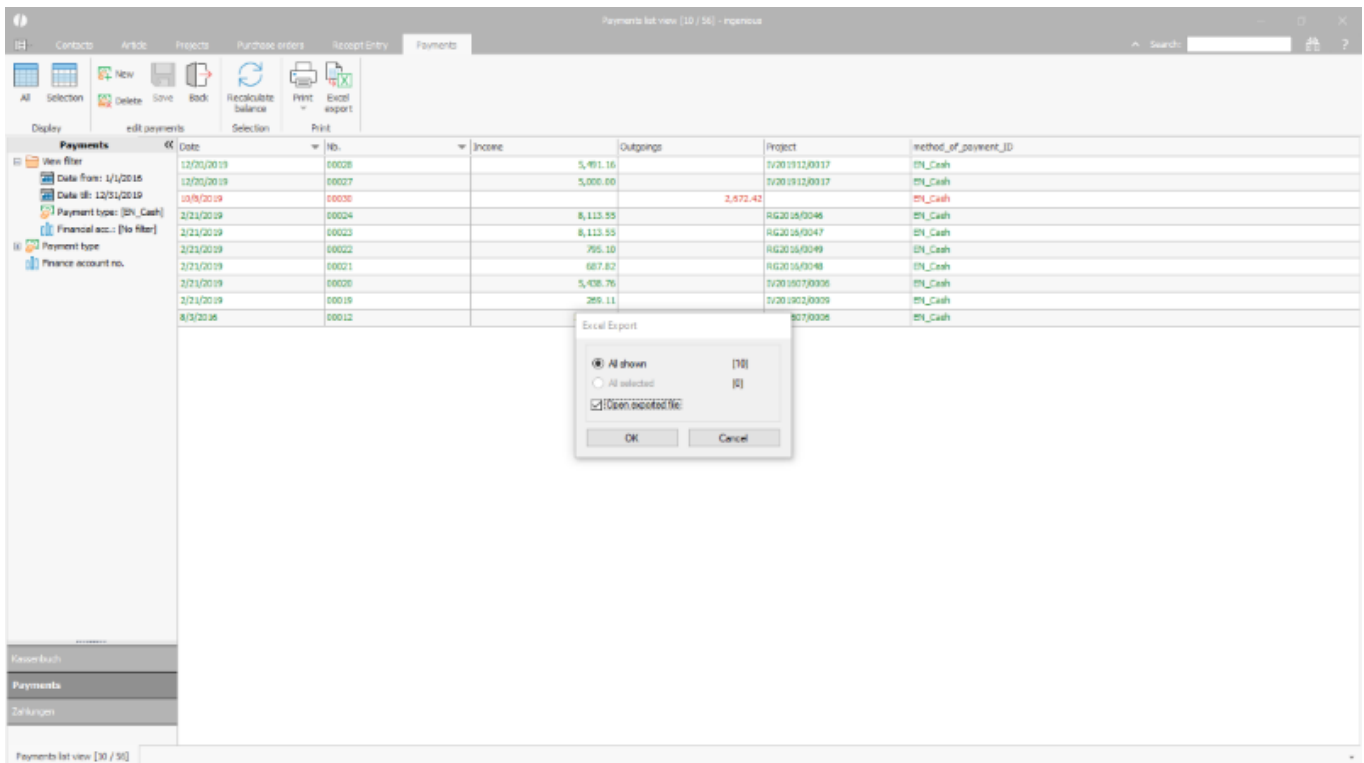
After clicking OK, the print report designer, in which the desired data, own scripts, static text etc. can be inserted via the field selection.



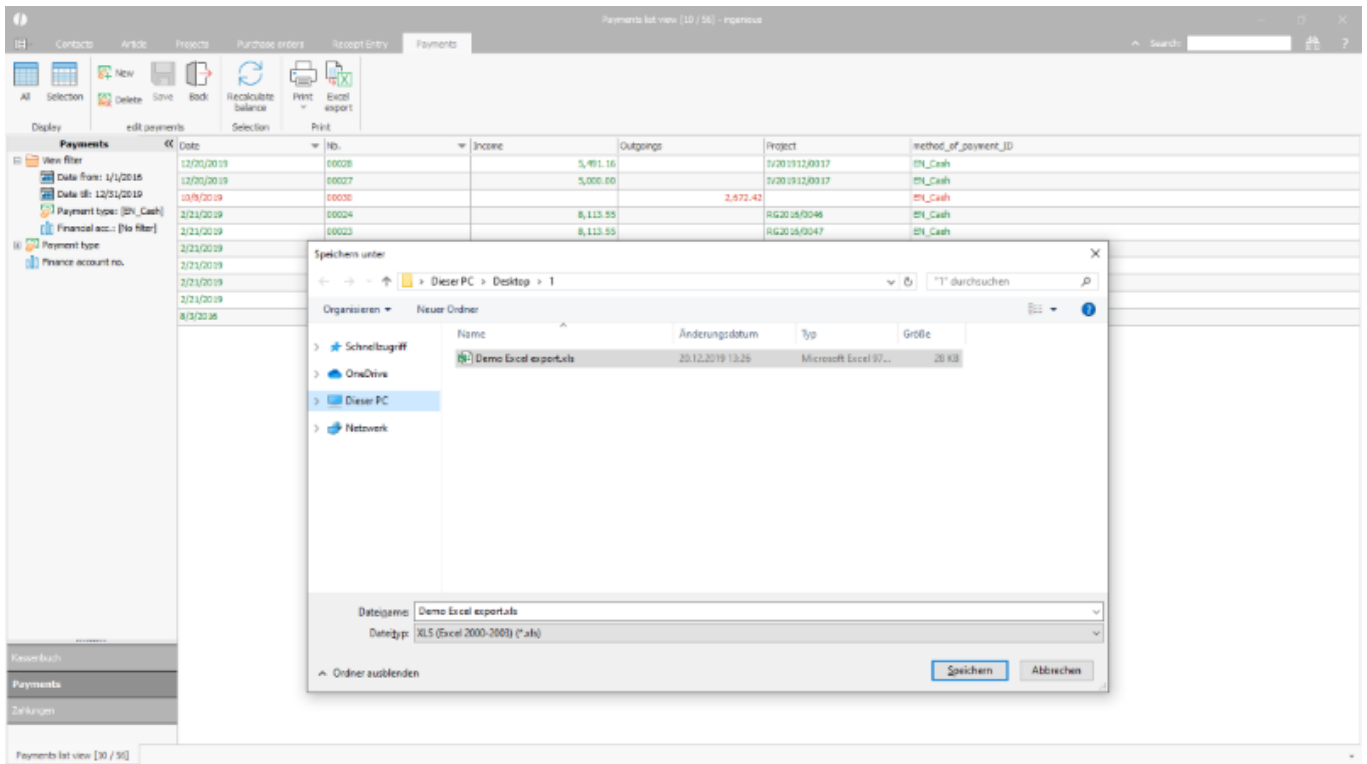
### 6.4.1.3 Payments excel export

In the list view of the incoming receipts different options for grouping, filtering, summation etc. of the data sets are available. If analyses shall be executed that demand further functions (e.g. subtotals), the incoming receipt list can be exported to Microsoft Excel.

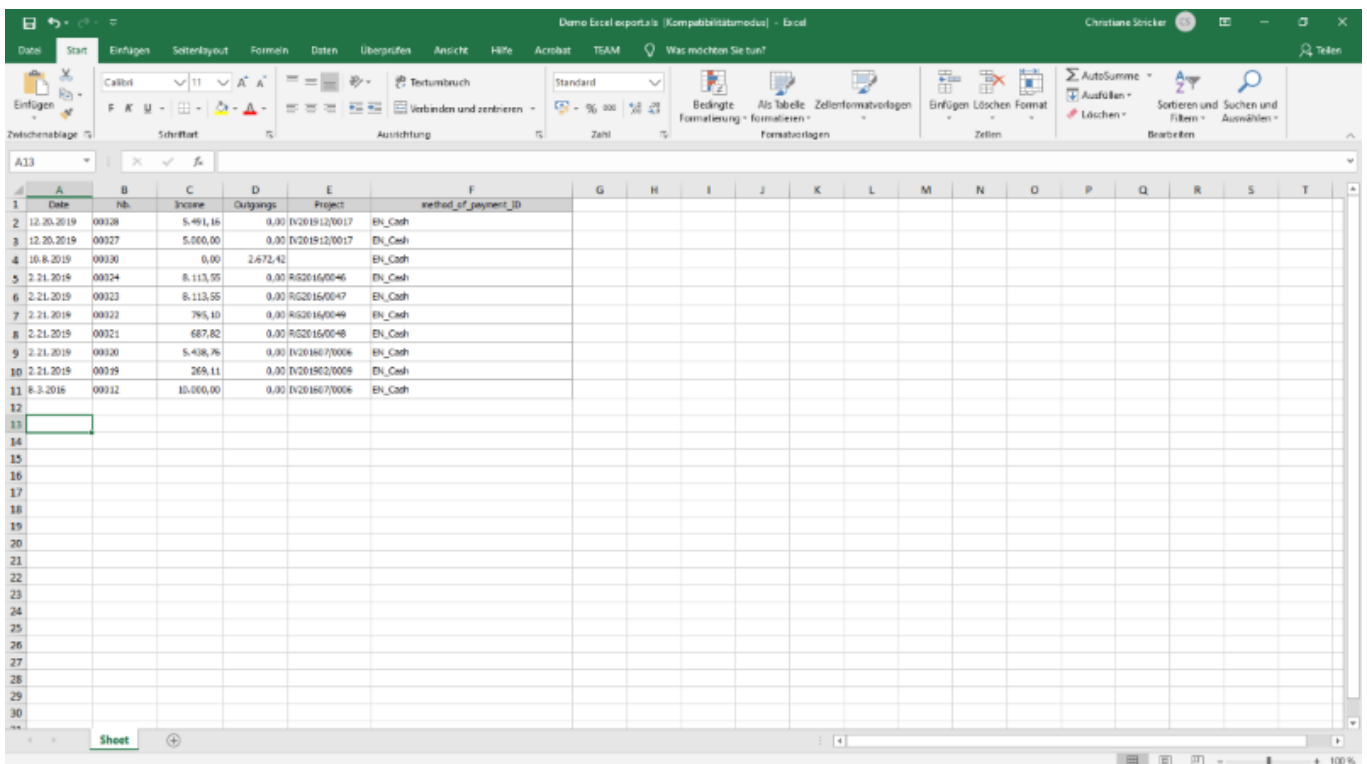
The export is started via the  button. In the appearing selection query, it can be determined if all data sets displayed or only the marked data sets shall be exported. If the respective checkbox is checked, the file will be opened after saving,




After clicking OK, the Windows saving dialog opens in which the path for saving is selected and a file name is assigned.



After saving, the export file is opened according to the settings in the selection query and can now be further processed.



## 6.4.2 Payments detail view

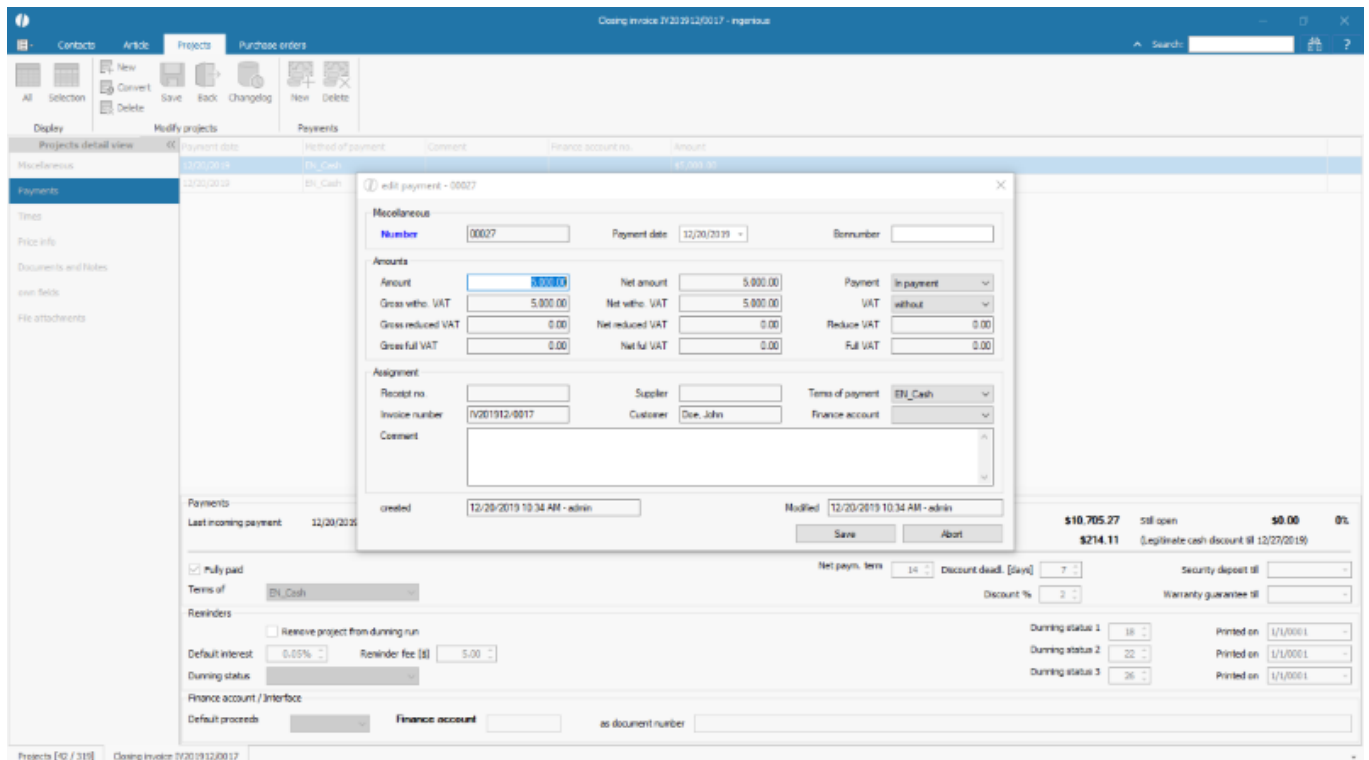
A new payment can be recorded in the payment module or, in directly relation to a project or incoming receipt, via the  button.

In the appearing dialog, the following values have to be inserted:

### For a project:

- Number, if appropriate (if no counter is configured or the number can be overwritten)
- payment date (the current day is preset)
- Payment amount (gross sum)
- Adaptation of the labeling of an outgoing payment, if appropriate
  - A payment for or project is by default NOT marked as outgoing payment
  - Outgoing payments for a project are to be entered either with a minus, or the labeling as outgoing payment has to be set.
- Payment type
- Payment number (if the payment is captured directly in the invoice and not in the payment module, the receipt number is already entered and cannot be modified).
- Fibu account, if appropriate
- comment, if appropriate

The other values are taken from the linked data set.



The screenshot displays the 'edit payment - 00027' dialog box. The 'Amount' field is set to 5,000.00, and the 'Payment date' is 12/20/2019. The 'Gross with VAT' is 5,000.00, and the 'Net amount' is 5,000.00. The 'Payment' type is set to 'In payment'. The 'Invoice number' is 1/201912/0017, and the 'Customer' is 'Doe, John'. The 'Finance account' is 'EBU\_Cash'. The dialog also shows a 'Comment' field and 'Save' and 'Abort' buttons.

The background window shows a 'Closing invoice' with the following table:

Project	Invoice date	Invoice no.	Amount
Miscellaneous	12/20/2019	EBU_Cash	5,000.00
Payments	12/20/2019	EBU_Cash	5,000.00

### For an incoming receipt:

- Number, if appropriate (if no counter is configured or the number can be overwritten)
- payment date (the current day is preset)
- Payment amount (gross sum) of the

- Adaptation of the labeling of an outgoing payment, if appropriate
  - A payment for an incoming receipt is by default marked as outgoing payment .
  - Incoming payments for an incoming receipt are to entered either with a minus or the label for the outgoing payment has to be removed
- Payment type
- Receipt number (if the payment is captured directly in the payment receipt and not the payment module, the receipt number is already entered and cannot be modified).
- Fibu account, if appropriate
- comment, if appropriate

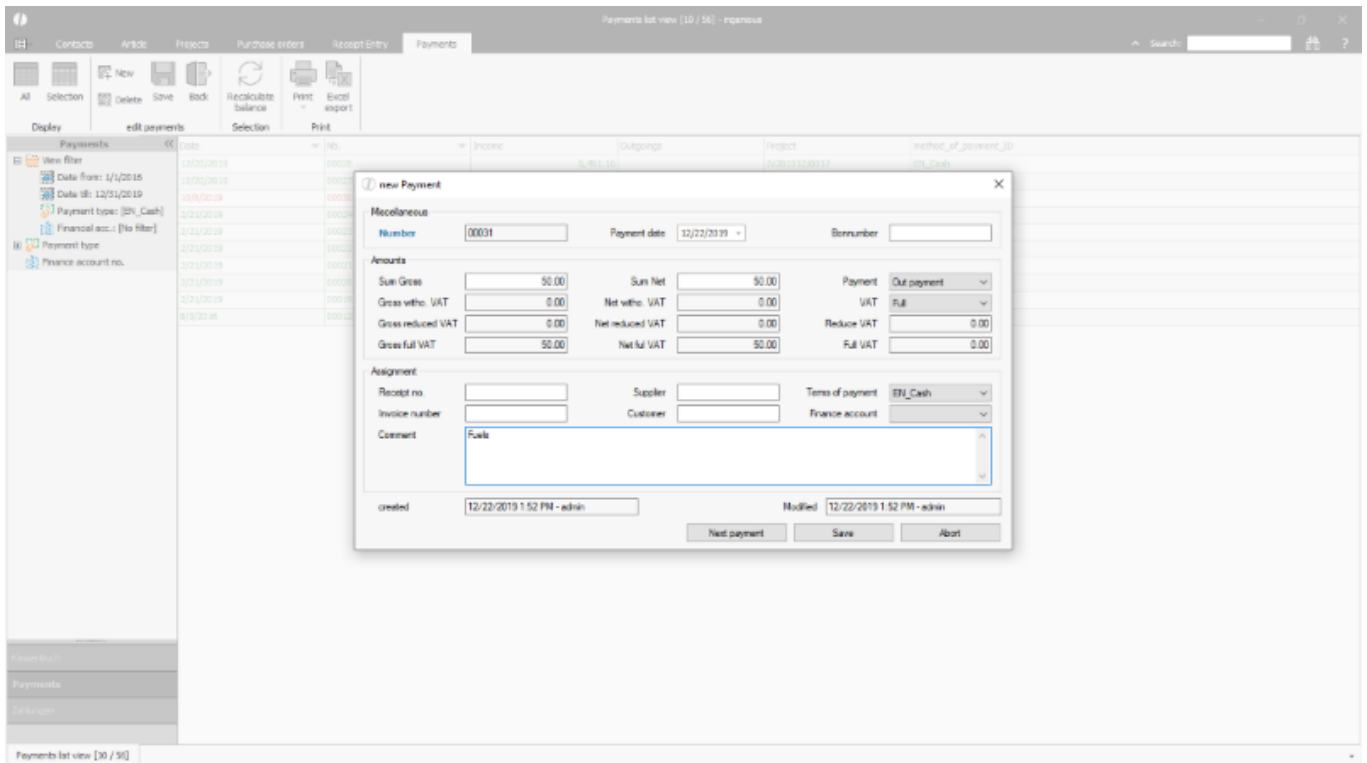
The other values are taken from the linked data set.

#### For payments without internal assignments (e.g. other cash receipts):

- Number, if appropriate (if no counter is configured or the number can be overwritten)
- payment date
- receipt number, if appropriate
- Amounts
  - As general rule: Gross sum (= payment amount) and the selection of VAT (standard = full).
  - For mixed receipts: Selection VAT = mixed and capture of the gross or net amounts corresponding to the VAT rates, the sums are calculated automatically.
  - For foreign receipts with tax rates deviating from the German: selection VAT = free entry and capture of all singular amounts
- Marking an outgoing payment, if appropriate
  - A payment is by default an incoming payment.
  - Outgoing payments e.g. receipts in cash have to be entered either a minus or have to be marked as outgoing payment.
- Type of payment
- NO receipt- or invoice number



- Fibu account, if appropriate
- comment, if appropriate



## 7 Other

### 7.1 Time management

#### 7.1.1 Time management list view

In "project time recording" project bound working times can be logged. The gapless recording ensures a correct accounting of all delivered services for the customer.












The project time recording can further be used for the scheduling of the employees and the teams. The recording and overview takes place optionally either in the list the calendar.

Project	User	Start date	Start time	End date	End time	Title	Contact	Project document	Document No.
Installation	winler	12/00/2019	07:00:00	12/03/2019	15:00:00	03019060006	Doe, John	Orderconfirmation	02019060066
Qualifikation	winler	12/1/2019	24:00:00	12/9/2019	28:00:00	Qualifikation			
Service	winler	12/5/2019	09:00:00	12/5/2019	11:00:00	Acquisition			
Qualifikation	winler	12/4/2019	24:00:00	12/4/2019	28:00:00	Qualifikation			
Service	bcameron	12/3/2019	13:00:00	12/3/2019	14:00:00	Repair			
Installation	adren	12/2/2019	08:00:00	12/2/2019	15:00:00	Installation	Doe, John	Closing invoice	I/201912/0017

The entries are highlighted with different colors according to their accounting state:

Green	Settled
Red	Not settled
Blue	Customer goodwill - Not billable
Grey	Internal management - Not billable
Yellow	Sales rep activity

Via the toolbar, the following functions are available:

	Displays all data sets according to the filter settings.
	Limits the display to the marked data sets.
	Adds a new project entry / date
	Duplicates the marked project entry / date
	Deletes the marked project entry / date
	Closes the module
	Open the changelog for administrators (user right required)
	Opens the commission management
	Opens the team administration
	Various print reports / opens print report designer
	Exports list view to Microsoft Excel

### Summary of one or several entries

For a time entry marked in the list, a summary can be shown via the small triangle at the bottom in the list view.


It is divided in details about the project time and details about the commissioning. Duration of a singular data set, its description and the total of the whole commission, contrasting of the planned work and the actual work, are displayed.

The screenshot displays the 'Project time recording' software interface. The main window shows a list of time entries with columns for Project, User, Start date, Start time, End date, End time, Title, Contact, Project document, and Document No. Below the list is a 'Detail view' section with input fields for Project time, Duration, Working days, Work unit, Description, Project, and various work metrics like Actual effort, Working days, Work unit, and Planned work.

Project	User	Start date	Start time	End date	End time	Title	Contact	Project document	Document No.
Installation	owinter	12/20/2019	07:00:00	12/20/2019	15:00:00	0201906/0066	Doe, John	Orderin/Installation	0201906/0066
Qualifikation	owinter	11/5/2019	14:00:00	11/5/2019	18:00:00	Qualifikation			
Service	owinter	12/5/2019	09:00:00	12/5/2019	13:00:00	Assad/John			
Qualifikation	owinter	12/4/2019	14:00:00	12/4/2019	18:00:00	Qualifikation			
Service	ocameron	12/1/2019	13:00:00	12/1/2019	14:00:00	Repar			
Installation	achun	12/2/2019	08:00:00	12/2/2019	15:00:00	Installation	Doe, John	Closing invoice	N/201912/0017

## 7.1.2 Commission management

Each project time entry is assigned to a commission for a better overview and individual analyses. The commissions are created and managed in "manage commission".

The "manage commission" is started with the  button in the toolbar.

In the list view, all commissions are combined. Duration and state of completion of each commission are apparent.

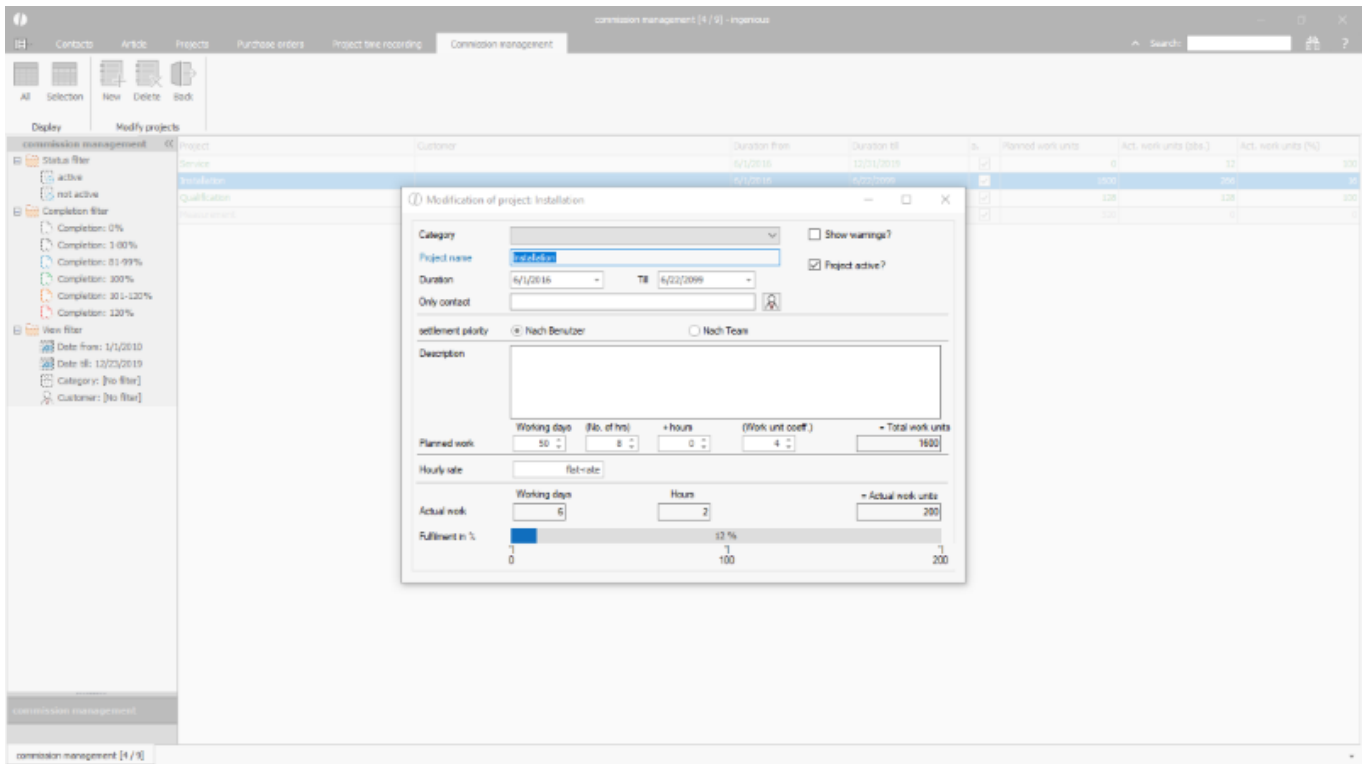
Project	Customer	Duration from	Duration till	s.	Planned work units	Act. work units (abs.)	Act. work units (%)
Service		4/1/2015	12/31/2019	✓	0	12	300
Installation		4/1/2015	4/22/2099	✓	1000	206	35
Qualification		7/6/2015	12/31/2019	✓	128	128	100
Measurement		4/1/2015	12/31/2019	✓	320	0	0

Via the toolbar, the following functions are available:

	Lists all commissions according to the filters
	Limits the display to the marked data sets
	Creates a new commission
	Deletes the marked commission
	Closes the module

### 7.1.3 Commission detail view

When creating a new commission or when modifying an existing commission, it opens in the detail view.




The concretisation of the commission proceeds within the singular fields:

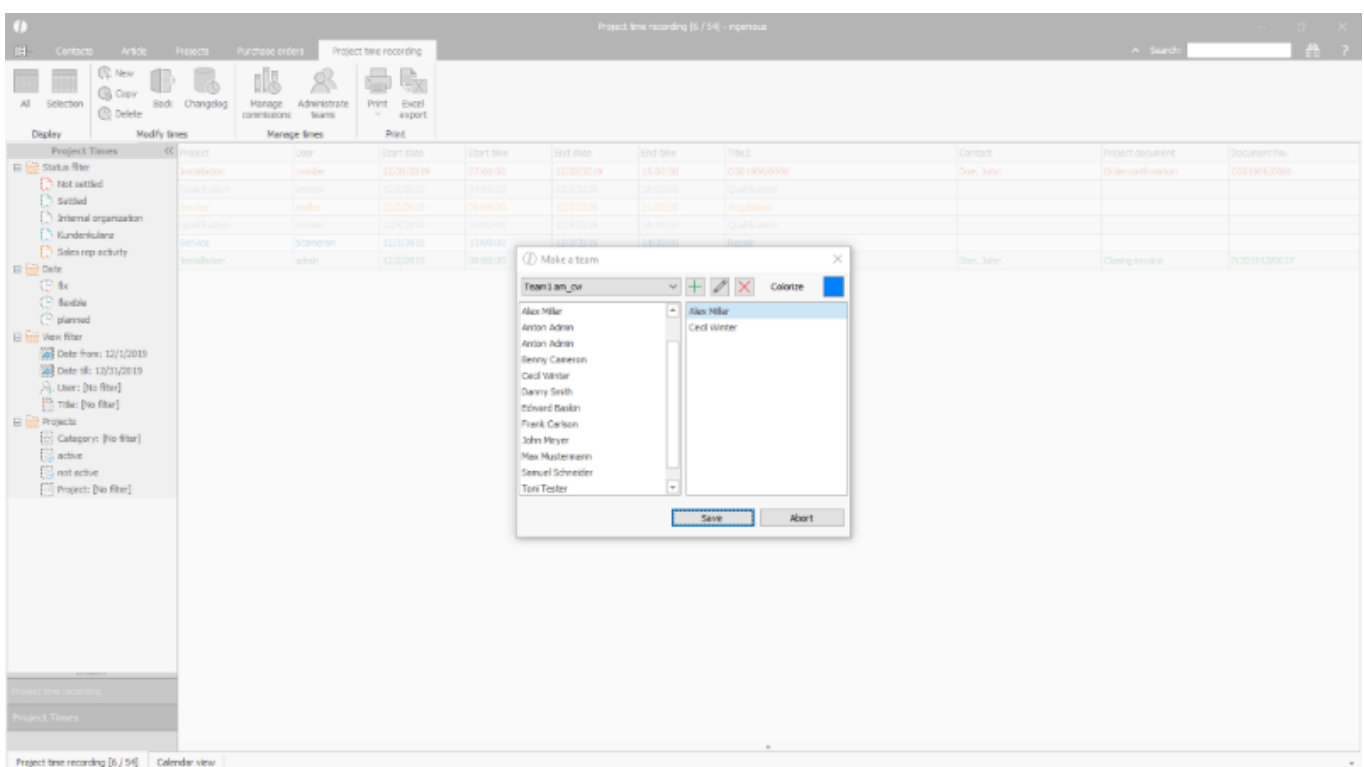
Category	Selection list	In order to group them, the commissions can be assigned to a category. Categories are defined individually in the program settings / selection lists.
Commission name	Protected input field	Distinct name of the commission.
Duration	Date fields / calendar-Pop-up	Time in which work shall be executed on the commission. Time entries / appointments can be recorded here.
Only contact	Search field	Assignment of a contact, through whom the accounting shall proceed later.
Show warnings?	Checkbox	If this checkbox is active, a warning appears as soon a commission is near by utilization.
Commission active?	Checkbox	If this checkbox is active, time entries / dates can be created on this commission.
Description	Simple input field	Informative detailed description of the commission,
Planned work	Simple input field	Determination, how much time the work on the commission may take.
Hourly rate	Simple input field	For individual print reports and analyses an hourly rate can be deposited for the commission. If the field is not filled manually, the standard value "flat rate" is used.
Fulfillment	Protected	In the field for the fulfillment of the commission, times that have been booked on this

fields      commission already are added and contrasted with the planned work.




## 7.1.4 Administrate teams

Via the team administration, single users can be assigned to one ore more teams. The display of the teams in the calendar view facilitates the overview over the available employees and allows for various analyses.

The team administration can be accessed via the  button of the toolbar.



The following functions are available:

Selection list	Selection of an already assembled team
	Add a new team
	Modifying the name of an existing team
	Delete a selected team
Coloring / Color picker	Definition of the font color of the calendar entries of the team





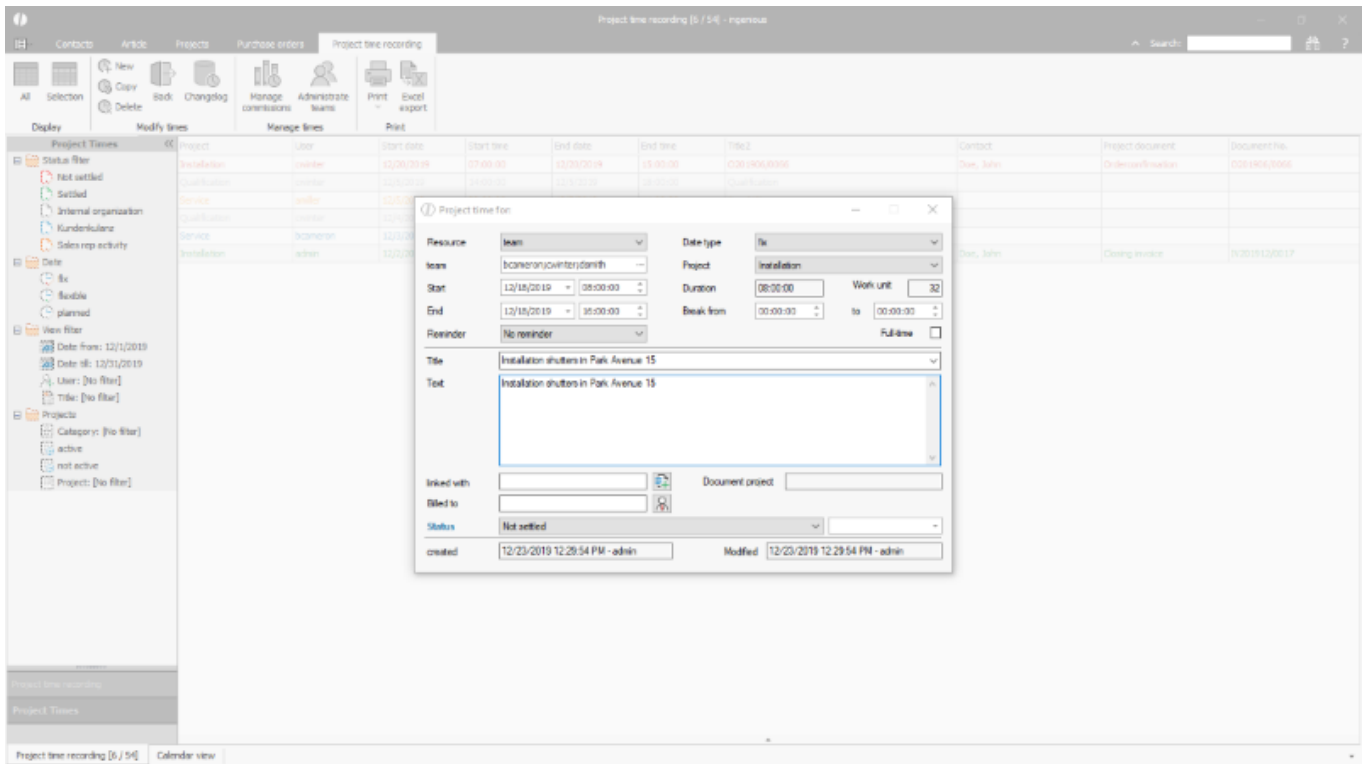
The screenshot displays the 'Project time recording' software interface. A 'Project time for' dialog box is open, allowing for the entry of a new time entry. The dialog box contains the following fields:

- Resource:** Ivan
- Date type:** Is
- Team:** bcameron@winterjordanth
- Project:** Installation
- Start:** 12/18/2019 08:00:00
- Duration:** 08:00:00
- Work unit:** 32
- End:** 12/18/2019 16:00:00
- Break from:** 00:00:00 to 00:00:00
- Reminder:** No reminder
- Full-time:**
- Title:** Installation shutters in Park Avenue 15
- Text:** Installation shutters in Park Avenue 15
- Linked with:**  Document project
- Filed to:**
- Status:** Not settled
- Created:** 12/23/2019 12:29:54 PM - admin
- Modified:** 12/23/2019 12:29:54 PM - admin

The background shows a table of project time entries with columns for Project, User, Start date, Start time, End date, End time, Time, Contact, Project document, and Document file. The table contains several rows of data, including entries for 'Installation' and 'Service' performed by users like 'ivan' and 'admin'.

## 7.1.5 Project time entry detail view

The recording of the details of a time entry / appointment proceeds in the following fields:

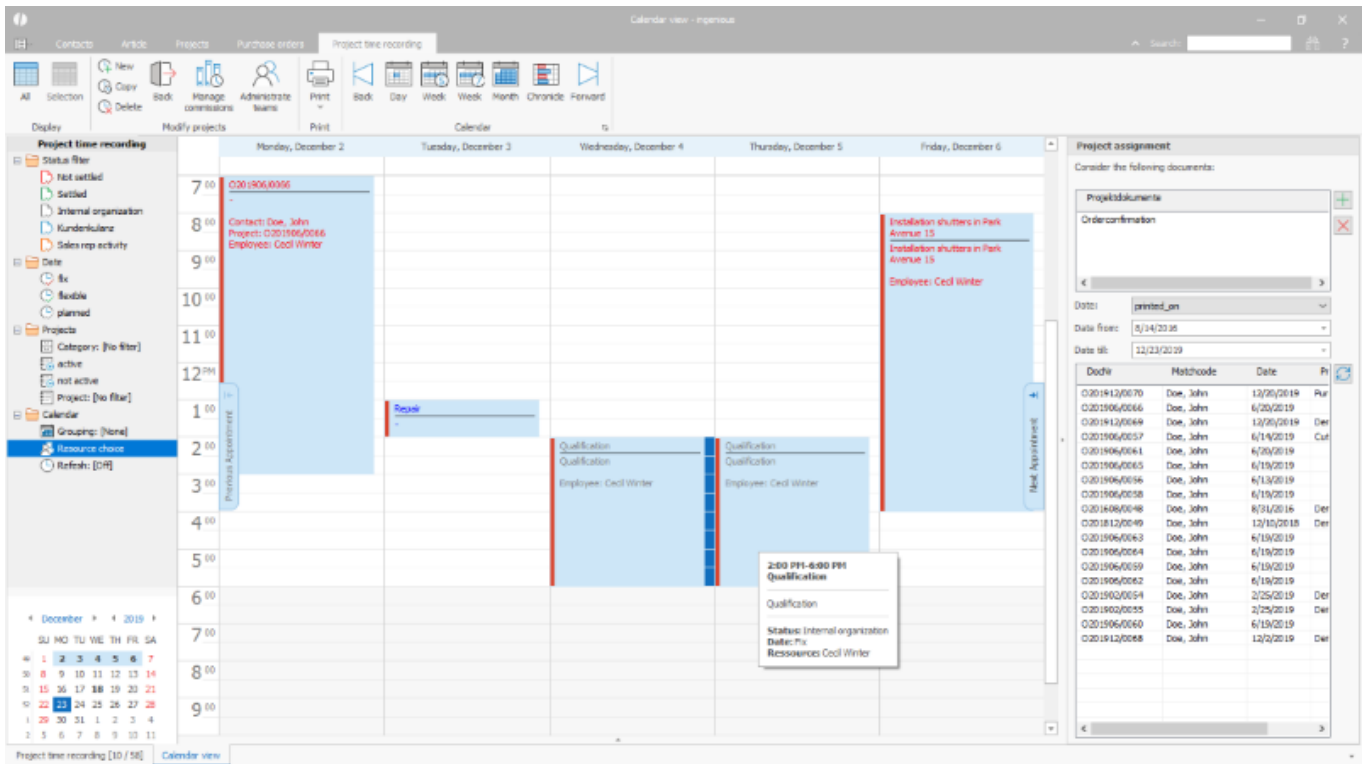


Resource	Predefined selection list	Selection, if a time entry / date is created for a user or a team.
Employee / team	Selection list / input field	Selection of a user via the selection list, resp. the team via the three dot- button.
Start	Input fields / calendar pop-up	Selection of day and time when the work will begin.
End	Input fields / calendar pop-up	Selection of day and time when the work will end.
Reminder	Predefined selection list	For future dates it can be set, how long before the date the user shall be reminded of it.
Date type	Predefined selection list	For dates, the selection of the type determines the coloring in the calendar view and enables a filtering for the different types.
		fix      red      The date is fixed. The user /team is not available otherwise at this time.
		flexible      green      The date is flexible and can be moved if necessary.
		planned      grey      The date is planned and not yet confirmed. Other appointments for user / team can be made at this time.







Commission	Selection list	Selection of a commission deposited in the commission management.
Duration	Protected fields	Calculation of the duration from the start and end of the entry.
Full-time	Checkbox	If the checkbox is activated, for the sum of the duration and on individual print reports the effort of the daily work is displayed, independent of the actual duration of the work.
Titel	Simple input field	Short description of the tasks
Text	Simple input field	Detailed description of the tasks
Linked with	Search field	Through inserting or searching a project number, the time entry can be linked to a project, e.g. an invoice. In the invoice the times are then displayed and contrasted with the calculated potential times of the project.
Billed to	Search field	To which client the tasks are billed /to whom they are assigned is deposited here. If a contact has been preset when commissioning, it is used here, As soon as a time entry is linked to a project, the contact assigned to this is used. If contact of the entry and contact of the project don't match, an error notice appears.
Status	Predefined selection list	Via status is displayed , if the tasks have been billed or not.

## 7.1.6 Calendar view

In the calendar view, all time entries are displayed corresponding to the filters in a wall chart. Above each time entry lies a tool tip with further details of the data set. Those are displayed as soon as the cursor points on the entry. Additionally to the calendar itself is the area "project assignment" on the right and the area "tasks" at the bottom. Both areas can be shown, hidden or modified in their size via the respective splitter.



Besides the regular functions of the time recording, the following functions are available in the calendar view:

	Turns page one day/one week /one month back
	Switches display to one day
	Switches display to one working week
	Switches display to one month
	Switches display to chronicle
	Turns page one day/one week /one month forward

The data sets displayed are highlighted with colors corresponding to their status:

### Status filter

Red font	not settled time entry
Green font	settled time entry
Grey font	Internal organization - not billable

Blue font	customer goodwill - not billable
Yellow font	Sales rep activity

**Date / appointment**

Red bar	The date is fix.
Green bar	Flexible date, small modifications are possible.
Grey bar	Planned date is not confirmed yet.

The time entries displayed for the user in the calendar are defined via the filter "resources".

Each user can view exactly his entries. If entries have been made for teams he is part of, those are displayed as well. Team or project leaders can have the appointments of several users or teams be displayed for them. It is also possible to open several calendar views at the same time in order to contrast team and user schedule.



**Create a new time entry/ date**

A new time entry can be added in different ways:

- Via the button
- Via marking a time unit per mouse (click, drag&drop)
- Via project assignment

Via project assignment a project can be moved via drag&drop to the desired place in the calendar in order to create a




project time entry for this project with the assigned contact.

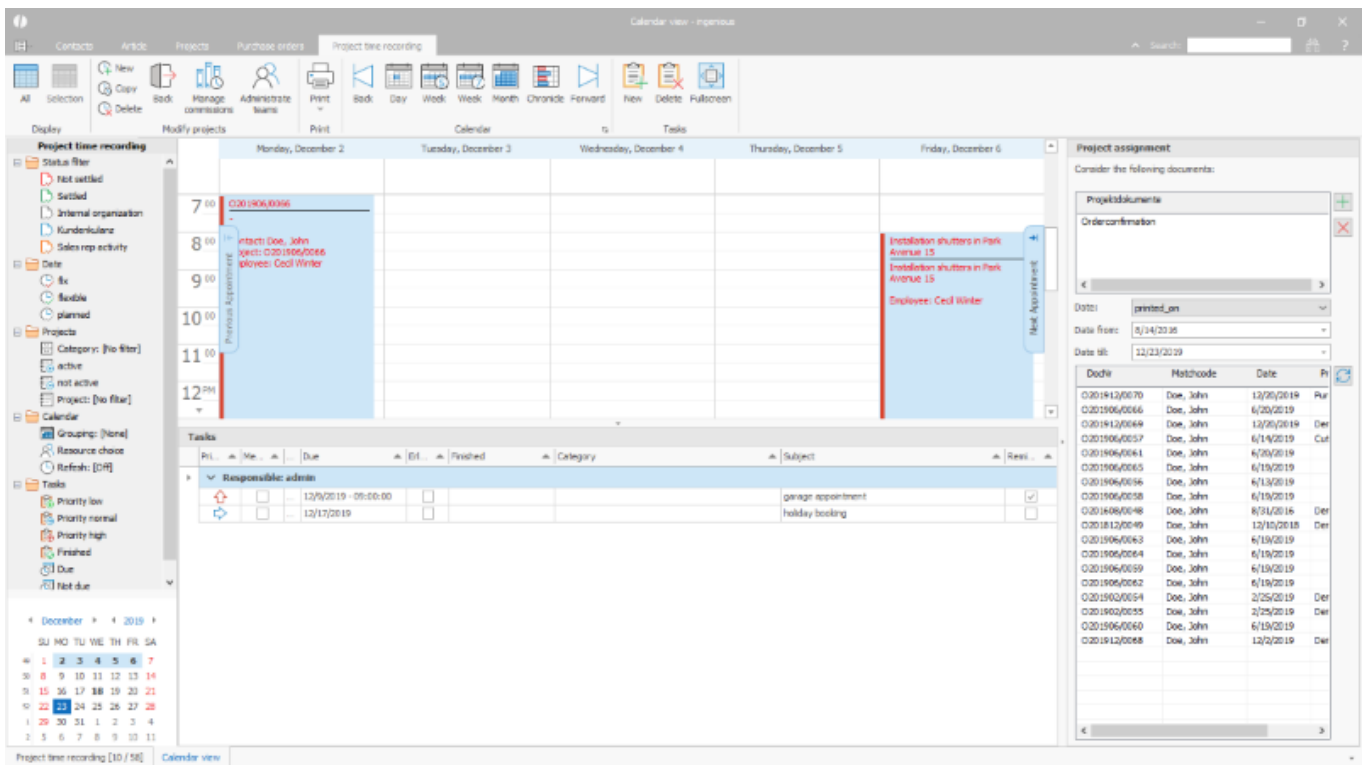
Which project documents appear in the selection, is determined via the button  Add and  Delete. The selection is additionally limited via a date filter.

## 7.1.7 Task management

The calendar view contains a task manager in which all tasks are displayed according the set filters. The list can be sorted as desired with a click on the column name.

In the task list, the singular entries are marked according to their priority:




	Priority high
	Priority normal
	Priority low



The screenshot displays the 'Calendar view - ingenious' window. The main area is a calendar grid for December 2nd to 6th. A task is visible on Monday, December 2nd, from 7:00 to 12:00. The task details include 'Contact: Doe, John', 'Object: 0201906/0066', and 'Employee: Cecil Winter'. Another task is visible on Thursday, December 5th, from 12:00 to 12:00, with details 'Installation shutters in Park Avenue 15' and 'Employee: Cecil Winter'. Below the calendar is a 'Tasks' list with columns for priority, responsible person, due date, finished status, category, and subject. The list shows two tasks for 'Responsible: admin' with due dates of 12/9/2019 and 12/17/2019. On the right side, there is a 'Project assignment' panel with a table of project assignments.

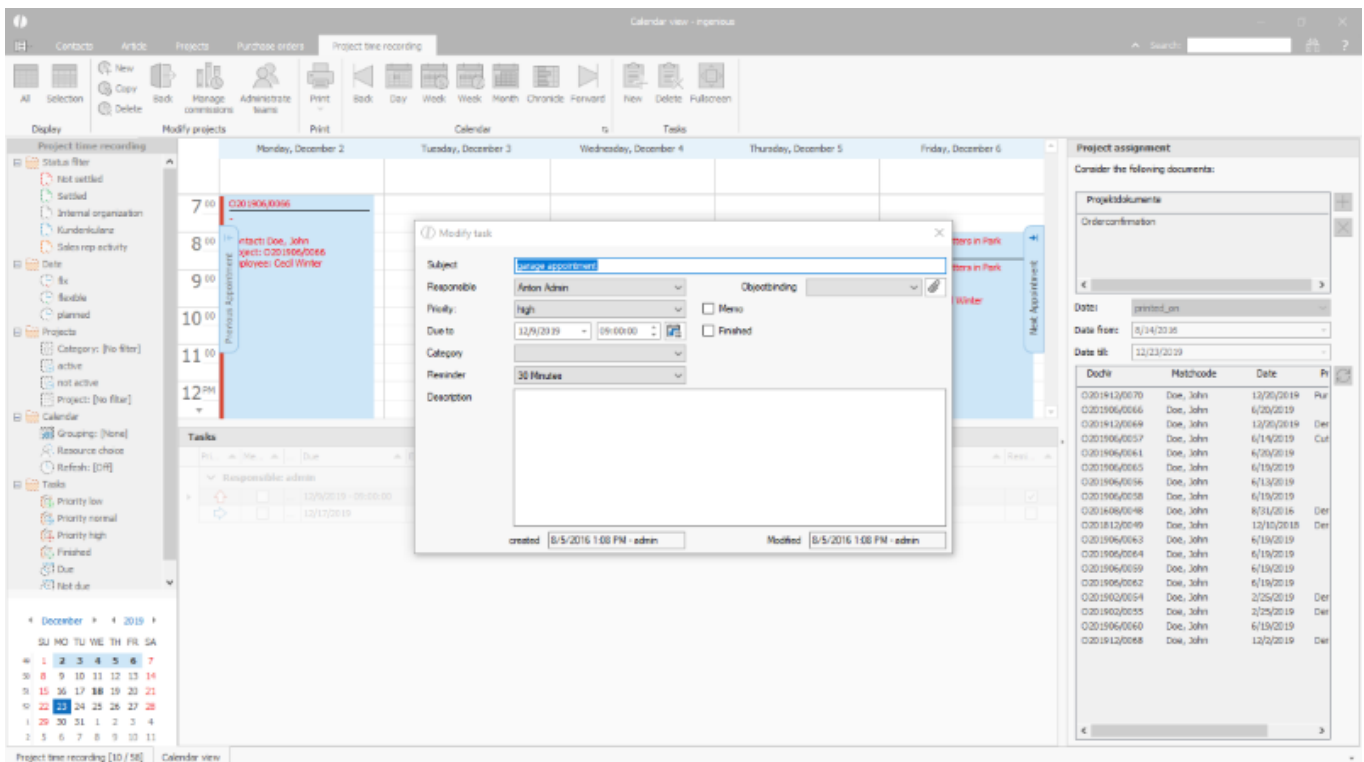
DocId	Methodcode	Date	Pr
0201912/0070	Doe, John	12/25/2019	Plu
0201906/0066	Doe, John	6/20/2019	
0201912/0069	Doe, John	12/25/2019	Der
0201906/0057	Doe, John	6/19/2019	Cal
0201906/0061	Doe, John	6/20/2019	
0201906/0065	Doe, John	6/19/2019	
0201906/0066	Doe, John	6/19/2019	
0201906/0058	Doe, John	6/19/2019	
0201808/0048	Doe, John	8/31/2016	Der
0201812/0049	Doe, John	12/15/2018	Der
0201906/0063	Doe, John	6/19/2019	
0201906/0064	Doe, John	6/19/2019	
0201906/0059	Doe, John	6/19/2019	
0201906/0062	Doe, John	6/19/2019	
0201902/0054	Doe, John	2/25/2019	Der
0201902/0055	Doe, John	2/25/2019	Der
0201906/0060	Doe, John	6/19/2019	
0201912/0068	Doe, John	12/2/2019	Der

The following functions for the task management are available via the toolbar:

	Create a new task
	Delete a marked task
	

## A task in detail


A task differs from a date or a time entry insofar it is not bound to a time period. Tasks can be created for a user or be made visible -marked as memo- for all users.



For tasks, the following details can be defined:

Subject	Simple input field	Short description of the task
Responsible	Predefined selection list	Selection of the user responsible for the task
Priority	Predefined selection list	Definition of the priority of a task
Due to	Input field / calendar pop-	Determination, until when the task has to be carried out the latest.

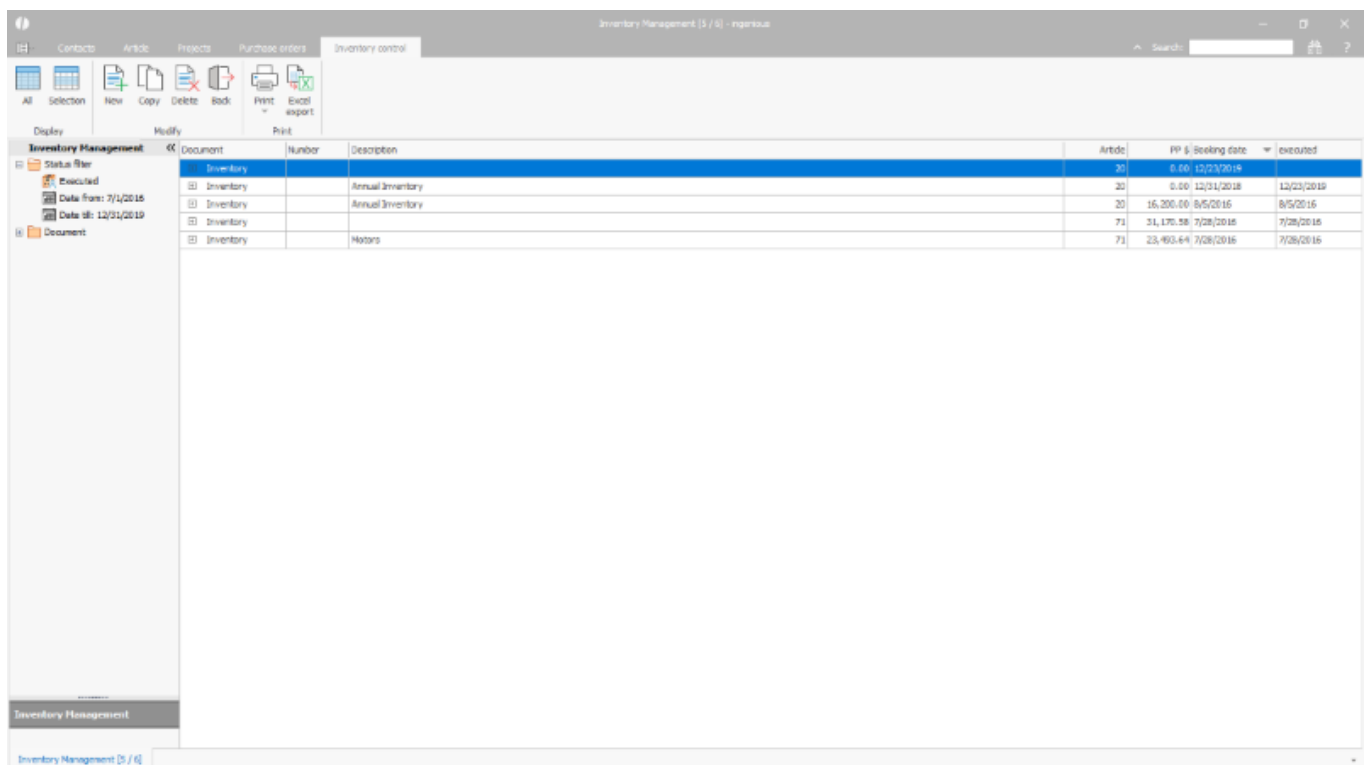
	up	
Reminder	Predefined selection list	Selection, how long before due date the user shall be reminded of this task (Note: A reminder is not possible for task type "memo").
Description	Simple input field	Detailed description of the task.
Object binding	Predefined selection list	If the task is assigned to exactly one contact, one article, one project or one order, this reference can be inserted here. Via the button the assigned data set is opened.
Memo	Checkbox	If this checkbox is active, the task will be classified as memo / note for all users.
Finished	Checkbox	If a task has been completed, it can be checked via this checkbox.

A task bound to an object can also be created from a detail view in the main modules via the  button.

## 7.2 Inventory management

### 7.2.1 Inventory management list view

The inventory management enables a fast recording of the stock within an inventory. The inventory bookings can be executed collectively for numerous articles.











The screenshot displays the 'Inventory Management' window with a list view of inventory items. The table below represents the data shown in the interface:

Document	Number	Description	Article	PP \$	Seeking date	executed
Inventory		Annual Inventory	20	0.00	12/21/2016	
Inventory		Annual Inventory	20	0.00	12/21/2016	12/23/2016
Inventory		Annual Inventory	20	16,200.00	8/5/2016	8/5/2016
Inventory		Water	71	31,170.58	7/28/2016	7/28/2016
Inventory		Water	71	23,493.64	7/28/2016	7/28/2016

Via the toolbars, the following functions are available:




	Display all inventory documents according to the set filters.
	Limit display to the marked inventory documents,.
	Create a new inventory document.
	Copy the marked inventory document.
	Delete the marked inventory document.
	Close module
	List view print, resp. creation and print of individual reports.
	Export list view to Microsoft Excel

In inventory management list view the following filters are used:

Executed	Permanent filter	Through double-clicking, the filter, a colored icon (resp. grey Icon) is set. Takes into account, if the booking of the stock values has been executed or not yet.
Date from / till	Permanent filter	For limiting the displayed inventory documents according to their booking date.
Doc	Immediate filter	Limitation of the display according to the names of the inventory documents. The name begins by default with "inventory"but can be changed individually e.g. in order to group different documents of the same year (e.g. "inventory 2019").

## 7.2.2 Inventory document

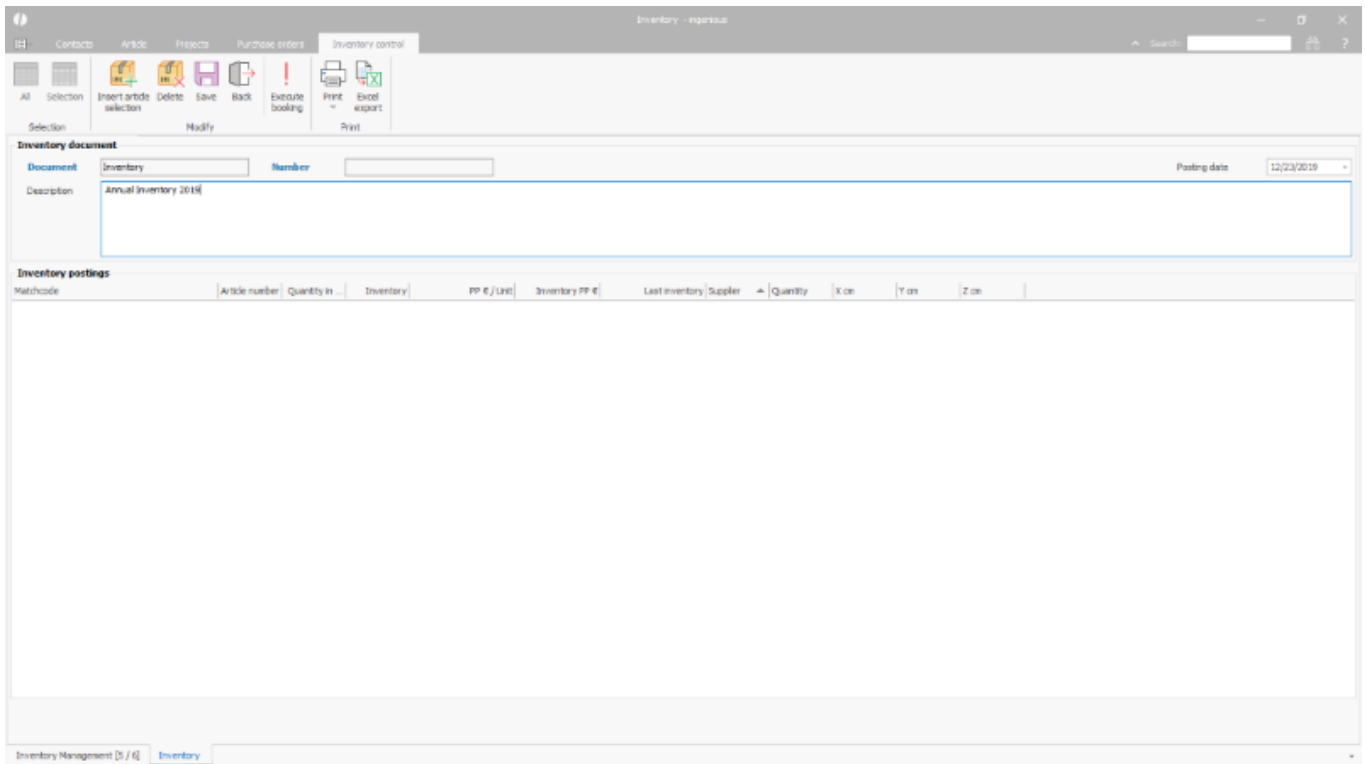
A new inventory document can be created from the list view through the button .

The document name is set by default on "inventory", a consecutive number is issued if configured in the program settings. Both values can be overwritten if necessary after double-clicking their field name.








For the booking date, a due date for the inventory is set on which the booking will be executed.


If several different inventory documents are created per year, e.g. in order to combine similar articles in one document or the like according to their stock location, it is recommended to deposit a description for the singular inventory


document.

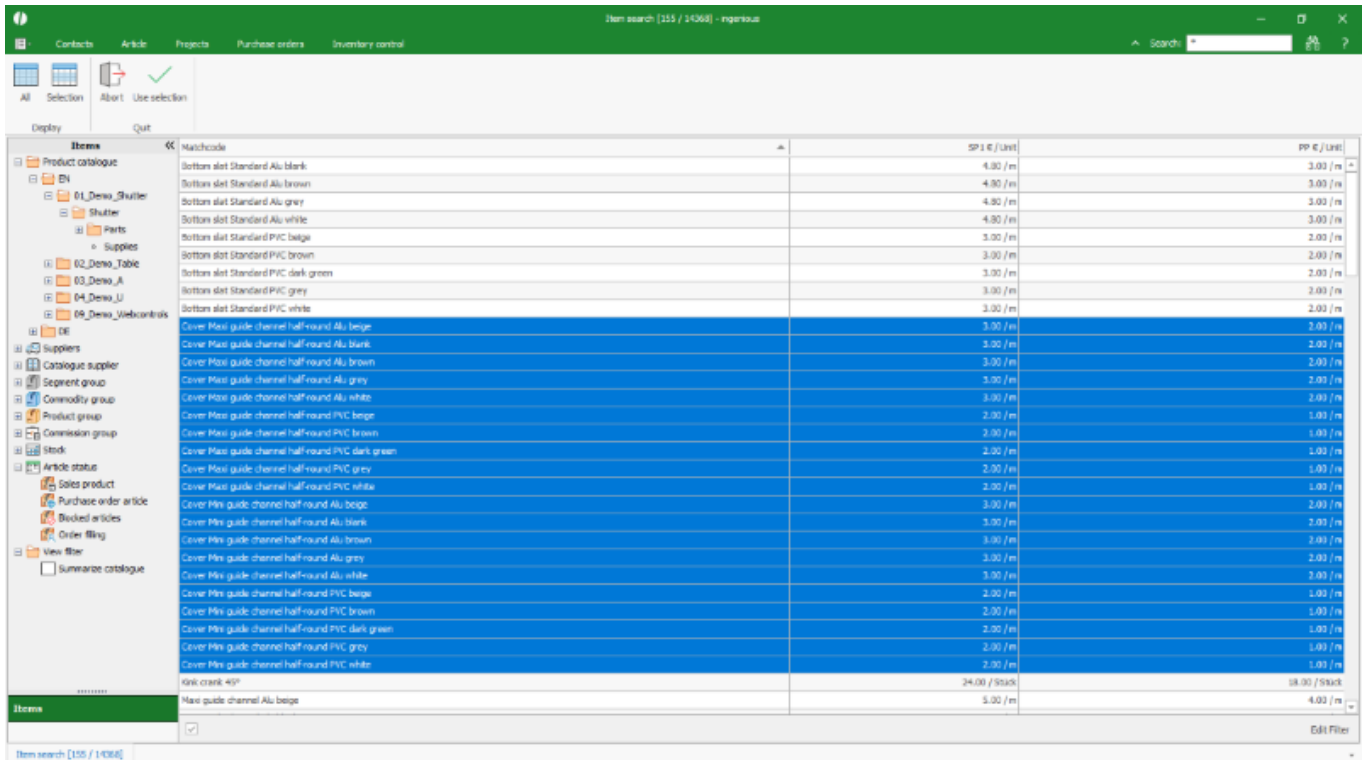


Via the toolbar, the following functions are available:

	Opens the article list for the selection of the articles to be inserted.
	Deletes the marked articles from the inventory document.
	Saves the inventory document.
	Closes the module.
	Executes the inventory bookings for all articles in the inventory document.
	Various print reports / Opens the print report designer
	Export list view to Excel

Via the button  the articles from the product catalog, which are to be recorded, are inserted in to the inventory document.

It opens the article list view, in which via filters or quick search the desired articles are searched. Subsequently those are marked and transferred with the  button.

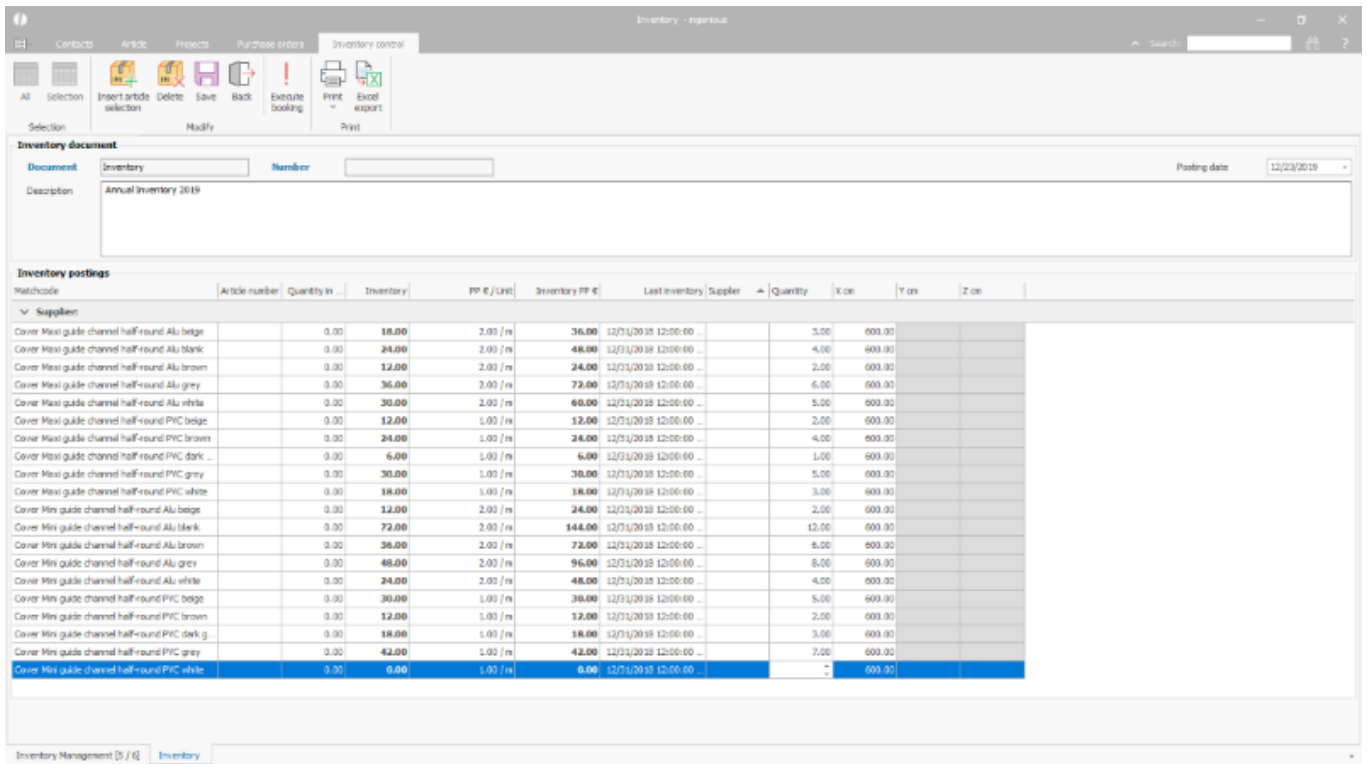



Matchcode	SP € / Unit	PP € / Unit
Bottom slot Standard Alu blank	4.00 / m	3.00 / m
Bottom slot Standard Alu brown	4.00 / m	3.00 / m
Bottom slot Standard Alu grey	4.00 / m	3.00 / m
Bottom slot Standard Alu white	4.00 / m	3.00 / m
Bottom slot Standard PVC beige	3.00 / m	2.00 / m
Bottom slot Standard PVC brown	3.00 / m	2.00 / m
Bottom slot Standard PVC dark green	3.00 / m	2.00 / m
Bottom slot Standard PVC grey	3.00 / m	2.00 / m
Bottom slot Standard PVC white	3.00 / m	2.00 / m
Cover Maxi guide channel half-round Alu beige	3.00 / m	2.00 / m
Cover Maxi guide channel half-round Alu blank	3.00 / m	2.00 / m
Cover Maxi guide channel half-round Alu brown	3.00 / m	2.00 / m
Cover Maxi guide channel half-round Alu grey	3.00 / m	2.00 / m
Cover Maxi guide channel half-round Alu white	3.00 / m	2.00 / m
Cover Maxi guide channel half-round PVC beige	2.00 / m	1.00 / m
Cover Maxi guide channel half-round PVC brown	2.00 / m	1.00 / m
Cover Maxi guide channel half-round PVC dark green	2.00 / m	1.00 / m
Cover Maxi guide channel half-round PVC grey	2.00 / m	1.00 / m
Cover Maxi guide channel half-round PVC white	2.00 / m	1.00 / m
Cover Mini guide channel half-round Alu beige	3.00 / m	2.00 / m
Cover Mini guide channel half-round Alu blank	3.00 / m	2.00 / m
Cover Mini guide channel half-round Alu brown	3.00 / m	2.00 / m
Cover Mini guide channel half-round Alu grey	3.00 / m	2.00 / m
Cover Mini guide channel half-round Alu white	3.00 / m	2.00 / m
Cover Mini guide channel half-round PVC brown	2.00 / m	1.00 / m
Cover Mini guide channel half-round PVC beige	2.00 / m	1.00 / m
Cover Mini guide channel half-round PVC dark green	2.00 / m	1.00 / m
Cover Mini guide channel half-round PVC grey	2.00 / m	1.00 / m
Cover Mini guide channel half-round PVC white	2.00 / m	1.00 / m
Mini crank 40°	24.00 / Stück	18.00 / Stück
Mini guide channel Alu beige	5.00 / m	4.00 / m

The article with their actually booked quantity in stock, their purchase price and further details are listed in the inventory document. Which details are displayed can be selected via the column selection in the list.

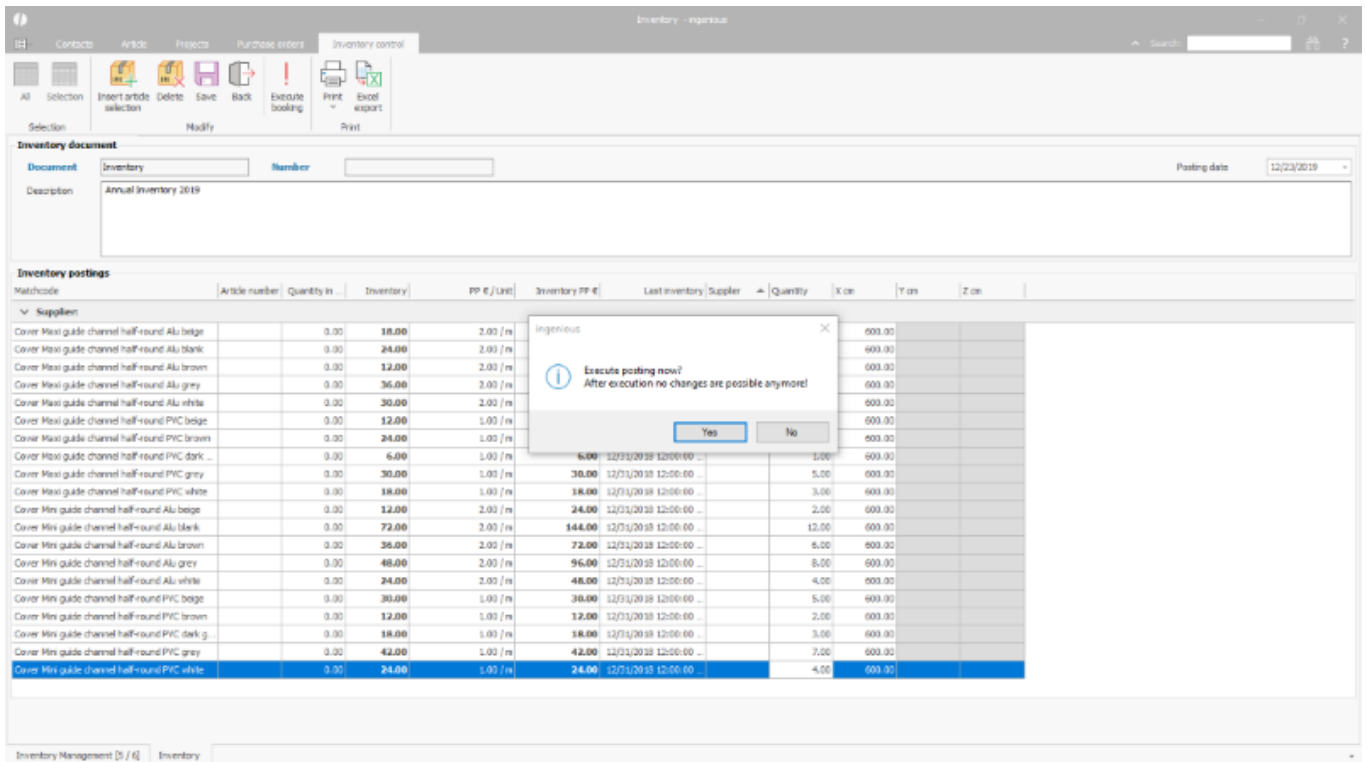
The recording of the stock captured during the inventory proceeds in the column quantity +, if appropriate, in the fields X, W, Z, if those are either length, area or volume articles. The measurements are preset based on the article details / measurements and usually do not have to be modified.

Changing between the free input fields proceeds through the tabulator key, which enables a fast recording of the values one after the other.



After all values have been recorded, the booking for all articles can be executed via the  button.

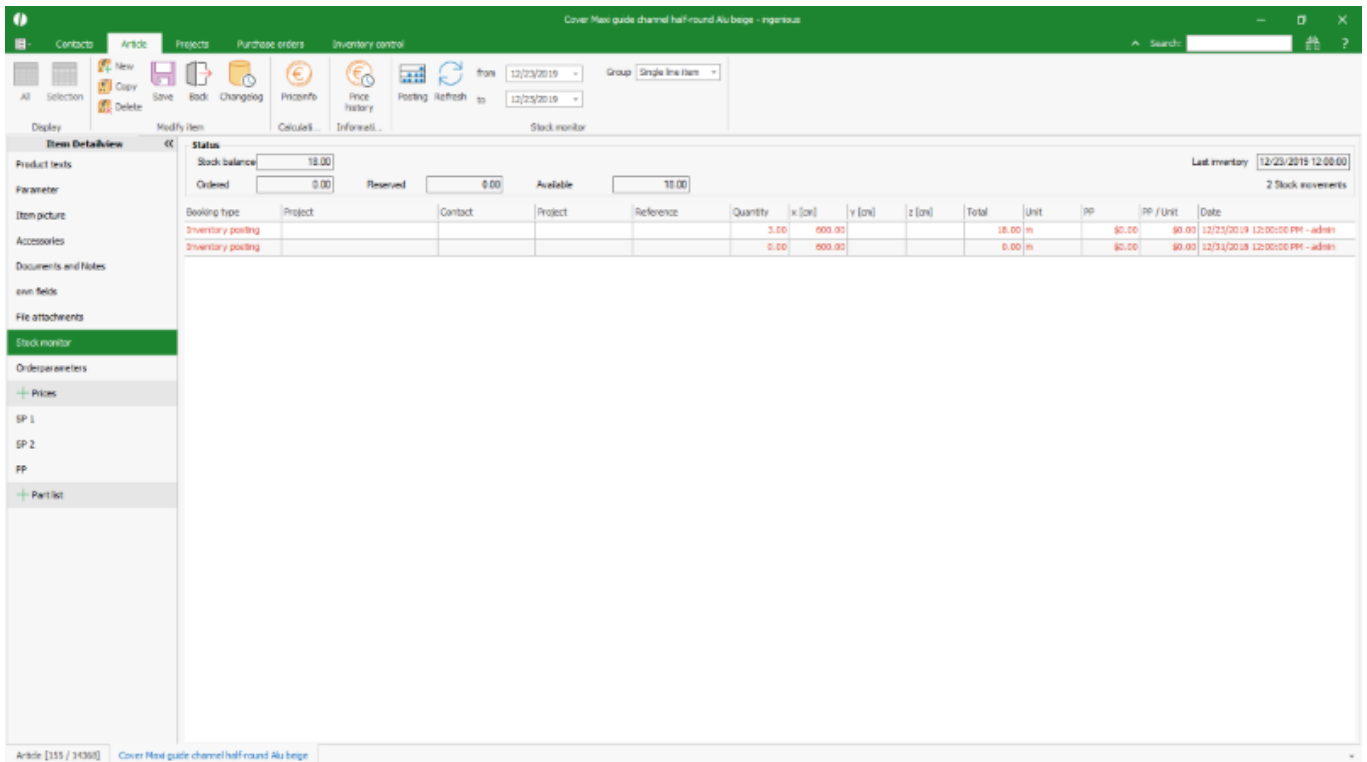
The stocks are booked after the confirmation of the security query.



Note: The booking is possible only after the stock for all articles has been recorded.

After finalizing the booking, the inventory document can be closed via the  button.

In the stock monitor of the singular articles, the respective inventory booking is displayed.



Booking type	Project	Contact	Project	Reference	Quantity	x [cm]	y [cm]	z [cm]	Total	Unit	PP	PP / Unit	Date
Inventory posting					0.00	600.00			18.00	m	\$0.00	\$0.00	12/23/2018 12:00:00 PM - admin
Inventory posting					0.00	600.00			0.00	m	\$0.00	\$0.00	12/23/2018 12:00:00 PM - admin

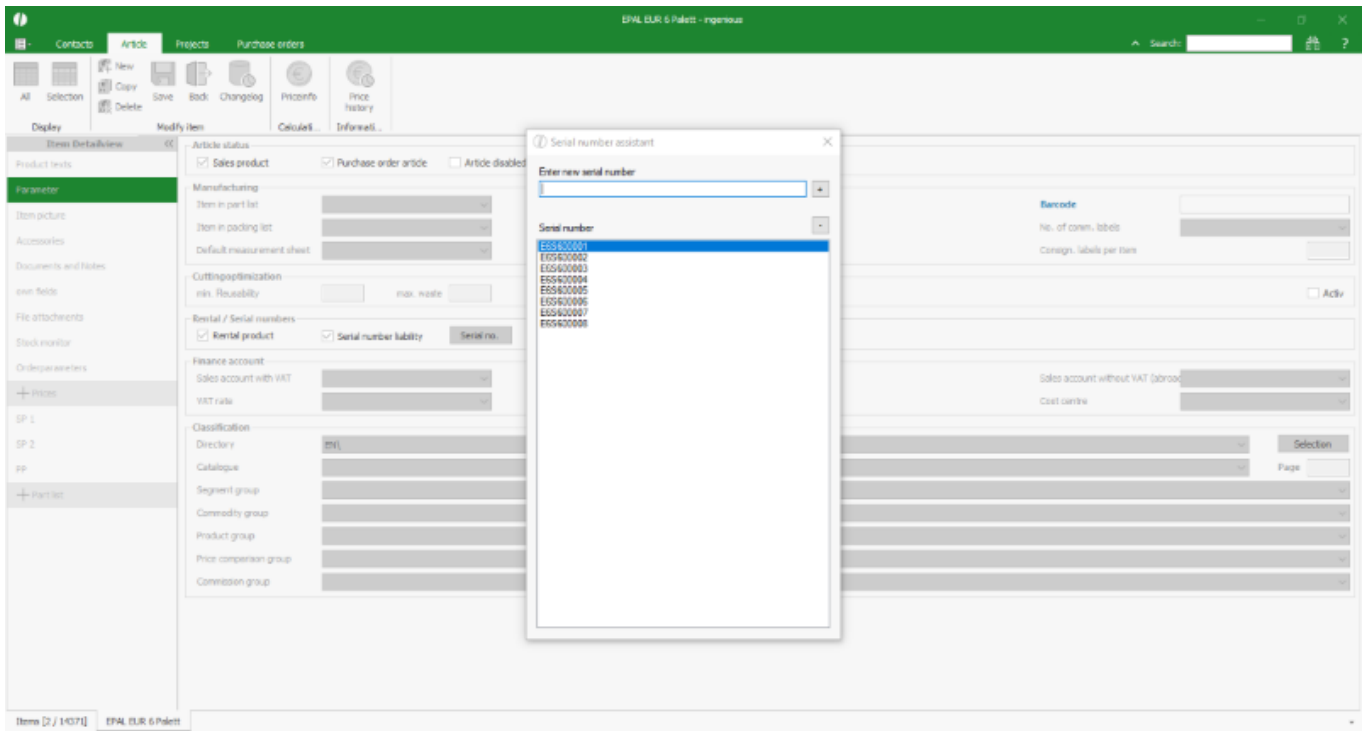
## 7.3 Rental product administration

### 7.3.1 Rental product administration

The lending and return of items that are made available to customers on loan, e.g. pallets and lattice boxes, are recorded in the rental product administration.

For clear identification and allocation, the parameters of the articles must be marked as rental articles with a serial number requirement.

The individual serial numbers are assigned individually and entered in the article data.



The rental item management lists all of the individual rental items with their serial numbers and indicates whether the individual item is in stock or at a customer's.

The list entries are colored accordingly:

- black font: The article is in stock and can be issued.
- red font: the article is with a customer.
- green font: Rental item returned by the customer (only displayed if the customer history is activated)

Customer	Rental prod...	Serial no.	Document	Date	Since d.	Comment	
	EPAL EUR 1 pallet	E15100002		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100003		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100004		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100005		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100006		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100007		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100008		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100009		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100010		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600001		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600002		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600003		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600004		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600005		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600006		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600007		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600008		1/1/2021	0		Ausleihen
Doe, John	EPAL EUR 1 pallet	E15100001	n.Y	1/1/2021	10		Rückgabe

The last column of the rental item list contains a button that is used to record the loan or return of an item.

Double-clicking on the word Loan opens a dialog in which you can enter the customer to which the item is to be handed over.

It is also possible to reference a project document here.

Customer	Rental prod...	Serial no.	Document	Date	Since d.	Comment	
	EPAL EUR 1 pallet	E15100002		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100003		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100004		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100005		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100006		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100007		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100008		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100009		1/1/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100010		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600001		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600002		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600003		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600004		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600005		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600006		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600007		1/1/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E66600008		1/1/2021	0		Ausleihen
Doe, John	EPAL EUR 1 pallet	E15100001	n.Y	1/1/2021	10		Rückgabe

**Lending - EPAL EUR 1 pallet (E15100002)**

Customer: Doe, John

Rented on: 1/20/2021

Comment:

Rental product: EPAL EUR 1 pallet

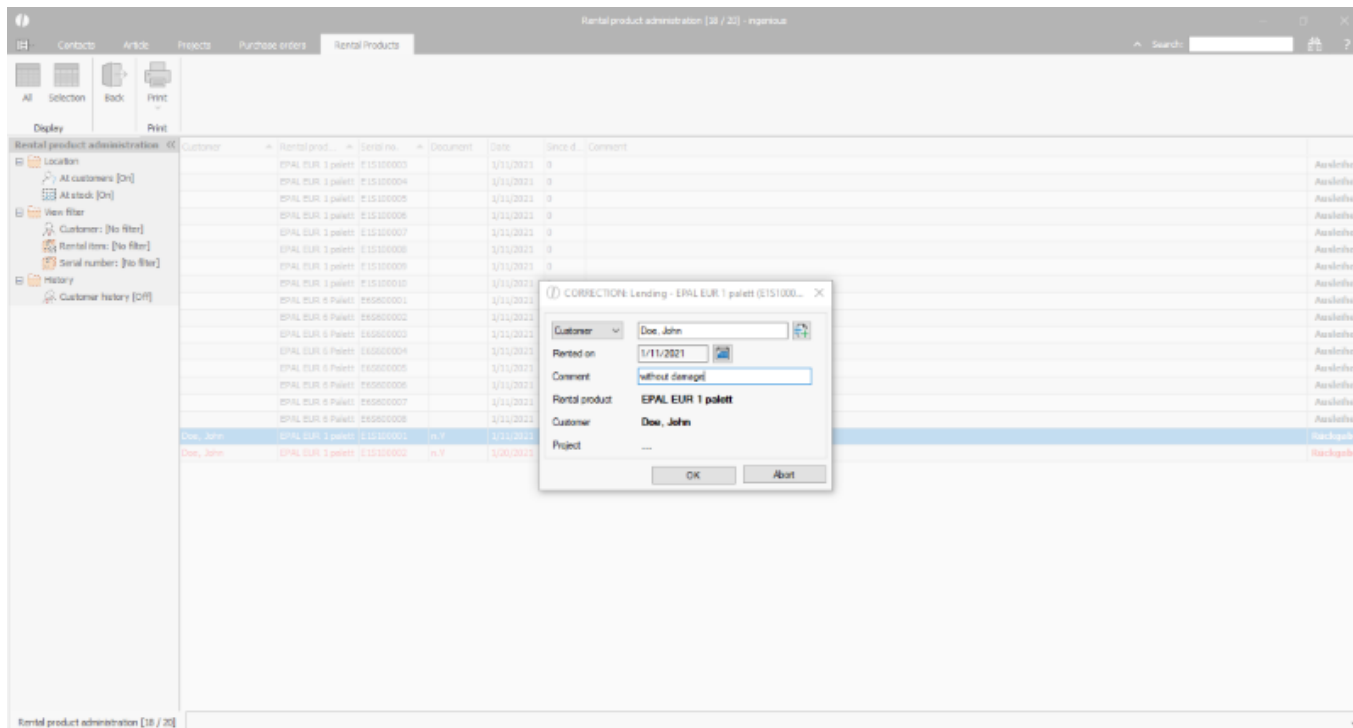
Customer: Doe, John

Project: --

OK Abort

When double-clicking on return, the date of receipt and any comments - e.g. on possible damage - are recorded in the form that appears.

To correct a loan or return, the form can be opened again by double-clicking on the corresponding list line.



## Filter

If there are usually a large number of rental items, the list can be narrowed down using the filter bar for a better overview.

	At customers - Lists all rental items that are currently on loan from a customer. The filter is set to [on] or [off] by double-clicking.
	In stock - Lists all rental items that are currently in stock. The filter is set to [on] or [off] by double-clicking.
	Customer: - Lists all rental items that a particular customer has borrowed. A double click opens a search field for entering the customer matchcode, or the corresponding customer can be set from a selection list.
	Rental items: - Lists all rental items (serial numbers) of the same type (matchcode). A double click opens a search field for entering the article matchcode, or the corresponding article can be selected from a selection list.
	Serial number: - Lists exactly the item that is searched for using the serial number entered (+ its history, if this filter is activated). A double-click opens a search field for entering the serial number, or the corresponding serial number can be selected from a selection list.





Customer history: - Lists the history of exactly one customer and / or serial number.

It can be traced which article the customer has already had or which one of the rental articles was with which customer.

The customer history can only be shown if a customer has been selected via the customer filter and / or a serial number via the serial number filter at the same time.

The filter is switched [on] or [off] by double-clicking.




Customer	Rental product	Serial no.	Document	Date	Since d.	Comment
Doc, John	EPAL EUR 1 pallet	E15100001		3/20/2021		without damage
Doc, John	EPAL EUR 1 pallet	E15100002	n.V	3/20/2021		without damage
Doc, John	EPAL EUR 1 pallet	E15100001	n.V	3/11/2021		without damage

In addition, the general filter options of the list view can be used (see the **The list views (Section 3.4)**).

A serial number can be specifically searched for using the quick search function at the top right of the window.

## Functions in the icon bar

The following functions are available via the icon bar:

	Lists all rental items according to the filter settings
	Restricts the display to the selected rental items
	Closes the rental product administration



Prints the rental item management list as shown.

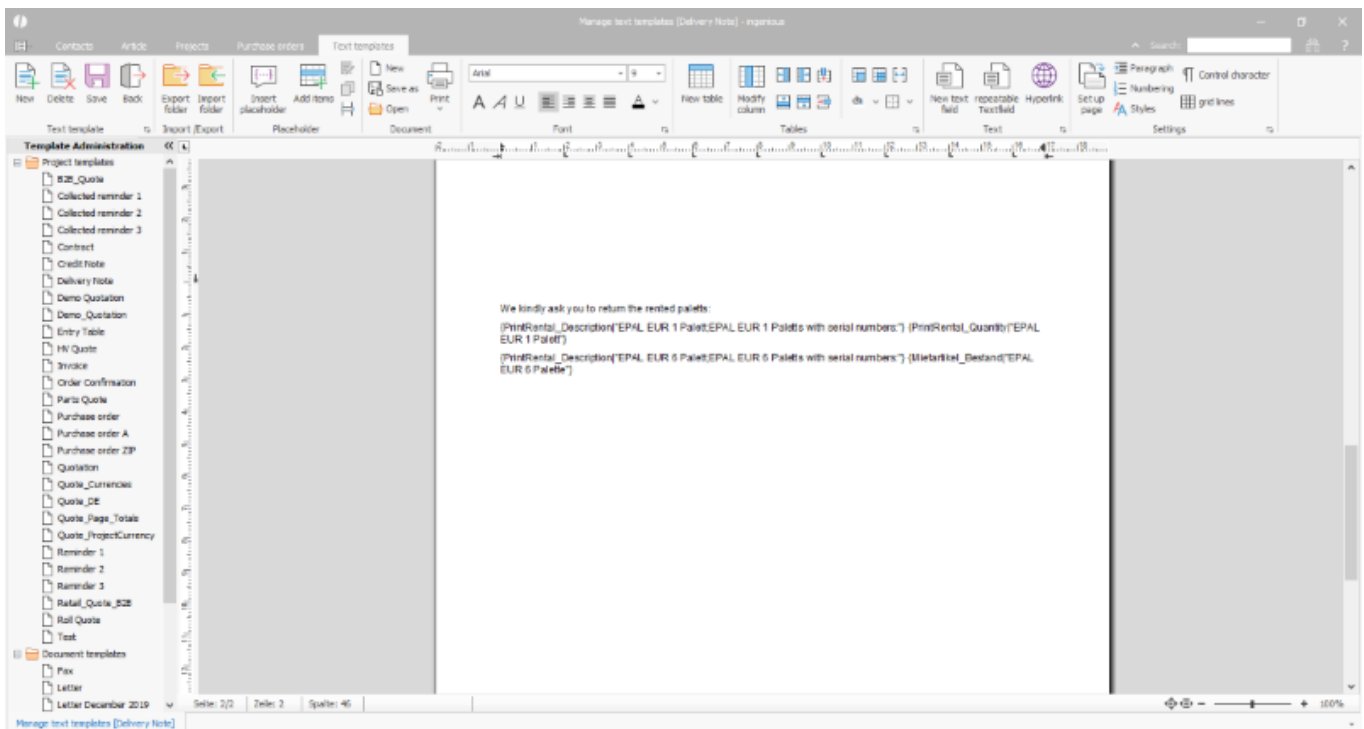
Additional options are available via the triangle below the printer symbol:

- Display of a print preview of the current list
- Printing a linked individual print report
- Creation and integration of an individual print report

## Indication of borrowed items on project documents

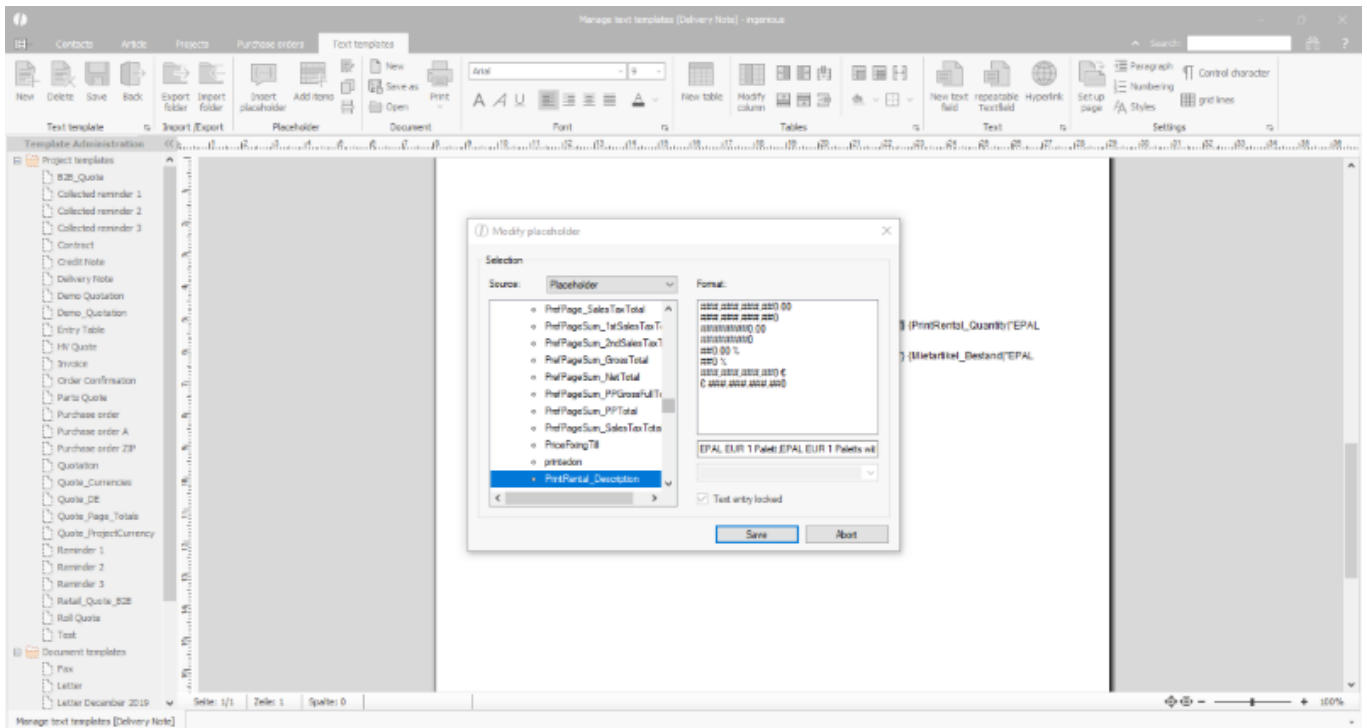
The rental items borrowed by the customer can be listed on the project documents using placeholders, for example to remind the customer of the return.

The placeholders {PrintRental\_Description} and {PrintRental\_Quantity} can be used on the **project template (Section 8.1.2)**:



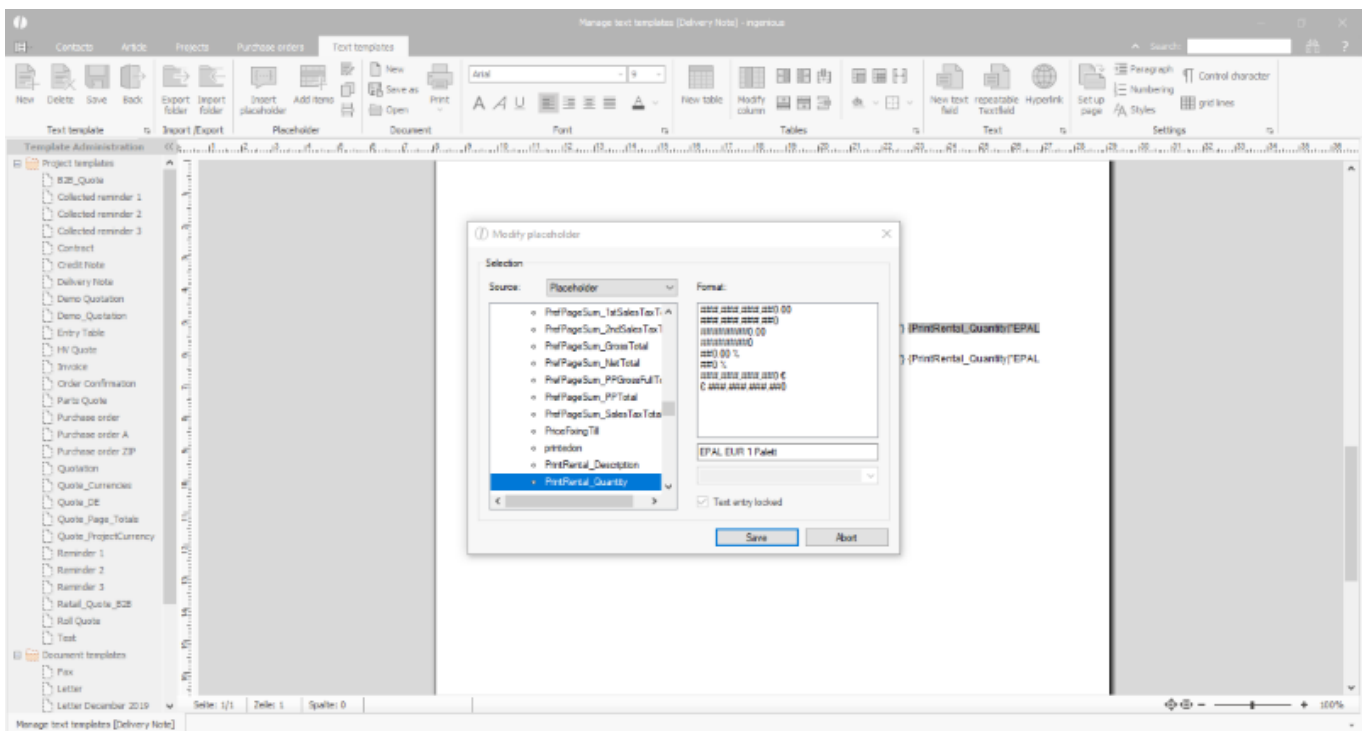
In the placeholder {PrintRental\_Description}, a description text can be specified for each rental article that is to be printed on the project documents.

The matchcode of the rental item must be entered in the formatting text of the placeholder and the description text, that is to be printed for this rental item, separated by a semicolon.



The placeholder {PrintRental\_Quantity} shows the serial numbers of the borrowed articles.

The matchcode of the rental item must be entered in the formatting text of the placeholder.



All rental items currently borrowed by a customer are then listed in the project document.

If the customer has not borrowed a rental item type, this type is not mentioned

Customer	Rental prod.	Serial no.	Document	Date	Since d.	Comment	
	EPAL EUR 1 pallet	E15100001		1/20/2021	0	without damage	Ausleihen
	EPAL EUR 1 pallet	E15100003		1/21/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100004		1/21/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100005		1/21/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100006		1/21/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100007		1/21/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100008		1/21/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100009		1/21/2021	0		Ausleihen
	EPAL EUR 1 pallet	E15100010		1/21/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E6500001		1/21/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E6500002		1/21/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E6500003		1/21/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E6500004		1/21/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E6500005		1/21/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E6500006		1/21/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E6500007		1/21/2021	0		Ausleihen
	EPAL EUR 6 Pallet	E6500008		1/21/2021	0		Ausleihen
Doe, John	EPAL EUR 1 pallet	E15100002	n.V	1/20/2021	1		Rückgabe

**Please sign for receiving the items**

\_\_\_\_\_

Date, Signature, Stamp

We kindly ask you to return the rented pallets:  
EPAL EUR 1 Pallets with serial numbers: E15100002

Simple Company  
Rennle street 120  
12145 Sample town  
Phone: +00 123 456 789  
Fax: +00 123 456 789  
Email: sample@ingenious.de  
Web: www.ingenious.net

Back: Str 49 5pk145678  
Bach: 09876543210 1234567890  
@: WGLAGSLEXX

12345  
Manager: Nancy-Ross  
VAT-ID: 123456789  
TaxID: 123-4567890

Page 1 of 1

created 1/20/2021 9:12:57 AM - admin Modified 1/20/2021 9:12:57 AM - admin Field info: OE\_Adresse06

Projects [0 / 346] Delivery note D2021010003

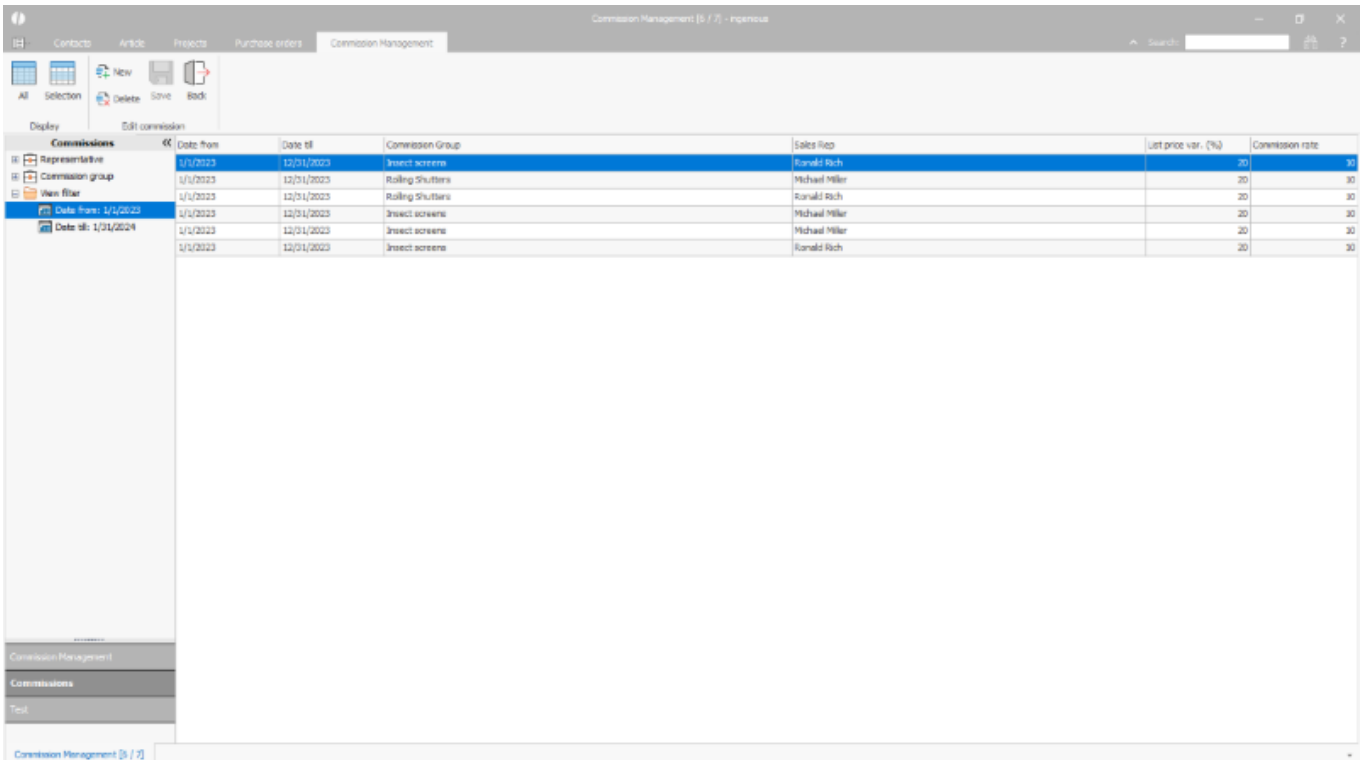
## 7.4 Commission management

## 7.4.1 Commission management






In the commission management, the commission rates of the individual representatives for calculating sales commissions are stored to use them on individual print reports.

Different commission rates can be created for different commission groups (grouping of items).

The commission management starts with a list view in which all created commissions can be seen.

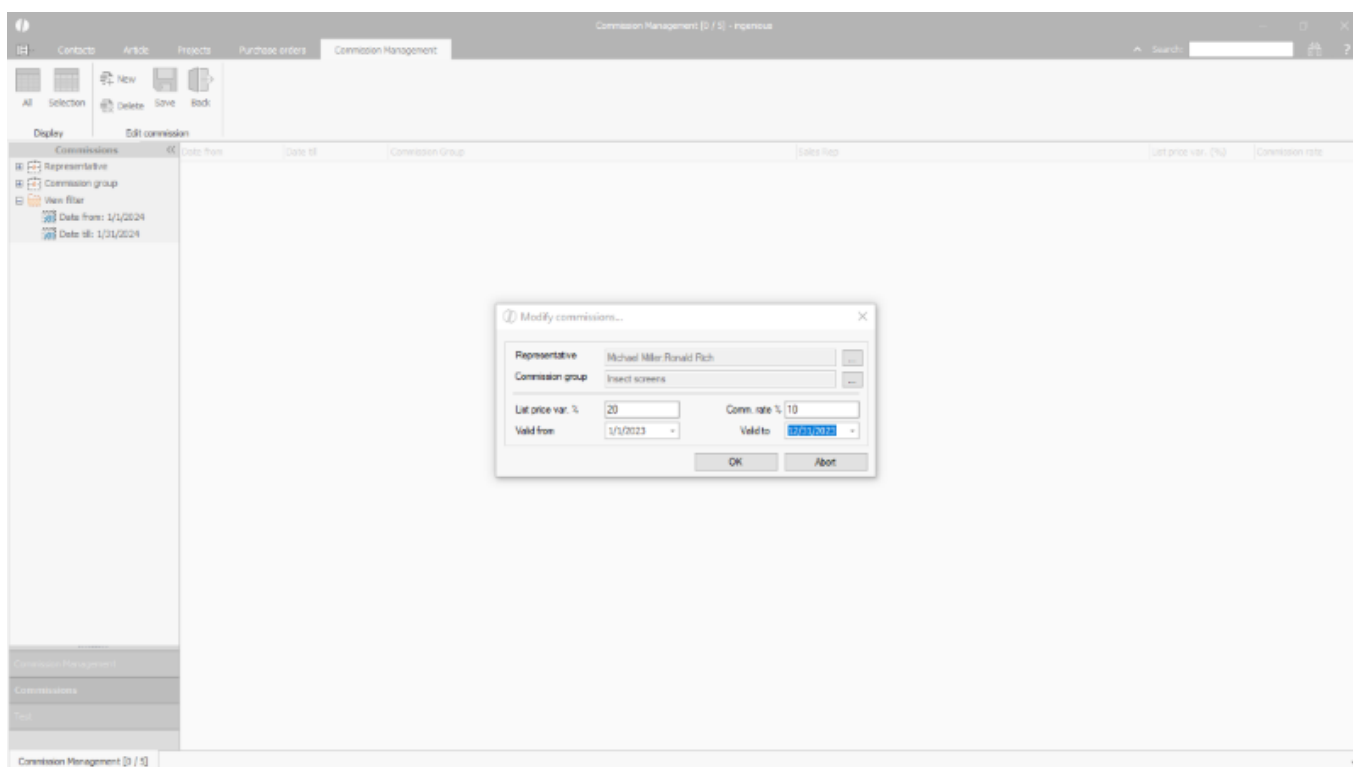


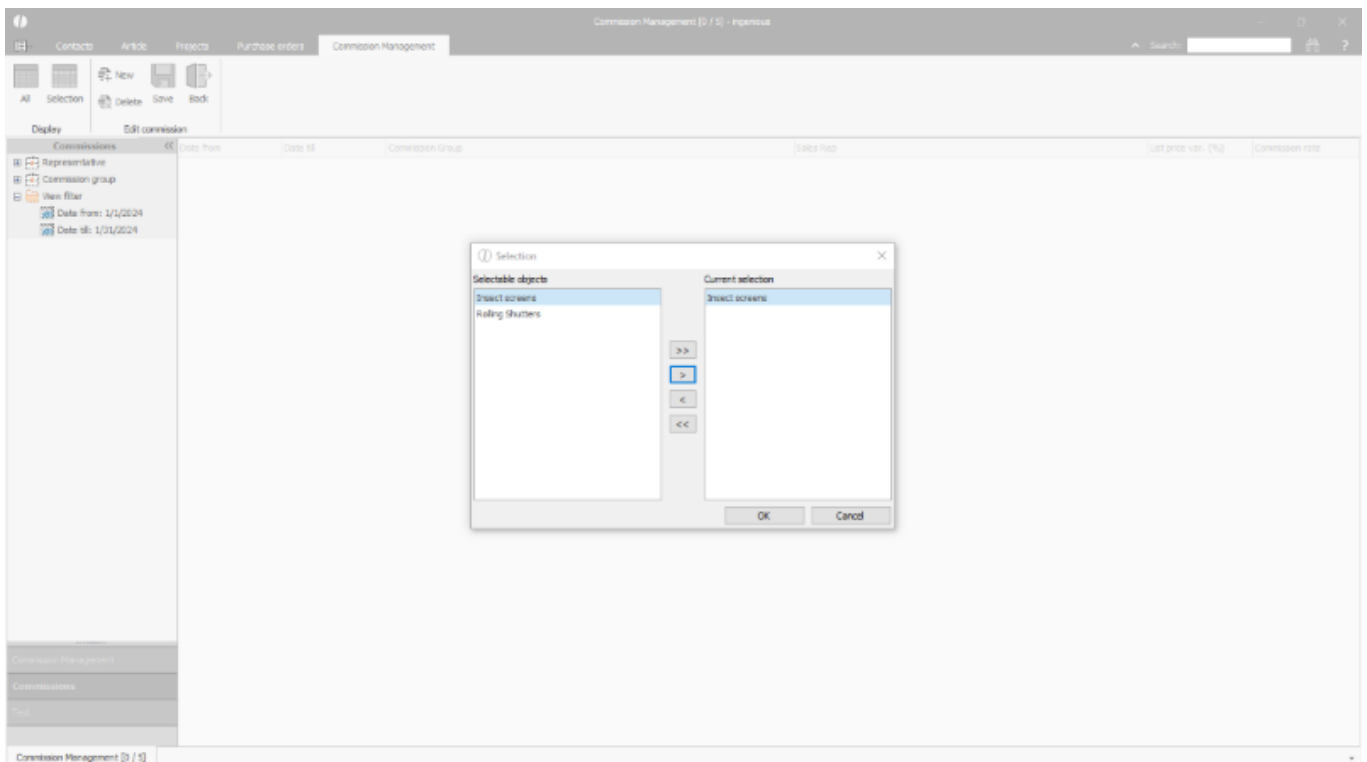
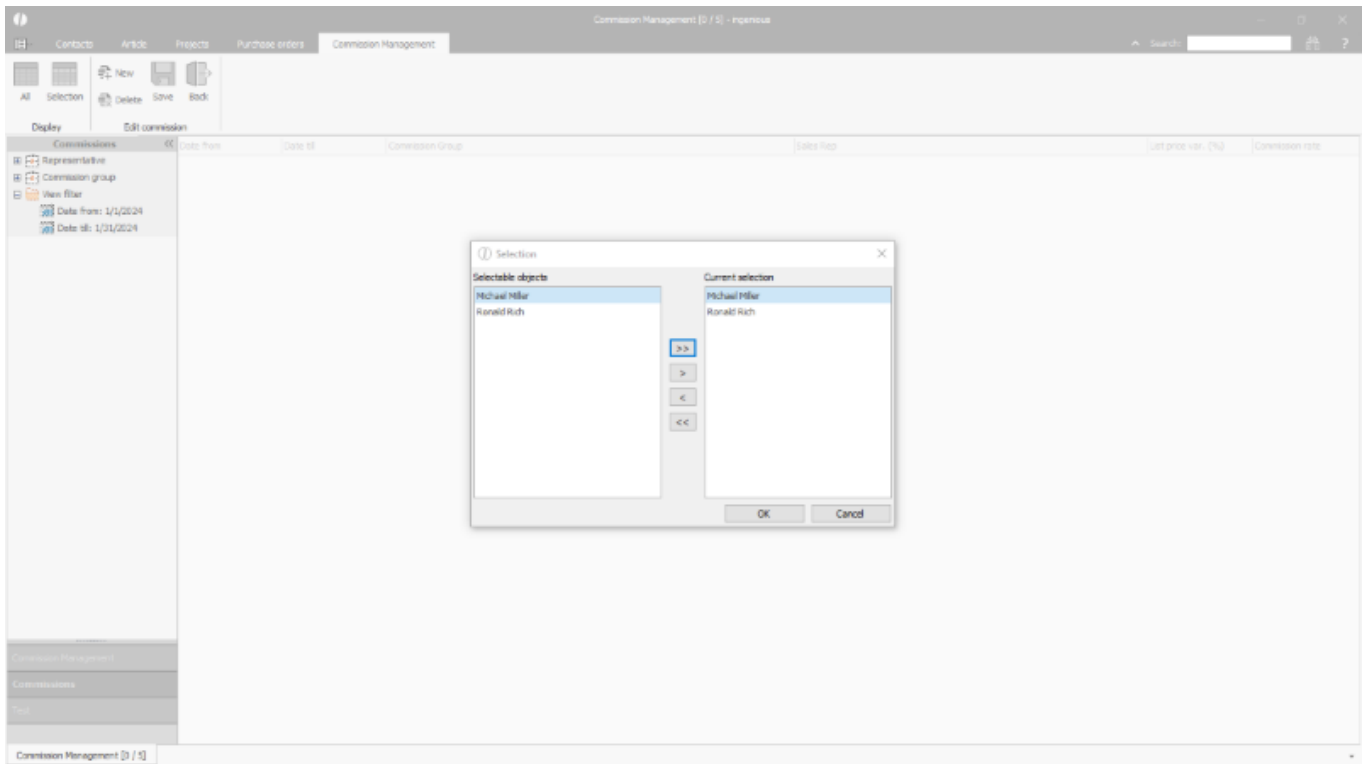
The following functions are available from the toolbar:

	Shows all created commissions according to the filter settings
	Limits the display to the commissions marked in the list
	Creation of one or more new commissions
	Delete the commissions marked in the list
	Closes the commission management

When creating a new commission, the following details must be recorded:

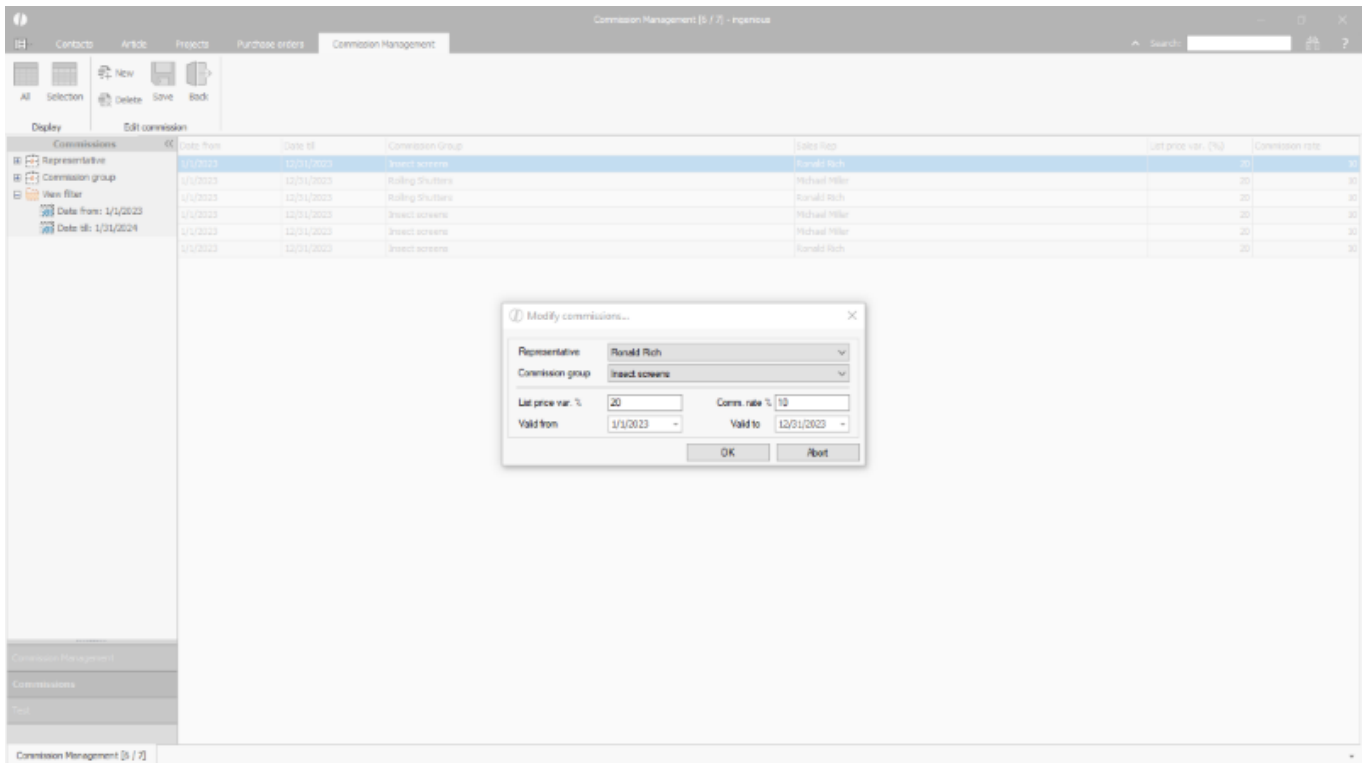
Representative	Protected input field + button	Opens a separate window for drag-and-drop selection of the representative(s) to whom the commission applies. The representative receives a commission for sales with his customers. The customer - representative connection is stored in the contact record in the <b>Financial data and classification (Section 4.1.2.4)</b>
Commission group	Protected input field + button	Opens a separate window for drag-and-drop selection of the commission group(s) to which the commission applies. This allows the commission calculation to be limited to individual items that have been sorted into the commission group. A commission group is assigned in the item data under <b>Article parameter (Section 4.2.2.4)</b>
List price variance %	Simple input field	The list price variance can be used to determine up to which maximum deviation of the customer price from the regular list price the representative will receive a commission.
Commission rate %	Simple input field	Enter the percentage with which the representative will share in the sales.
Valid from	Date field	If a commission rate is limited in time, the start date can be entered here.
Valid to	Date field	If a commission rate is limited in time, the end date can be entered here.





After entry, a commission data record is created for each representative-commission group combination.

A single commission can be opened by double-clicking and changed using the form that appears.



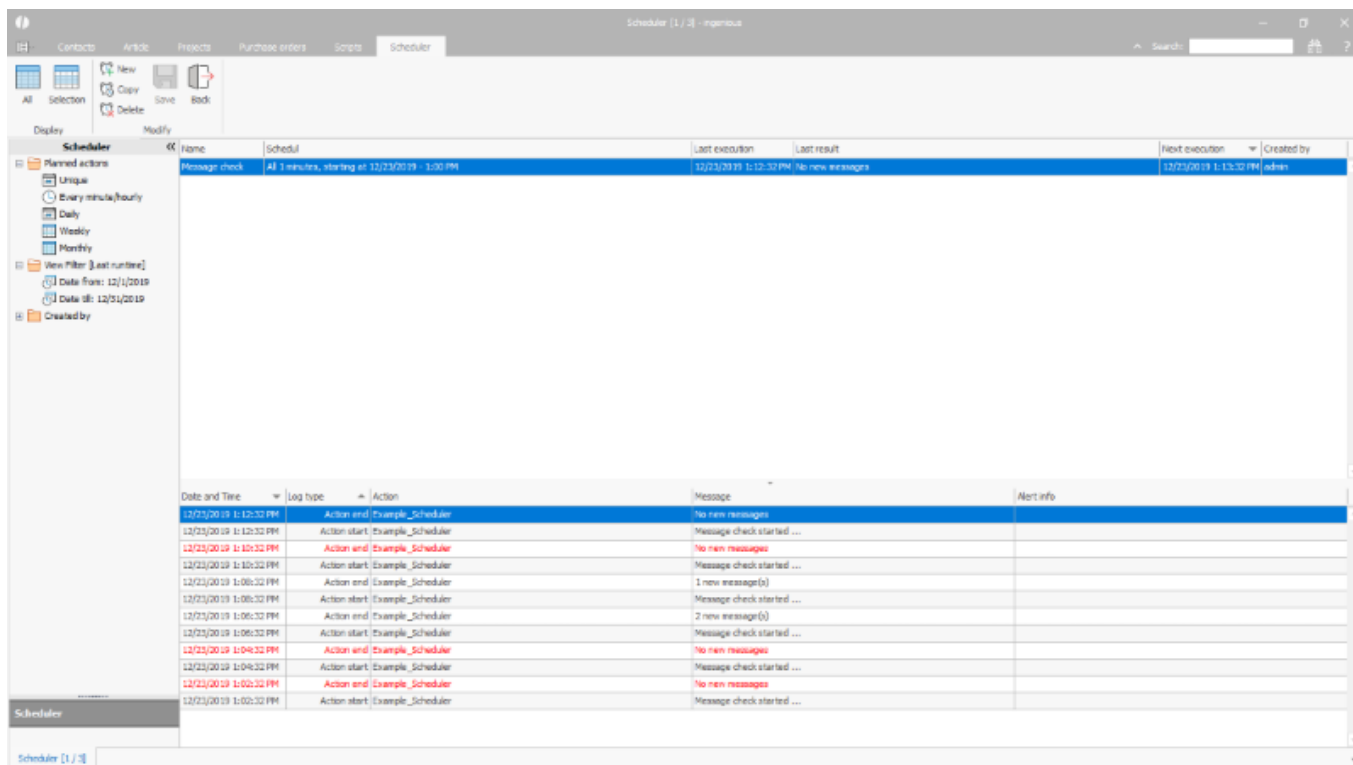
## 7.5 Scheduler

### 7.5.1 Scheduler








The scheduler is a separate module for the automatic, time-controlled execution of individual scripts.

The list view of the module consists of a filter and a data area. In the data area, all recorded schedule entries are collected and below, in a separate report area (which can be hidden or displayed), a summary of the recent terms and their results for the selected schedule entry is shown.





Via the toolbar, the following functions are available:

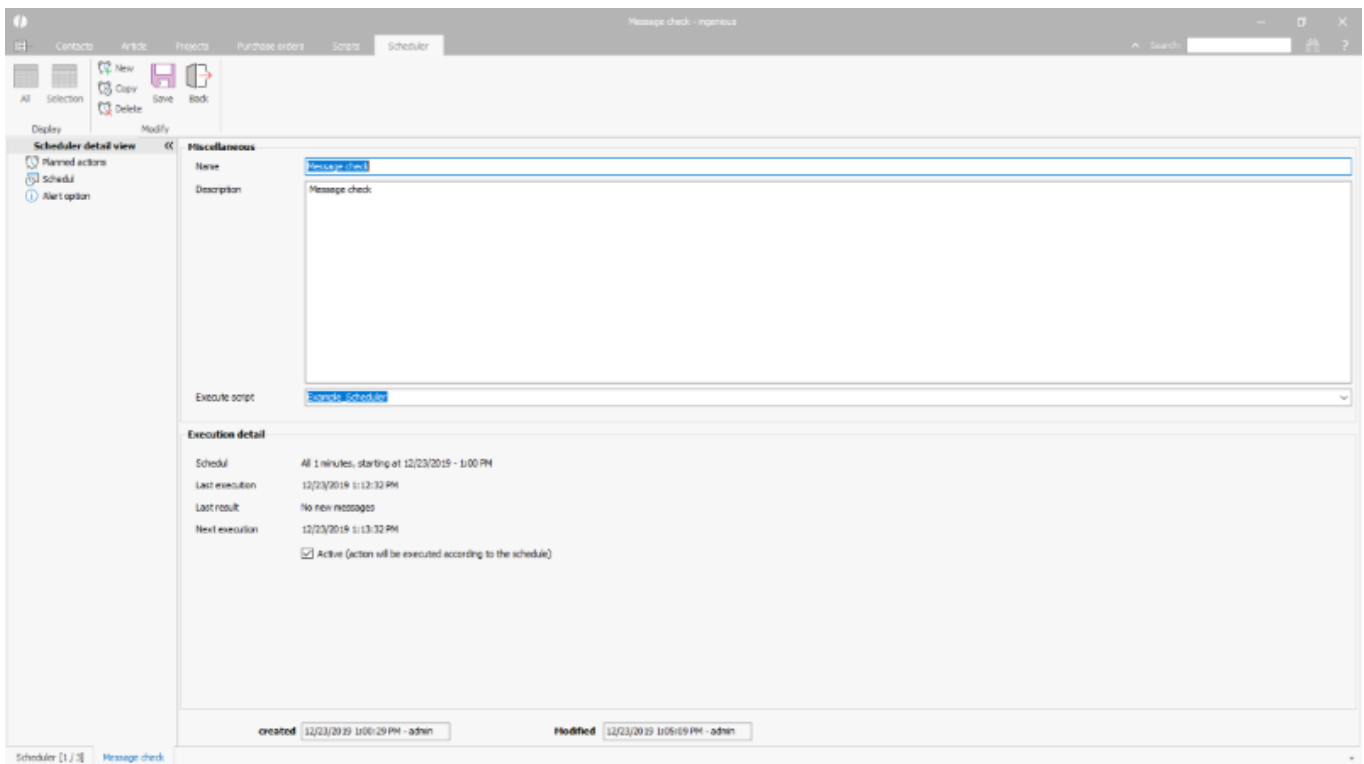
	Displays all entries and according to the activated filter(s).
	Limits the display to the marked entries.
	Creates a new schedule entry
	Duplicates the selected schedule entry
	Deletes the selected schedule entry
	Saves the modifications in the detail view of the open schedule entry.
	Closes the module

The configuration of a schedule entry proceeds via these options:

### Miscellaneous:

Name	Individual name of the schedule event; this name is displayed in the list of results and the info-box.
------	--

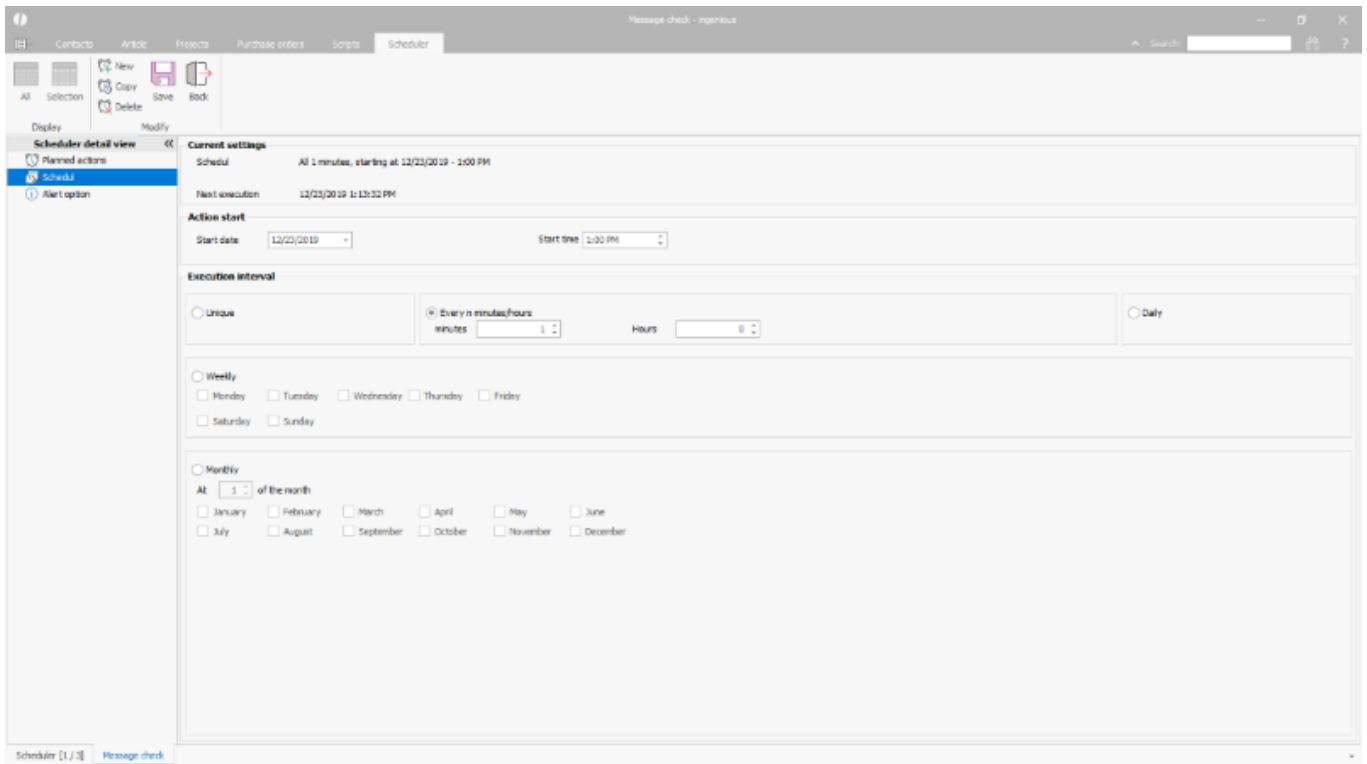
Description	A detailed description of the schedule event to facilitate its administration.
Execute script	Selection of the schedule script that shall be executed. The selection contains all scripts, which have been created for the schedule module.
Checkbox "active"	Action will be executed according to the schedule, if this box is checked. Removing the check, the execution is stopped.



### Schedul(e):

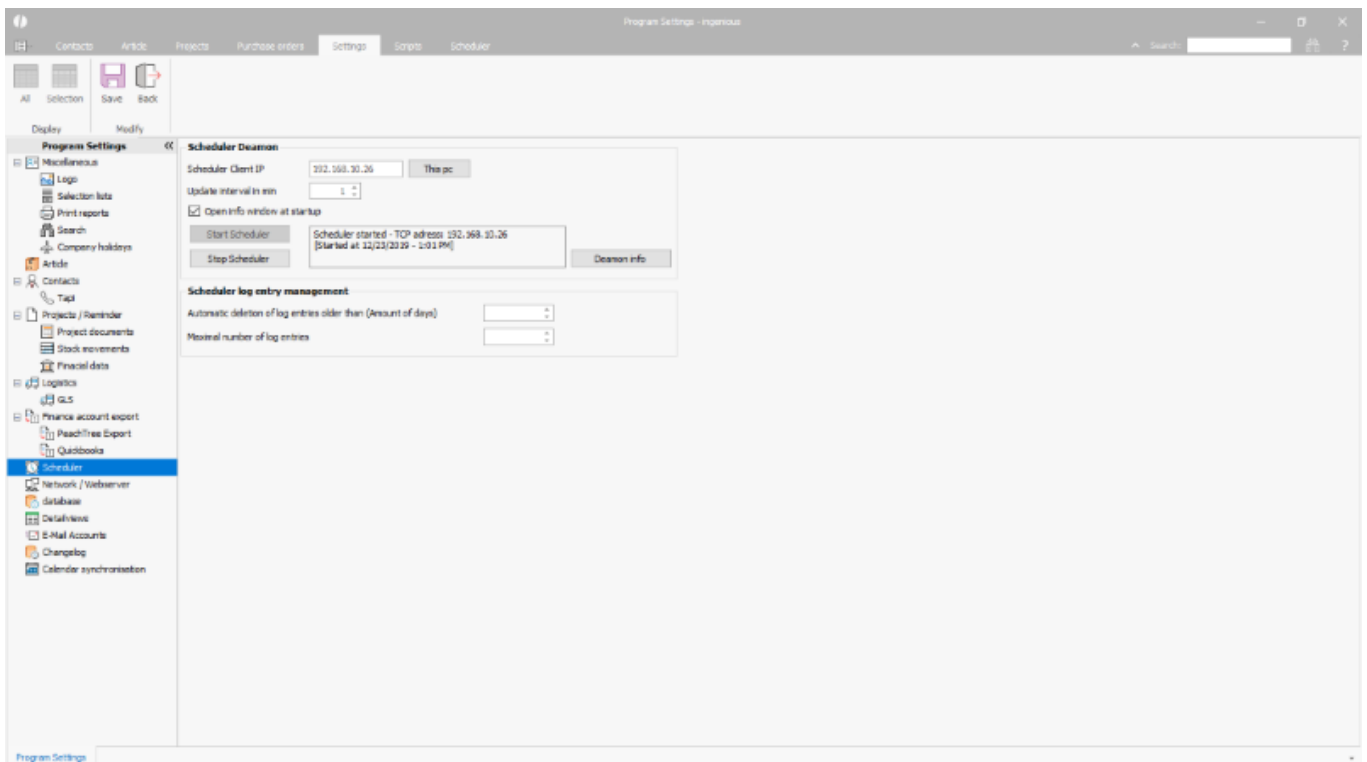
In the schedule it is determined, from when on a schedule action is executed and in which interval it will be repeated. Possible execution intervals are:

- once-off/ non-recurrent
- every n-minutes / hours
- daily
- weekly (+ weekday)
- monthly (+ months and day of month)

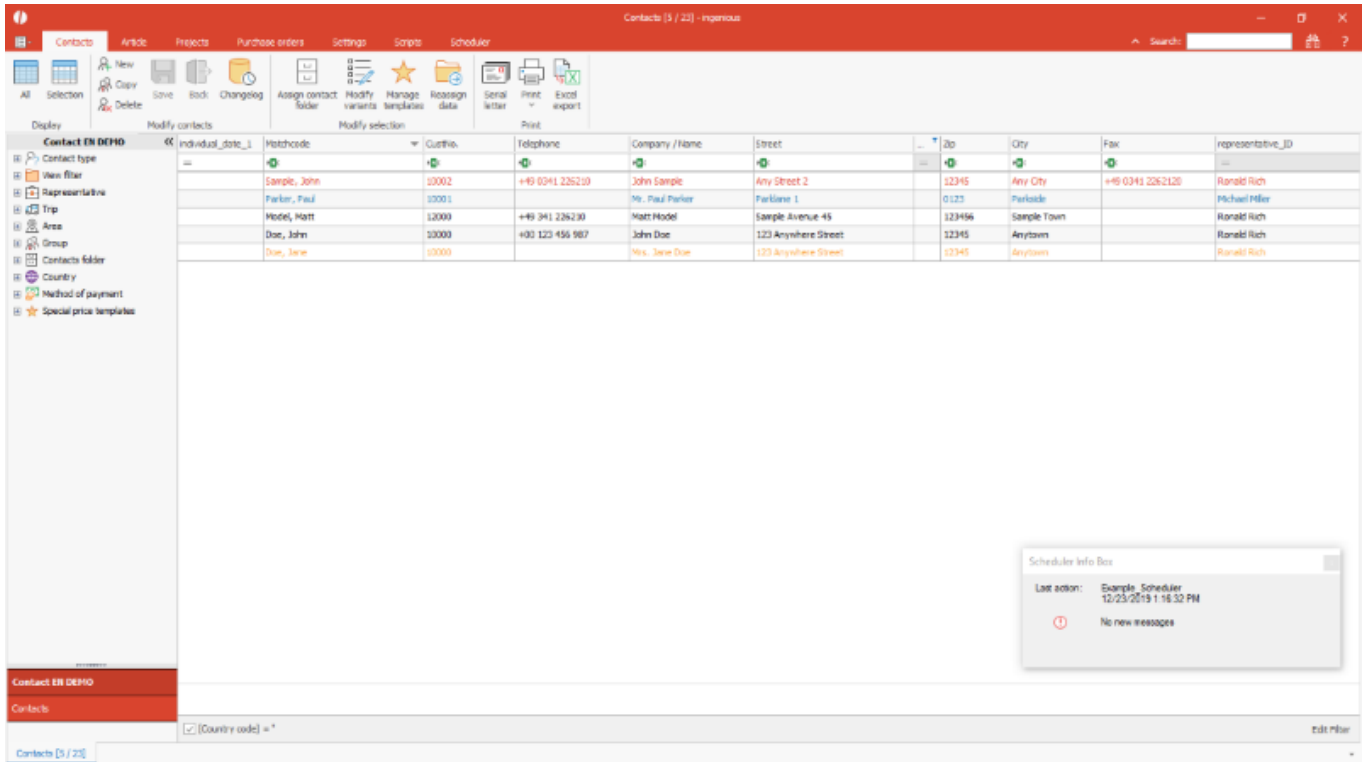


For the functions of the scheduler, the program settings have to be configured accordingly.

Here the computer is to be configured that should run the scheduler and it can be defined, when old log entries should be deleted.



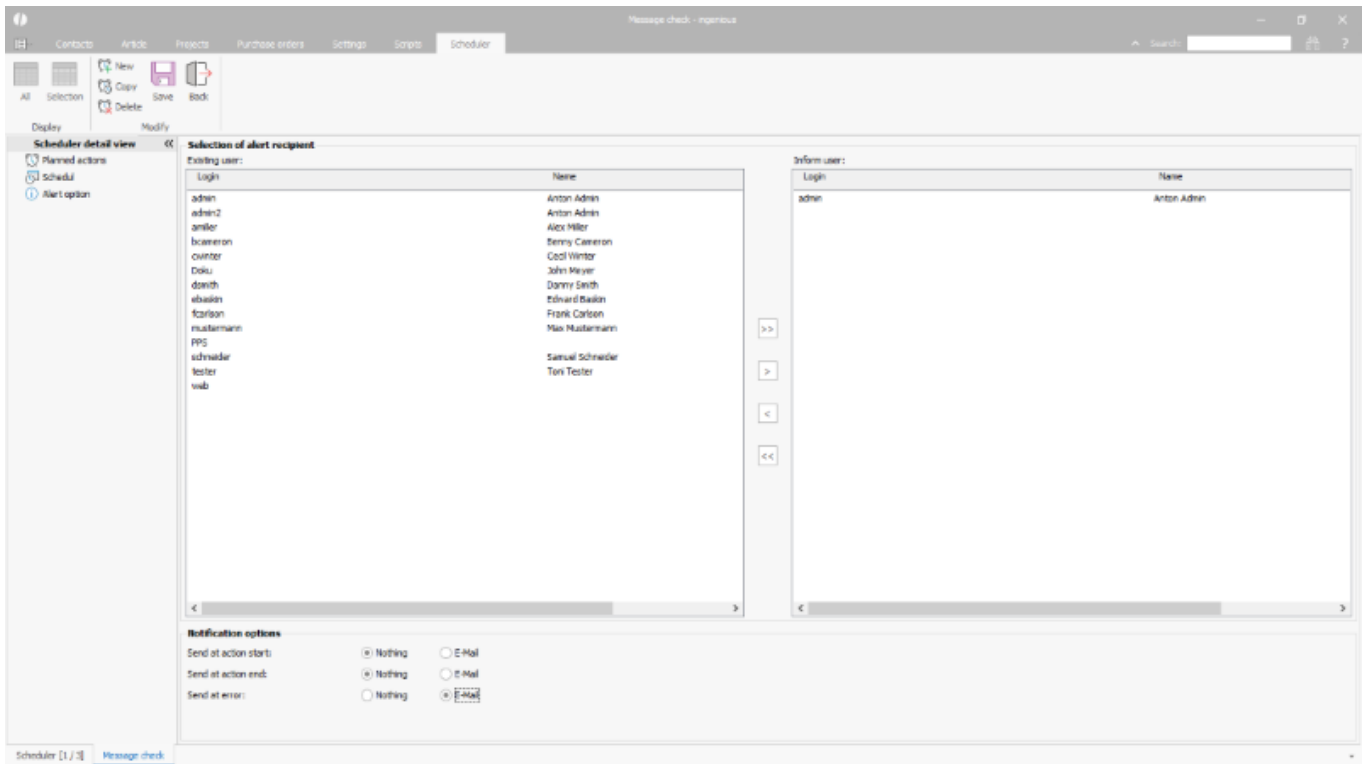
If the respective checkbox is checked, an info box with the most recent message is displayed on the computer on which the scheduler is running. This info box is a floating window. It can be moved freely on the monitor and is always in the foreground, but does not block any window behind it.



Additionally, for each schedule entry an e-mail can be sent to selected users in cases of:

- the start of an action
- the end of an action
- errors

Which user receive messages is defined simply via the arrow-button selection.



For a correct functioning of the e-mail messenger, the sending of e-mails has to be configured in the program settings (Network / Web server) and for the respective users, a valid e-mail address has to be deposited (**user administration**).

### Auto login for the scheduler

At the start of the ingenious client the login and password of the user has to be entered. This can be a barrier for the scheduler in the case that the client crashes by hardware or software or automatically restarts for any other reason (e.g. caused by unfavorably configured Windows updates). Indeed the client can be started automatically with the computer by auto start function of Windows, but all scheduler scripts only run after the login of the user.

These login credentials can be stored for the scheduler in the (connection) ini-file, that contains all information about server and database, where the user should login to. The login credentials are to complement in the following form:

Content of an auto login ini file

```
"Data Source=SERVERNAME;Initial Catalog=DATABASENAME;Persist Security Info=True;User ID=sa
;Password=abc
ingenious_User=admin;ingenious_Password=xyz"
```

If all users work with the same client on a network directory the login credentials should be entered into a copied file of the connection ini file. The original file should stay unchanged. The scheduler is the only one that uses the connection data. For this the right ini file has to be set as parameter in the shortcut of the program.

## 7.6 Trip planning

### 7.6.1 The trip planning module








In the trip planning, projects that are to be combined into a (delivery) route can be listed and placed in a route-optimized order.

The projects are selected by project type, delivery date (the date linked to the route planning - see **trip configuration (Section 7.6.2)**) and assigned trip using the corresponding filters in the left filter bar.

Delivery date	Trip	Customer	Delivery name	Delivery zip	Delivery city	Delivery street	Document number	Date	Project	Driver	Vehicle	Delivery note
1/18/2022	Tuesday	Schweier KG	Schweier KG	14806	Bad Reibitz	Am See Strickhofwies 1	02932010091	1/17/2022	Demo 1	Denny Smith	Springer L-041234	
1/18/2022	Tuesday	Bornstedter Montage	Bornstedter Montage	04205	Bornstedt	Bergstraße 18	02932010093	1/18/2022	Demo 3	Denny Smith	Springer L-041234	
1/18/2022	Tuesday	Dessauer Bauerservice	Dessauer Bauerservice	06847	Dessau-Roßlau	Junkerstraße 52	02932010097	1/18/2022	Demo 7	Denny Smith	Springer L-041234	
1/18/2022	Tuesday	Bau + Service GmbH	Bau + Service GmbH	39284	Halditz	Raudener Straße 23	02932010096	1/18/2022	Demo 6	Denny Smith	Springer L-041234	
1/18/2022	Tuesday	Schulze's Service GBR	Schulze's Service GBR	04949	Bad Driben	Bernhard-Riemers-S.	02932010092	1/18/2022	Demo 2	Denny Smith	Springer L-041234	
1/18/2022	Tuesday	Dessauer Bauerservice	Dessauer Bauerservice	06847	Dessau-Roßlau	Junkerstraße 52	02932010094	1/18/2022	Demo 4	Denny Smith	Springer L-041234	
1/18/2022	Tuesday	Müller & Partner	Müller & Partner	04366	Köthen	Eddertzer Straße 7	02932010095	1/18/2022	Demo 5	Denny Smith	Springer L-041234	

The following functions are available in the tour planning via the toolbar:

	Show all records according to the filter settings
	Limit the records displayed to those selected
	Close the tour planning module
	Export the selected projects to an external program for route optimization and further use if necessary.
	Import the route that has been fine-tuned in an external program
	Step by step move the marked projects up in the delivery order

	Step by step move the marked projects down in the delivery order
	Change selected data (driver, delivery reference, delivery date, trip) for the marked projects uniformly.
	Opens the <b>Vehicle management (Section 7.6.3)</b>
	Opens the <b>Trip configuration (Section 7.6.2)</b>
	Opens the <b>Resources (Section 7.6.4)</b>
	Transfers the resources driver and vehicle assigned in the <b>resource planning (Section 7.6.4)</b> of the respective trip
	Prints the displayed list. You can use the small triangle below the button to create and print your own reports (e.g. route list, loading list, delivery notes).

## Exported / imported routes

Each exported tour that can be assigned to exactly one created tour (trip name) is saved with the projects it contains in the delivery sequence defined for the export.

Within the export filter under the node with the corresponding trip name, an entry with the date values as a designation is stored for this.

On the one hand, the tour can be called up again at any time.

On the other hand, this tour is overwritten with a possibly changed order when it is imported back from an external program.

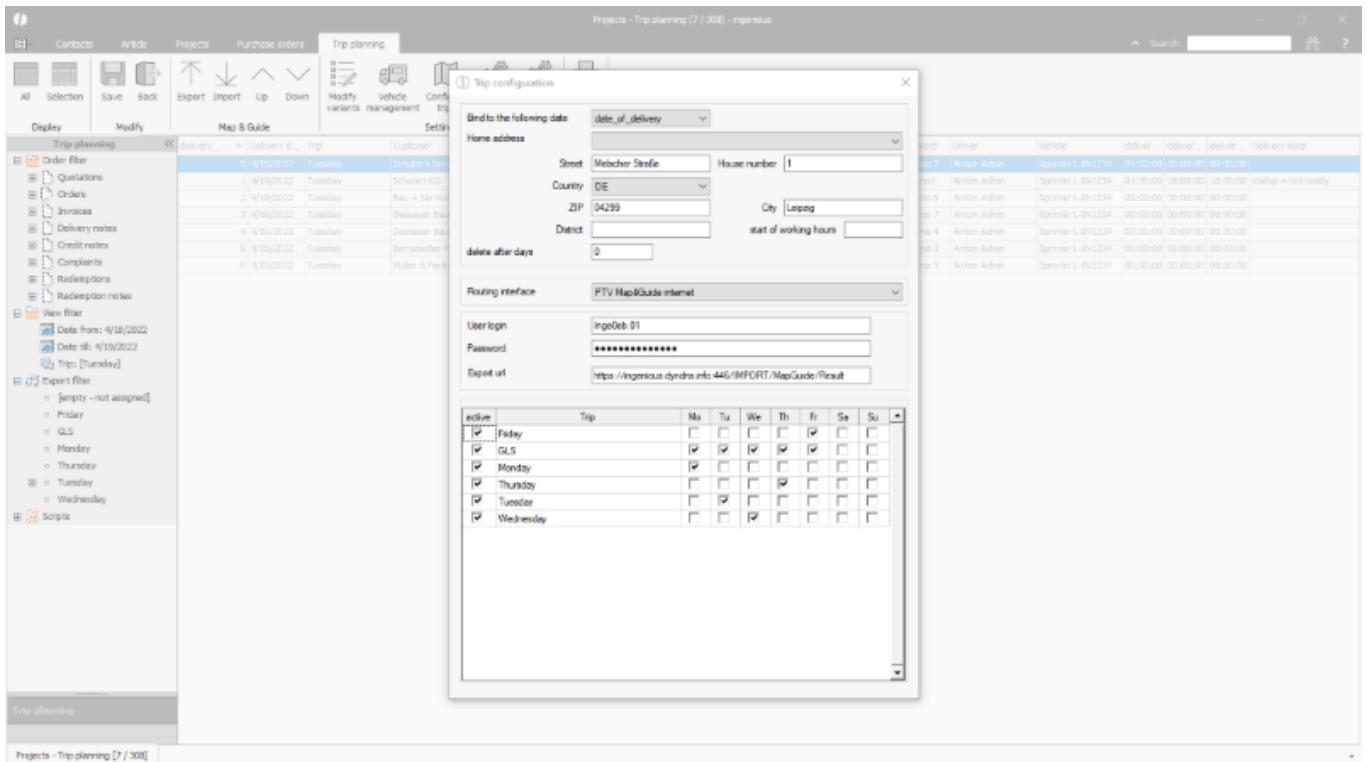
## 7.6.2 Trip configuration

The basic settings for the available trips and any routing interfaces are made in the trip configuration window.

Bind to the following date	Selection list	Selection of a project date field to be linked to the tours.
Home address	Selection list	Selection of a home address, as stored in the <b>program settings / selection lists (Section 8.6.4)</b> for the tour planning module. The home address is used as the start and destination address for an export/import. Any number of home addresses can be stored, depending on the number of plants, branches or other delivery stations.
Street	Simple input field	Street of the selected home address
House	Selection list	House number of the selected home address

number		
Country	Selection list	Country of the selected home address
ZIP	Simple input field	ZIP code of the selected home address
City	Simple input field	City of the selected home address
District	Simple input field	District of the selected home address
Start of working hours	Simple input field	Time at which tours can start; E.g. to optimize the delivery sequences if delivery times are set in projects
Delete after days	Simple input field	Definition of a number of days after which past trips should be deleted from the database
Routing interface	Selection list	Selection of the available interfaces to external programs or services for route optimization  Currently available: <ul style="list-style-type: none"> <li>• PTV Map&amp;Guide desktop (Product discontinued) - The desktop version has been discontinued but is still used by some companies</li> <li>• PTV Map&amp;Guide internet - The remote version is the current version</li> </ul>
Import path (Map& Guide)	Simple input field and Button	Storage of the path from which an optimized route of the PTV Map&Guide desktop (Product discontinued) is to be imported.
Export path (Map & Guide)	Simple input field and Button	Storage of the path to which the addresses of a tour should be exported for optimization in the PTV Map&Guide desktop (Product discontinued).
User Login (Map & Guide)	Simple input field	Login of the user registered with PTV Map&Guide internet
Password (Map & Guide)	Simple input field	Password of the user registered with PTV Map&Guide internet
Export URL (Map & Guide)	Simple input field	Storage of the URL via which the web server to be set up in the company network communicates with the PTV Map&Guide internet version.
Trip list		All trips created in the <b>program settings / selection lists (Section 8.6.4)</b> for the Projects module are listed in the trip list. Here the days of the week on which they are regularly driven are assigned to the trips via checkboxes. When selecting a trip in the project, the combination of the bound date and the allowed weekdays is then validated. The active column determines whether the respective tour can currently be used and is therefore available for selection in the contact and project details or not.





## 7.6.3 Vehicle management





The company's vehicle fleet can optionally be entered in the vehicle management system.



The stored vehicles are available for selection in the **resource planning (Section 7.6.4)** of the tour planning and in the project.

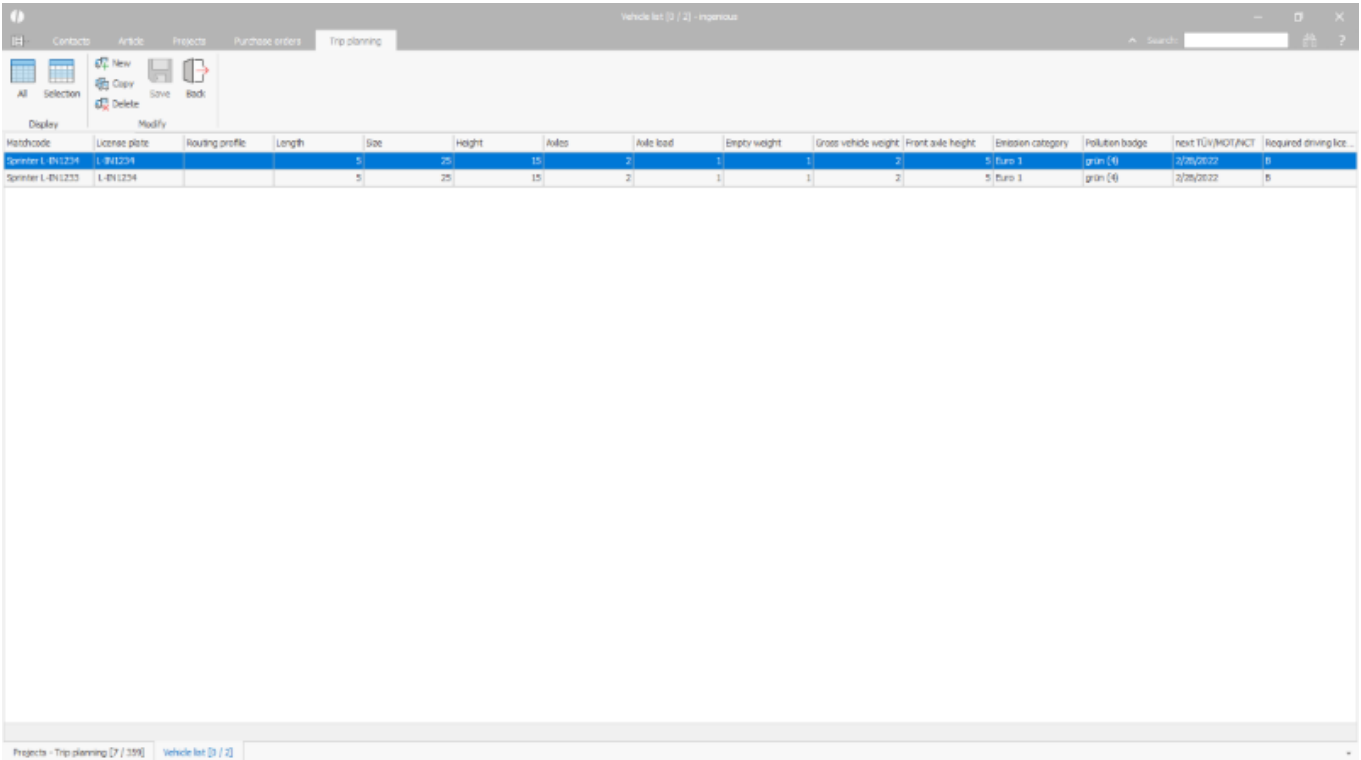
In addition, a user created in the **user administration (Section 8.5.2)** can be designated as the permanent driver of a selected vehicle.

### The vehicle list

The following functions are available via the icon bar in the vehicle management list:

	Show all records
	Limit the records displayed to those selected
	Add a new vehicle
	Duplicate an existing vehicle

	Delete the selected vehicle
	Switch back to tour planning



Matchcode	License plate	Routing profile	Length	Size	Height	Axles	Axle load	Empty weight	Gross vehicle weight	Front axle height	Emission category	Pollution badge	next TÜV/MOT/FACT	Required driving license
Spinner L-BV1234	L-BV1234			5	20	15	2	1	1	2	5 Euro 3	grün (0)	2/28/2022	B
Spinner L-BV1233	L-BV1234			5	25	15	2	1	1	2	5 Euro 3	grün (0)	2/28/2022	B

## The vehicle details

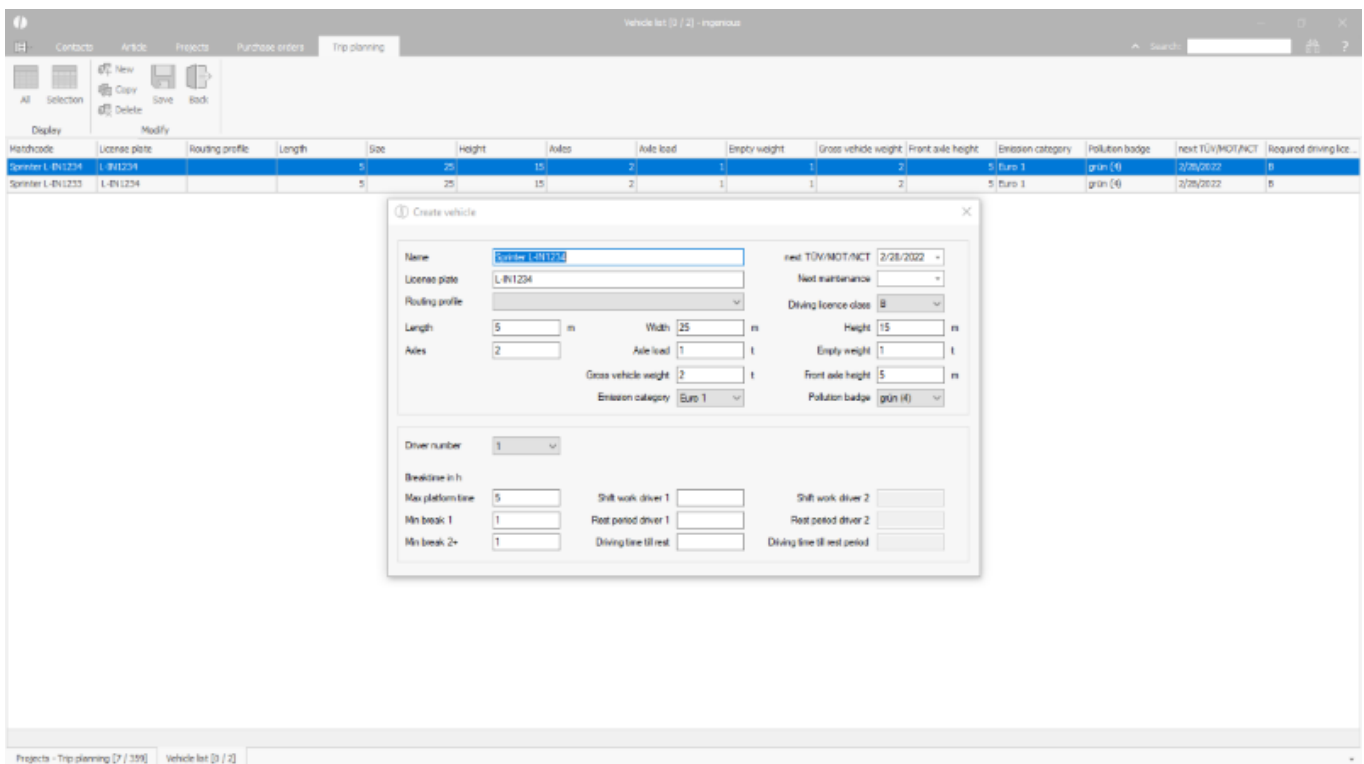
The key data of the individual vehicles and important dates can be stored in the vehicle details.

The data is available for individual evaluations and, if necessary, for interfaces, if supported by them.

Name	Simple input field	Unique individual designation for the vehicle (mandatory field)
License plate	Simple input field	Vehicle registration number (required)
Routing profile	Selection list	Selection of a routing profile created in the <b>program settings / selection lists (Section 8.6.4)</b> for the tour planning module for use in interfaces if available.
Next TÜV/MOT	Date field	Due date or the date for the next main inspection of the vehicle. The vehicle is displayed as absent in resource planning for this appointment.
Next maintenance	Date field	Next maintenance date for this vehicle. The vehicle is displayed as absent in resource planning for this appointment.

appointmnt		
Driving license class	Selection list	Selection of the driver's license class required to drive the vehicle
Length	Simple input field	Vehicle length in meters
Width	Simple input field	Vehicle width in meters
Height	Simple input field	Vehicle height in meters
Axles	Simple input field	Number of axles of the vehicle
Axle load	Simple input field	Vehicle axle load in tons
Empty weight	Simple input field	Vehicle curb weight in tons
Gross vehicle weight	Simple input field	Allowed total weight of the vehicle in tons
Front axle height	Simple input field	Height above the front axle of the vshicle in meters
Emission category	Selection list	Emission class of the vehicle
Pollution badge	Selection list	Vehicle pollution class
Driver number	Selection list	Number of drivers required
Max platform time	Simple input field	Maximum driving time in hours
Min break 1	Simple input field	Required duration of the first break in hours
Min break 2+	Simple input field	Required duration of the second and each subsequent break in hours
Shift work driver	Simple	Duration of a shift of the first driver in hours

1	input field	
Rest period driver 1	Simple input field	Duration of a the rest time of the first driver in hours
Driving time till rest period	Simple input field	Maximum driving time of the first driver before his rest time
Shift work driver 2	Simple input field	Duration of a shift of the second driver in hours
Rest period driver 2	Simple input field	Duration of a the rest time of the second driver in hours
Driving time till rest period	Simple input field	Maximum driving time of the second driver before his rest time



## 7.6.4 Resources



All available drivers are assigned to their vehicles and trips in the resource planning.

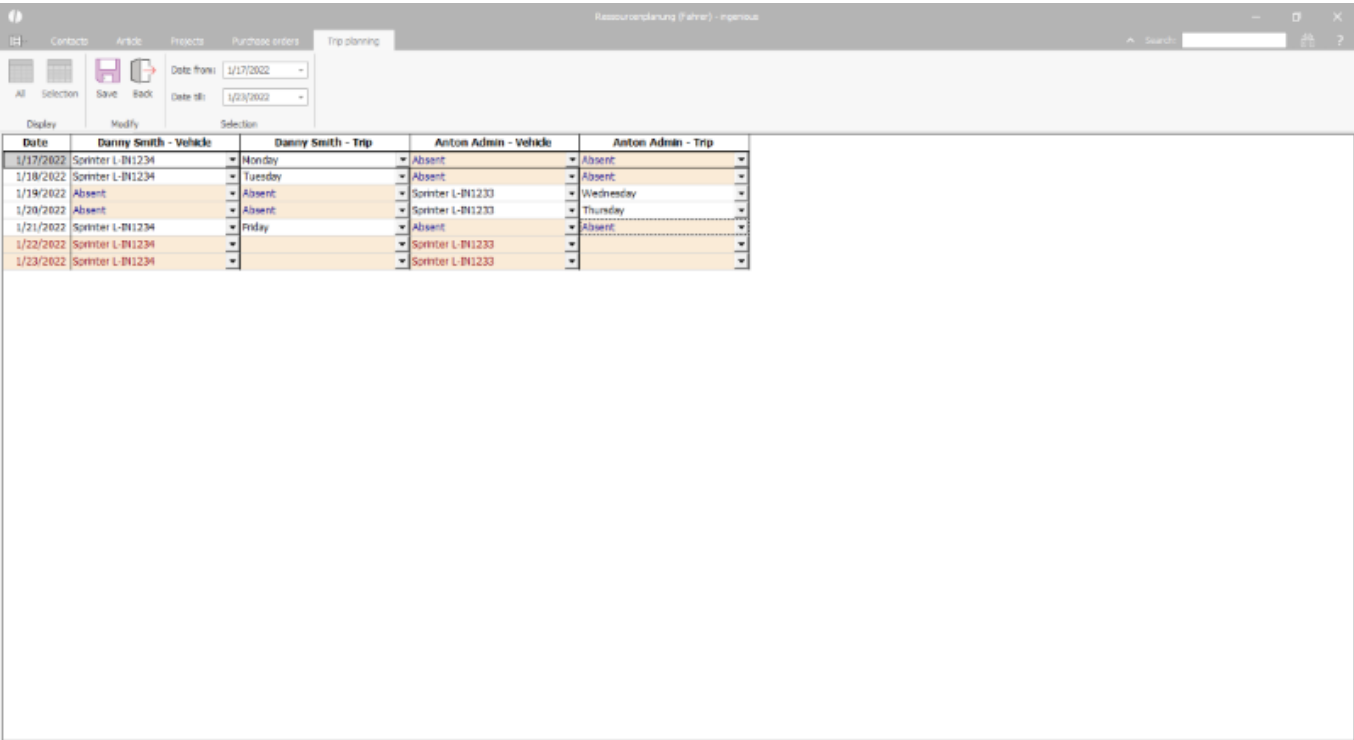
For resource planning, the view can be limited to the desired period using the from and to date fields.

The vehicles are initially automatically assigned to the drivers, as configured in the **user administration (Section 8.5.2)**.

The corresponding trip is then assigned to the individual days for the drivers.

If a driver or vehicle is not available on a particular day, the "Absent" entry is set for him.

The settings are saved with the button  and the resource planning is closed with the button .



Date	Danny Smith - Vehicle	Danny Smith - Trip	Anton Admin - Vehicle	Anton Admin - Trip
1/17/2022	Sprinter L-BN1234	Monday	Absent	Absent
1/18/2022	Sprinter L-BN1234	Tuesday	Absent	Absent
1/19/2022	Absent	Absent	Sprinter L-BN1233	Wednesday
1/20/2022	Absent	Absent	Sprinter L-BN1233	Thursday
1/21/2022	Sprinter L-BN1234	Friday	Absent	Absent
1/22/2022	Sprinter L-BN1234		Sprinter L-BN1233	
1/23/2022	Sprinter L-BN1234		Sprinter L-BN1233	

## 7.6.5 PTV Map&Guide internet interface

In the ingenious trip planning, all deliveries of one day are combined into one route according to uniform criteria.

Via a remote interface to the route planning service PTV Map&Guide internet, the addresses can be arranged in a route-optimized order.

This sequence is written back to the ingenious software via the interface and is available for further actions, e.g. printing the documents.

The following details are transferred when exporting to PTV Map&Guide internet, among others:

login	Username registered to access PTV Map&Guide internet	To be stored in <b>Trip configuration (Section 7.6.2)</b>
password	Password of the PTV Map&Guide internet user	To be stored in <b>Trip configuration (Section 7.6.2)</b>
language	Language with which the ingenious user is logged on to the ingenious software. PTV Map&Guide internet runs in the same language. Possible common languages: DE, EN, FR, NL	One-time selection when login to the ingenious software
vehicle	A vehicle can optionally be transferred for a trip for cost calculation and checking of travel restrictions for individual vehicle classes. The vehicle name must be created and transferred in the language in which the registration takes place. For assignment in PTV Map&Guide internet, the vehicle must be created with the same name in the PTV Map&Guide internet user account. Vehicles stored in PTV Map&Guide internet can be accessed. The other vehicle details saved in ingenious are not transferred.	The vehicles can be created in ingenious in the <b>vehicle management (Section 7.6.3)</b> .

For each station to be approached (parameter s<index>), the following details are transmitted, if applicable:

country	Delivery address country code	*
zipCode	Delivery address zip code	*
town	Delivery address town	*
district	Delivery address district	*
street	Delivery address street	*
hounumber	Delivery address housenumber (only for home address, otherwise included with street)	
comment	Comment	Project number, or project numbers if several orders were combined
timewindow start	Predetermined time slot for delivery - start	corresponding project field in the format hh:mm:ss (s. <b>Times (Section 4.3.2.4)</b> )
timewindow end	Predetermined time slot for delivery - end	corresponding project field in the format hh:mm:ss
stay hours	Duration of the delivery	corresponding project field in the format hh:mm:ss
exporturl	URL to the web server that should receive the response with the route to import.	The URL of the web server must be stored in the ingenious <b>Trip configuration (Section 7.6.2)</b> .

The first and last stations are the start and end of the route, which corresponds to the home address.

\* For the delivery address, the address data are used with the following priority according to their completeness:



- Complete delivery address of the project
- Complete customer address of the project
- Complete customer address of the contact
- Incomplete delivery address of the project

- Incomplete customer address of the project
- Incomplete customer address of the contact

An address is complete when the fields street and house number, city, postal code and country are set.

## Process in the trip planning

To plan a route, the filters in the ingenious software must first be set accordingly in order to list all projects for a delivery day/route.

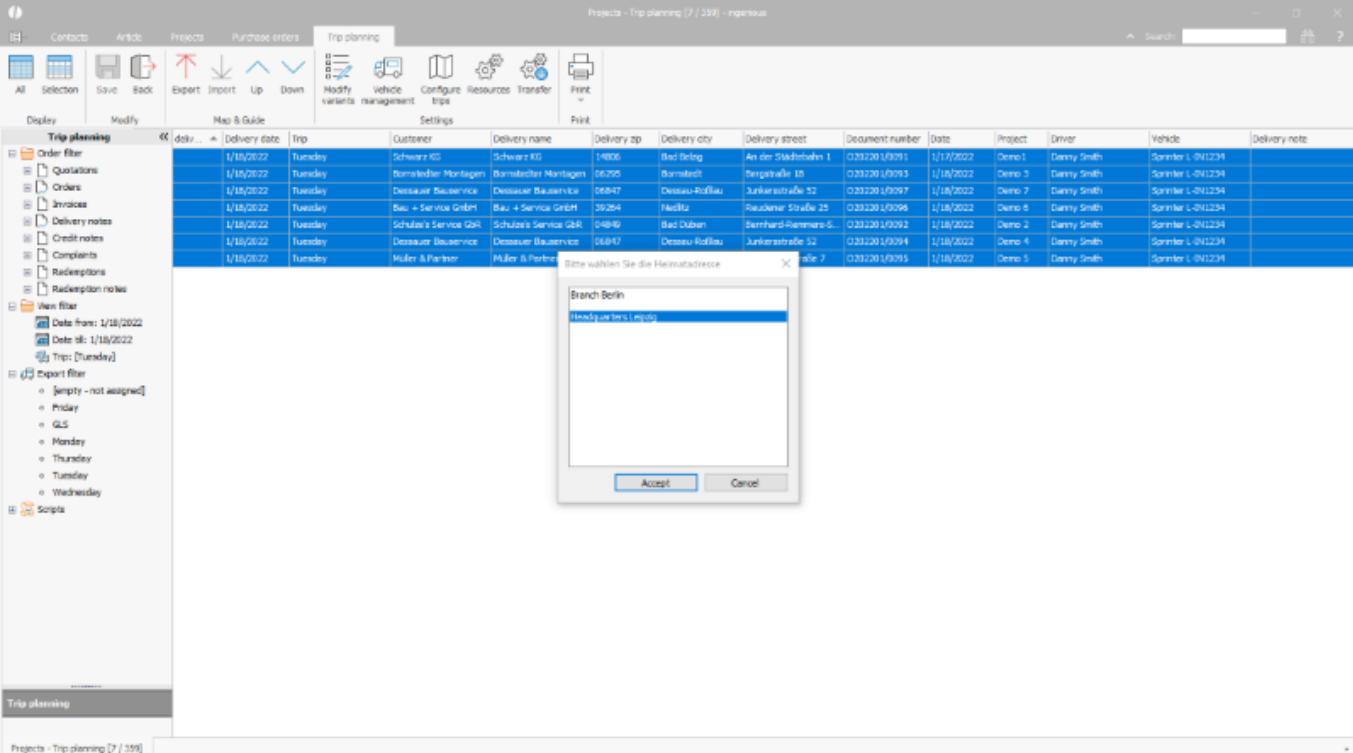
If desired, the order displayed within the list can be changed using the up and down buttons  .

Driver and vehicle can also be assigned. (see **The trip planning module (Section 7.6.1)**)

All projects to be transferred must be marked for the export to PTV Map&Guide internet.

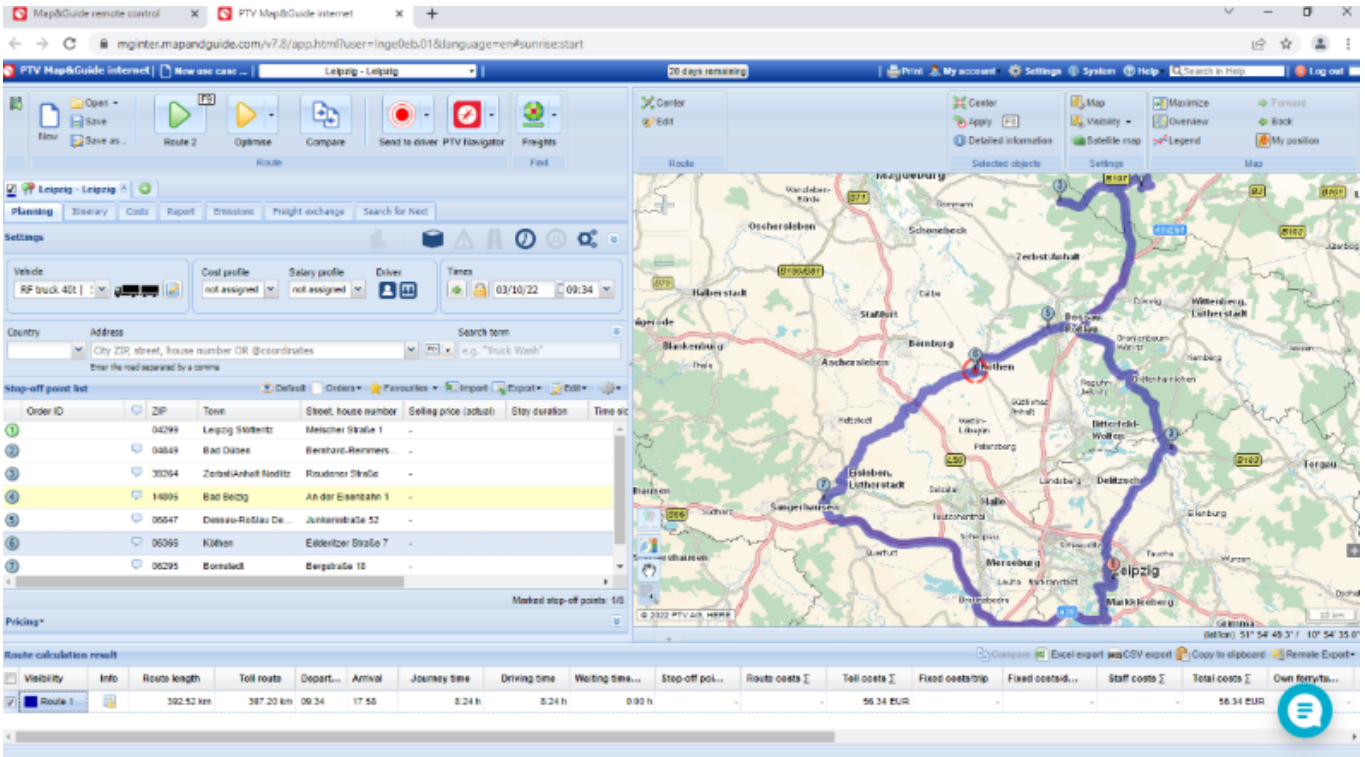
The export is then started via the button .

In the window that appears, the home address is selected if more than one branch has been created.

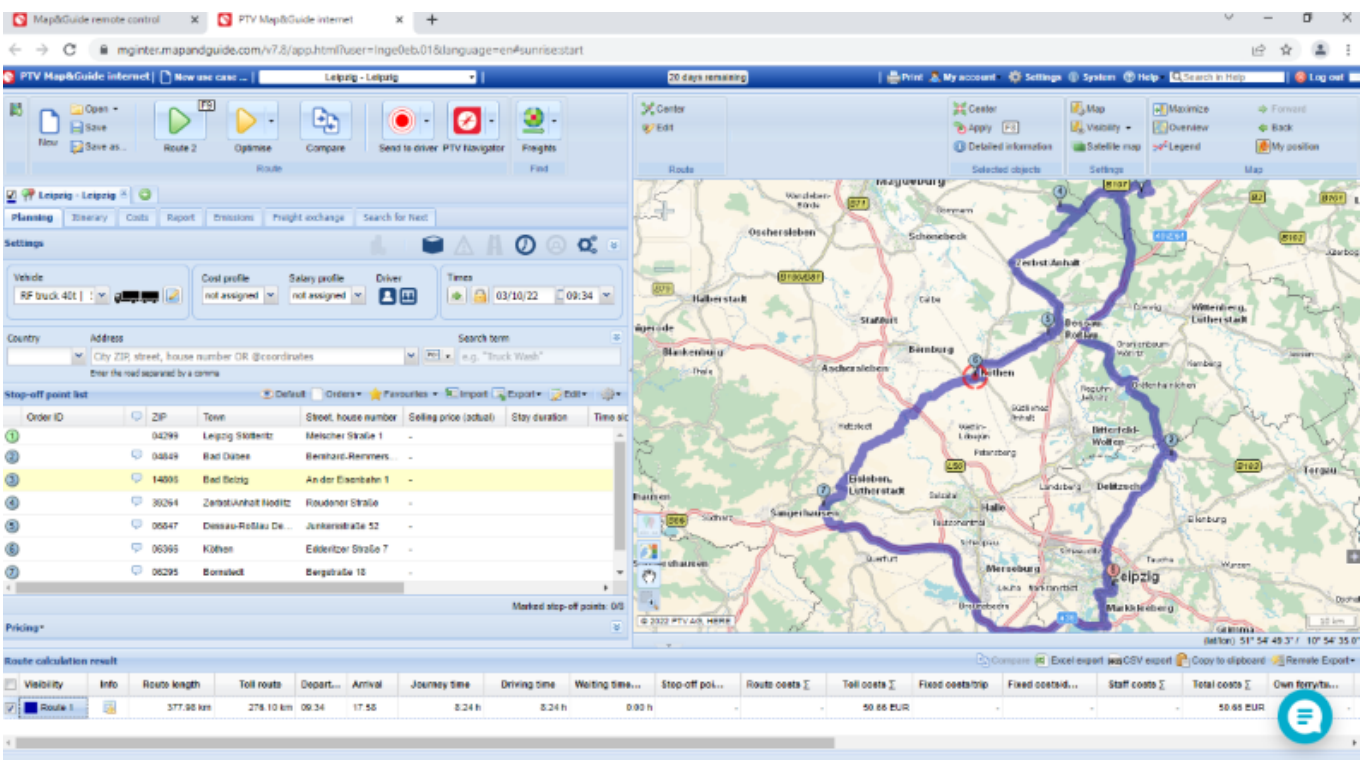


Delivery date	Trip	Customer	Delivery name	Delivery zip	Delivery city	Delivery street	Document number	Date	Project	Driver	Vehicle	Delivery note
1/18/2022	Tuesday	Schwarz KG	Schwarz KG	18006	Bad Seibitz	Am der Stadthofbahn 1	03912018791	1/17/2022	Demo 1	Denny Smith	Sommer 1-041234	
1/18/2022	Tuesday	Barnstedter Montagen	Barnstedter Montagen	76399	Barnstorf	Bergstraße 18	03912018793	1/18/2022	Demo 3	Denny Smith	Sommer 1-041234	
1/18/2022	Tuesday	Dessauer Bauernvieh	Dessauer Bauernvieh	06847	Dessau-Rudau	Junkerstraße 32	03912018797	1/18/2022	Demo 7	Denny Smith	Sommer 1-041234	
1/18/2022	Tuesday	Bau + Service GmbH	Bau + Service GmbH	39264	Heckla	Freudener Straße 25	03912018798	1/18/2022	Demo 6	Denny Smith	Sommer 1-041234	
1/18/2022	Tuesday	Schulze's Service GBR	Schulze's Service GBR	04949	Bad Driben	Bernhard-Rammers-S.	03912018792	1/18/2022	Demo 2	Denny Smith	Sommer 1-041234	
1/18/2022	Tuesday	Dessauer Bauernvieh	Dessauer Bauernvieh	06847	Dessau-Rudau	Junkerstraße 32	03912018794	1/18/2022	Demo 4	Denny Smith	Sommer 1-041234	
1/18/2022	Tuesday	Müller & Partner	Müller & Partner				03912018795	1/18/2022	Demo 5	Denny Smith	Sommer 1-041234	

After clicking Accept, the PTV Map&Guide internet website will open automatically and the stations will be shown in a table and on the map.



The route can be optimized in PTV Map&Guide internet with the existing functions (see [Online help PTV Map&Guide internet](#)).



The order of delivery can then be passed back to ingenious.

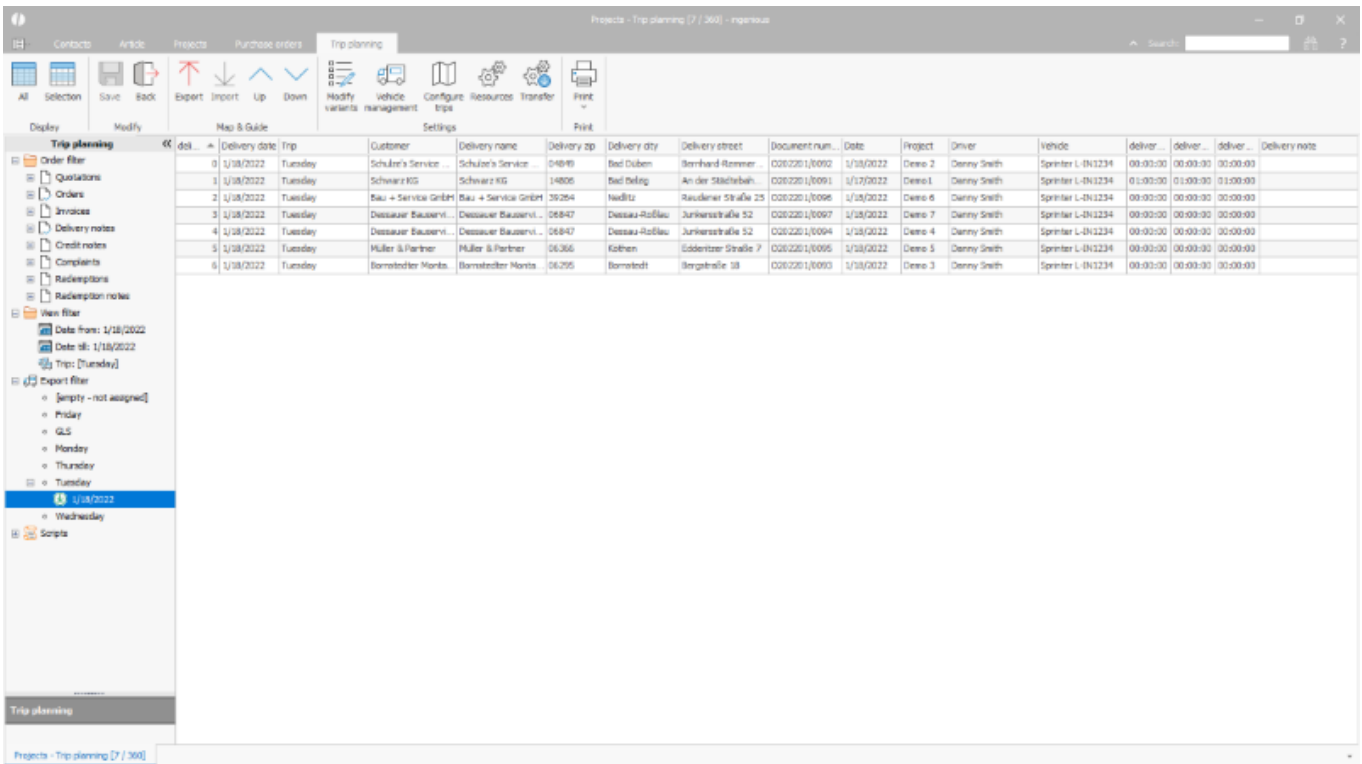


To do this, the route is exported from PTV Map&Guide internet using the "Remote Export" button.

For an exported tour, a node with the timestamp of the date selection is added in ingenious under the export filter.

An export  and a successful re-import  are marked with the corresponding icons.

For an imported route, the projects are displayed in the optimized delivery order.



del...	Delivery date	Trip	Customer	Delivery name	Delivery zip	Delivery city	Delivery street	Document num...	Date	Project	Driver	Vehicle	deliver...	deliver...	deliver...	Delivery note
0	1/18/2022	Tuesday	Schulz's Service	Schulz's Service	04849	Bad Döben	Bornhard-Renner...	02022010092	1/18/2022	Diene 2	Denny Smith	Sprinter L-0N1234	00:00:00	00:00:00	00:00:00	
1	1/18/2022	Tuesday	Schwarz KG	Schwarz KG	14806	Bad Belzig	An der Stäckerböh...	02022010091	1/17/2022	Diene 1	Denny Smith	Sprinter L-0N1234	01:00:00	01:00:00	01:00:00	
2	1/18/2022	Tuesday	Bau + Service GmbH	Bau + Service GmbH	39264	Nedlitz	Raudener Straße 25	02022010096	1/18/2022	Diene 6	Denny Smith	Sprinter L-0N1234	00:00:00	00:00:00	00:00:00	
3	1/18/2022	Tuesday	Dessauer Bauverli...	Dessauer Bauverli...	06847	Dessau-Roßlau	Junkerstraße 52	02022010097	1/18/2022	Diene 7	Denny Smith	Sprinter L-0N1234	00:00:00	00:00:00	00:00:00	
4	1/18/2022	Tuesday	Dessauer Bauverli...	Dessauer Bauverli...	06847	Dessau-Roßlau	Junkerstraße 52	02022010094	1/18/2022	Diene 4	Denny Smith	Sprinter L-0N1234	00:00:00	00:00:00	00:00:00	
5	1/18/2022	Tuesday	Müller & Partner	Müller & Partner	06366	Köthen	Edderitzer Straße 7	02022010095	1/18/2022	Diene 5	Denny Smith	Sprinter L-0N1234	00:00:00	00:00:00	00:00:00	
6	1/18/2022	Tuesday	Bornstedter Monts.	Bornstedter Monts.	06295	Bornstedt	Bergstraße 18	02022010093	1/18/2022	Diene 3	Denny Smith	Sprinter L-0N1234	00:00:00	00:00:00	00:00:00	

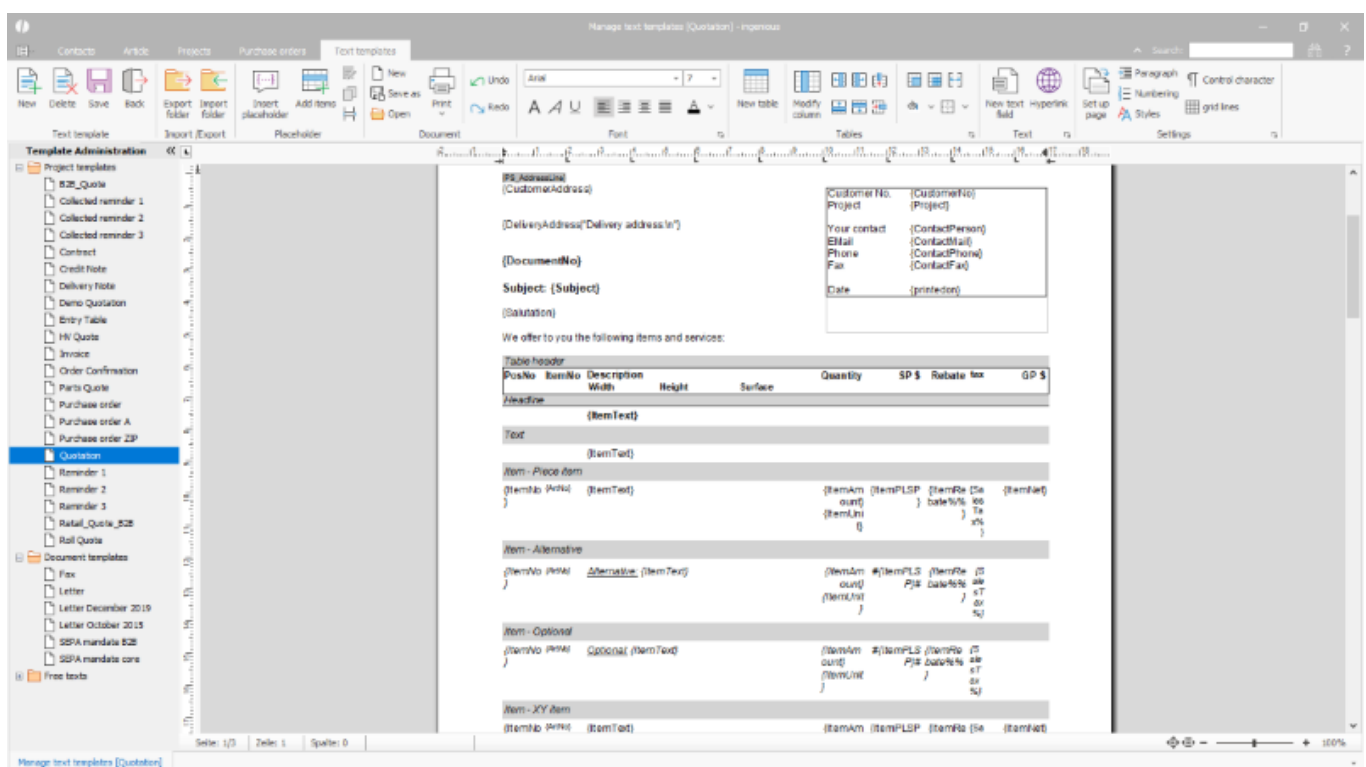
## 8 System modules

### 8.1 Text templates






#### 8.1.1 Text templates administration





In the text templates administration, the different text templates are managed globally. The module view is differentiated in the selection area on the left and the text editor on the right.

The selection is grouped according to the three text template types in the project templates, document templates and free texts. Within each group, an unlimited number of text templates can be recorded.
































In the text templates administration, the following functions are available via the toolbar:

	Create a new text template
	Delete the marked text template
	Save modifications of the text template
	Close text templates administration module.
	Insert a placeholder into the document.

	Insert a position-building component in the document.
	Insert a placeholder for the page number of the current page (only available for the footer of the document).
	Insert a placeholder for the overall page number into the document (only available for the footer of the document).
	Insert a position-placeholder for a page break (only available for position lines)

For processing/formatting the text template the following functions of the text editor are available via the toolbar.

	Loads an empty document: If a template is open that has already a content, those will be lost.
	Saves the document in one of the following formats: rtf, html, docx, doc, pdf, txt, tx. The documents can be processed further with the respective programs. Caution: Only in format tx, all formatting will be saved, when the document is reloaded into ingenious basic (e.g. from the backup of the template). Saving in other formats causes the loss of single formatting elements in the headers and footers.
	Opens a document in one of the following formats: rtf, html, docx, doc, pdf, xml, txt, tx
	Prints the document (With the dropdown below the print button it is possible to manage the printer settings).
	Definition of the font and size of writing in the marked text.
	Formats the marked text bold
	Formats the marked text italic
	Formats the marked text underlined
	Formats the marked text left
	Formats the marked text right
	Formats the marked text center
	Formats the marked text justified
	Open a color selection for formatting the text.
	Inserts a table into the document.
	Inserts a new column into a table, left to the marked column.
	Inserts a new column into a table, right to the marked column.

	Deletes the marked column from a table.
	Inserts a new row into a table, above the marked row.
	Inserts a new row into a table, below the marked row.
	Deletes a marked row from the table.
	Combines the marked cells to one.
	Divides the combined cells in single cells.
	Divides the marked cells in two separate tables.
	Opens a color selection for formatting the cell background.
	Inserts a frame outside of the marked cells; via the triangle next to the icon further options e.g. frame line right, frame line left, can be selected.
	Inserts a new text field into the document.
	Inserts a new repeatable text field into the document
	Inserts a barcode into the document to link to a placeholder
	Inserts a hyperlink into the document
	Opens the options for the page configuration, e.g. portrait or horizontal format.
	Opens a window for formatting indentions, orientation etc. of the marked text.
	Opens a window for formatting a marked text as numbering or bulleted list.
	Selection and administration of format templates
	Shows invisible signs in the document, e.g. blank space, line breaks.
	Shows or hides the gridlines

#### Further option of the text editor:

Below the functions in the toolbar, next to the designations of the single blocks, further functions are available for different groups:

Text template	Opens a window for setting the language of the document for use in multilingual installations (module license required)
---------------	---

Font	Opens a window for the further formatting of the marked text, e.g. superscript position, background color,...
Tables	Opens a window for the further formatting of the marked tables / cells, e.g. size of cells, distance to the text,...
Text field	Opens a window for the further formatting of the marked text field, e.g. the distance to the text, to the frame,...
Settings	Opens a window for the definition of tabulators in the selected row of a document / cell of the table

#### Functions of the text editor via the context menu:

Since not all functions are available via the toolbar (e.g. the place for the display of all buttons is limited in the toolbar), most of the functions can be also opened via the context menu. For this, the area / text / table which shall be formatted have to be marked first. Subsequently, the function selection can be opened through a right click on the mouse.

## 8.1.2 Project templates

The project templates contain all text components necessary for the recording of a project document + individual texts and design elements according to the own company CIs.

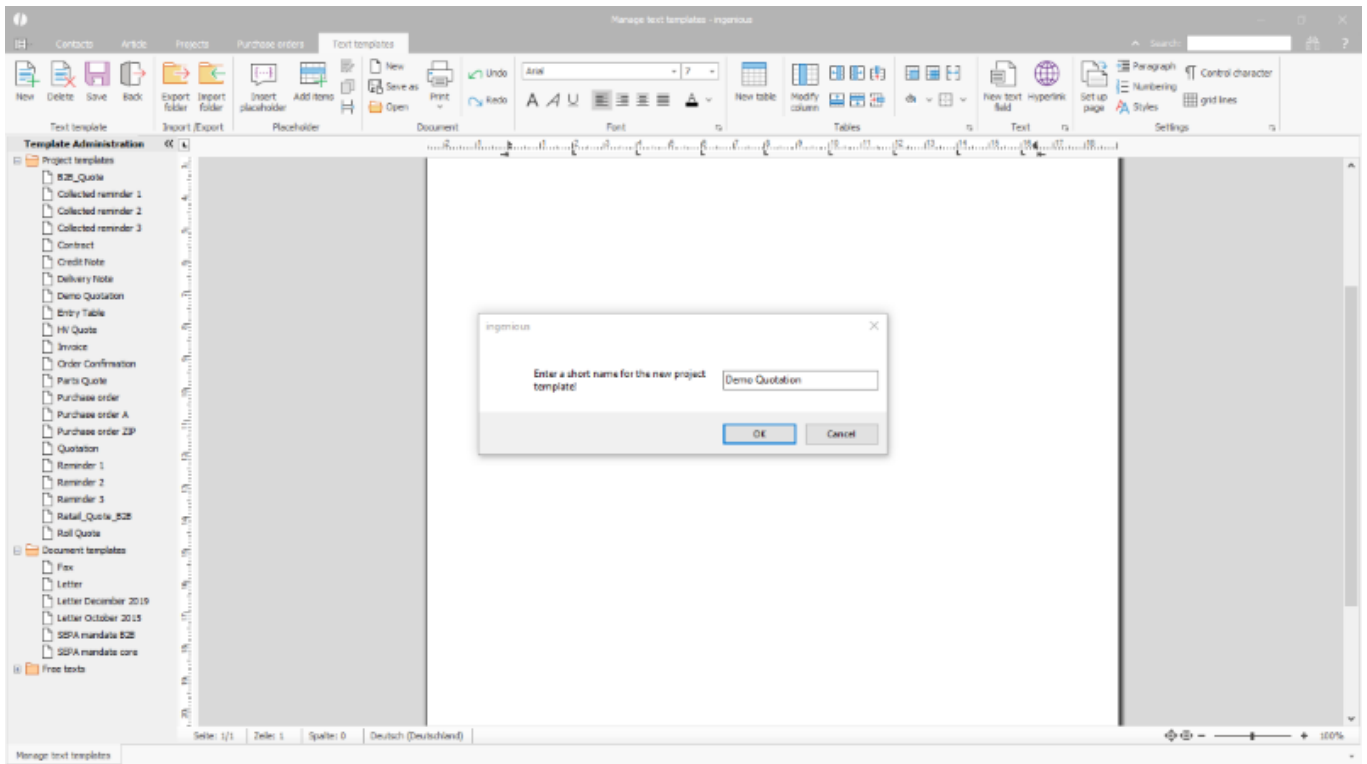
Which project template is to be used by default in the single project types, can be defined after creating a template in the project settings / project documents. In the project. templates can be changed at any time. That way, e.g. two templates for offers can be created, one with letterhead details for sending the document via PDF and without letterhead details to be printed on company paper.

#### Creation of a new project template

To create a new project template, the project template list is to be marked and a new template can be created via the

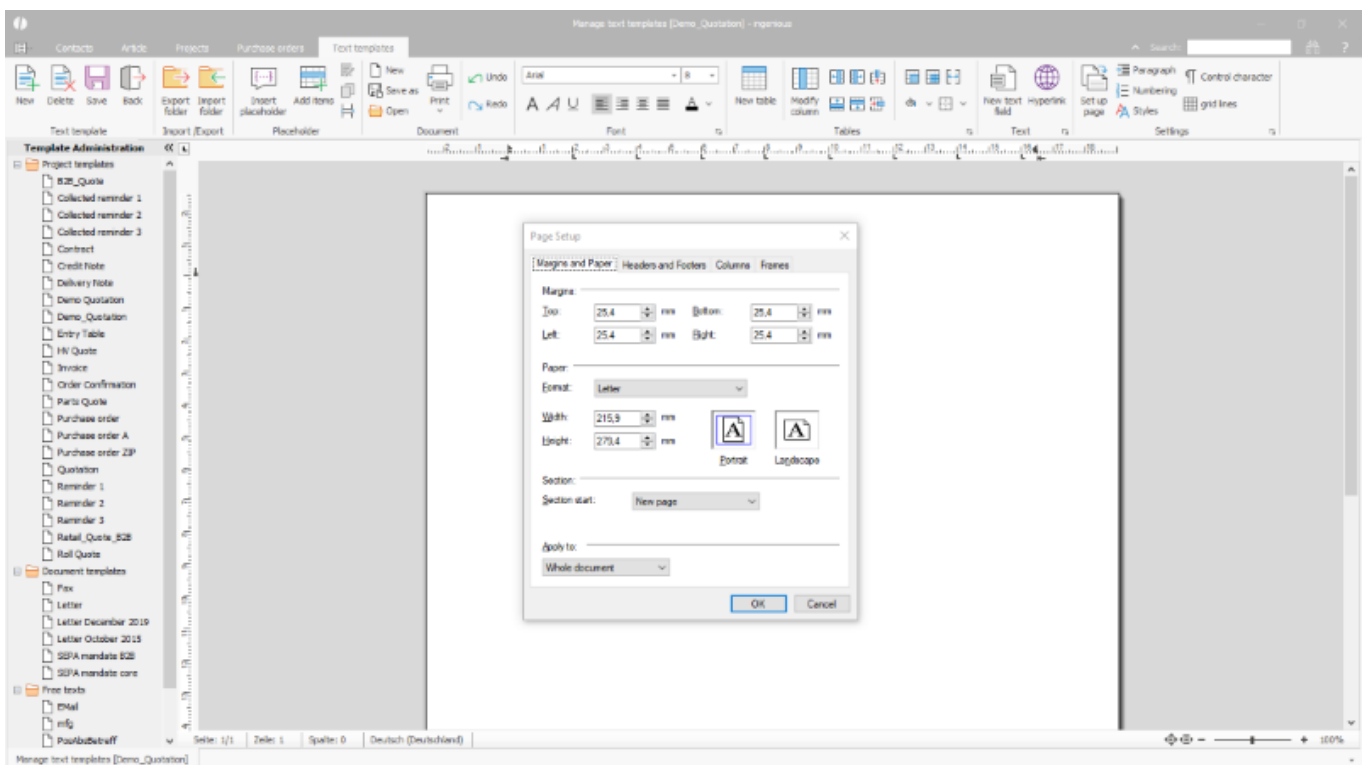


button.



After entering a distinct name for the project template, the text editor starts with an empty sheet.

At first, the general page formatting should be arranged (e.g. justification, margins, header and footer etc.).



Subsequently, the minimal information for the document has to be selected from the templates.


Among this counts:

Placeholder - values of single data base

Items (Positions) - Placeholder groups for the insertion of the project positions

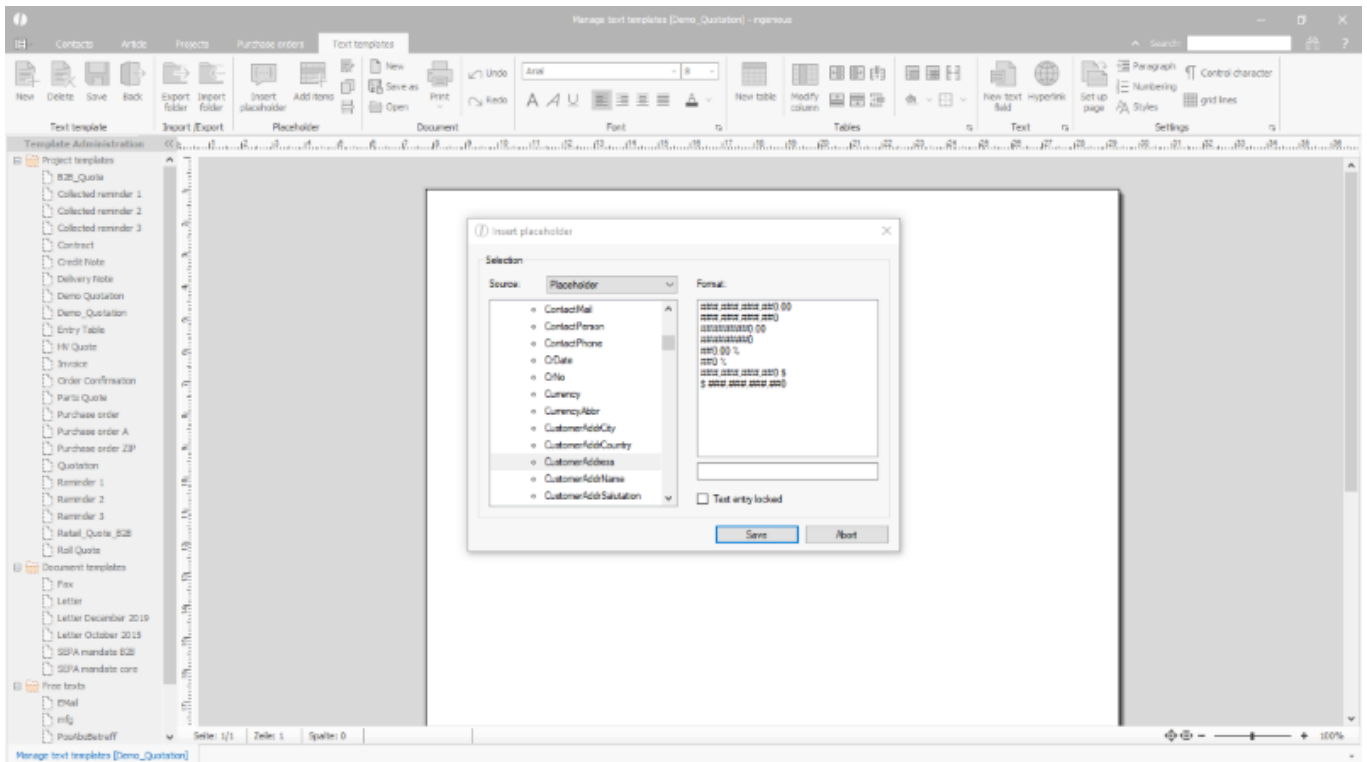
## Placeholder

Project documents contain general placeholders such as e.g. address of the contact, who shall receive the document, information about the internal representative etc.

Those placeholders can be accessed via the  button and the one needed can be selected from the available entries.

Doing so, it is differentiated between different types:

Placeholder	Fields resp. a sum of fields, which have been formatted already, e.g. the complete client address instead of single fields.						
Data base fields	The single table fields, exactly as they have been recorded in the data base.						
User fields	Additional field for a project item or the currently opened project. Notation: "PRJ:Fieldname" or "POS:Fieldname"						
Part list analysis	Via part list analyses individual calculations can be inserted from the part lists. The formula has to be entered directly in the field below.						
(Partlist) Pictures	Pictures from the program settings (e.g. logos) and article pictures can be inserted into the project document. In order to do so, the name of the picture or picture script has to be entered in the text field. . The picture is scaled with the parameter ";s:0,5" and inserted into the document a 50% .						
Free texts	Recurring texts are saved in the free texts and can be used anywhere in project documents via F3. The texts can be stored in the template as standard using the "Free Texts" placeholder. This means that company holidays, for example, can be announced without having to store the entire text on each individual template and then have to change it again later. The placeholders for the free texts can simply be selected from a list.						
Scripts	Individual calculations, text groups, images etc. with dependencies can be inserted via scripts. The name of the script must be entered in the field below. The script itself is saved in the script module. For each output of a script, you can specify whether it should be static or whether the values should change depending on the fields and actions referenced. Sample applications: 1. Depending on the output of the document (eg printing on letterhead or direct e-mail), text blocks (footer) and logos (letterhead) are inserted or hidden 2. Texts with terms of payment are printed depending on individual conditions.						
	<table border="1"> <tr> <td>Scripts - text</td> <td>Inserts the result of the script as plain text without formatting.</td> </tr> <tr> <td>Scripts - pictures</td> <td>An image is expected as a result of the script.</td> </tr> <tr> <td>Scripts -RTF</td> <td>Inserts the result of the script as text with formatting.</td> </tr> </table>	Scripts - text	Inserts the result of the script as plain text without formatting.	Scripts - pictures	An image is expected as a result of the script.	Scripts -RTF	Inserts the result of the script as text with formatting.
Scripts - text	Inserts the result of the script as plain text without formatting.						
Scripts - pictures	An image is expected as a result of the script.						
Scripts -RTF	Inserts the result of the script as text with formatting.						

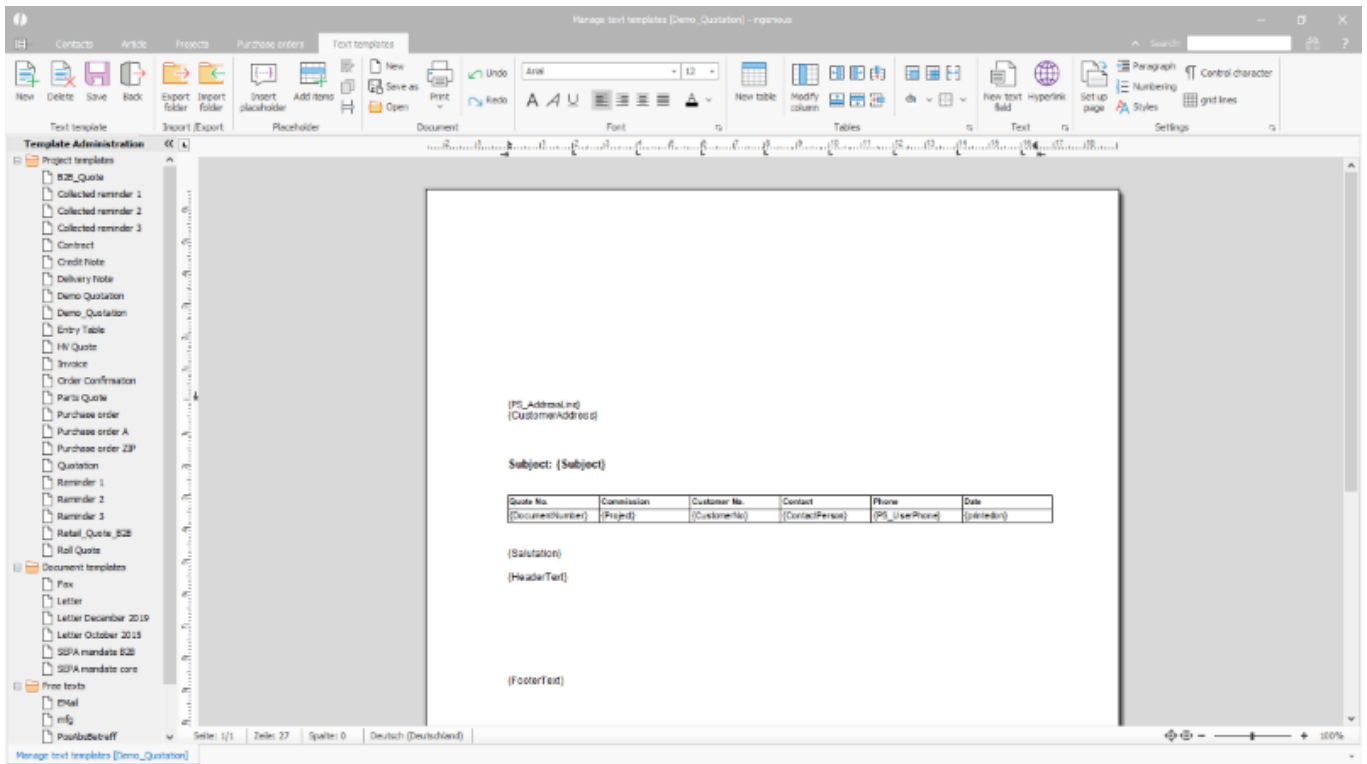


Placeholders can be formatted as desired via "format". The formatting examples can be adjusted in the text field below. This formatting field also serves for the definition of fixed formats and calculations., e.g.:

Input	Output
+2	Adds a placeholder with the number value 2, e.g. 2 days to a date
Line1	Inserts only the first line of a larger text field (the same for line 2, 3 ...)
Line2ff	Insert the 2nd and all following lines from larger text field.
...{0}...	Puts additional text before or after the output value of a placeholder. {0} stands for the value; the desired text is entered instead of the dots.

The placeholders are displayed in curly brackets. Through double-clicking a single placeholder the placeholder selection can be changed.




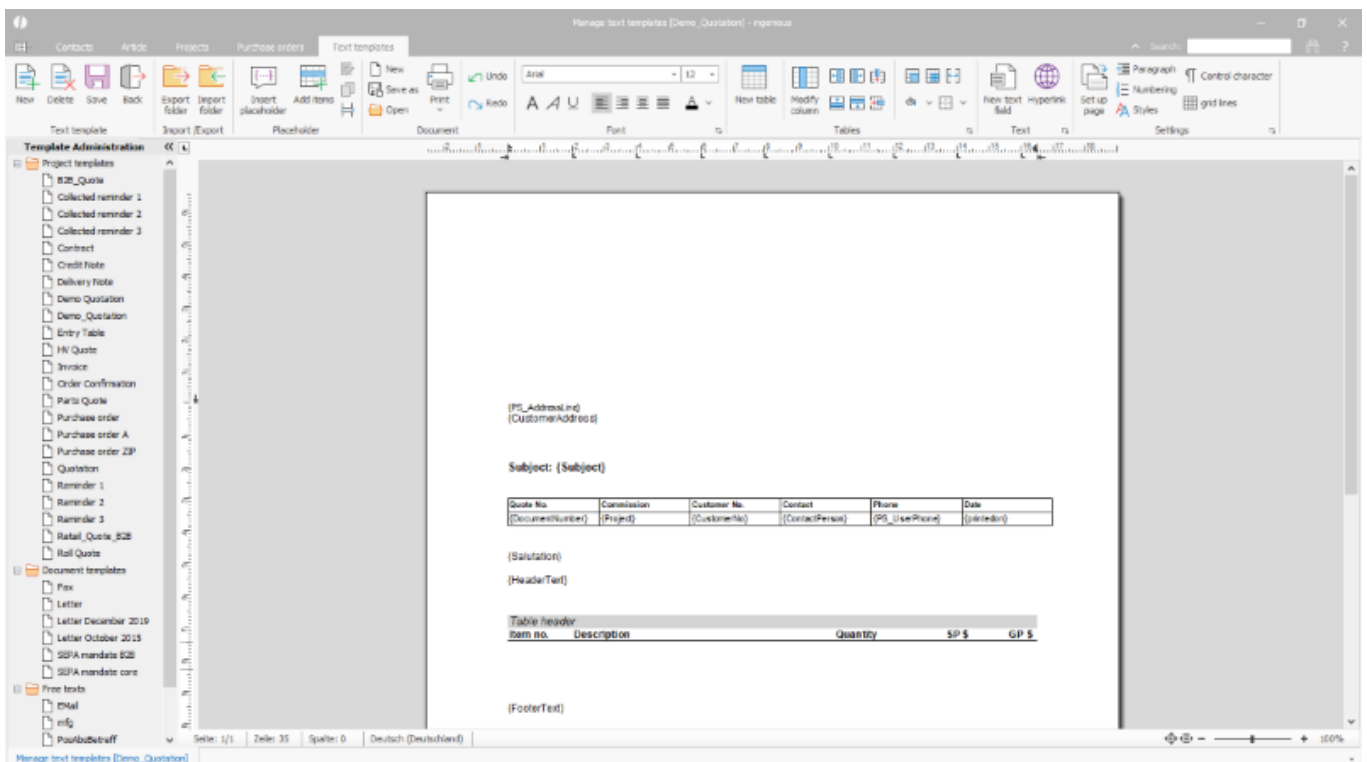
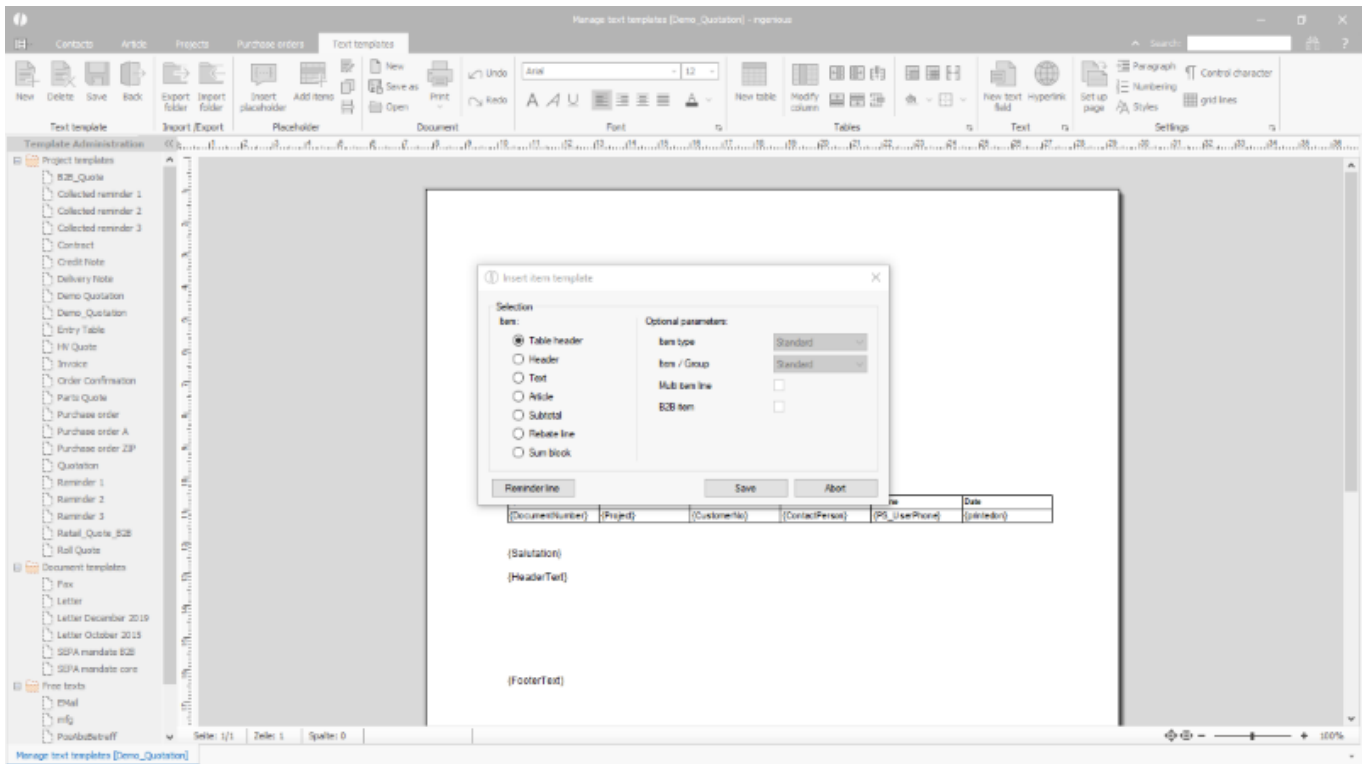


## Items / Positions

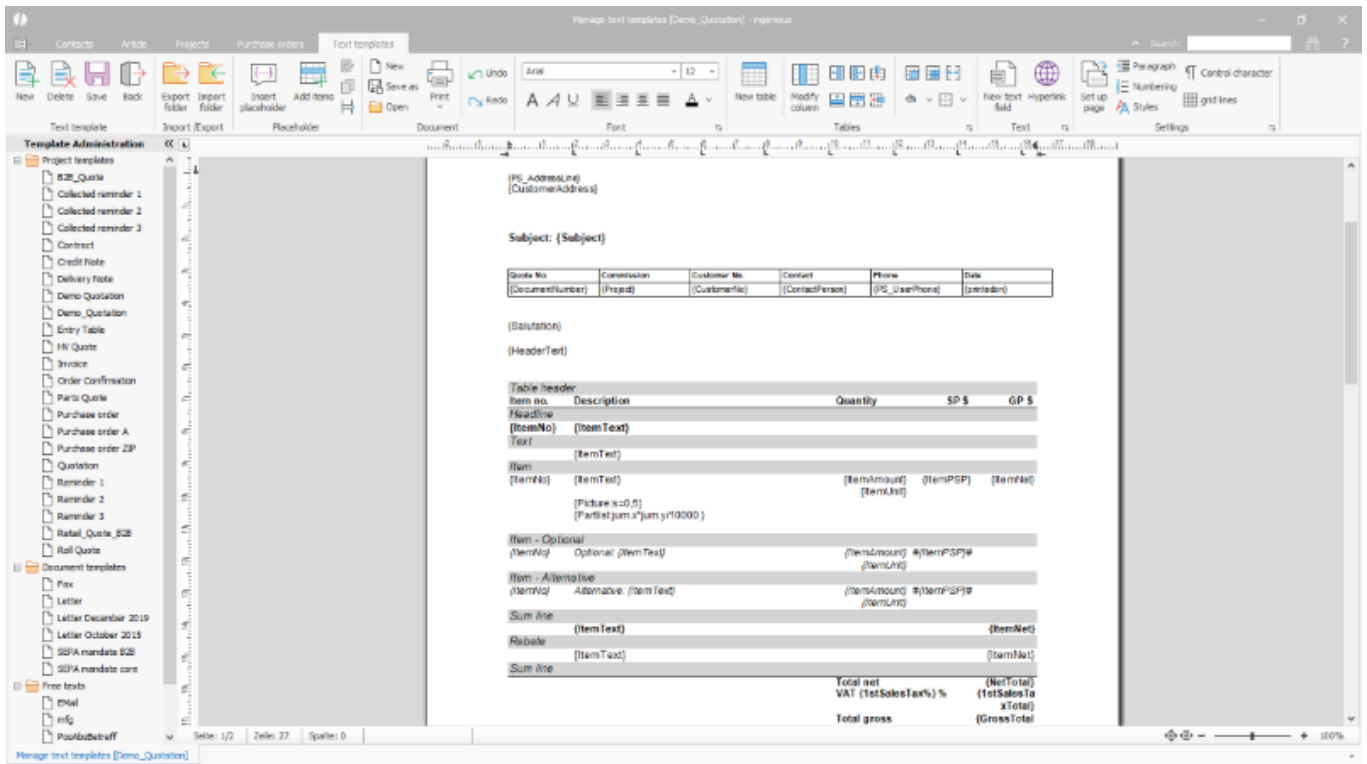
Items / Positions are a group of position placeholders, which incorporate the article details in the project documents. The position table start with the table header.


Already here, the structure of the position list is defined, precisely, which columns will be contained, Additional columns can be added via the table configuration in the toolbar. The column names can be chosen freely. Columns can also be added afterwards, just to a limited extent, e.g. if the table contain non-combined cells.

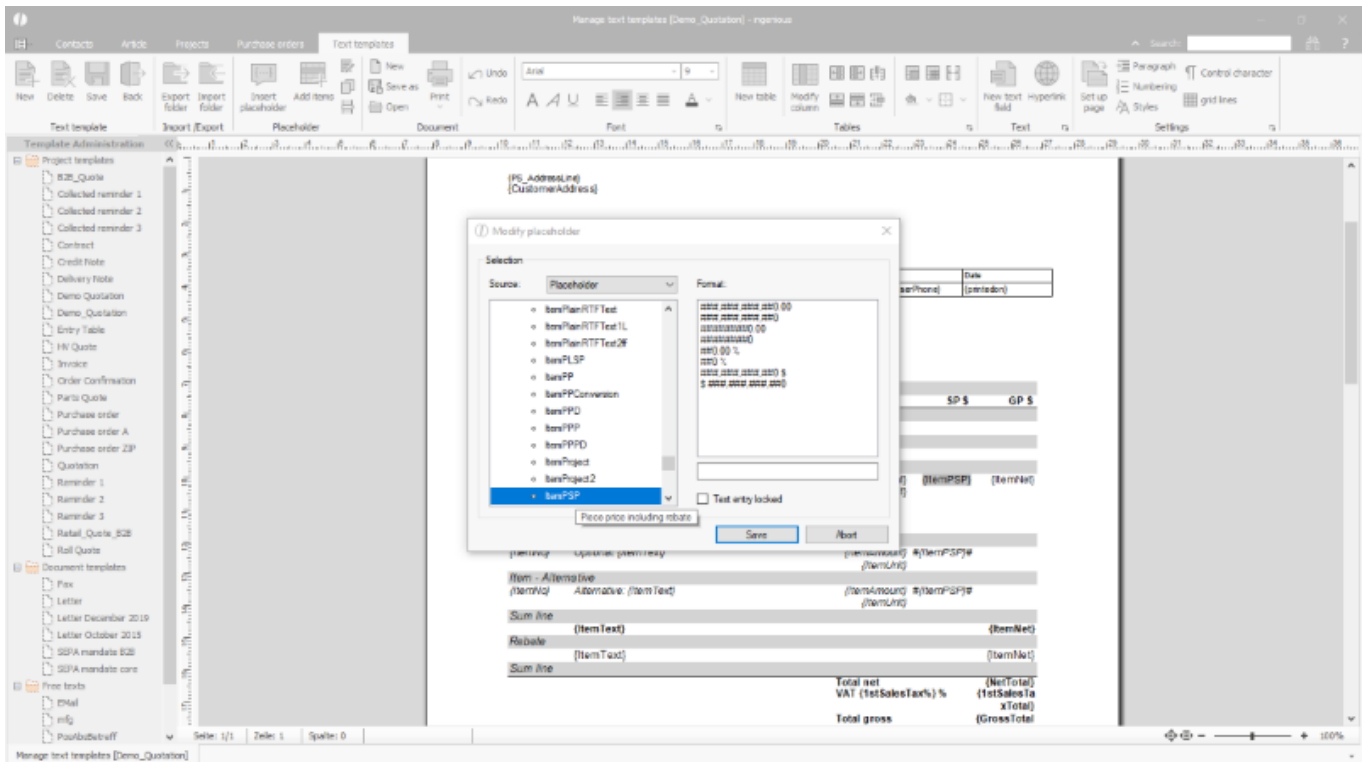
A new position is added via the  button. The respective position type is inserted from the selection.



The other positions are inserted after the respective selection below the table header automatically and contain the same number of columns as well as predefined placeholders such as article texts and prices.




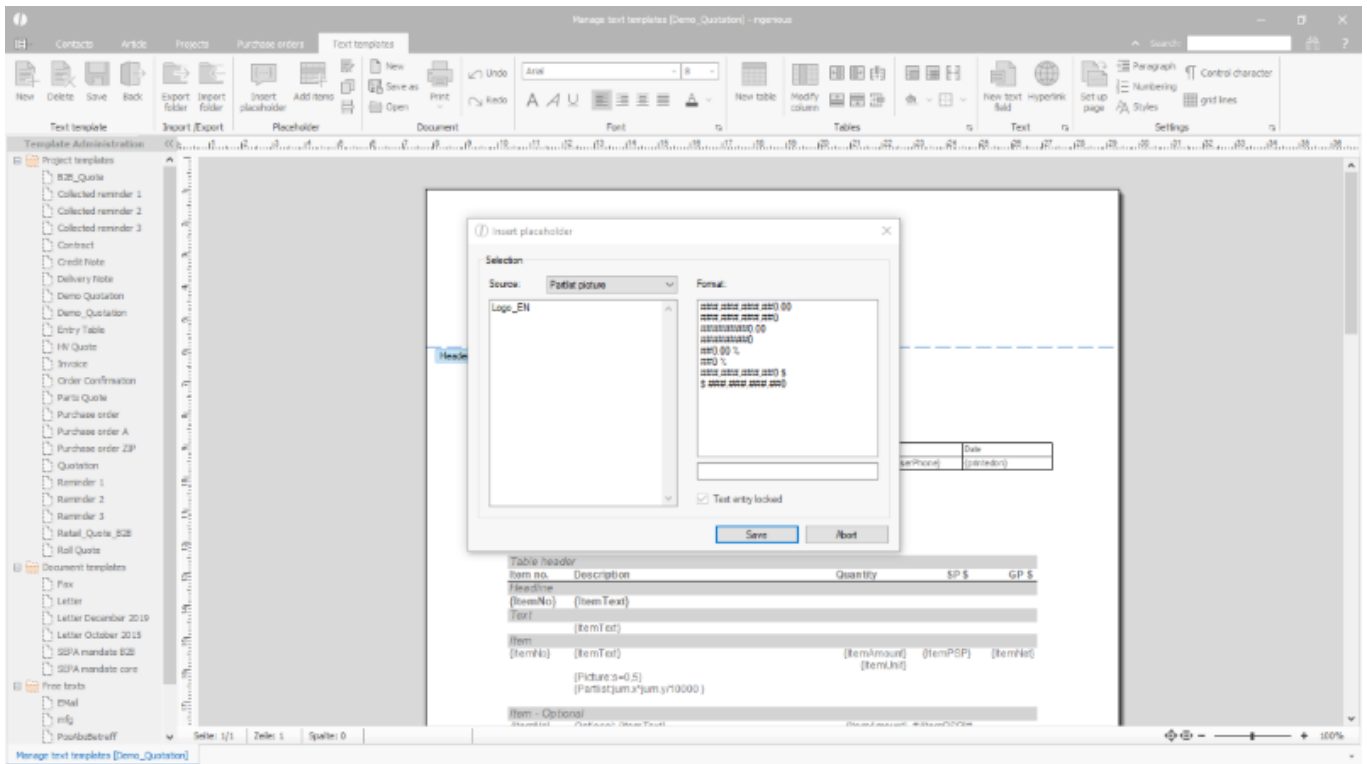
Further details about the positions can be added via position placeholders, A new position placeholder is inserted via the  button. Tooltips (short descriptions), which are displayed when the mouse cursor points on the respective placeholder, help with the selection of the desired placeholder. On the right, single positions can also be formatted differently. The checkbox "text input blocked" determines, if the respective values can be overwritten in the project or not.



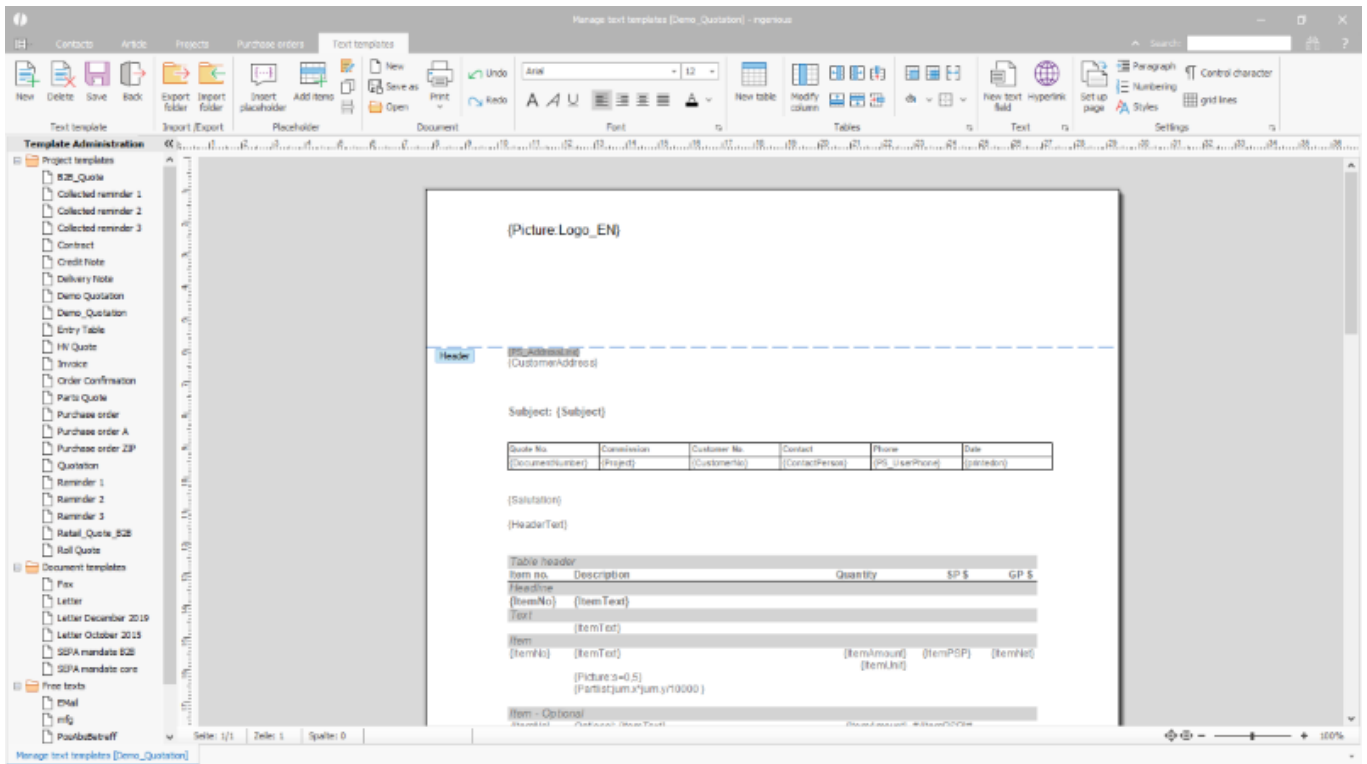
### Special placeholders - (partlist) pictures

Via the placeholders, also pictures recorded in the data base can be saved or generated via picture scripts and inserted into the project document. General picture placeholder can be inserted at any place in the project template e.g. the company logo in the header of the document. These general picture placeholders are from the program settings / logo.

To insert a picture placeholder via the  button, the entry "pictures" from the selection list "source" in the appearing dialog has to be selected and the name of the picture has to be inserted in the text field below.

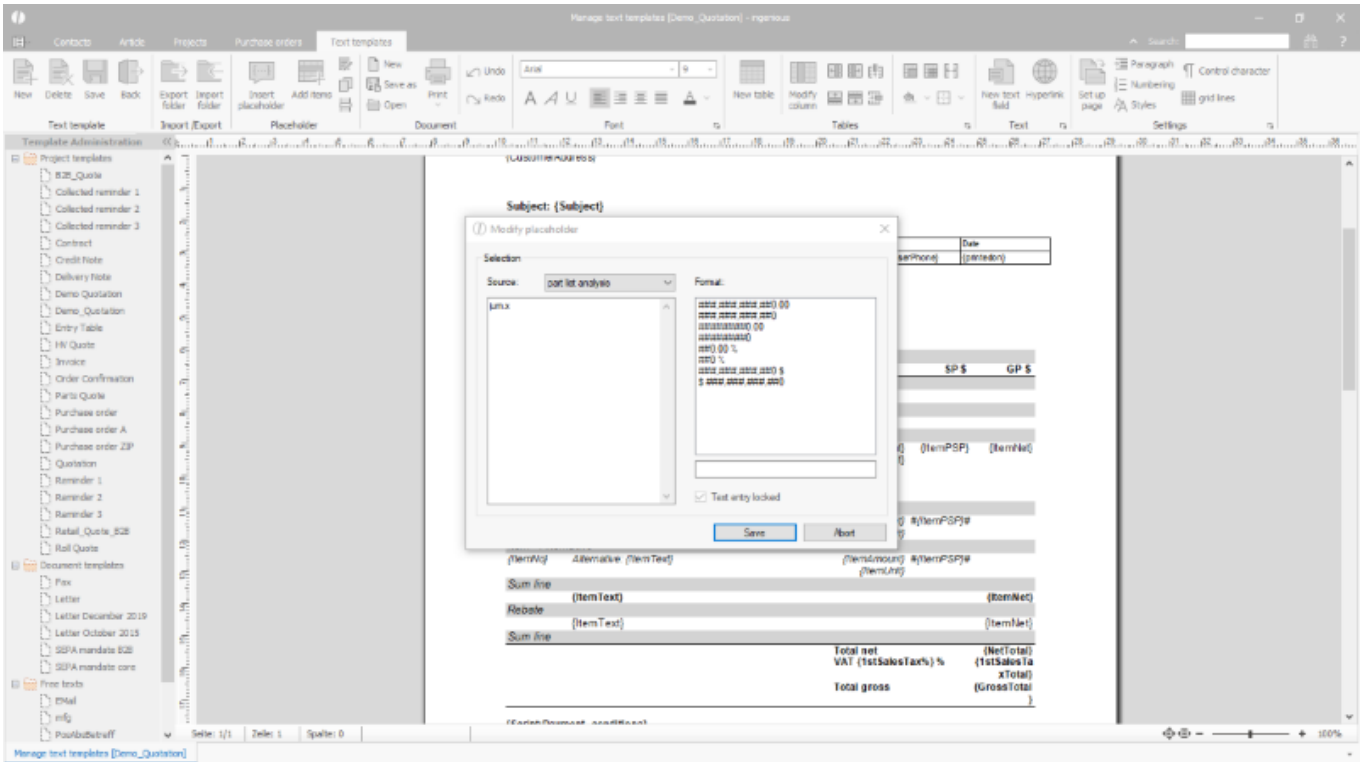


In the positions, pictures of articles or picture scripts (from part lists) can be displayed. The article's pictures are inserted with their file name, with which they are recorded in the data base, the picture script with the name under which they have been created. If the standard picture that has been saved with the article shall be inserted into the positions by default, a picture placeholder without picture name is inserted. With regard to the available space, pictures can also be scaled through adding the parameter ";s:n" ("n" stands for the scaling value, which is inserted as decimal number, e.g. ;s:0,5 for 50%).

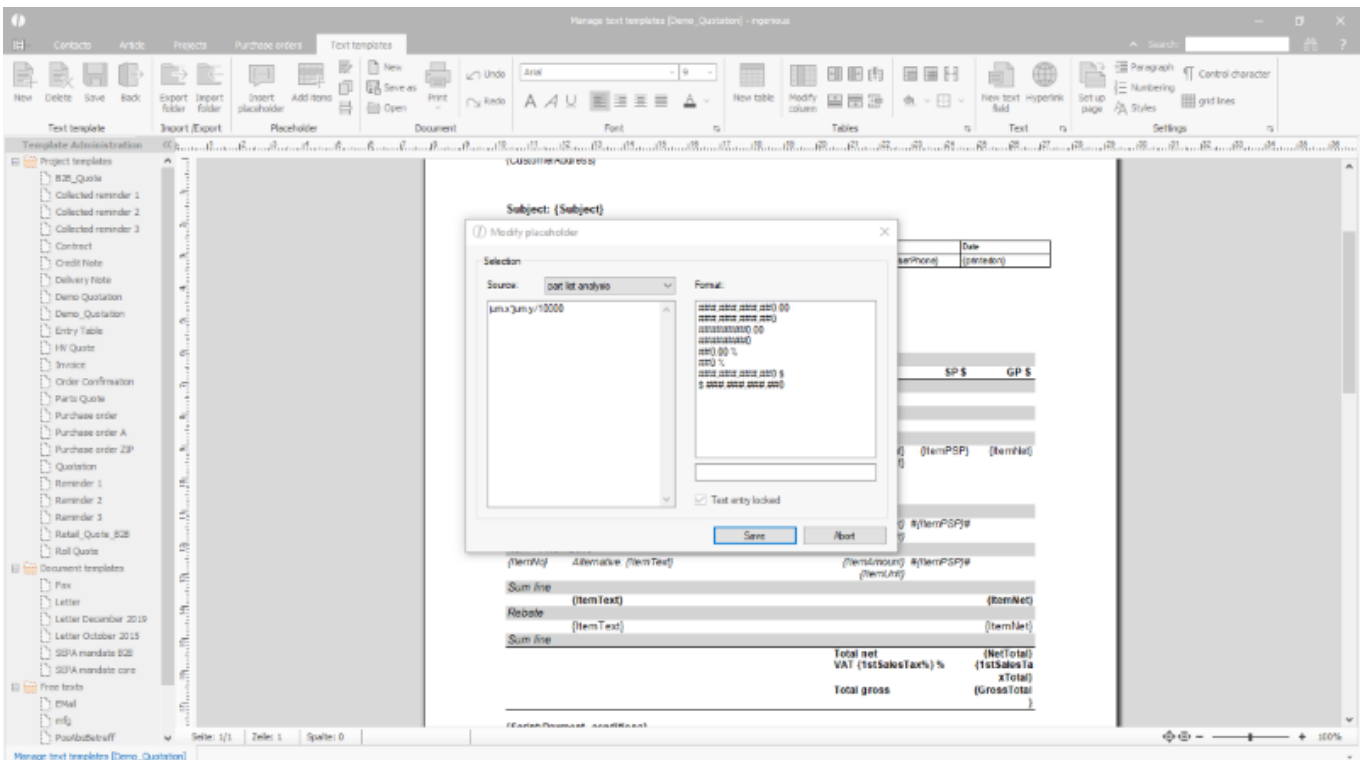


### Special placeholders - part list analysis

Via the part list analysis, the values in variables within the positions can be analyzed. In the placeholder selection the entry "part list analysis" is chosen and the corresponding variable, which shall be printed on the documents, is inserted in the text field below (e.g. jum.m for the quantity, jum.x for the width...).



Also calculation from various variables are possible here, e.g.  $\text{jum.x} * \text{jum.y} / 10000$  for area calculations.

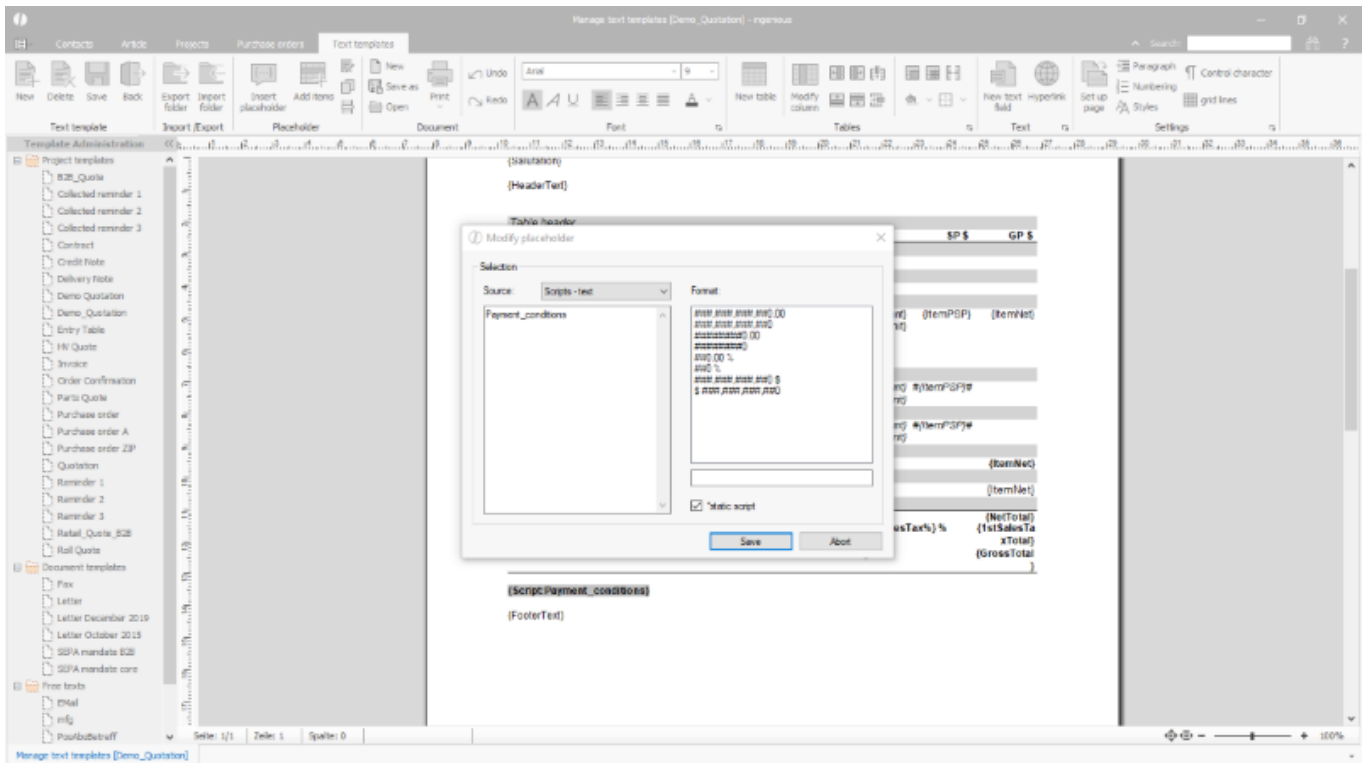


## Special placeholders - scripts

Another placeholder type are scripts. These are small separate formulas, conditions, etc., with which evaluations for the project or assigned contact can be created. The result is inserted into the project document using the placeholder.

This can be used, for example, for the automatic creation of terms of payment texts based on the deadlines defined in the project.

The script itself is managed in the Scripts module. There the script is to be created in the text modules section. In the project document, the script is inserted via the placeholder selection scripts ("Scripts - Text" for simple text, "Scripts - Pictures" for pictures, "Scripts - RTF" for formatted text) and by entering the script name in the field below.



## Page totals / carryover

The items in a project document are inserted in a continuous table followed by a summary block.

This table can extend over several pages.

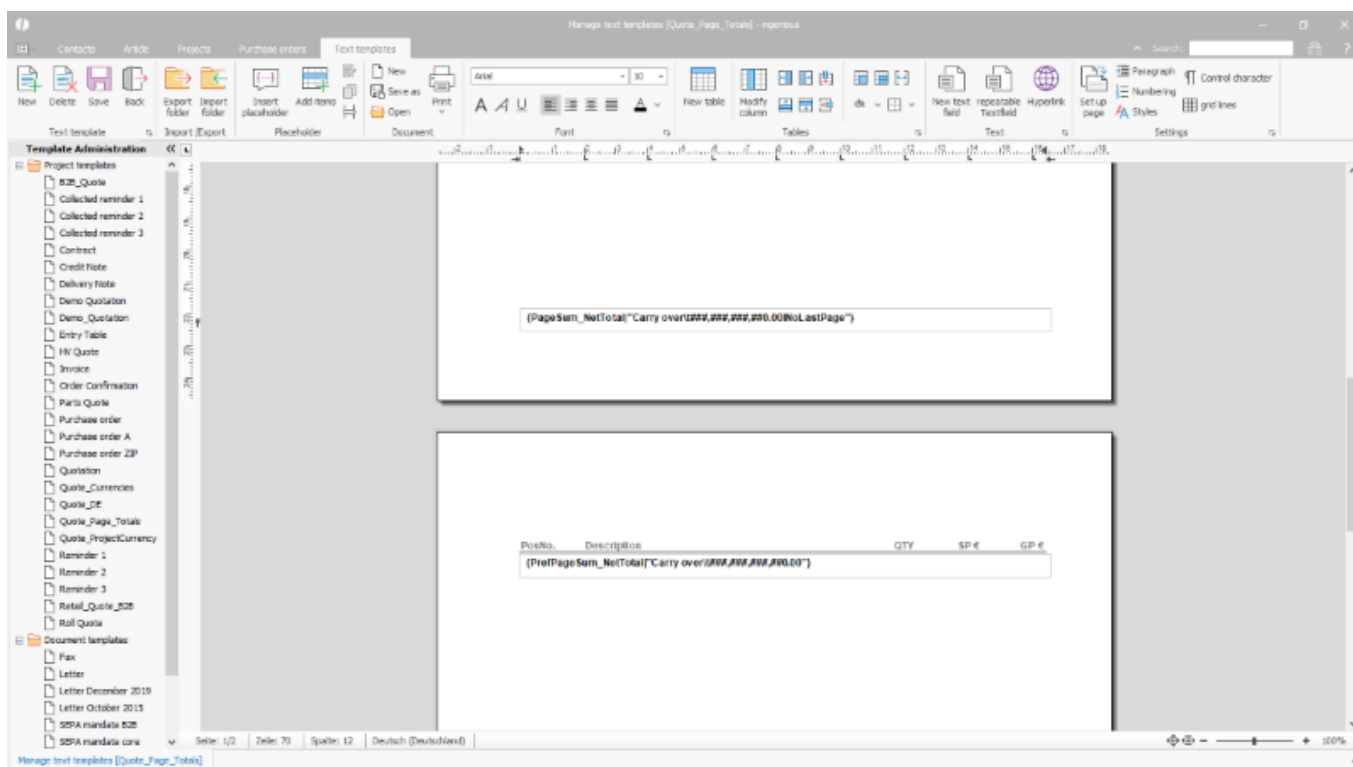
Various placeholders are provided to insert page totals, i.e. a carryover, on the individual pages.

Placed in a repeatable text field, they output the corresponding sums.

The repeatable text fields are to be inserted on the project template outside the main print area, floating above the headers and footers.

Sufficient space must be planned within the headers and footers at this point so that content is not overlaid.





The following placeholders are available:

#### For sales documents

Page_GrossTotal	Gross total of the positions on the current page
Page_SalesTaxTotal	Total VAT amount on the current page (1st + 2nd)
Page_1stSalesTaxTotal	Total amount of 1st VAT of the current page
Page_2ndSalesTaxTotal	Total amount of 2nd VAT on the current page
Page_NetTotal	Net total of the positions on the current page
PageSum_GrossTotal	Gross total of the positions of all previous pages, including the current one
PageSum_SalesTaxTotal	Total amount of VAT for all previous pages, including the current one (1st + 2nd)
PageSum_1stSalesTaxTotal	Total amount of 1st VAT of all previous pages, including the current one
PageSum_2ndSalesTaxTotal	Total amount of 2nd VAT on all previous pages, including the current one
PageSum_NetTotal	Net total of the positions of all previous pages, including the current one
PrefPage_GrossTotal	Gross total of the positions on the previous page
PrefPage_SalesTaxTotal	Total VAT amount on the previous page (1st + 2nd)
PrefPage_1stSalesTaxTotal	Total amount of 1st VAT on the previous page
PrefPage_2ndSalesTaxTotal	Total amount of 2nd VAT on the previous page
PrefPage_NetTotal	Net total of the positions on the previous page
PrefPageSum_GrossTotal	Gross total of the positions on all previous pages
PrefPageSum_SalesTaxTotal	Total VAT on all previous pages (half + full)

PrefPageSum_1stSalesTaxTotal	Total amount of half VAT on all previous pages
PrefPageSum_2ndSalesTaxTotal	Total amount of full VAT on all previous pages
PrefPageSum_NetTotal	Net total of the positions on all previous pages

## For purchase documents

Page_PPGrossFullTotal	Gross total of the items on the current page (purchase prices)
Page_PPTotal	Net total of items on the current page (purchase prices)
PageSum_PPGrossFullTotal	Gross total of the items on all previous pages, including the current (purchase prices)
PageSum_PPTotal	Net total of the positions of all previous pages, including the current (purchase prices)
PrefPage_PPGrossFullTotal	Gross total of the items on the previous page (purchase prices)
PrefPage_PPTotal	Net total of the items on the previous page (purchase prices)
PrefPageSum_PPGrossFullTotal	Gross total of the items on all previous pages (purchase prices)
PrefPageSum_PPTotal	Net total of the items on all previous pages (purchase prices)

The screenshot displays the Ingenious software interface for a purchase order document. The main window shows a table of items with the following data:

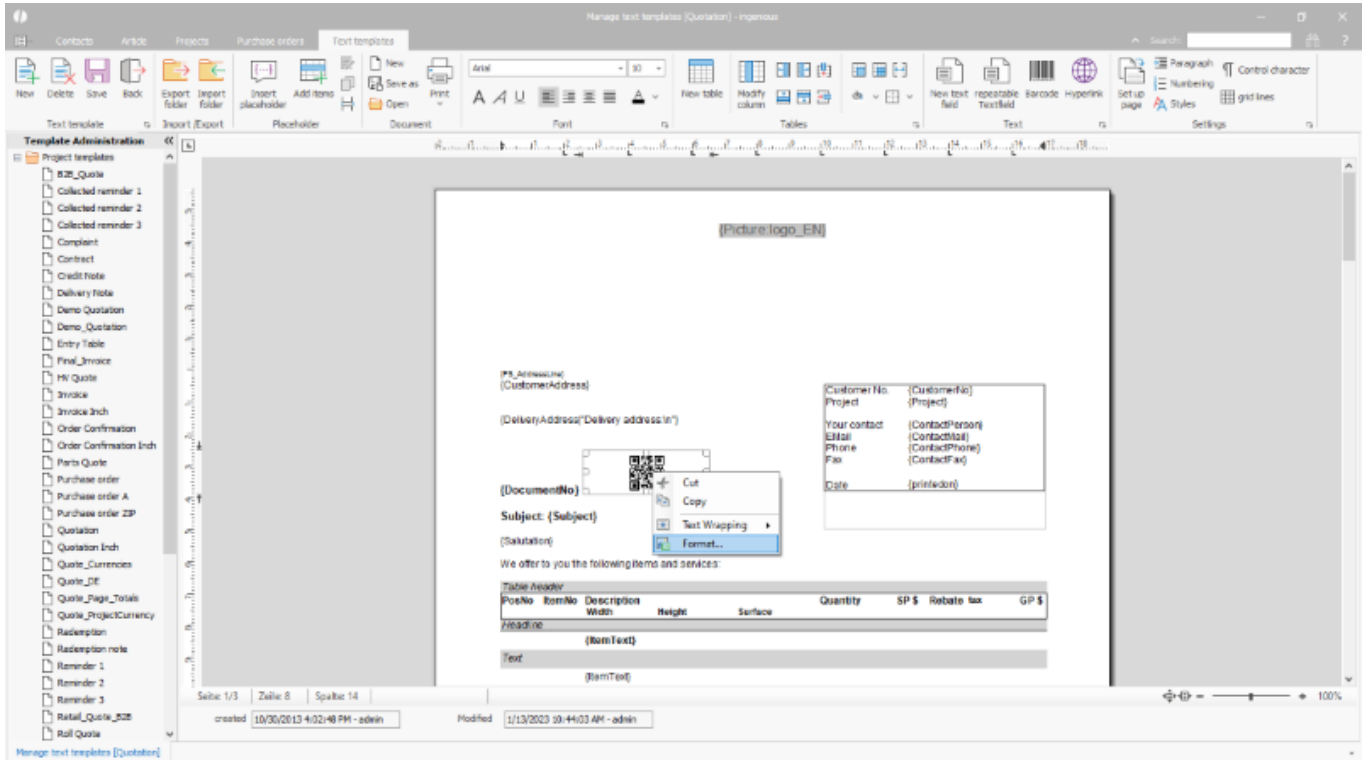
PosNo.	Description	QTY	SP €	GP €
005	Rolling Shutter 45° Casing 137 in white ALU Curtain 32 in white Bottom Slot ALU in white ALU Mini - Guide channel in white Tape color - Operation left Width: 140 x Height: 90	1 pc	117.12	117.12
Carry over				757.17
Total				874.29
VAT 19%				164.80
Gross total				1,039.09

The interface includes a top menu bar with options like 'Contacts', 'Article', 'Projects', 'Purchase orders', and 'Text templates'. A sidebar on the left provides navigation for 'Miscellaneous', 'Times', 'Price info', 'Documents and Notes', 'own fields', and 'File attachments'. A right sidebar contains 'Miscellaneous' settings (Name, Number, Commission, Printed on, Contact, Project template, Contact person, Representative, Trip, Project status, Project text, Notes) and 'Addresses' (Address, Name, Street, Unit, Zip, City, District, Country, Contact person, Phone number, E-Mail). An 'Accounts' section at the bottom right shows financial details like Purchase price, Net price, Gross price, VAT, Calculated time, Commission, Use SP2, Use customer disco., and Cash discount.

## Inserting a barcode with a placeholder

A barcode can be added to the project template using the button  on the icon bar.

The barcode can be formatted using the context menu (right click on the barcode).



In the window that appears, in addition to the layout and size, the type/encoding is also defined.



Sample Company: Sample street 12345 12345 Sample town  
John Doe  
123 Anywhere Street  
12345 Anytown

Delivery address:  
John Doe  
125 Anywhere Street  
12345 Anytown

Customer No. 10000  
Project Surchage

Your contact Anton Admin  
Email: anton@ingenious.de  
Phone: 0123456789  
Fax: 0123456780  
Date: 1/13/2023

Quotation Q202301/0049

Subject:

Dear Mr. Doe

We offer to you the following items and services:


PosNo	ItemNo	Description	Width	Height	Surface	Quantity	SP \$	Rebate tax	GP \$
001	00	Rolling Shutter 45" Casing 137 in white ALU Custom 32 in white Bottom Slat ALU in white				1 pc	919.54	-20% 18	735.63

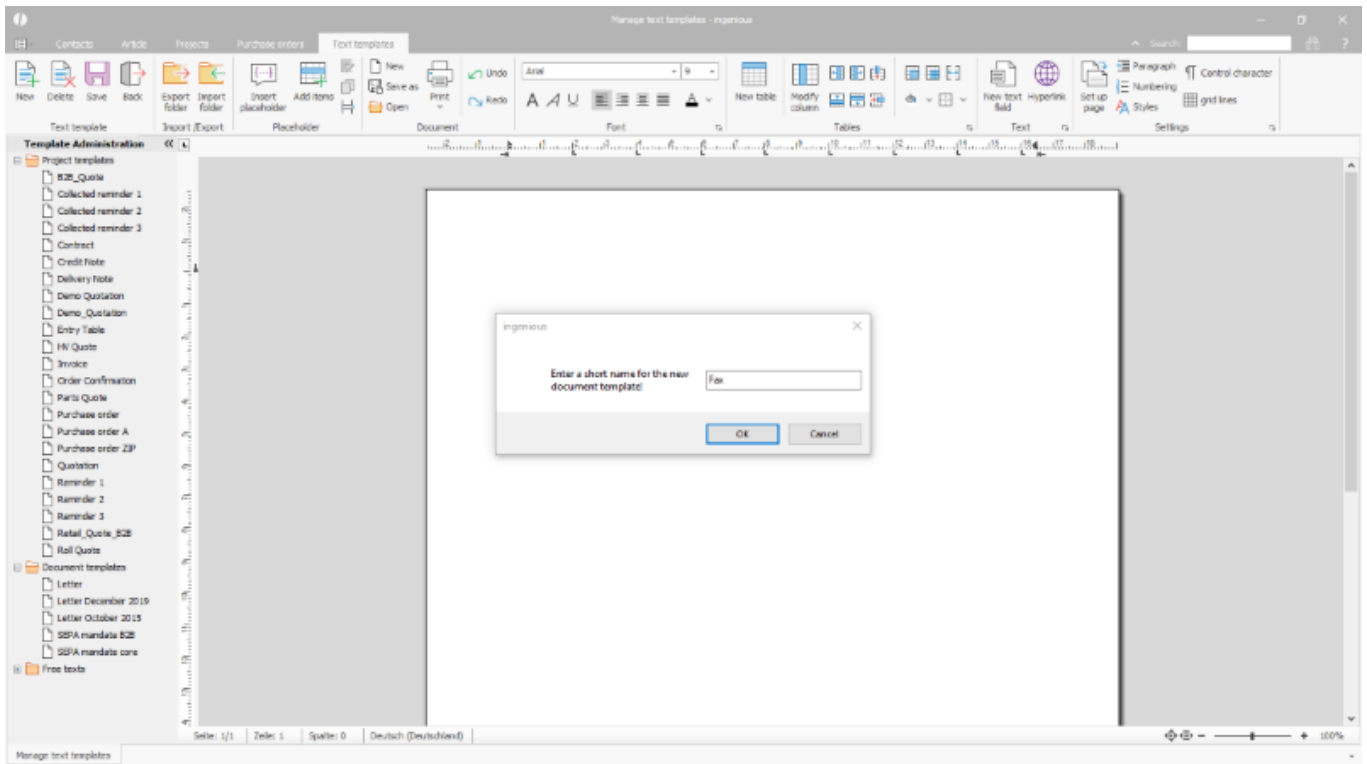
created: 1/13/2023 9:53:27 AM - admin Modified: 1/13/2023 1:41:25 PM - admin Field info: GE\_Adresse

### 8.1.3 Document templates

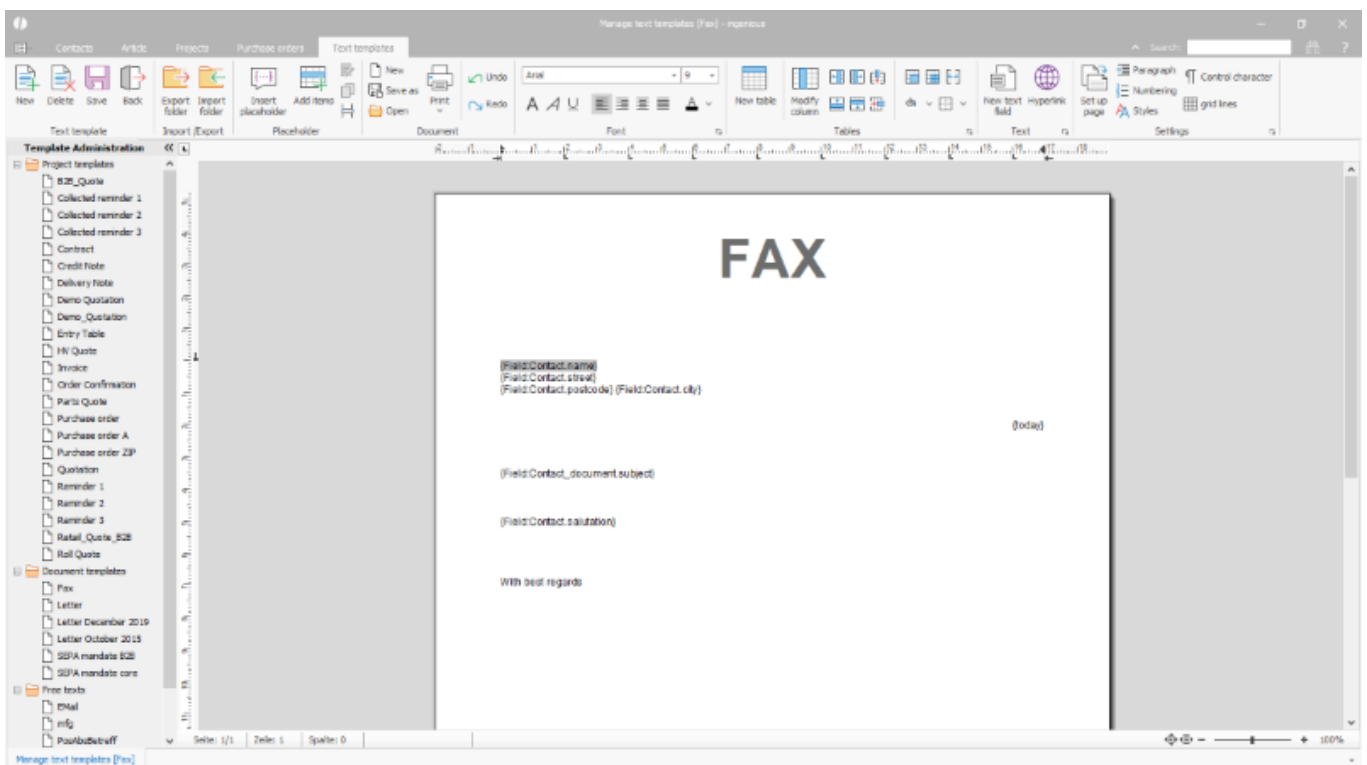
Document templates are general text templates, which are used for recurring /serial letters etc. . An optional number of document templates can be created, e.g. a template for general letters and faxes, letters with complete content text e.g. for serial prints.

The document templates can be selected within the contact and project detail view via the navigation point "documents & notes" and via the serial letter assistant.

For creating a new document template, the folder "document templates" must be marked in the selection area on the left. Subsequently, a new template is created via the  button. First, a distinct abbreviation for the template has to be inserted.




The document template can be designed freely via the function of the text editor. In the document templates placeholders can be used as well for inserting e.g. the client address. However, only the linked placeholder and fields are available. That means, in a document which is created from the contacts detail view, placeholder that refer to project or position data do not function here.

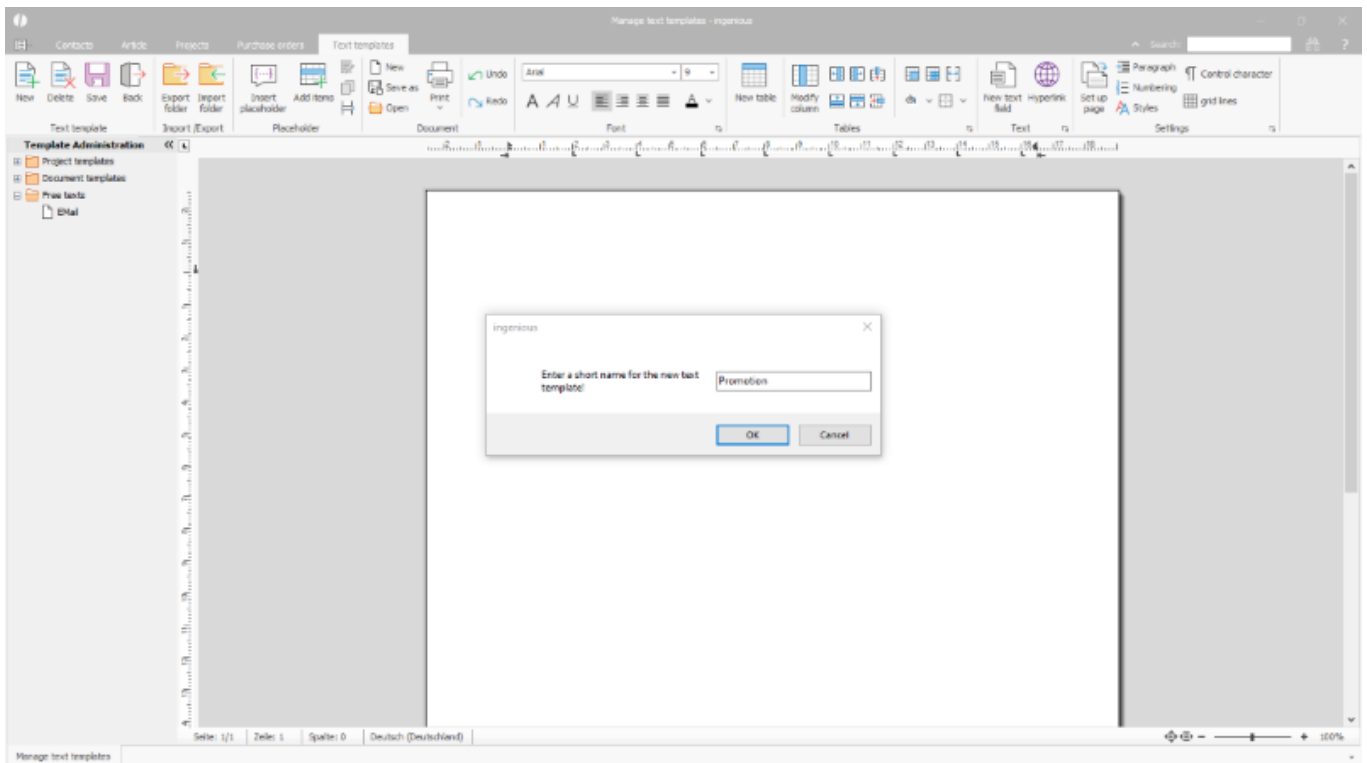


## 8.1.4 Free texts

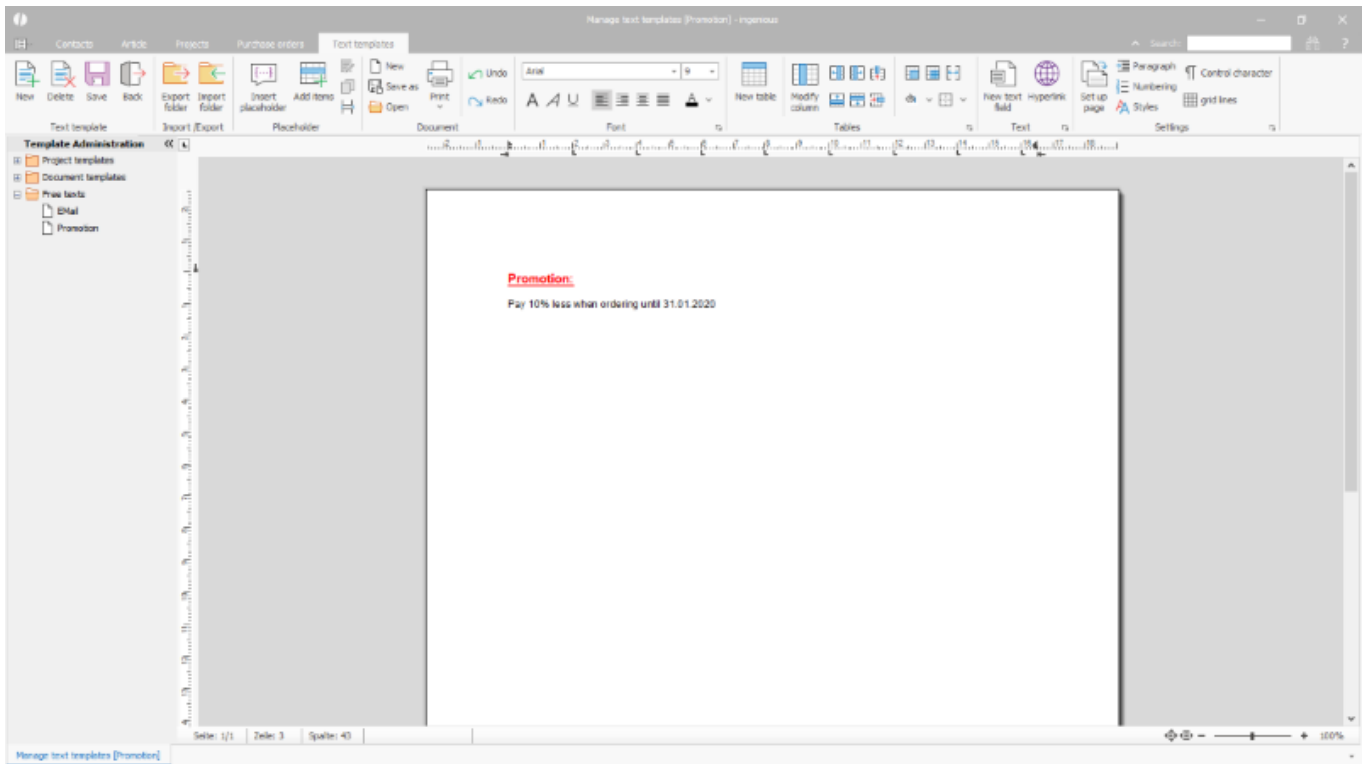
Free texts are individually predefined text building components, which can be inserted in any place in the (project) document.

This way, recurrent text can be recorded in the data base and accessed on demand.

A new free text component can be created via the  button, if the folder or the area "free texts" is marked on the left in the selection menu. At first, a distinct abbreviation for identifying the text building block has to be assigned, via which the text can be inserted into the documents later.



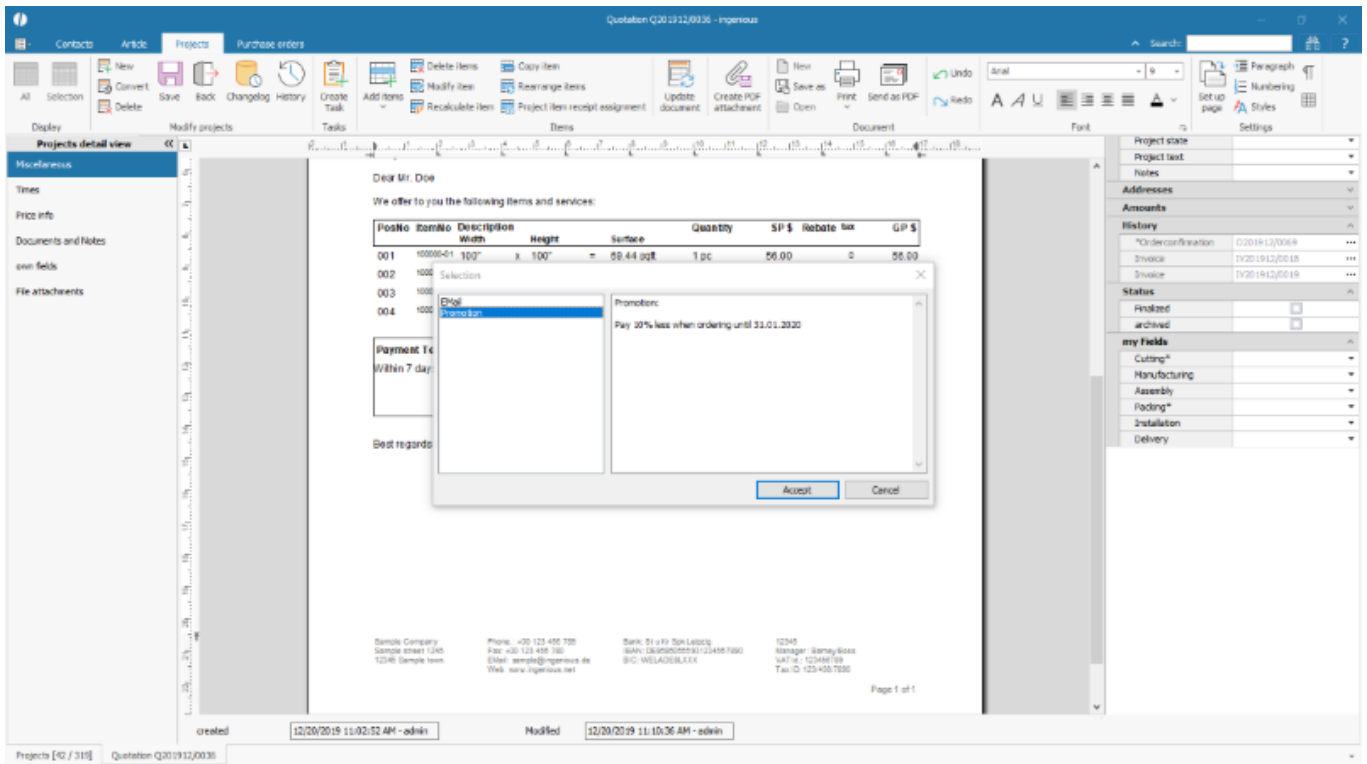
Subsequently, the desired text template is created and formatted.



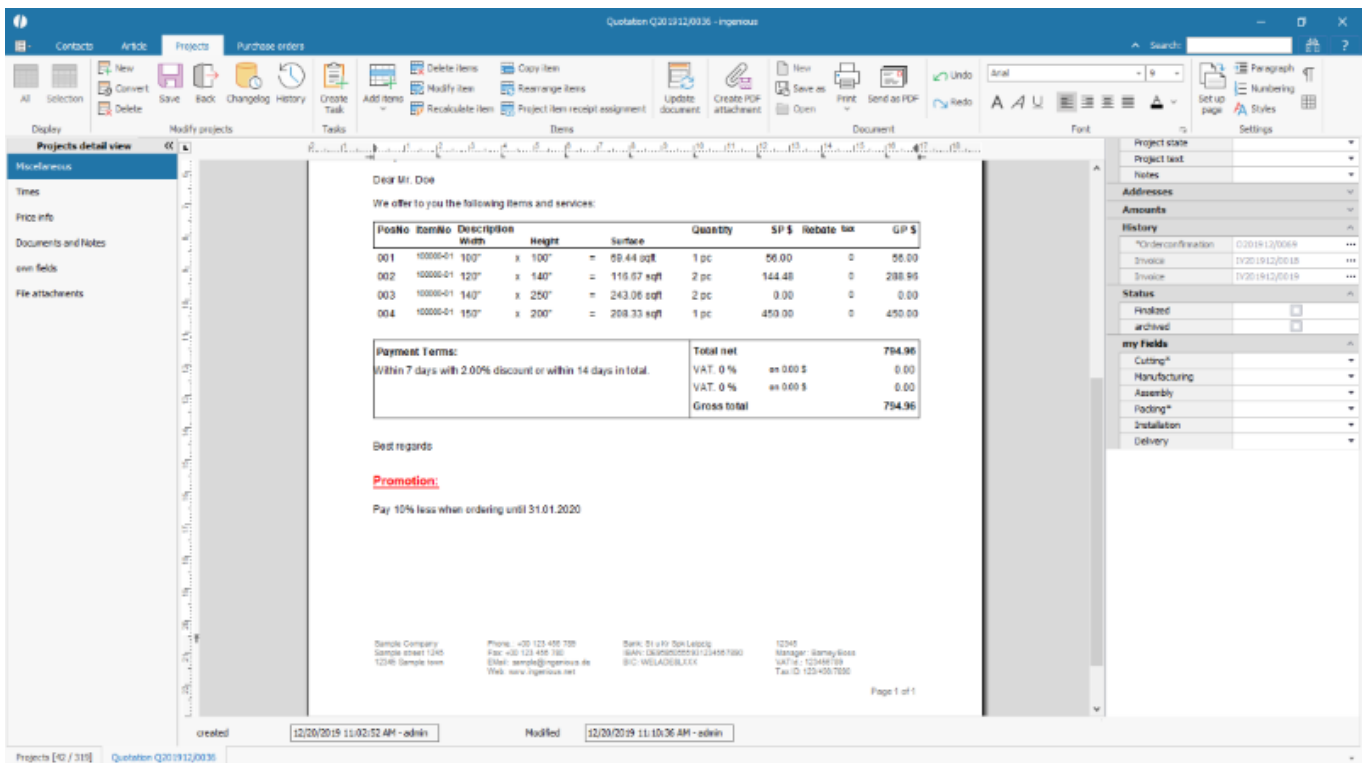
In a document, the free text can be inserted in different ways. In all three cases, the cursor has to be moved to the place where the text shall be inserted at first.

The abbreviation is known	Promotion	Entry of the abbreviation and subsequent pressing of F3 key on the keyboard.
The abbreviation is not completely known	Pr*	Entry of the known first letters and subsequent pressing of the F3 key. If only exactly one text building component exists, this one is inserted. If several exist, a selection list with the blocks available opens.
The abbreviation is not known		Pressing the F3 key on the keyboard. A selection list with all free texts available, including a preview, opens.





Subsequently the formatted text is inserted.



Free texts can also contain placeholder and scripts. These are dissolved singularly during the entry into the document.

Note: Values inserted via script cannot be overwritten.

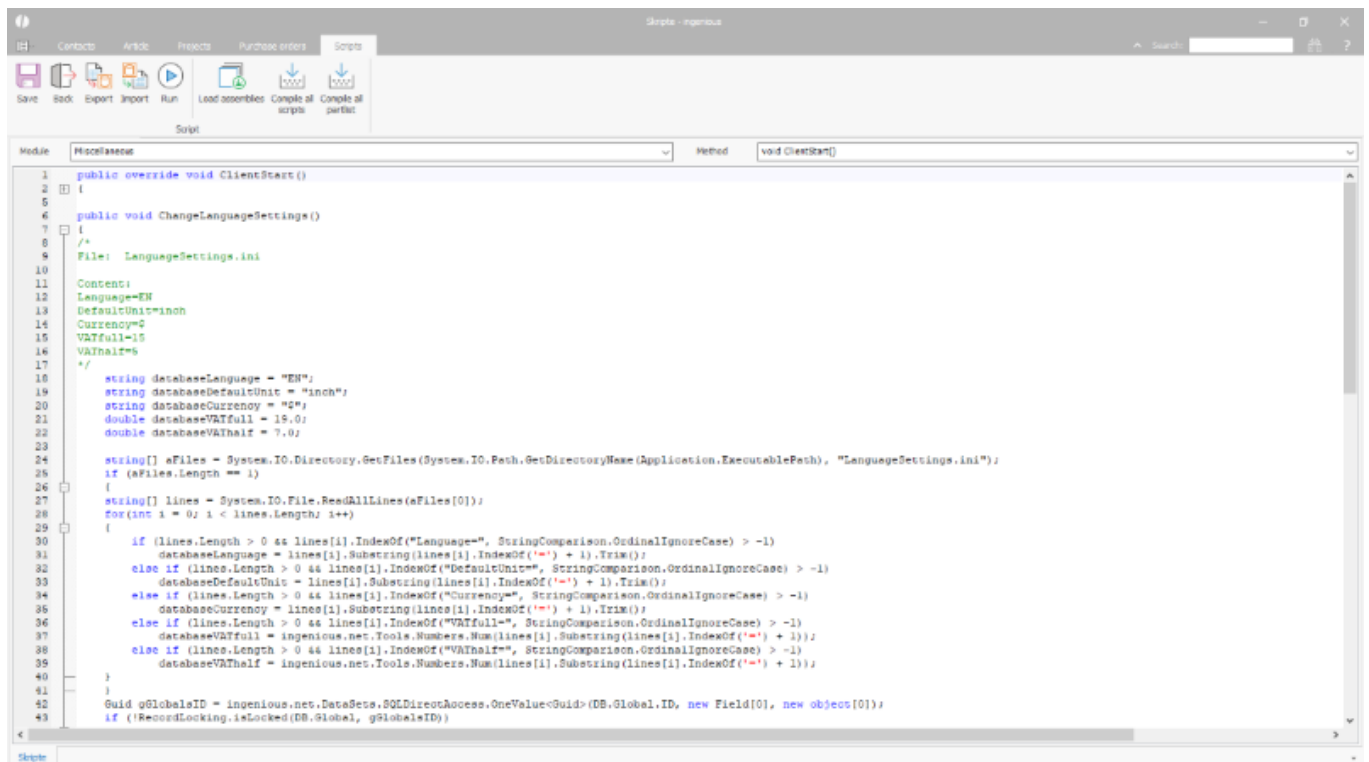
## 8.2 Scripts

### 8.2.1 Scripts

Via "scripts" individual functions can be added freely to the program and data can be manipulated.

The scripts are written in C# and demand the respective programming knowledge.

Since it can be intervened directly in the data base via scripts, access (user right) should be only assigned to users who are authorizes and able to carry out modifications.



Scripts are integrated into the modules available and can be executed event-based.

Modules available and predefined:

#### Event- based scripts

Module	Methods		
Miscellaneous	<table border="1"> <tr> <td>ClientStart</td> <td>The script is executed when the client is started.</td> </tr> </table>	ClientStart	The script is executed when the client is started.
ClientStart	The script is executed when the client is started.		

Contacts	AfterOpen	The script is executed after opening the data set.
	BeforeSafe	The script is executed before saving the data set.
	BeforeCopy	The script is executed before copying the data set.
	AfterCopy	The script is executed after copying the data set.
	BeforeDelete	The script is executed before deleting the data set.
	AfterChange	The script is executed after modifying the data set.
	SidebarText	The script determines a value in a sidebar field.
	SidebarButton	The script is addressed, as soon as the linked button in the sidebar is clicked.
	BeforeSaveWeb	The script runs before saving the contact in the web modules.
	AfterOpenAddress	The script will run after a contact address has been opened.
	BeforeSaveAddress	The script is executed before saving a contact address.
	AfterChangeAddress	The script will run after changing a contact address.
Article	AfterOpen	The script is executed after opening the data set.
	BeforeSafe	The script is executed before saving the data set.
	BeforeCopy	The script is executed before copying the data set.
	AfterCopy	The script is executed after copying the data set.
	BeforeDelete	The script is executed before deleting the data set.
	AfterChange	The script is executed after modifying the data set.
	SidebarText	The script determines a value in a sidebar field.
	SidebarButton	The script is addressed, as soon as the linked button in the sidebar is clicked.
	AfterPriceHistoryChanged	The script will run after the price history of the item has changed.
Projects	AfterOpen	The script is executed after opening the data set.
	BeforeSafe	The script is executed before saving the data set.
	BeforeCopy	The script is executed before copying the data set.
	AfterCopy	The script is executed after copying the data set.
	BeforeDelete	The script is executed before deleting the data set.
	AfterChange	The script is executed after modifying the data set.
	SidebarText	The script determines a value in a sidebar field.
	SidebarButton	The script is addressed, as soon as the linked button in the sidebar is clicked.
	BeforePrint	The script is executed before a printing process.
	AfterPrint	The script is executed after a printing process.
	BeforeSaveWeb	The script runs after saving a project in the web modules.

	BeforeSavePayment	The script will run before saving a payment.
	AfterPrintReport	The script will run after printing a print report.
	BeforeCombine	The script will run before merging projects.
Purchasing	AfterOpen	The script is executed after opening the data set.
	BeforeSafe	The script is executed before saving the data set.
	BeforeCopy	The script is executed before copying the data set.
	AfterCopy	The script is executed after copying the data set.
	BeforeDelete	The script is executed before deleting the data set.
	AfterChange	The script is executed after modifying the data set.
	SidebarText	The script determines a value in a sidebar field.
	SidebarButton	The script is addressed, as soon as the linked button in the sidebar is clicked.
	BeforePrint	The script is executed before a printing process.
	AfterPrint	The script is executed after a printing process.
	AfterPrintReport	The script will run after printing a print report.
Times	AfterOpen	The script is executed after opening the data set.
	BeforeSafe	The script is executed before saving the data set.
	BeforeCopy	The script is executed before copying the data set.
	AfterCopy	The script is executed after copying the data set.
	BeforeDelete	The script is executed before deleting the data set.
	AfterChange	The script is executed after modifying the data set.
Receipt entry	AfterOpen	The script is executed after opening the data set.
	BeforeSafe	The script is executed before saving the data set.
	BeforeCopy	The script is executed before copying the data set.
	AfterCopy	The script is executed after copying the data set.
	BeforeDelete	The script is executed before deleting the data set.
	AfterChange	The script is executed after modifying the data set.
Items	AfterCalculate	The script is executed after the calculation of the data set.
	AfterChange	The script is executed after a project position has been changed.

### Static Scripts

Text templates	The script may contain calculations for issue on project templates or issue dependent values.
Scheduler	The scripts can be executed time-controlled via the scheduler.

Part lists	The scripts can be called up in part lists.
Capacity planning	Scripts for use in capacity planning.
Web	The scripts can be executed in the web modules.

### Scripts attached to the module lists

Available for the modules

- Contact list
- Items list
- Project list
- Purchasing list
- Times list
- Receipt entry list





Methods:




AfterSearch	Definition of a search for filters (in combination with SqlSearch)
SqlSearch	Definition of a SQL search (in combination with AfterSearch)
RowFormat	For the dependent formatting of a row
RowCellFormat	For the dependent formatting of a cell
ColumnText	For inserting an individual column with fix or calculated values.
NavBarScriptList	Shows selected scripts in the navigation / filter bar in the list view
NavBarScript	Definition of the scripts which can be executed via the navigation bar
AfterPrintReport	Action after printing a print report
ButtonClicked	Action after clicking a list button

and additionally for the projects list and purchasing list:

BeforeSendMail	Action before sending an email
AfterSendMail	Action after sending an email

Via the toolbar, the following functions are available.

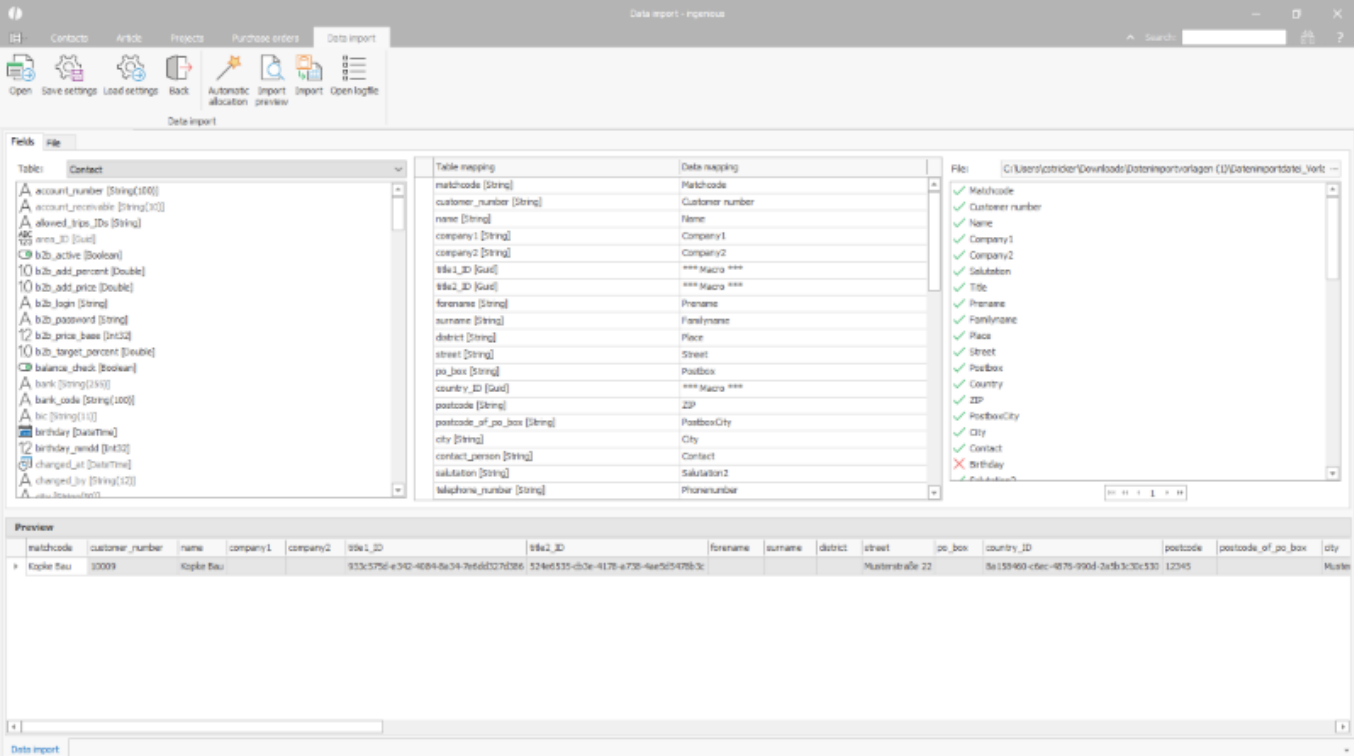
	Saves modifications
	End the script module
	Exports selected scripts in .cs (C#) format in the following dialog
	Imports Scripts from .cs (C#) files

	Executes the selected script
	Loads the commands of linked plug-ins (necessary before modifications are saved).
	

## 8.3 Data import








### 8.3.1 Data import

ingenious offers a generic data import for base files from .csv files. Via the module, own assignments of the table columns of .csv file to the ingenious internal data base fields can be defined. The module is recommended especially for a singular import of existing client and article data. For the automatic, repeated import of updated data or the import of project or position data, the Ingenious Software GmbH offers individual support services.

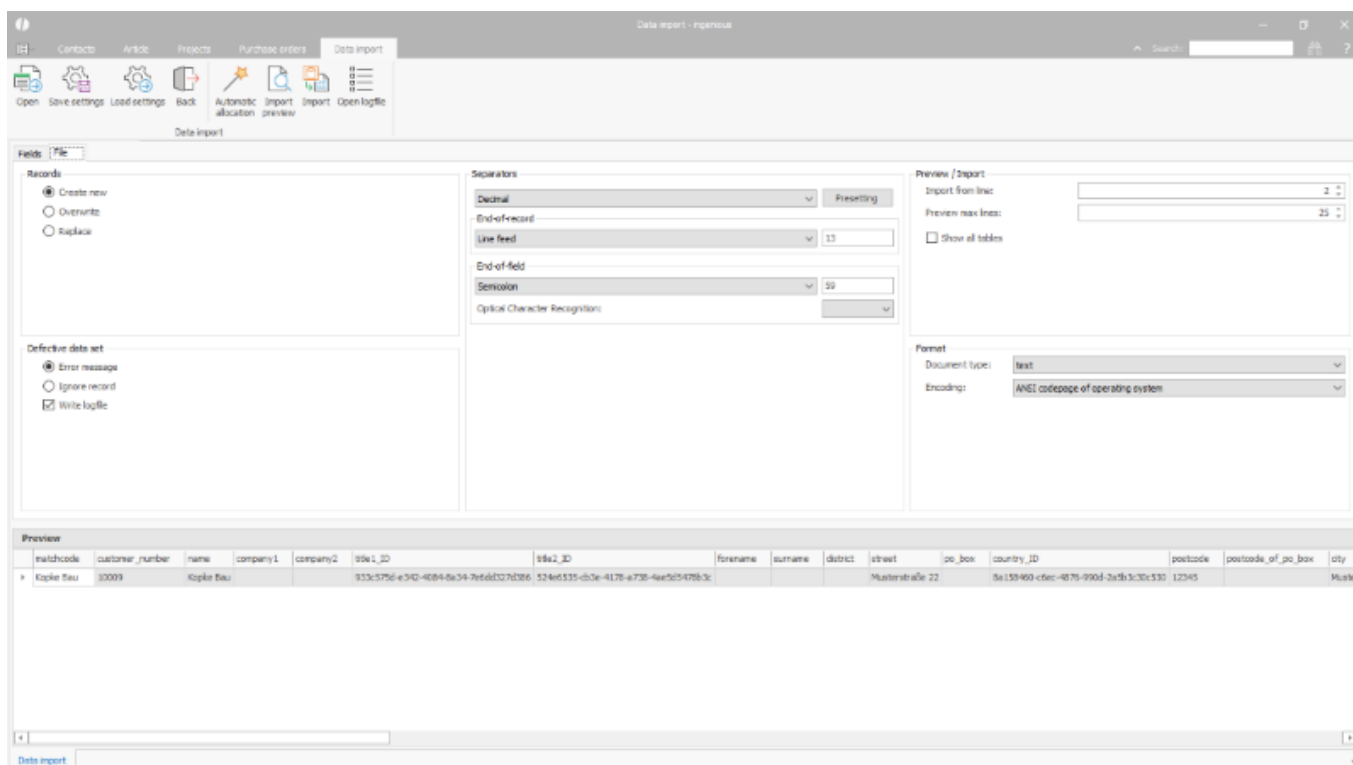


In the data import module, the following functions are available via the toolbar.

	Open the file with the data to be imported.
---	---

	Save the settings and field assignments for the import.
	Load recorded settings and field assignments.
	End the module
	Assign values of the import table to the data base fields automatically. If the column headers of the import table match the data base fields, they are assigned to each other automatically.
	Display of a preview of the data to be imported.
	Execute data import with the current settings and field assignments
	Open log file with error details (The log file has to be activated in advance.)

The module data import is subdivided into two tab cards. On the first tab card, the data from the import table is assigned to the data base fields. On the second tab card, general settings for the import file are determined. These are:



Data sets

Radio buttons

Create new

Only new data sets are created. If an entry already exists, no modifications will take place.

		Overwrite	Fields of the old data set are overwritten with the fields of the new. If a field does not have an entry, it will stay unchanged.
		Replace	The old data set is deleted and replaced with the new.
Defective data set	Radio buttons / Checkbox	Error message	Show an error message in case of an error
		Ignore record	Ignores defective data set and proceeds with the next data set.
		Write log file	All errors during an import are written into a log file if this checkbox is activated.
Separators	Selection list	Definition, how the different separators are displayed / entered. Via the button "presetting" the standard values are loaded.	
End of record	Selection list	Selection or input of the character, which designates the end of a sentence in the import file.	
End of field	Selection list	Selection or input of the character, which designates the field end in the import file.	
Optical Character Recognition	Selection list	Selection of characters, which designate text in the import file.	
Import from row..	Simple input field	Definition, from which line in the import file the data is imported. E.g. from row 1, if the table does not contain headings, row 2, if it does.	
Preview max lines	Simple input field	Selection, for how many lines of the import file a preview is shown.	
Document type	Selection list	Selection of document type	
Encoding	Selection list	Selection of the character encoding used in the import file	

### Data import on an example template

For the import of contact and article data, an example template is available, which can be downloaded via the following link:

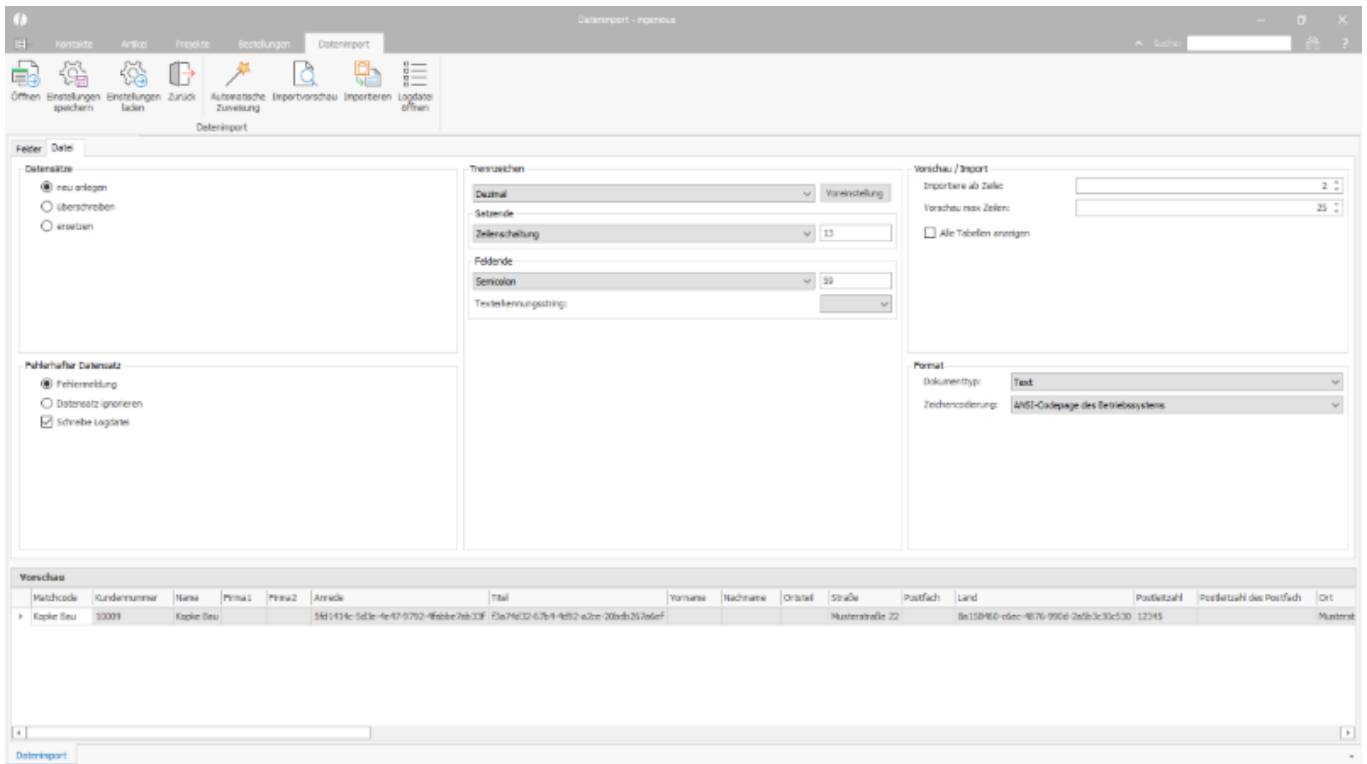
#### **Datenimportvorlagen.zip (on-line documentation)**


The template set for the import of contact or article data contains each an example import file and a file with the setting and field assignments. In the example import file, the most important data bank fields are shown as table columns. Here, as many details about articles and contacts as possible should be recorded.

When the file is filled completely, the configuration of the import can be started.

At first, the settings are entered according to the file on the tab "file". These are the semicolon for the field end and for the import from line 2, line 2.





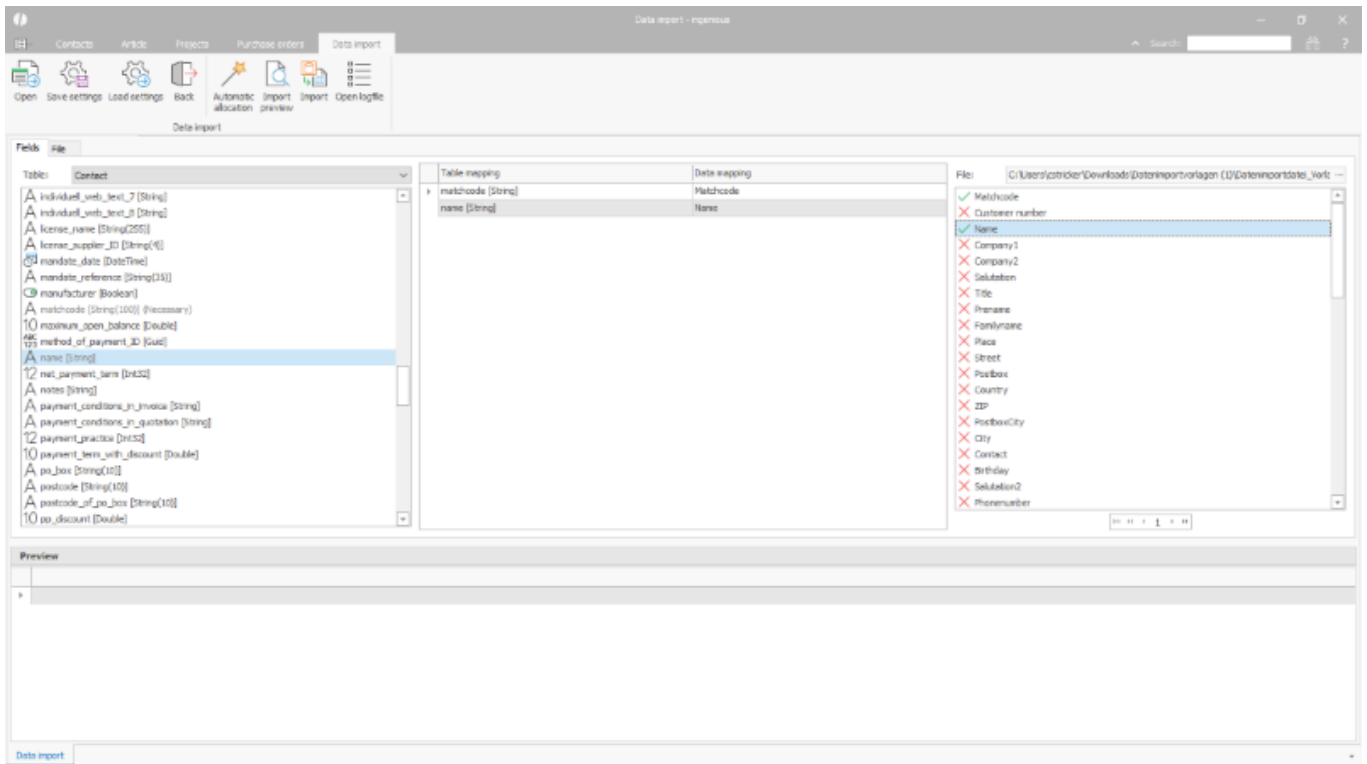
Subsequently, the data import file is opened via the  button on the tab "fields".

On the right, the table columns of the import file are shown. These have to be assigned to the data bank fields.

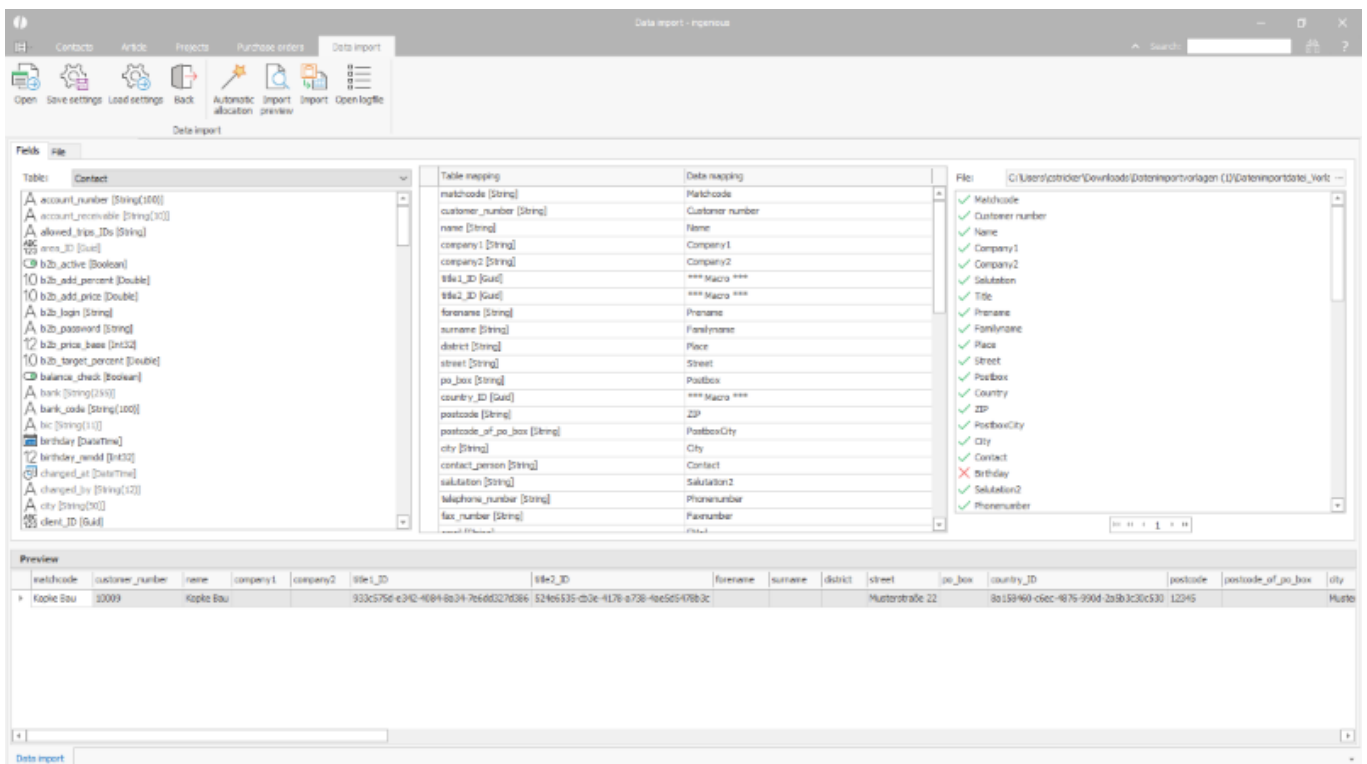
In the table and selection area on the left it can be switched between the single data bank tables and the respective fields can be selected.



The fields are designated according to their type (String, Boolean,...) and assignment. Fields in grey font are configured already. Fields in black font have not been taken into account yet. Bold printed fields (e.g. matchcode) are mandatory for the import.

Via drag & drop the needed fields are drawn to the middle. Likewise via drag & drop, file contents can be assigned in the middle. Fields that are already configured receive a green check, still missing fields receive a red cross.



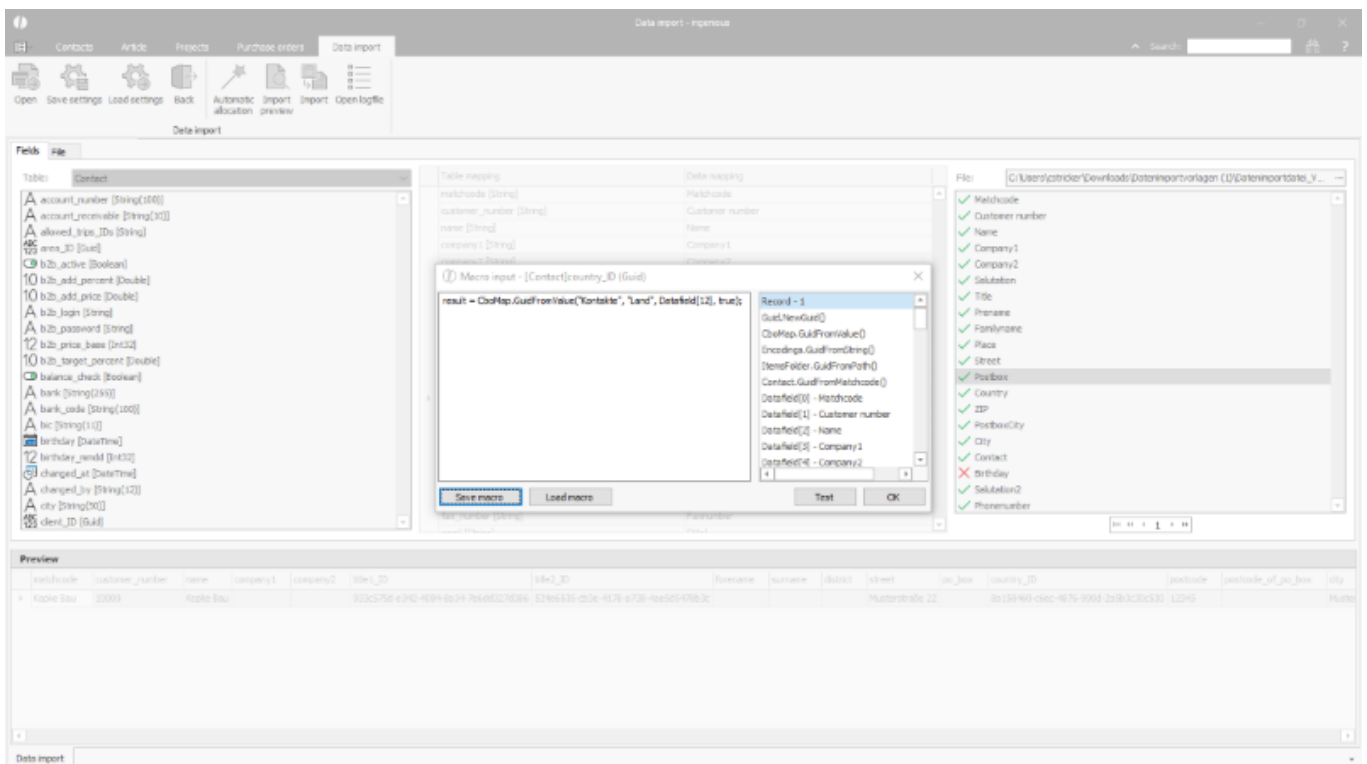
For the example from the template set, a configuration file is available with which the assignment to the correct fields is executed automatically. The configuration is loaded via the respective button from the toolbar.



Via the import preview  the data to be imported can be verified and subsequently the import is started via the  button.

## Macro examples

Besides the direct assignment of a fixed value from the import table, the fields can be filled through so-called macros. To create a macro, an editor is available, which is opened through a double-click on the respective field.



The macro can be created with the help of the commands and field selection on the right.

In the example for the field "country", the value from the data field 12 of the import table is assigned to the field type selection list. Additionally, the value is integrated in the selection list of the program settings via the "true".

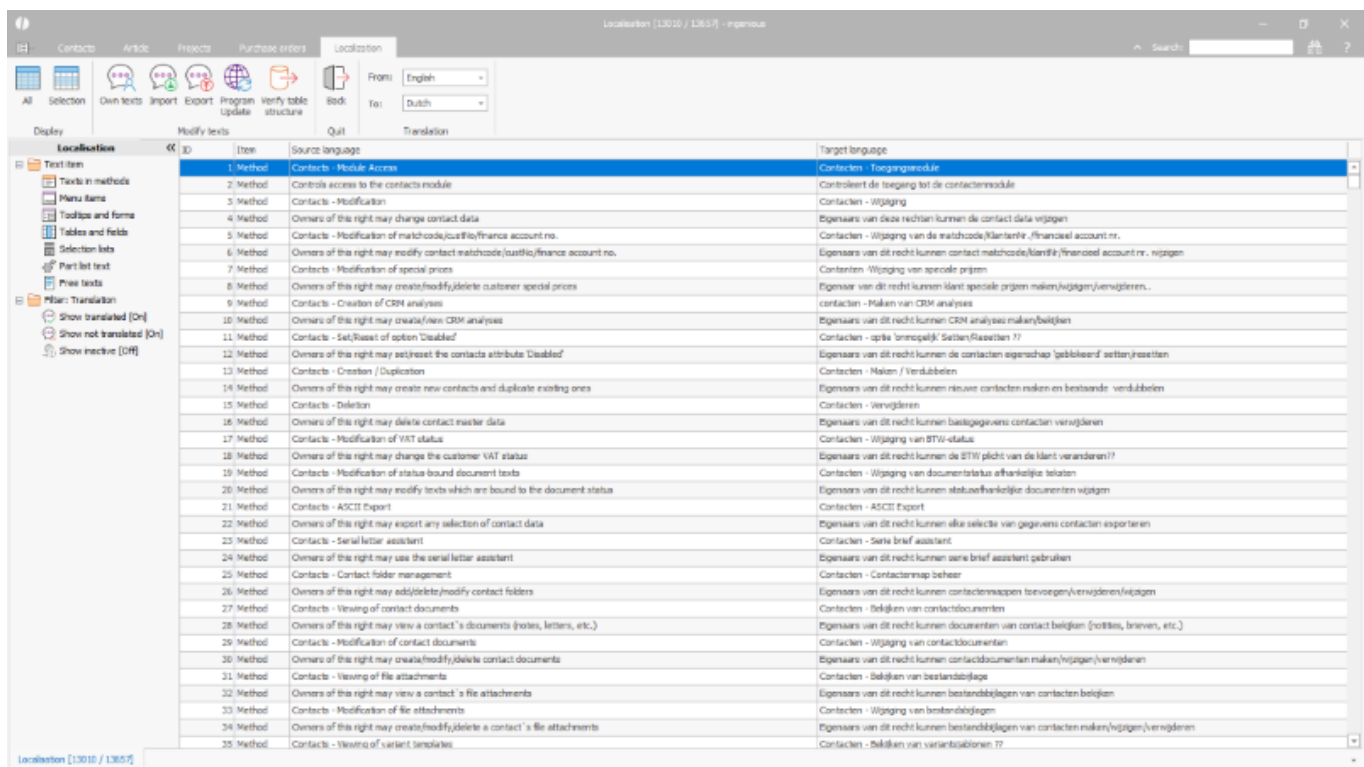
### Example assignment Country cbo Map

```
result = CboMap.GuidFromValue("contacts", "country", Datafield[12], true);
```









## 8.4 Localization

## 8.4.1 Localization

In the localization module the ingenious software user interface can be translated to various languages, e.g. by a translator without the need for programming. It is also used to make own language settings, to translate part lists and free texts, that are used in the web modules and to change the wording of field labels, e.g. to name the individual fields in the main modules.



The following functions are available via the toolbar:

	Show all data records (related to the filters that are set)
	Show only the selected data records
	Edit own texts like part list texts and create or edit free texts
	Import a localization set, e.g. to restore own settings after an update
	Export a localization set, e.g. to store own settings before installing an update
	Update the languages in the program without closing and restarting the software
	Verify table structure
	Close the localization module

Select languages

Select the source language to read and understand the entries and select the target language for that the translation should be made

In the filter area the displayed entries can be limited to only show:

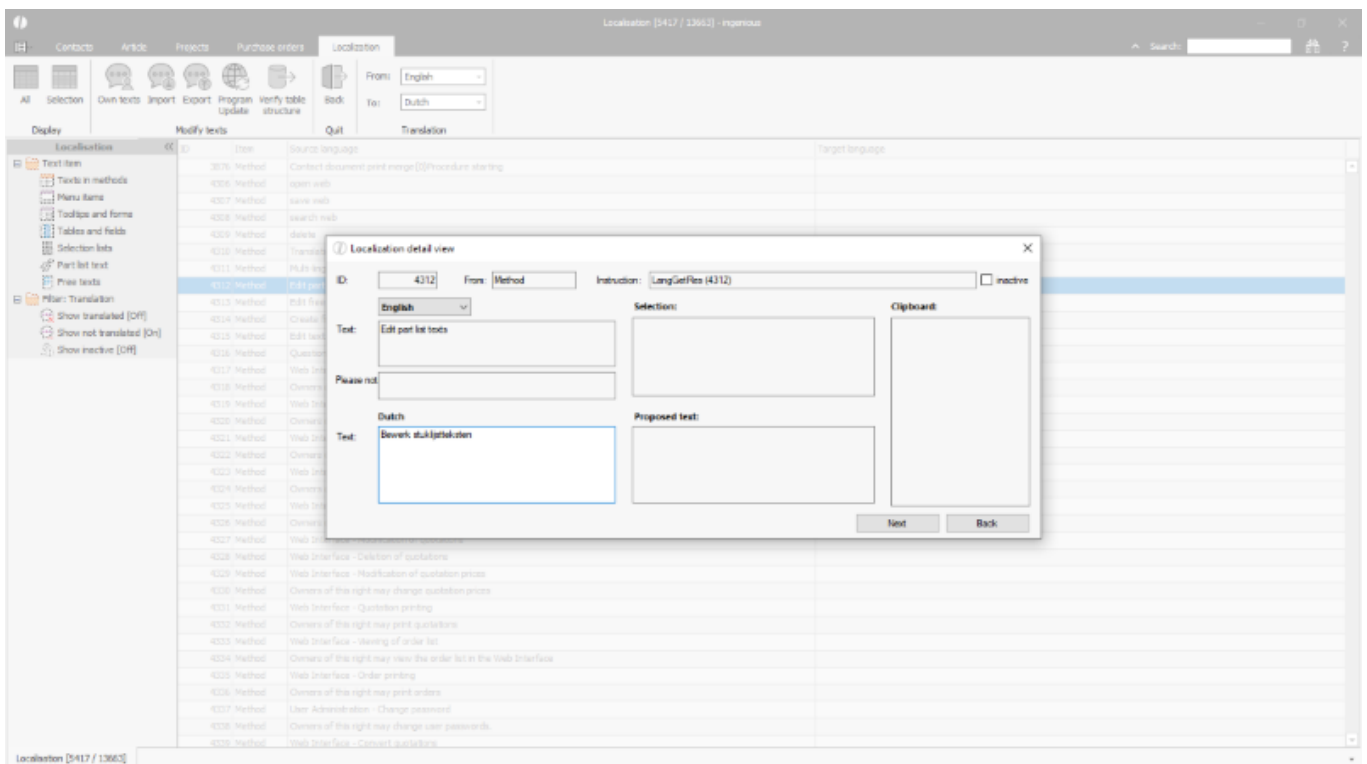
- Texts in methods
- Menu items
- Tooltips and forms
- Tables and fields
- Selection lists
- Part list texts
- Free texts

Translated, not translated and/or inactive text items can be switched on or off.

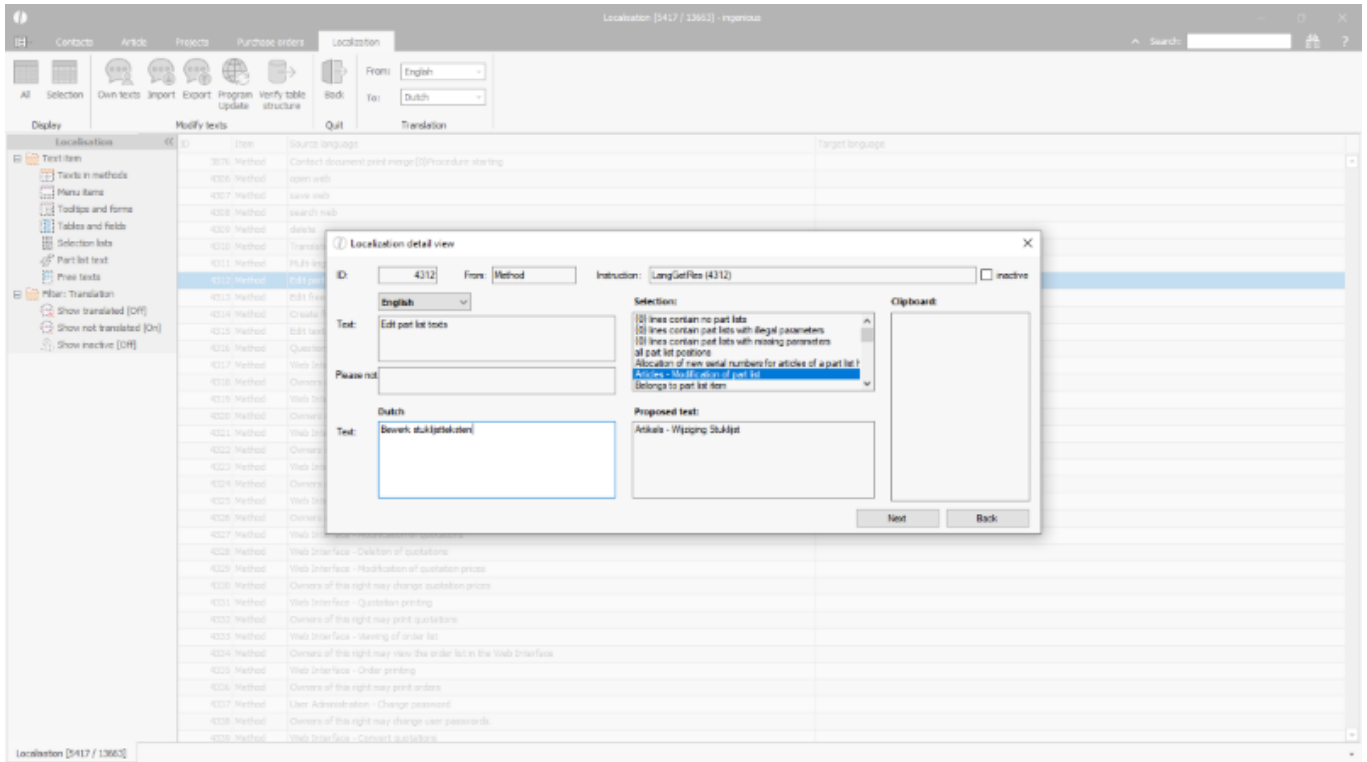
To translate one of the text items it has to be double clicked.

In the appearing detail view the original text is shown for the selected source language.

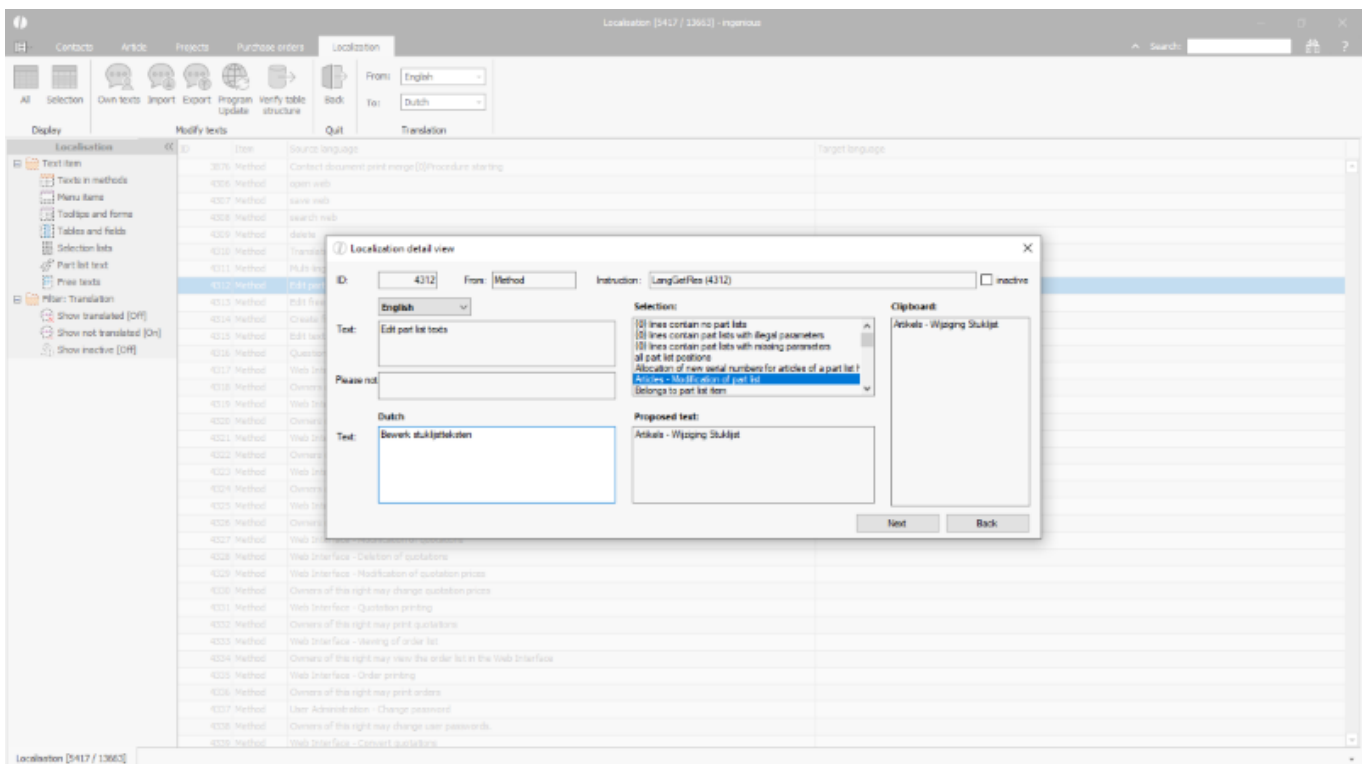
Below that the translation can be entered in the text area of the target language.



To better understand an unknown text item you can mark parts of it and search for similar entries by clicking CTRL + H. In the selection area all text items that contain the marked phrase are shown. By clicking one of them the translation in the target language is shown as proposed text, if available.



By marking a proposed text and pressing F9 it can be stored in the clipboard for further use, e.g. to also display it when translating the following entries.




When the translation of the text item is finished, you can step to the next one by clicking the "next" button, pressing

"enter" or with the picture down button of the keyboard. Going back in the list is accordingly possible with clicking the "back" button or with the picture up button of the keyboard.

Some entries contain texts within curly brackets. These are placeholders that mustn't be translated. The meanings are:

{%Cur}	is replaced with € / \$ / ...
{%CurlISO}	is replaced with EUR / USD / ...
{%1}, {%2}	is dynamically replaced with each suitable printout (variables)

When all desired translations were made, the program can be updated by clicking the  button. When now login to the program with the target language the user interface is shown with the translated texts.

To save the translations (and to transfer it to the ingenious software developers) the data can be exported.

## 8.5 User administration

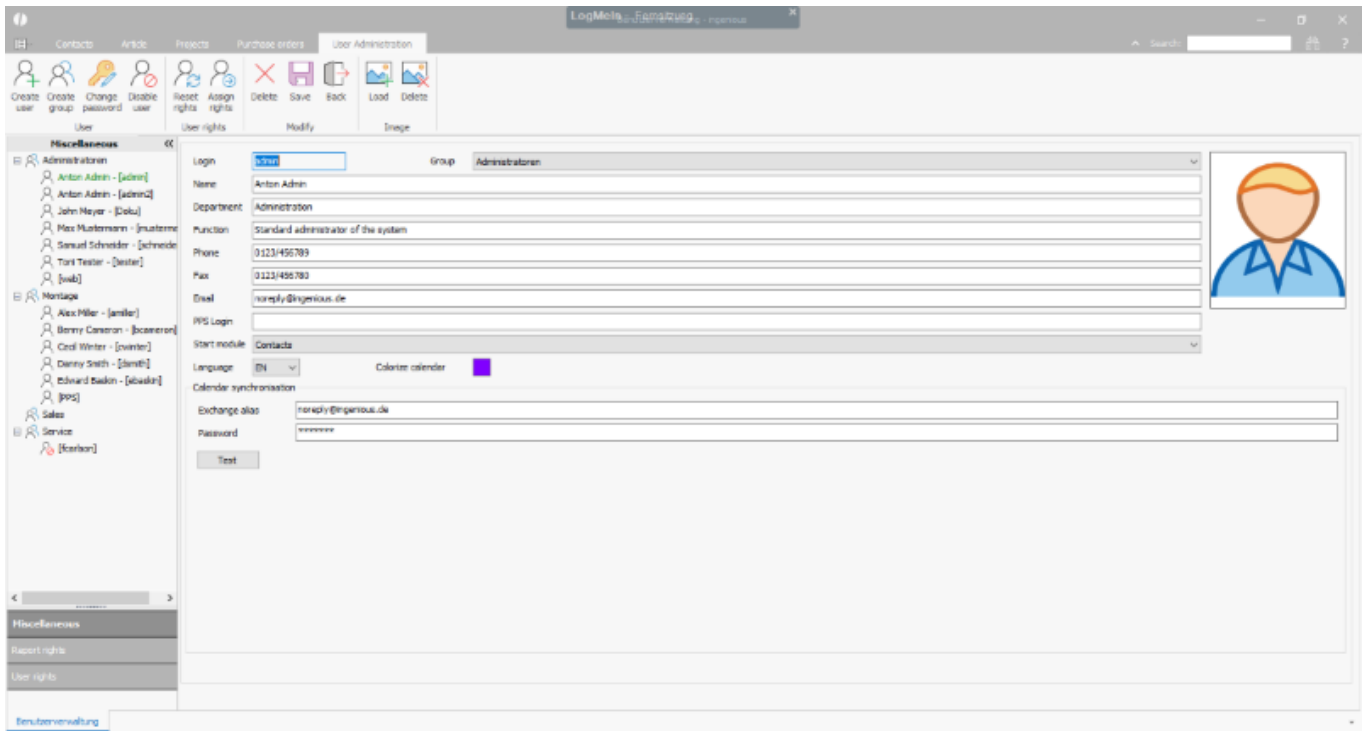
### 8.5.1 The user administration

Especially within a network installation, it is recommended to create an own access for each user. Through this,












- own rights can be unlocked for each user
- user-specific data can be printed on the client documents
- individual settings (e.g. own lists) can be saved

When the user administration is opened, all general data of the user who is currently logged in are displayed. In the navigation area on the left, on the one hand, all users in their assigned groups are listed with their names and logins in square brackets. User who are currently logged in are displayed in green. Through clicking on the respective names one can switch between the single users. The detail view always refers to the currently selected user.

It can be further switched between "miscellaneous", "user rights" and "report rights" here.



In the user administration the following functions are available via the toolbar:

	Create a new user
	Create a new user group
	Change the password of the selected user
	Disable selected user
	Reset rights of the selected user
	Assign the rights of one user to another
	Delete selected user
	Save changes for selected user
	Close module user administration
	Load a profile picture of the user via the Windows Open dialog.
	Deleting the user's profile picture



## 8.5.2 Miscellaneous user details

In the miscellaneous user data, person-related details are recorded. These are:

Login	Protected field	The Login name (short name) at the creation of a new user.
Group	Selection list	User group, to which the user is assigned: the groups can be determined individually via the function "create group".
Name	Simple input field	Full name of the user.
Department	Simple input field	Department, in which the user works.
Function	Simple input field	Function of the user.
Phone	Simple input field	Telephone number of the user.
Fax	Simple input field	Fax number of the user.
Email	Simple input field	Email address of the user.
Start module	Selection list	Selection of the module that should be first displayed when the program is started
Language	Selection list	Language, with which the user logs in at ingenious: Currently German, English, Dutch and Slovenian are available as languages.
Coloring calendar	Color picker	Definition of the font color of the calendar entries of the user
Picture	Thumbnail	Avatar / profile picture of the user.

## Trip management - driving license classes

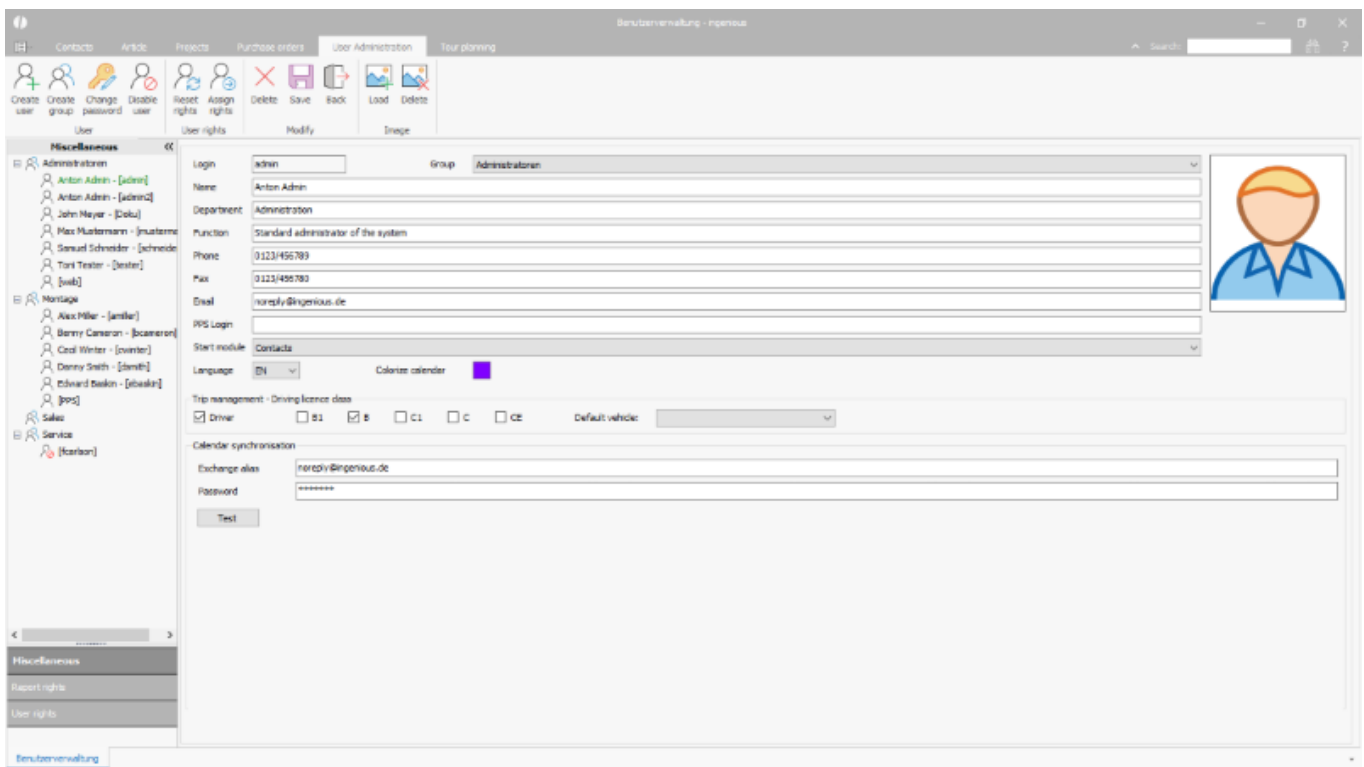
This block is only visible if the trip planning module has been licensed.

Driver	Checklist	Using the checklist, the user is determined as the driver and is thus available as a <b>resource (Section 7.6.4)</b> in the <b>trip planning (Section 7.6.1)</b> .
Driving license classes B1, B, C1, C, CE	Checklist	Storage of the driver's license classes to check whether he is allowed to drive the selected vehicle.
Standard vehicle	Selection list	Selection of a vehicle created in the <b>vehicle management (Section 7.6.3)</b> that is usually available to the driver.

## Calendar sync

The fields for configuring the calendar synchronization are available if a service selection has been made and configured in the **program settings / network/server (Section 8.6.20)**.

(Exchange) alias	Simple input field	User alias (email address) for access to the exchange server for synchronization of the calendar with the mail client (Outlook)
Password	Masked input field	Password of the Exchange user alias. After entering the password, it is shown masked with asterisks.



## 8.5.3 User rights

In the user rights it is regulated who is allowed to do what in ingenious. Not everyone who is e.g. just temporarily employed should have the possibility to, for example, delete data or execute financially decisive changes.

Therefore, the user rights should be planned and assigned carefully. Also modifications of the user rights themselves are protected by a user right.

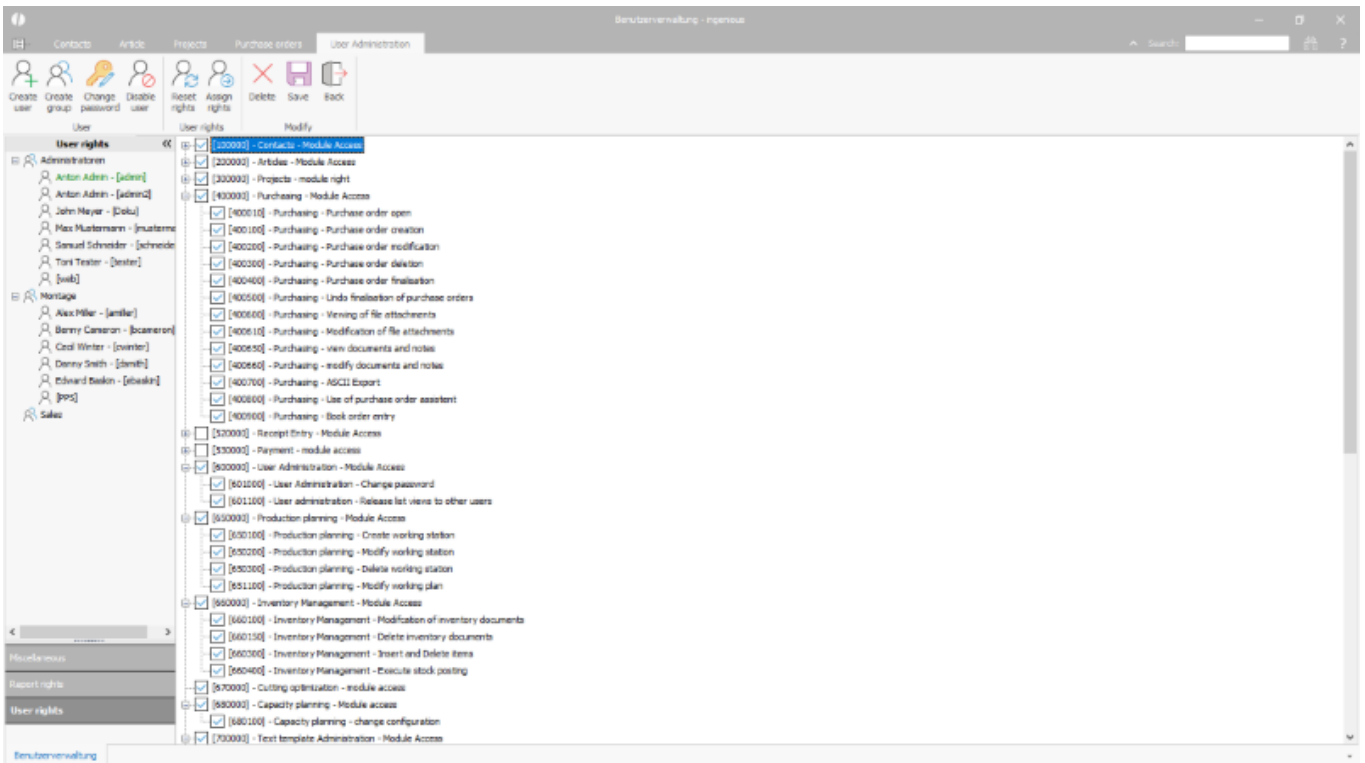
The displayed user rights always refer to the selected user group or the selected user. User rights of a group are assigned always anew to all newly created users in that group.

An activated right is recognisable through the green check. With double-clicking the right is changed and thus withdrawn or assigned. User rights are assigned generally for the module access and within singular modules for

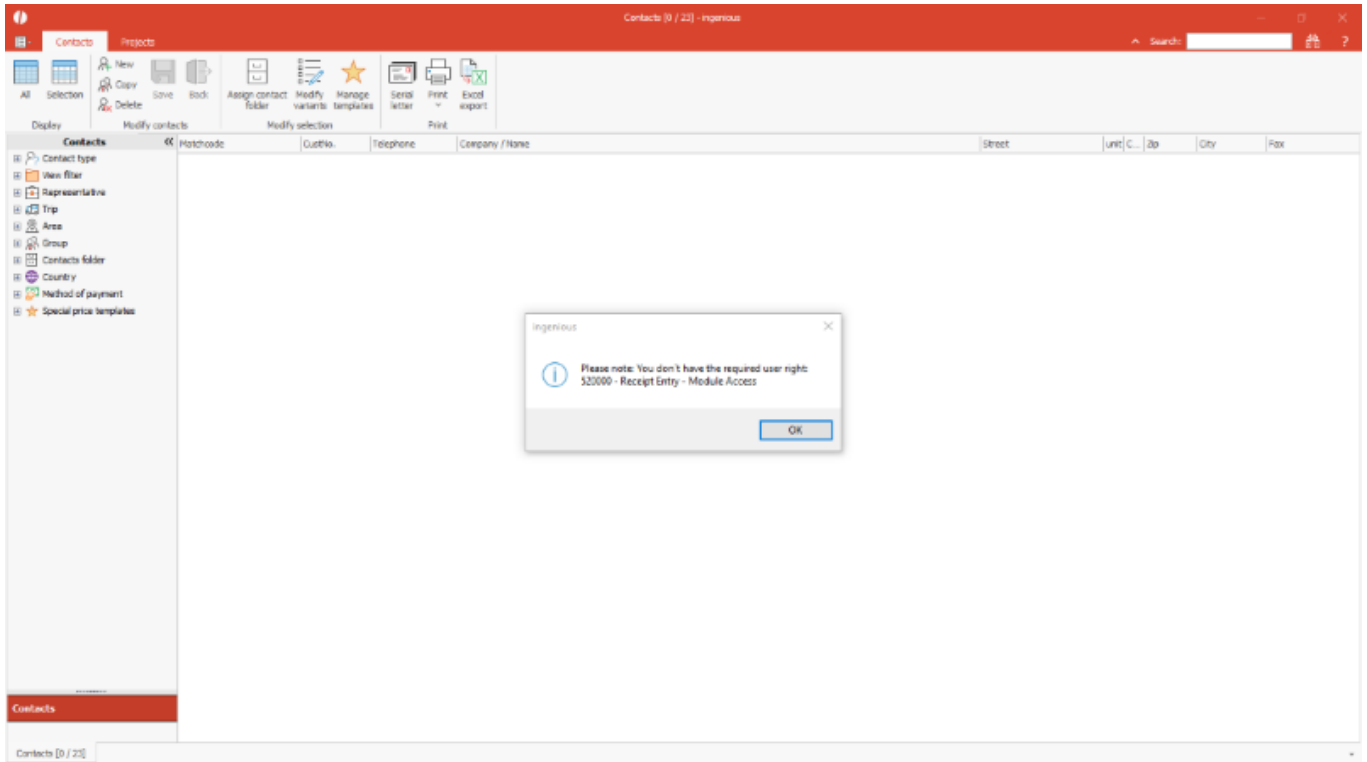
certain functions.

Newly programmed functions are at first deactivated for all users (except the administrator).

Changes in the user rights take effect the latest with the next login of the user.



If a user lacks a module right or the right for a singular function, it is displayed to him as a notice message.

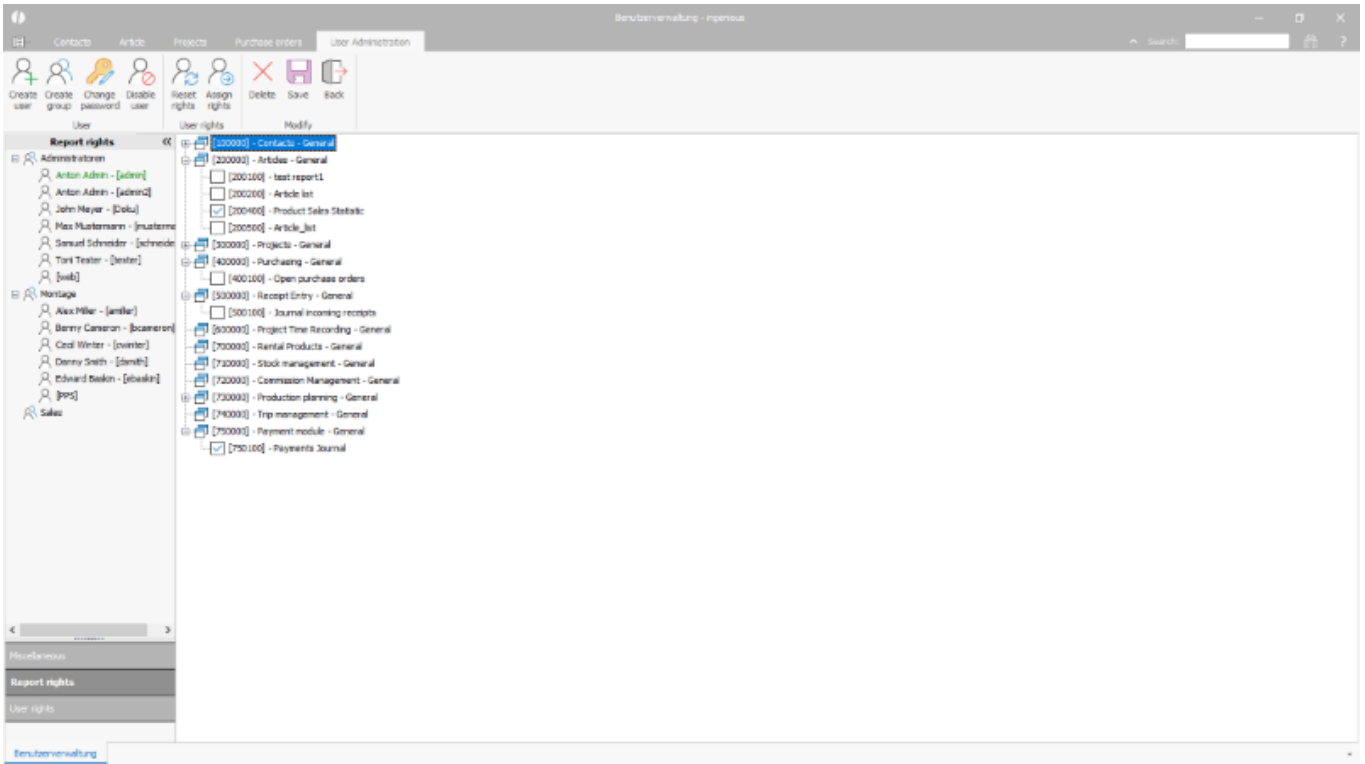



## 8.5.4 Report rights

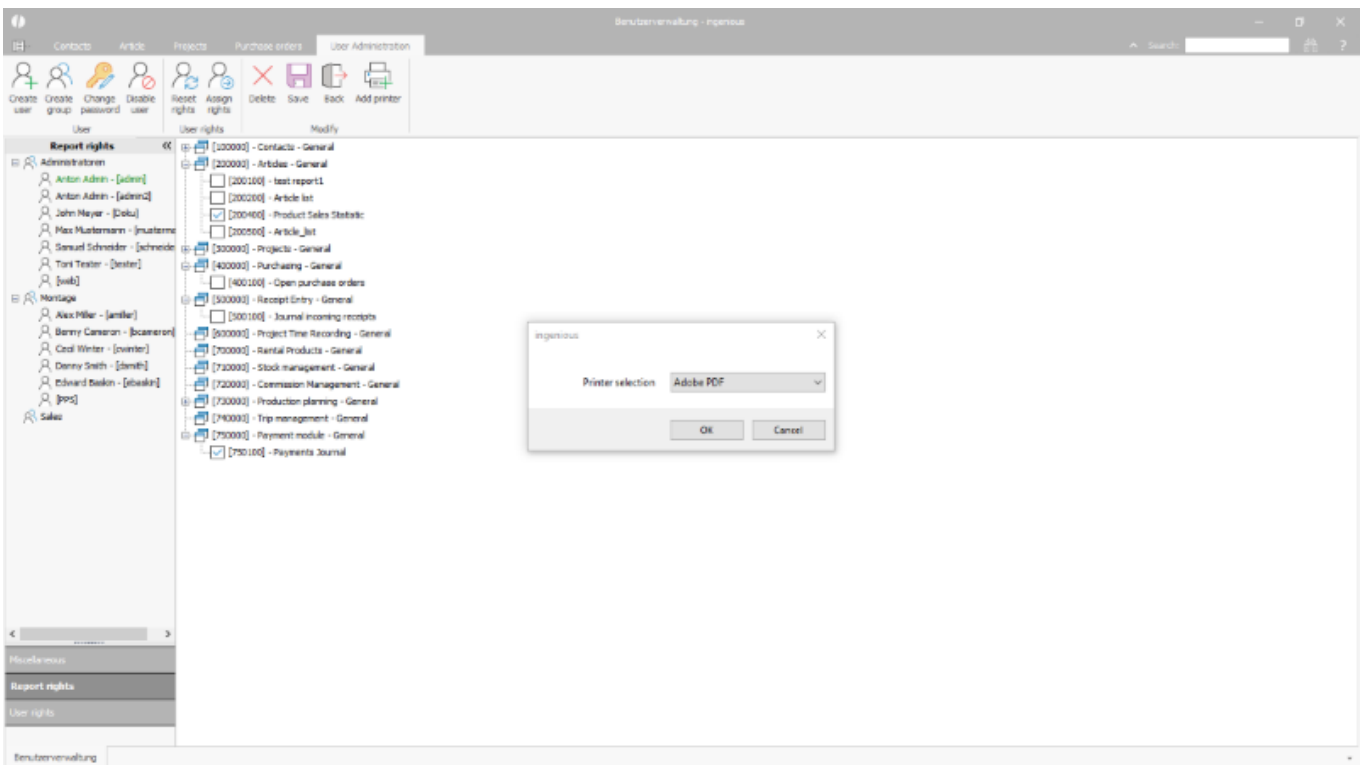
Within single modules, individual print reports for analyses or for the production etc. can be deposited. In parts, also complex analyses are deposited as fix print reports in the program.

In the report rights can be defined; which user can access single print reports. A check next to the print report indicates that the user has the right to print the report. Through a double-click, the right can be withdrawn or respectively assigned if it has been missing before.

Newly created reports are deactivated for all users at first.



Via the button "Add printer"  an individual standard printer per print report can be recorded for each user .

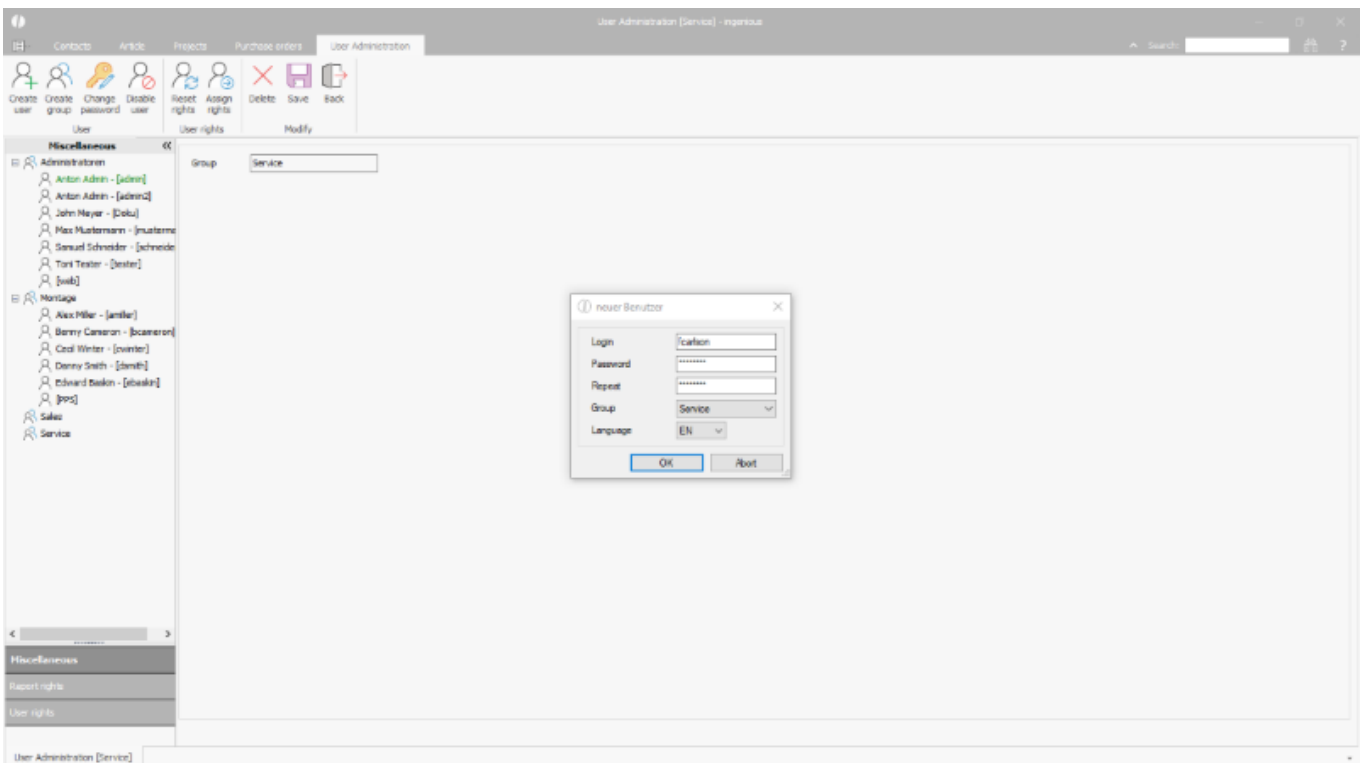


## 8.5.5 User administration how-to

### 8.5.5.1 Create a user

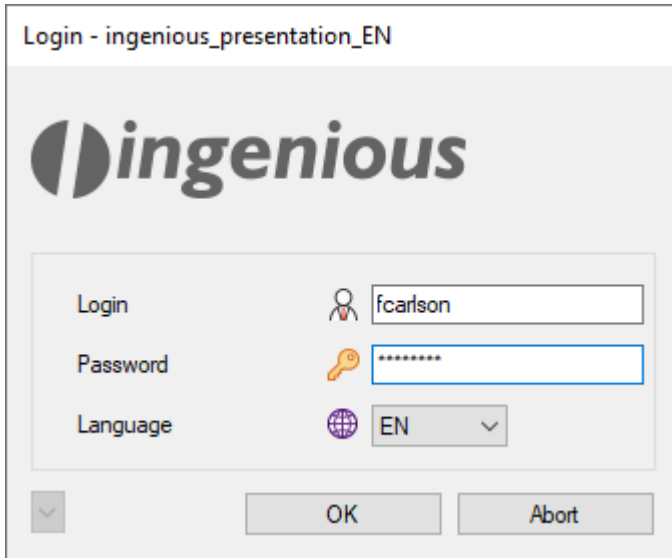
A new user is created via the  button in the toolbar.

A new login abbreviation, a password, the groups assignment and the login language are determined at first, in the appearing window.



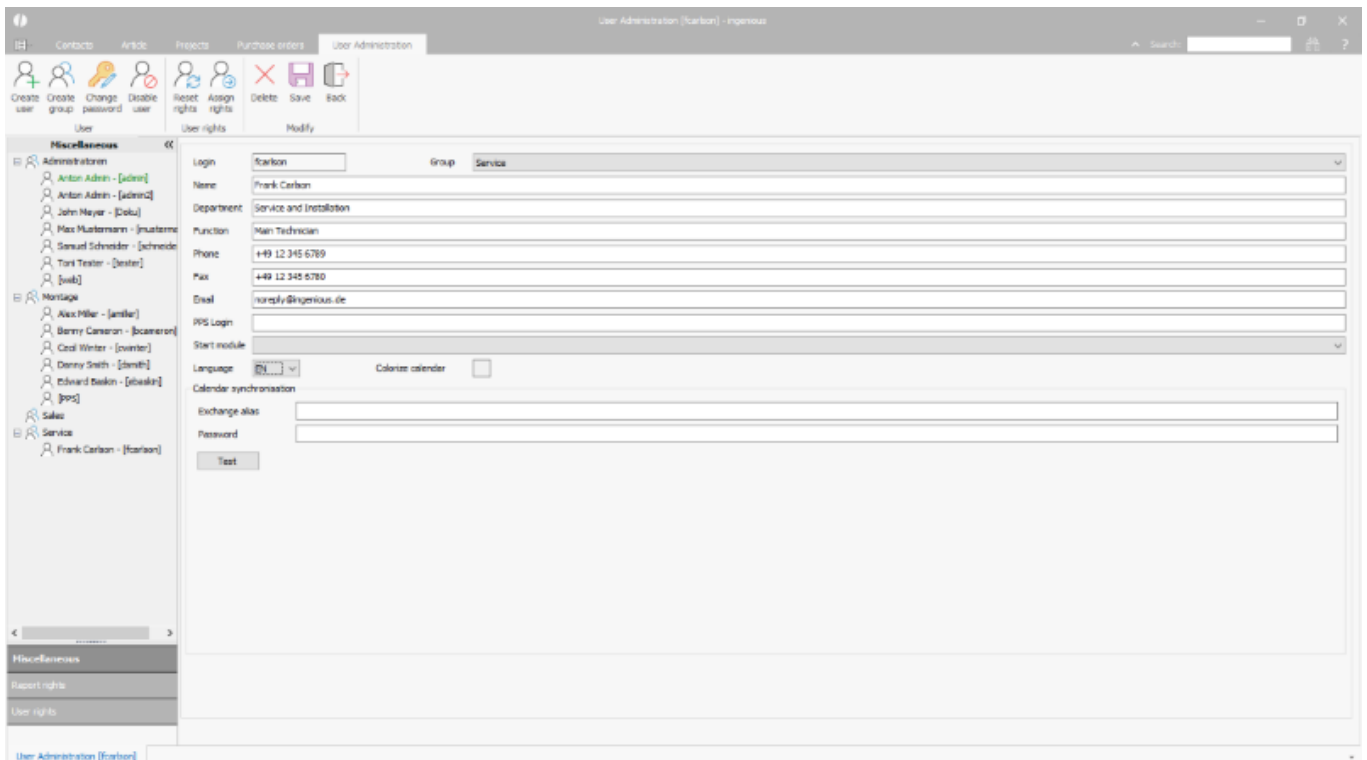
Login and password are necessary to access the data base.

The login language can be changed individually at every new login.



The image shows a login dialog box titled "Login - ingenious\_presentation\_EN". It features the ingenious logo at the top. Below the logo, there are three input fields: "Login" with the value "fcarlson", "Password" with masked characters "\*\*\*\*\*", and "Language" with a dropdown menu set to "EN". At the bottom, there are two buttons: "OK" and "Abort".

In the next step of creating a new user, individual user information should be filled in. This can be inserted as placeholder into client documents.

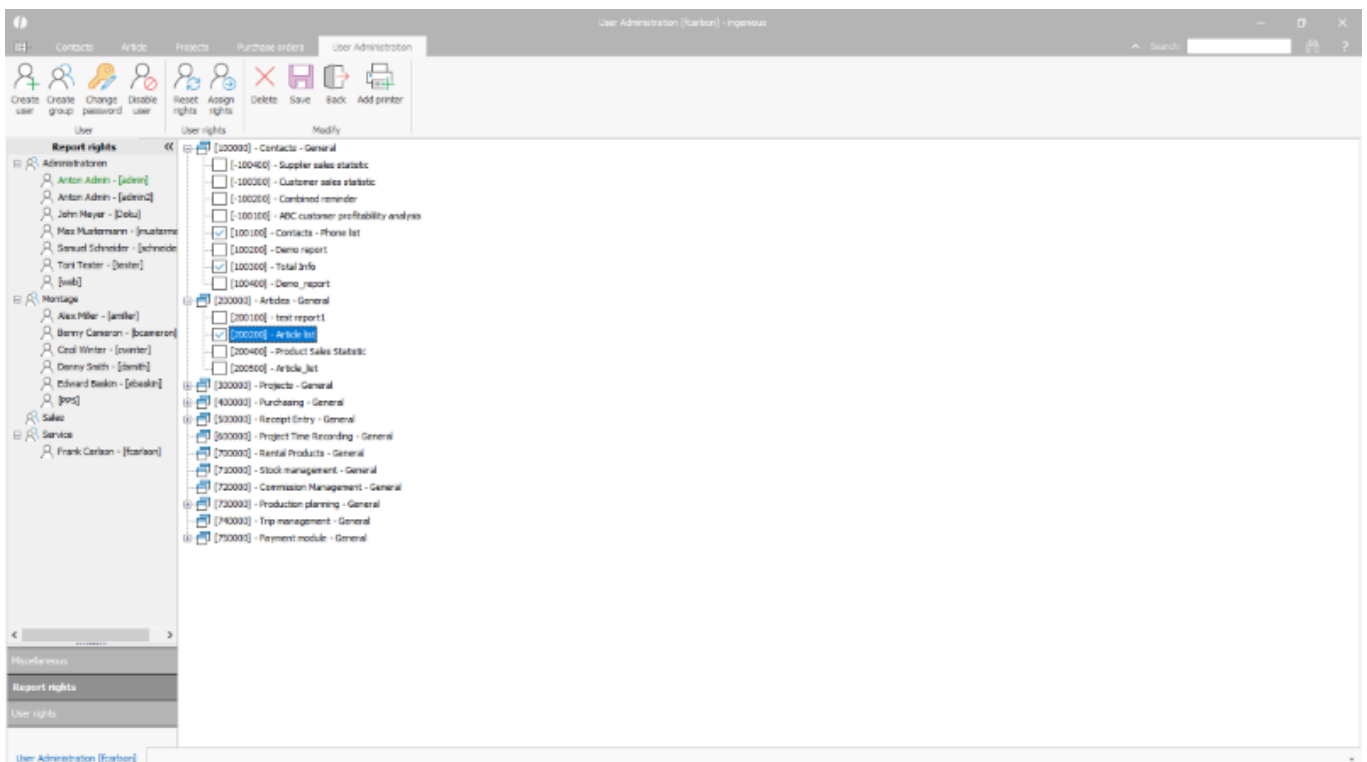
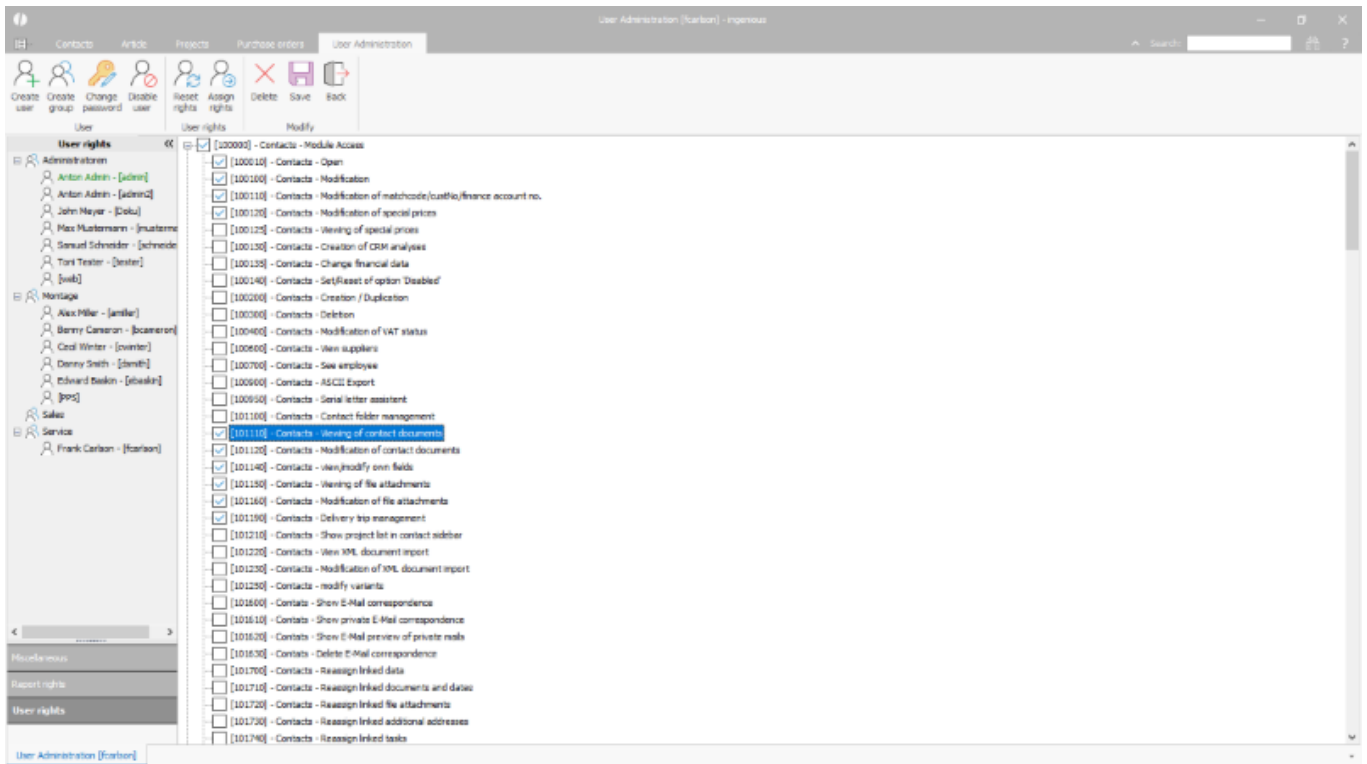


The image shows the "User Administration (Frank) - ingenious" interface. The window title is "User Administration (Frank) - ingenious". The interface is divided into several sections:

- Toolbar:** Contains icons for "Create user", "Create group", "Change password", "Disable user", "Reset rights", "Assign rights", "Delete", "Save", and "Back".
- User List:** A tree view on the left showing a hierarchy of users and groups. The "Service" group is selected, and "Frank Carlson" is highlighted under it.
- User Details:** A form on the right for editing the selected user. The "Login" field is set to "fcarlson" and the "Group" is set to "Service". Other fields include "Name" (Frank Carlson), "Department" (Service and Installation), "Function" (Main Technician), "Phone" (+49 12 345 6789), "Fax" (+49 12 345 6780), and "Email" (no-reply@ingenious.de). There are also fields for "PPS Login", "Start module", "Language" (EN), and "Calendar synchronization" (Exchange alias, Password, and a "Test" button).


The user automatically shares the rights of the group he/she is assigned to.

The user and report rights can be adjusted individually.

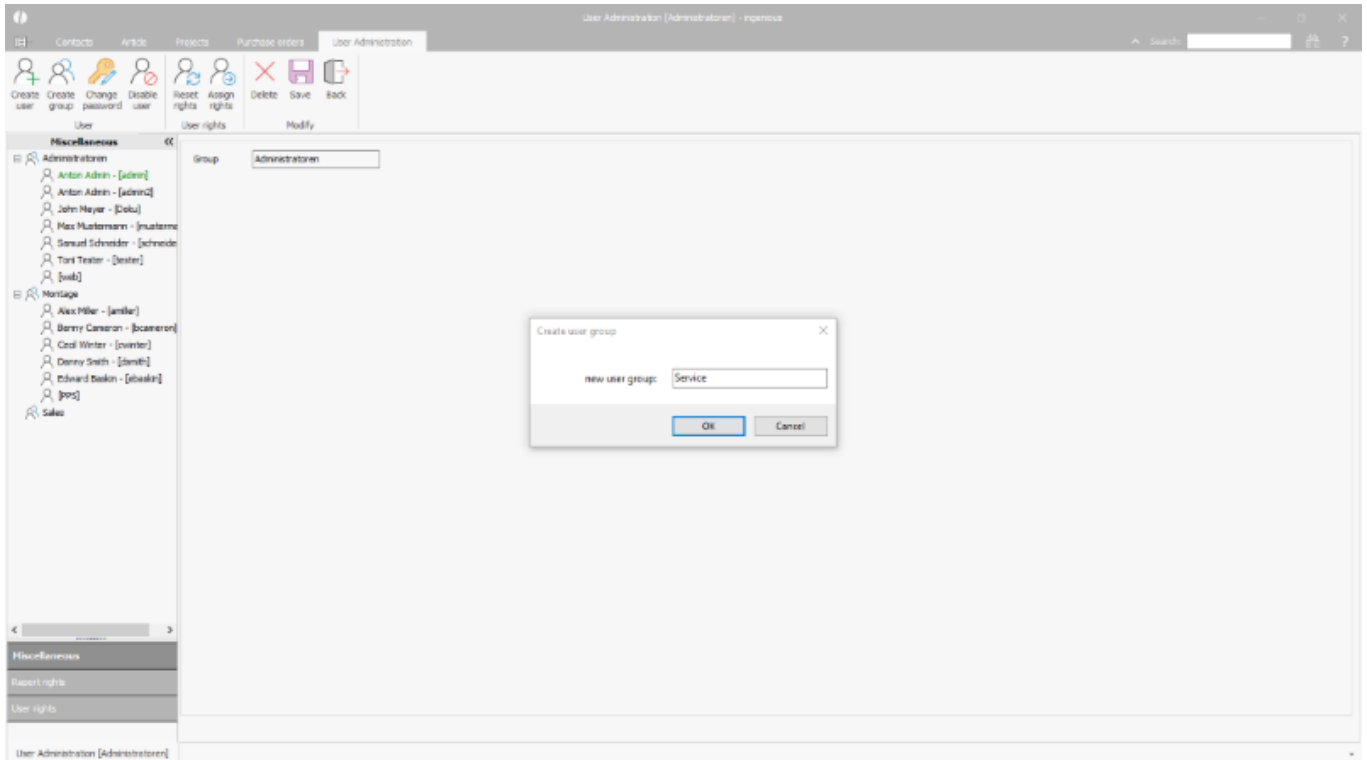


## 8.5.5.2 Create a group

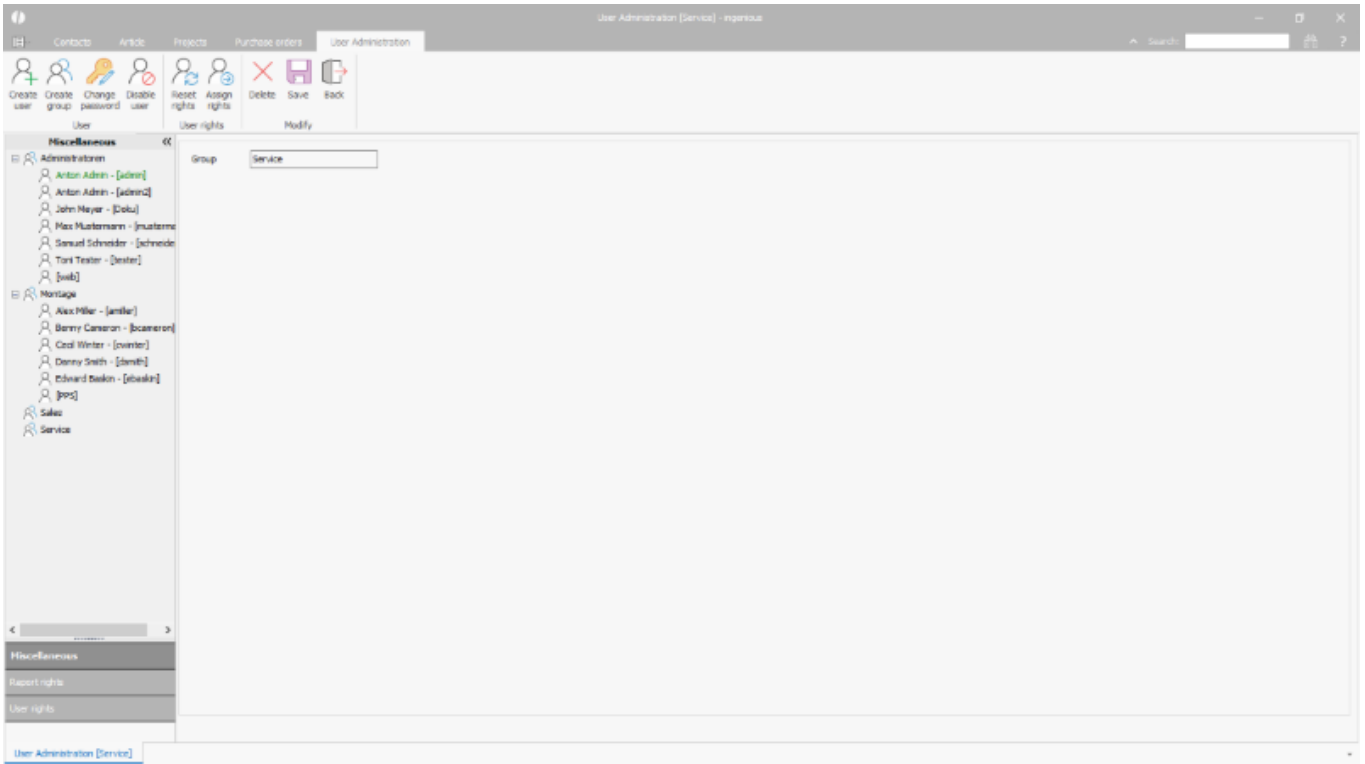


Via the  in the toolbar, a new user group can be added. Within a user group, the user and report rights, which are assigned to all users in the group, can be predefined.

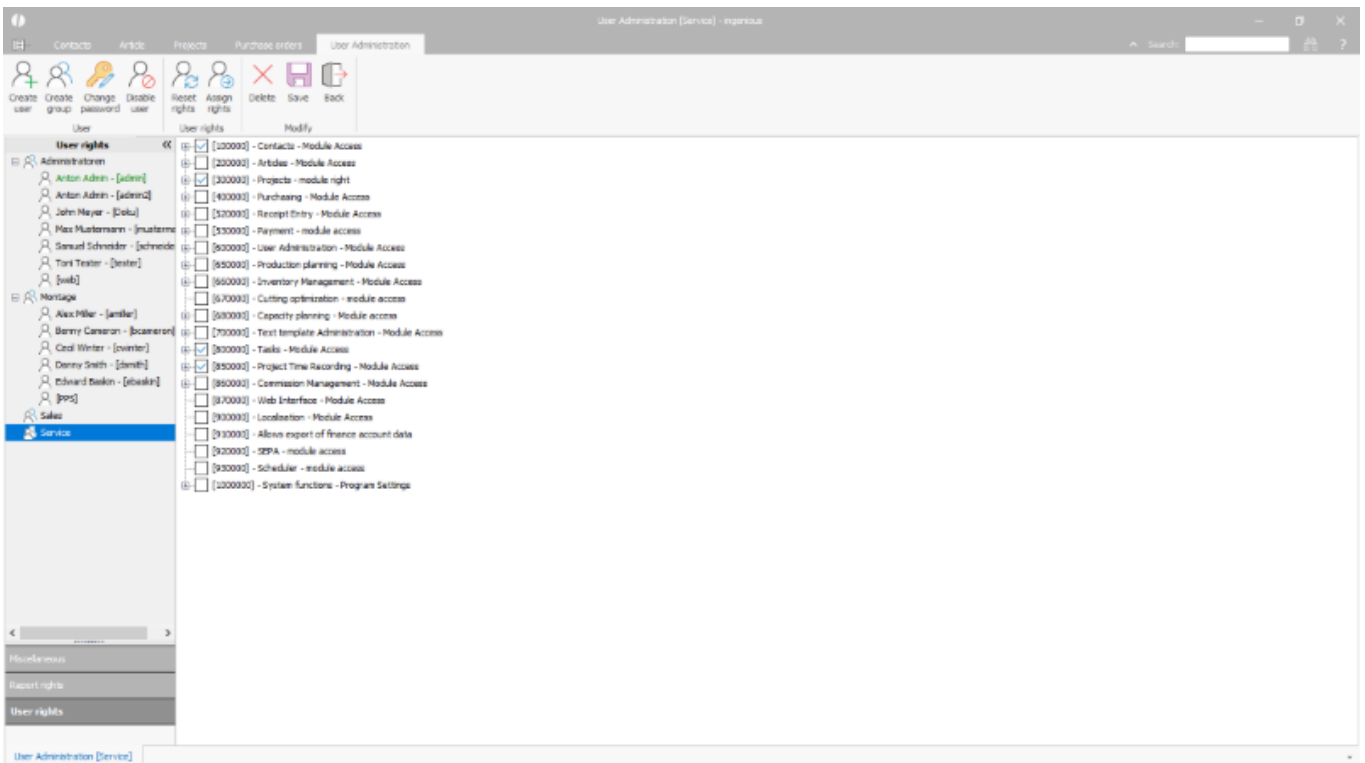
At first, only a name has to be defined for the user group.

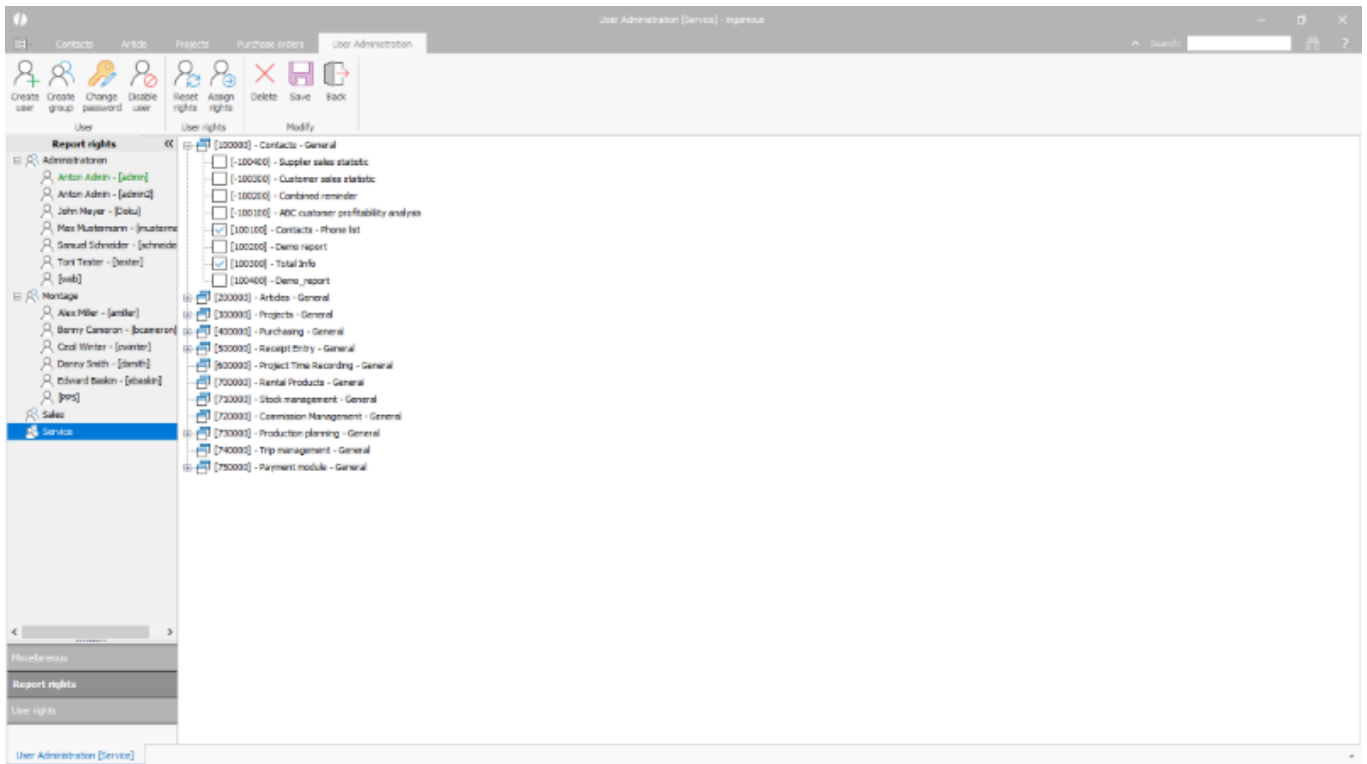


Further miscellaneous details are not necessary.




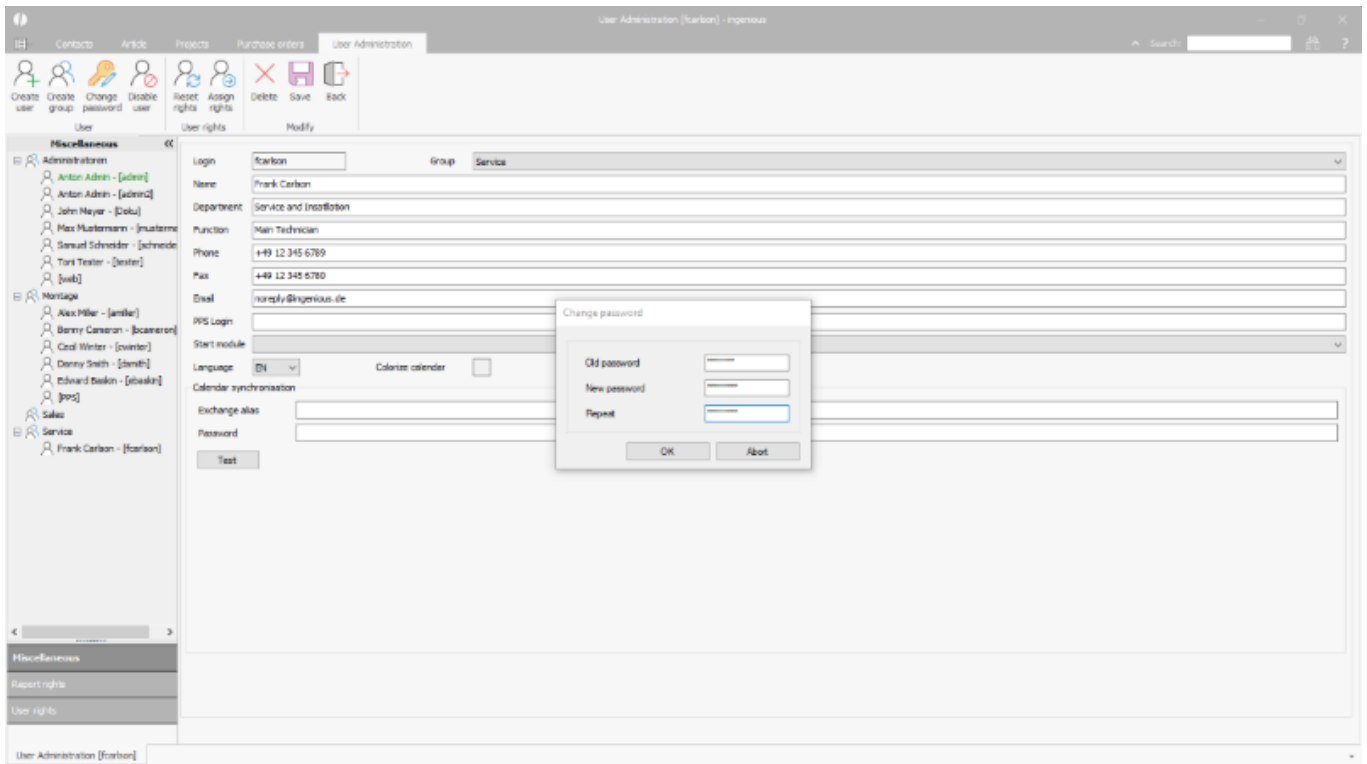
Subsequently, the user and report rights can be determined and assigned to all users who are created in a group.



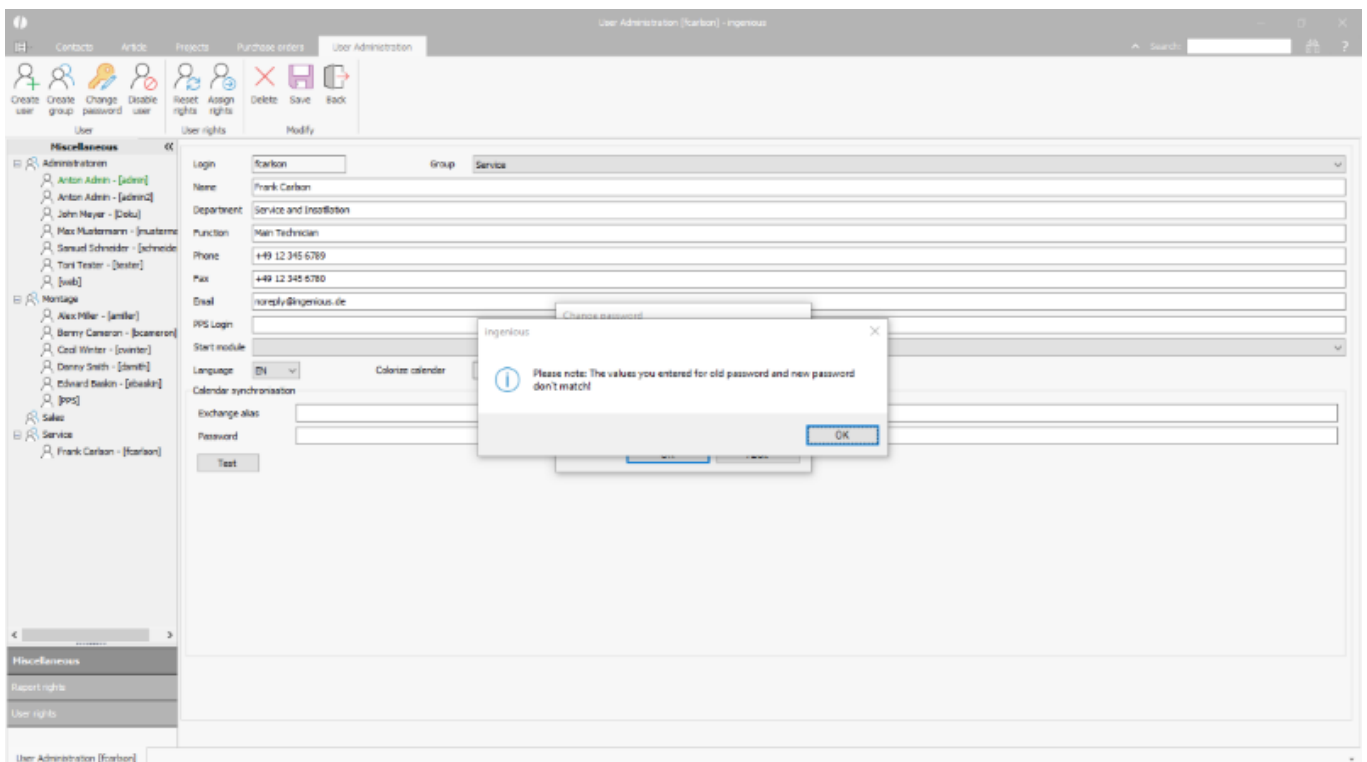


### 8.5.5.3 Change password

In the user administration every user with the respective user right can change his password via the  button. For this, it is at first necessary to enter the old password. Subsequently, the new password can be recorded. For safety, this is entered twice in order to avoid spelling mistakes.

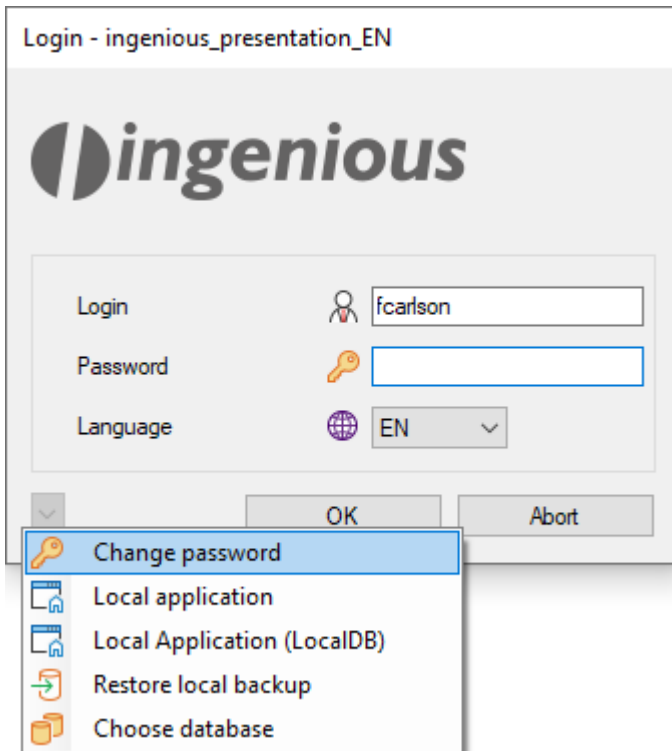


If the repeated password does not match the actual password, an error notice appears.




If a user own the user right to change his/her password, this can also be executed via the login menu. Via the sub menu, which can be accessed through the small triangle, he can select the function "change password" and enter the

old and new passwords.

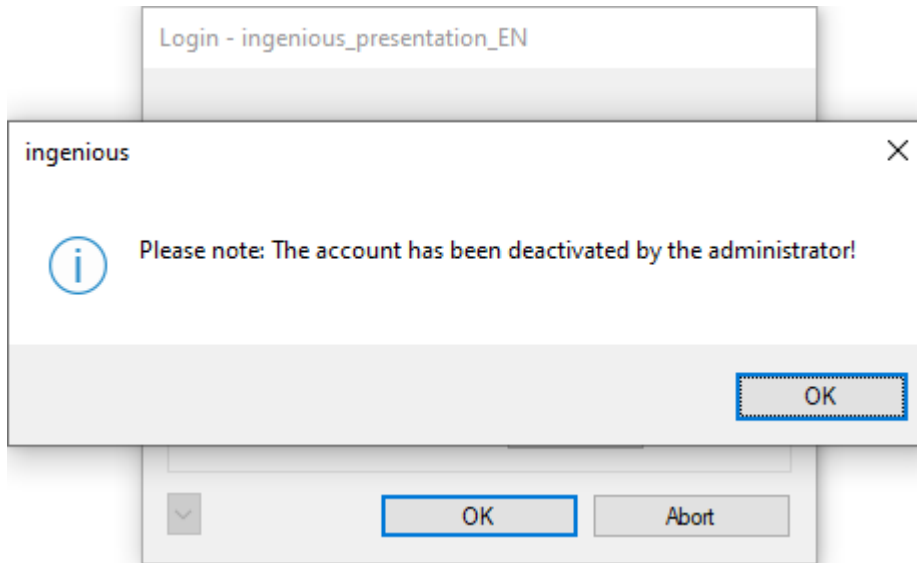



If a password has gone lost, only the administrator can change the password of the user via the user administration. In this case, the field "old password" is left empty.

## 8.5.5.4 Disable user


If an employee leaves the company temporarily or has an "unknown status", the user can be temporarily disabled via the  button. The user then cannot log into the system, until the blockade is reversed.

The user receives an error notice during an attempted login.




The user is marked with the  symbol in the user administration.

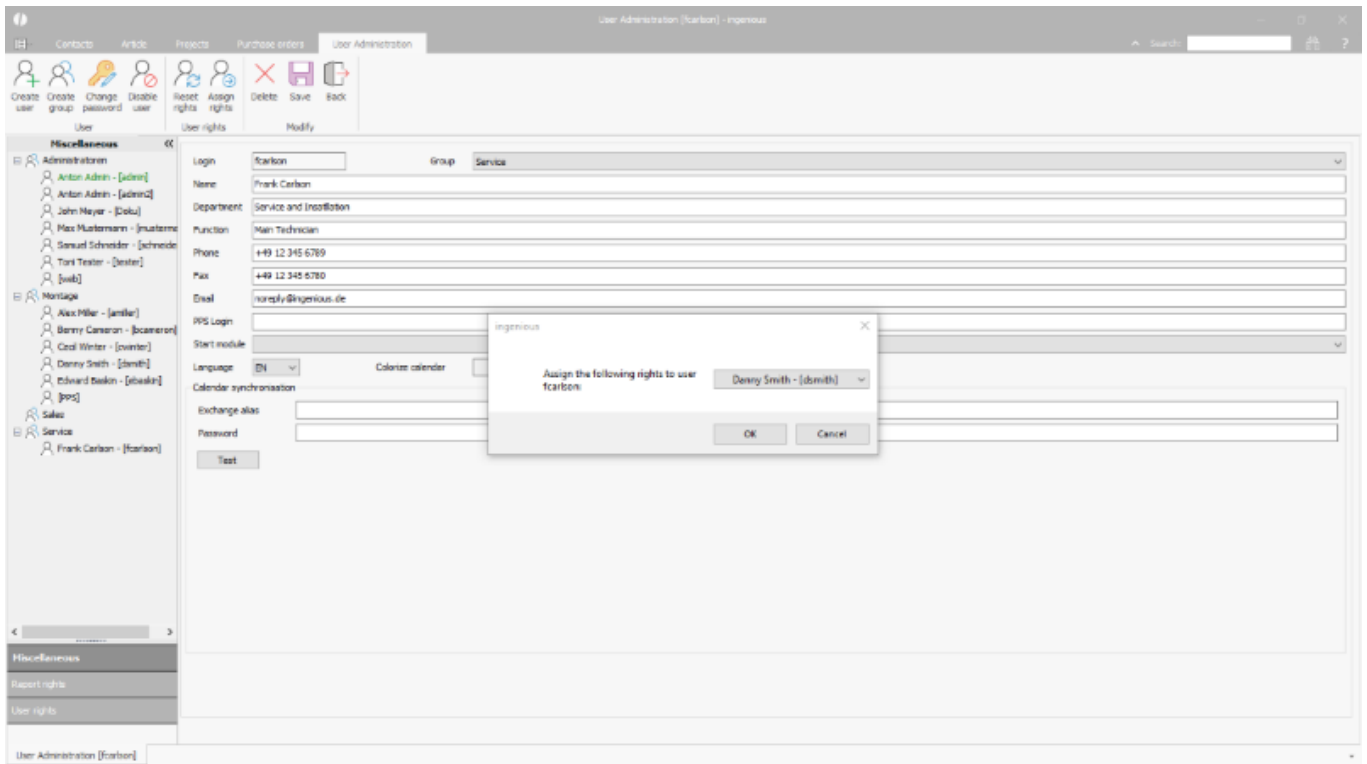
## 8.5.5.5 Reset rights

Through the function "reset rights", which is accessed via the  button, the user and report rights of the group of the user are assigned anew to the user. Previous additional individual user and report rights are lost.

## 8.5.5.6 Assign rights

Via the function  "assign rights", the user and report rights of a user or a group are copied to another user or group.

After the user, to whom new rights shall be assigned, has been marked, the function can be accessed via the button in the toolbar. In the appearing dialog, via the drop-down list the user or group can be selected, from whom the rights shall be copied.





## 8.6 Program settings

### 8.6.1 The program settings

In the program settings, global configurations and values that predefine a certain execution in the singular modules are recorded. Print reports are, for example, administrated combined here, the Tapi function is configured and the networks paths are recorded.

The program settings are divided in the navigation of the single areas on the left and the data area on the right.

The following functions are available via the toolbar in the program settings (+ more corresponding with the selected navigation point):

	Save changes in the program settings
	Leave the module program settings

All modification in the program settings are applied only after they have been saved. Where required, the respective modules or the program have to be restarted to apply the changes.

## 8.6.2 Miscellaneous program settings

In miscellaneous program settings, before all address data of the company and basic accounting relevant data are recorded.

These are:

Address	Simple input field	Complete address of the company
Postal address line	Simple input	Sender address line of the company, which can be printed above the receiver address on letters.



	field	
Date prefix	Simple input field	Prefix which shall be inserted before the document date, e.g. "city", date...
Phone	Simple input field	(Central) phone number of the company
Fax	Simple input field	(Central) fax number of the company
E-Mail	Simple input field	(Central) email address of the company
WWW	Simple input field	Address of the company website
Sales tax ID	Simple input field	Sales tax ID of the company, if applicable
Tax ID	Simple input field	Tax ID of the company
Register number	Simple input field	Register number with which the company is registered (if applicable, with the name of the specific register, e.g. commercial register, register of qualified craftsmen).
Manager	Simple input field	Manager of the company
VAT percentage full	Simple input field	Full VAT amount at the location of the company
VAT percentage	Simple input field	Half the VAT amount at the location of the company
Currency symbol	Simple input field	Symbol of the (main) currency the company works with,
Currency code	Simple input field	ISO Code of the (main) currency the company works with,
Language	Selection list	Selection of the language, in which program internal table and field names shall be displayed.
use own language settings	Checkbox	Displays in the program the values that have been recorded individually in the localization module, instead of the internal field names and dialogs.

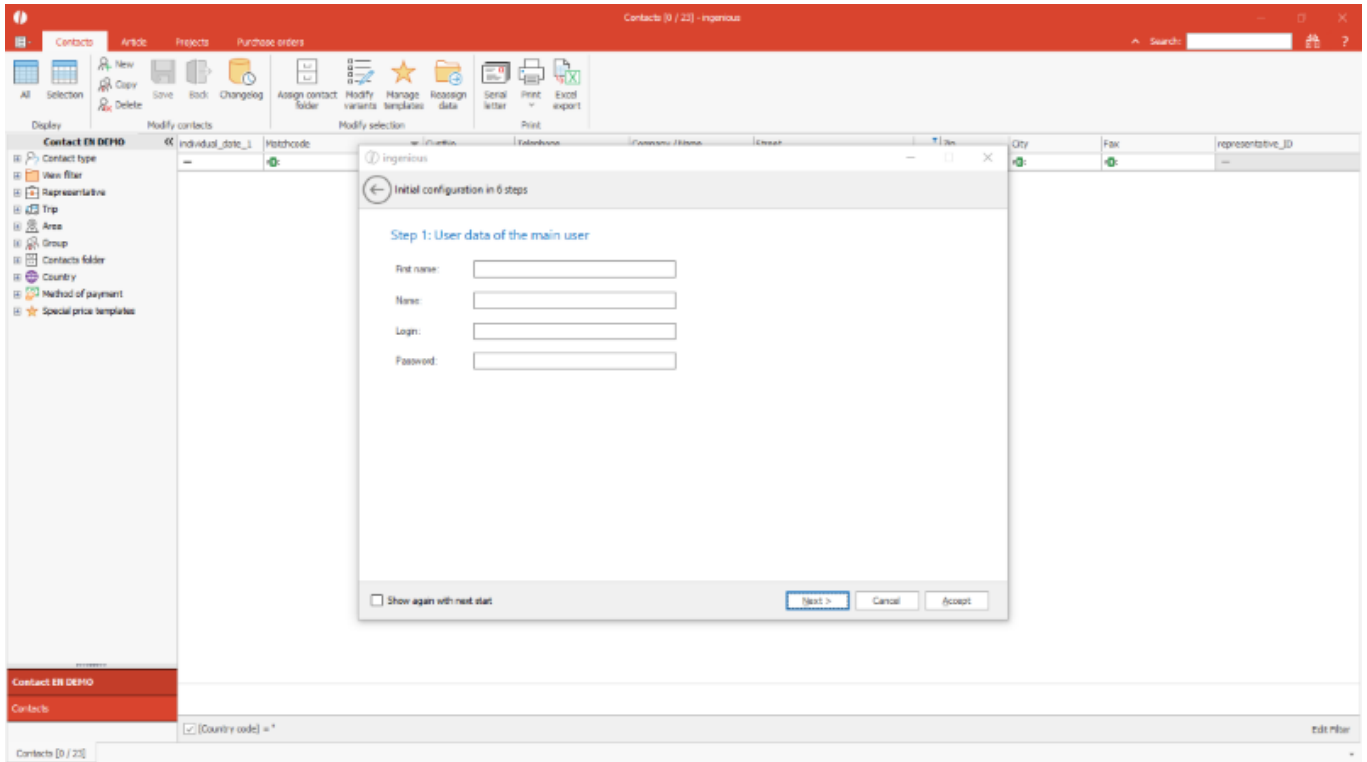
Translate drop down lists and part list

Checkbox yet without function

The company data can be issued via placeholders on client documents.

As additional function, the initial configuration assistant is available. It can be started via the "Assistant" button.

In the quick configuration assistant, all mandatory fields of the program settings are retrieved and recorded.

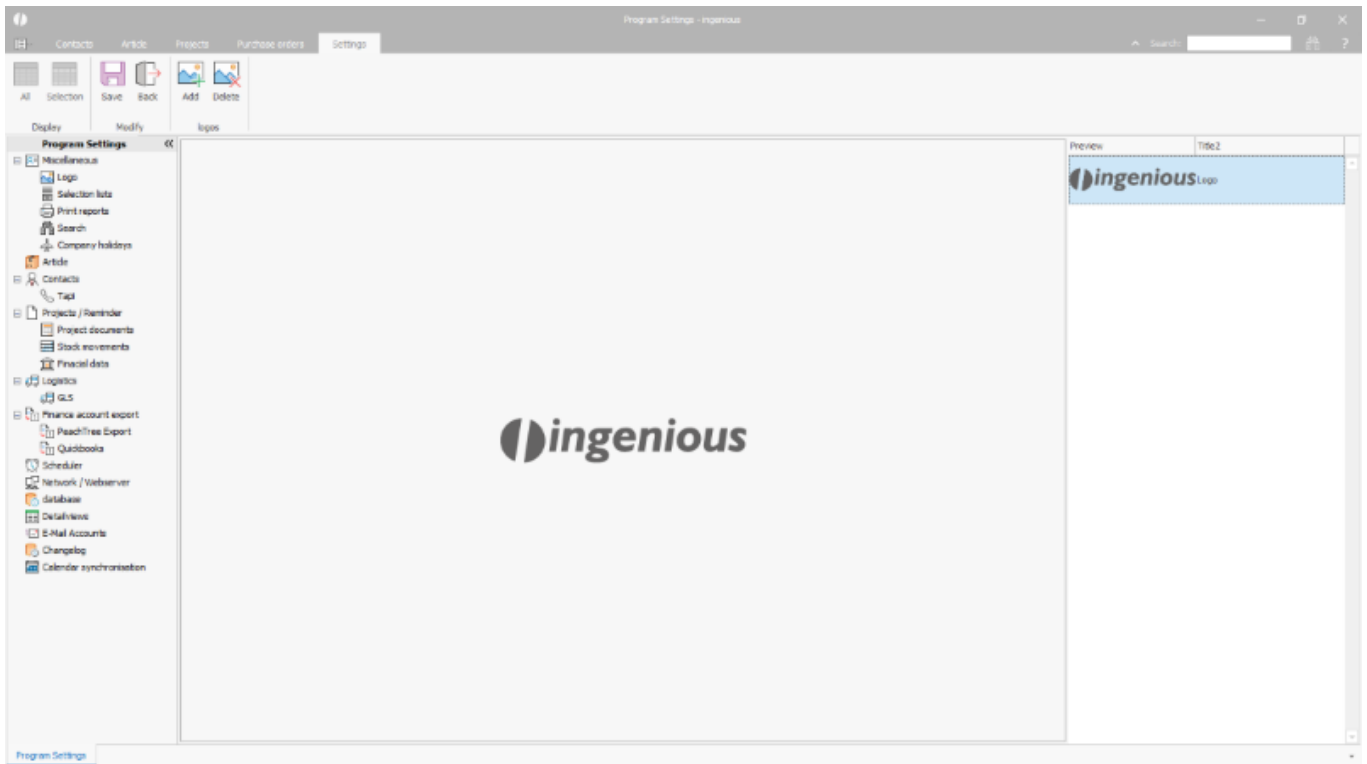


### 8.6.3 Logo

For the coherent use of one or several company logo (e.g. in different sizes and colors) or other miscellaneous pictures, the picture file can be recorded in the program settings.

The pictures can then be inserted in the running text of the client or production documents as well as print reports via placeholders, e.g. in the header or footer of letters.


On the right side of the logo administration, a list of all recorded pictures with their titles and a small preview picture each is displayed. According to the selection on the right, the picture is displayed in its original size on the left (if the available space of the area allows for it).

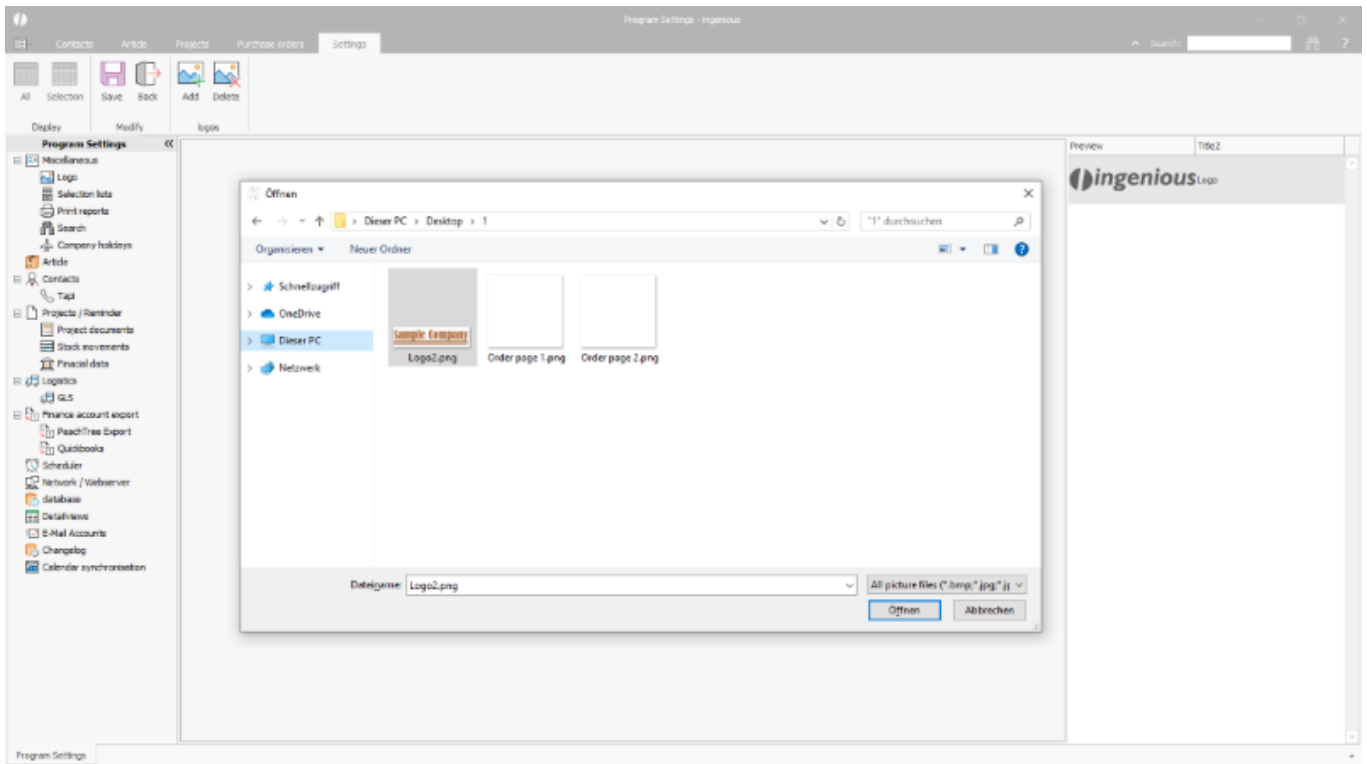


Via the toolbar, the following functions are available:

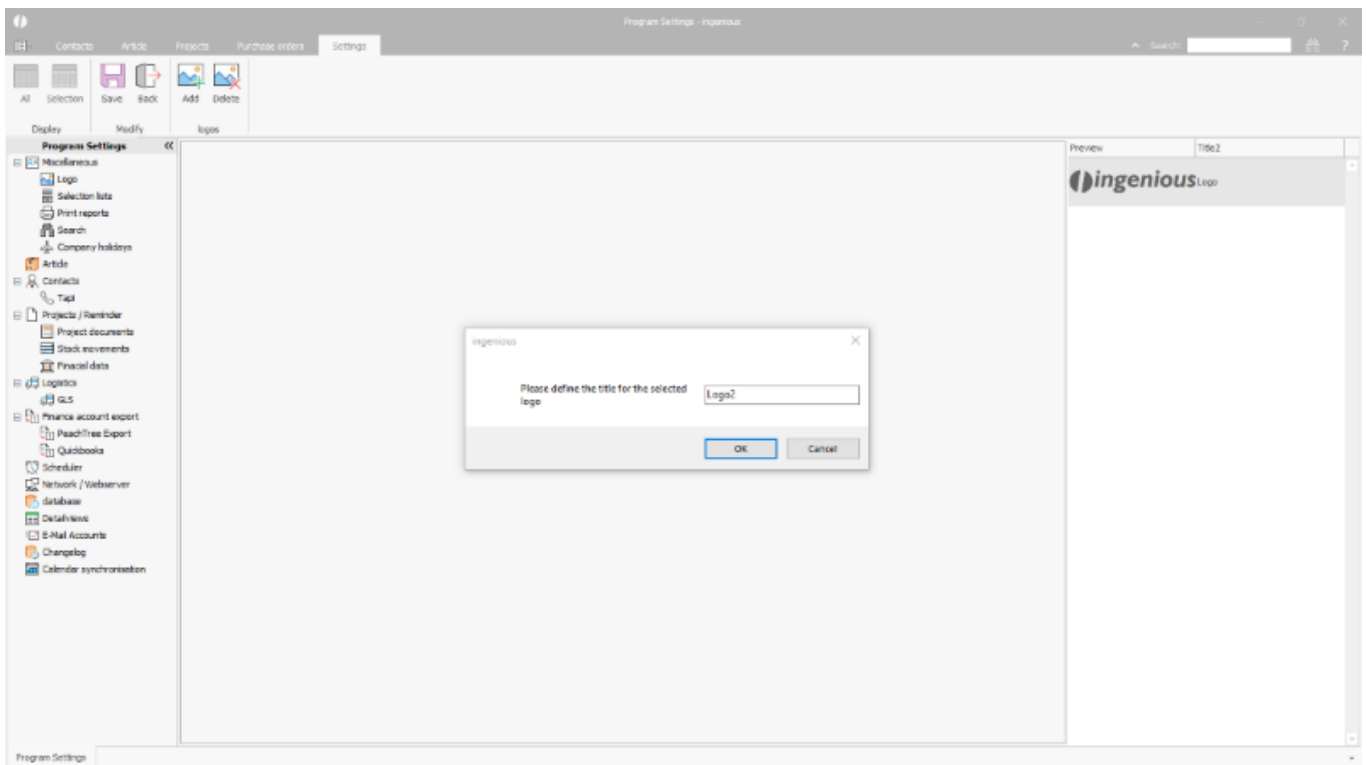
	Add a new logo
	Delete the marked logo

### Add a new logo / picture

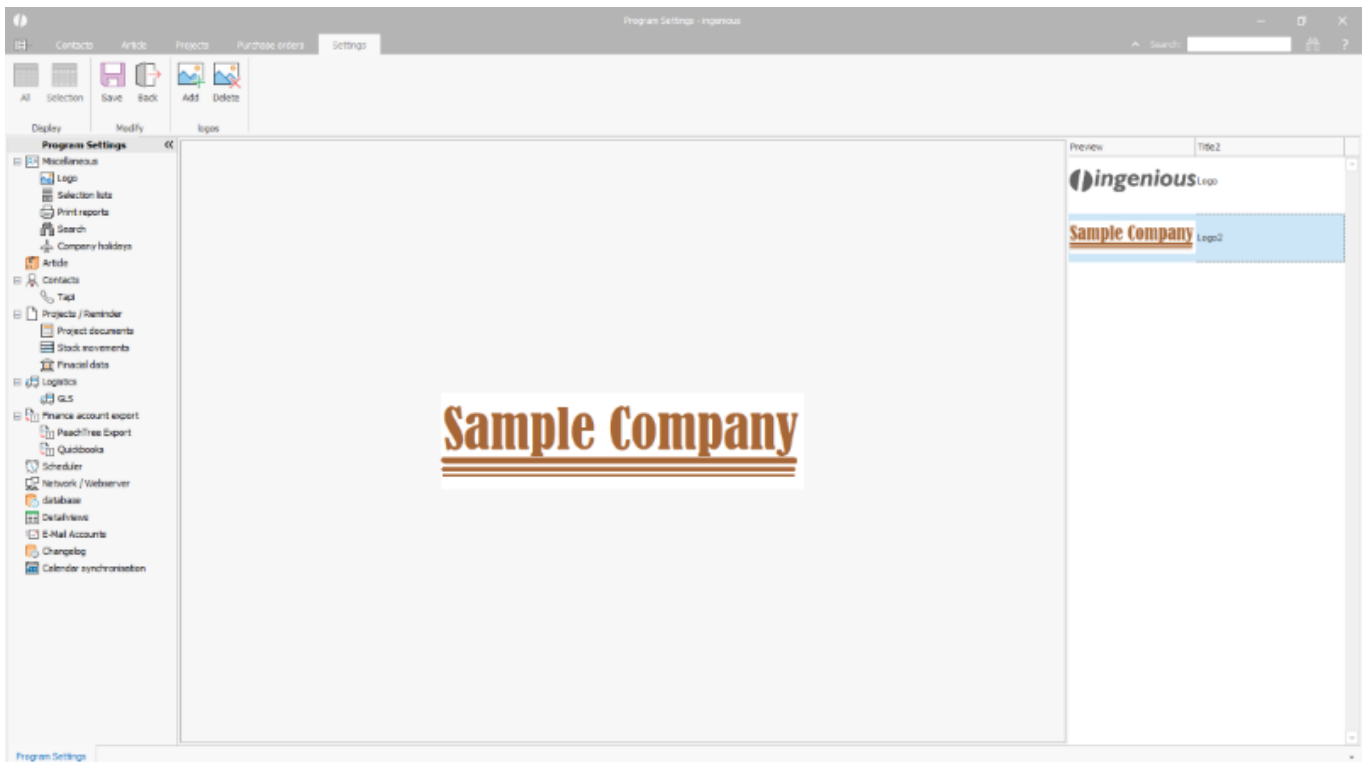
A new logo / picture from the logo administration can be added via the  button. After clicking the button, the windows standard dialog for opening the file opens. After selecting the desired file, the picture is loaded via the button "open".



The file name of the logo /picture is recorded as title. Via the title, the picture is identified with the placeholders. The title can be changed individually,



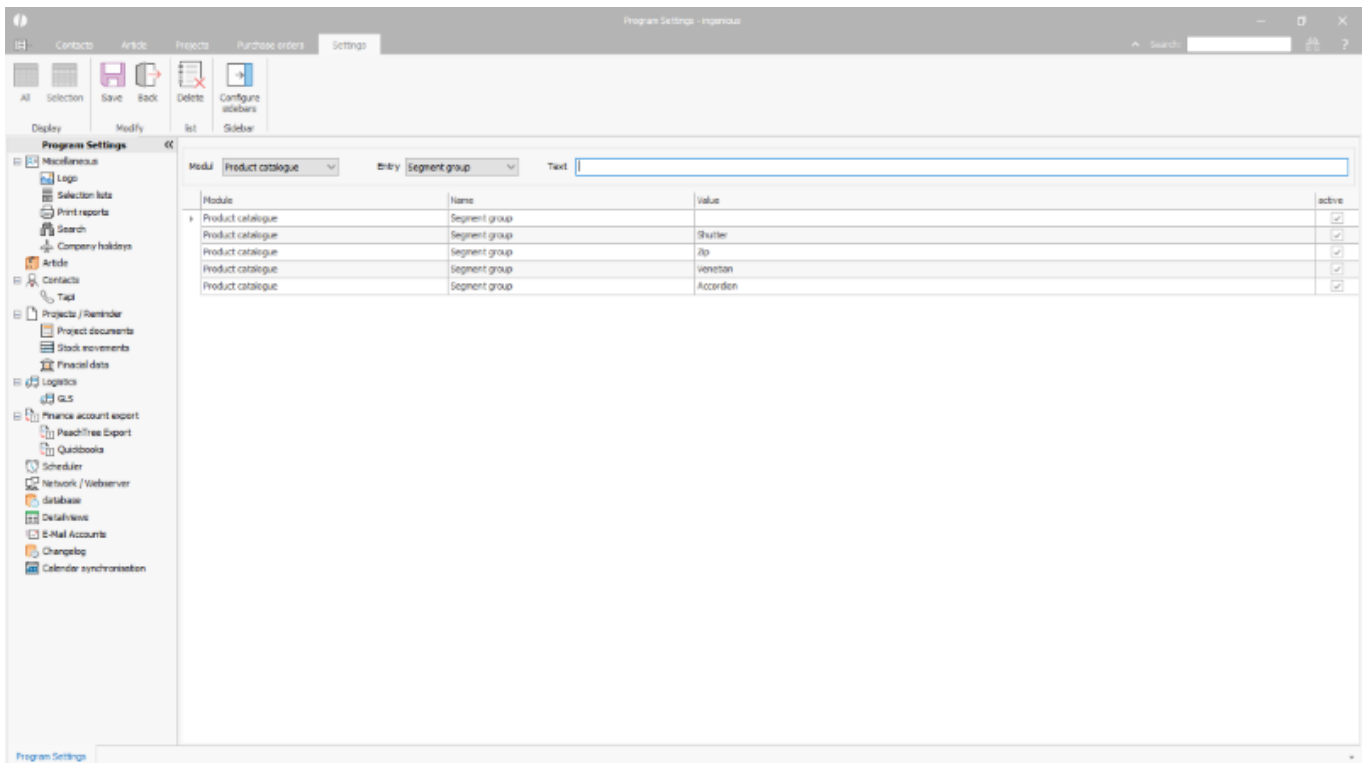
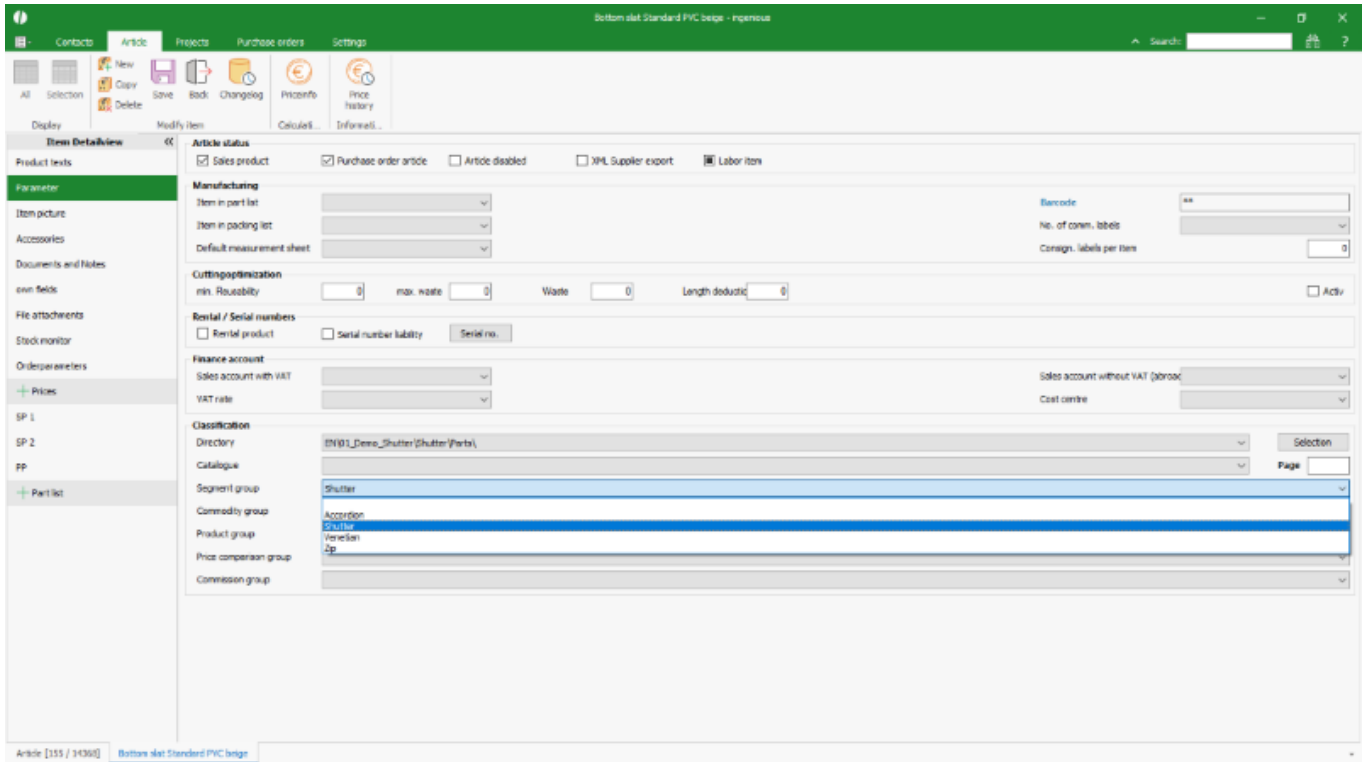
The new logo was added.





## 8.6.4 Selection lists

Selection lists are the contents of the dropdown menus in the different modules, with which the data set are e.g. grouped. The selection lists ensure that always the same designations are used for a group and the data set can be filtered thereby easily.

In ingenious, the most selection lists are administrated by the user him/herself, who can thereby determine the individual content of the drop-down menus.



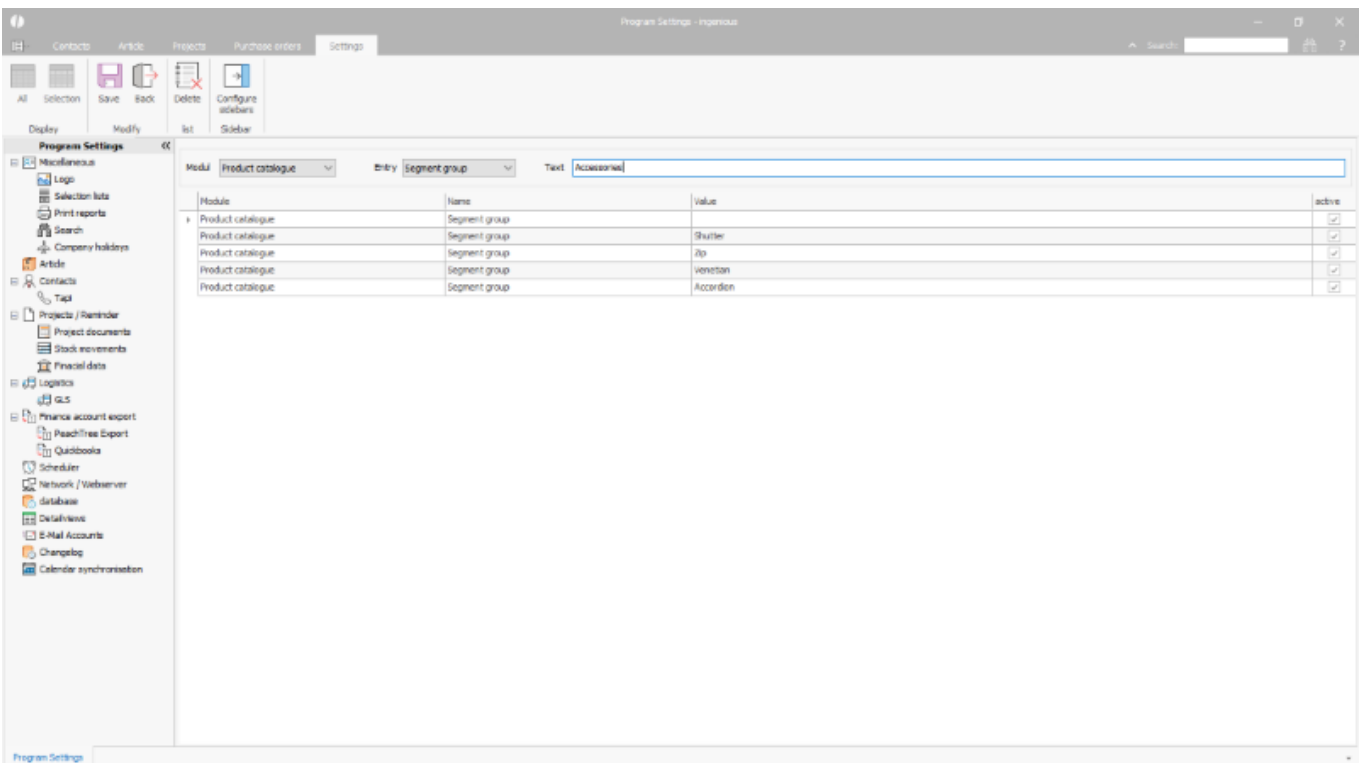
In the program settings / selection lists, the following functions are available via the toolbar:

	Deletes the marked value from the selection list
	Opens a separate window for configuring the sidebars for the single modules.

### The administration of selection lists

For adding a new value into a selection list, it is first selected via the drop-down list "module" and "entry", which value list shall be modified. All already existing values of that list are then displayed in a table.

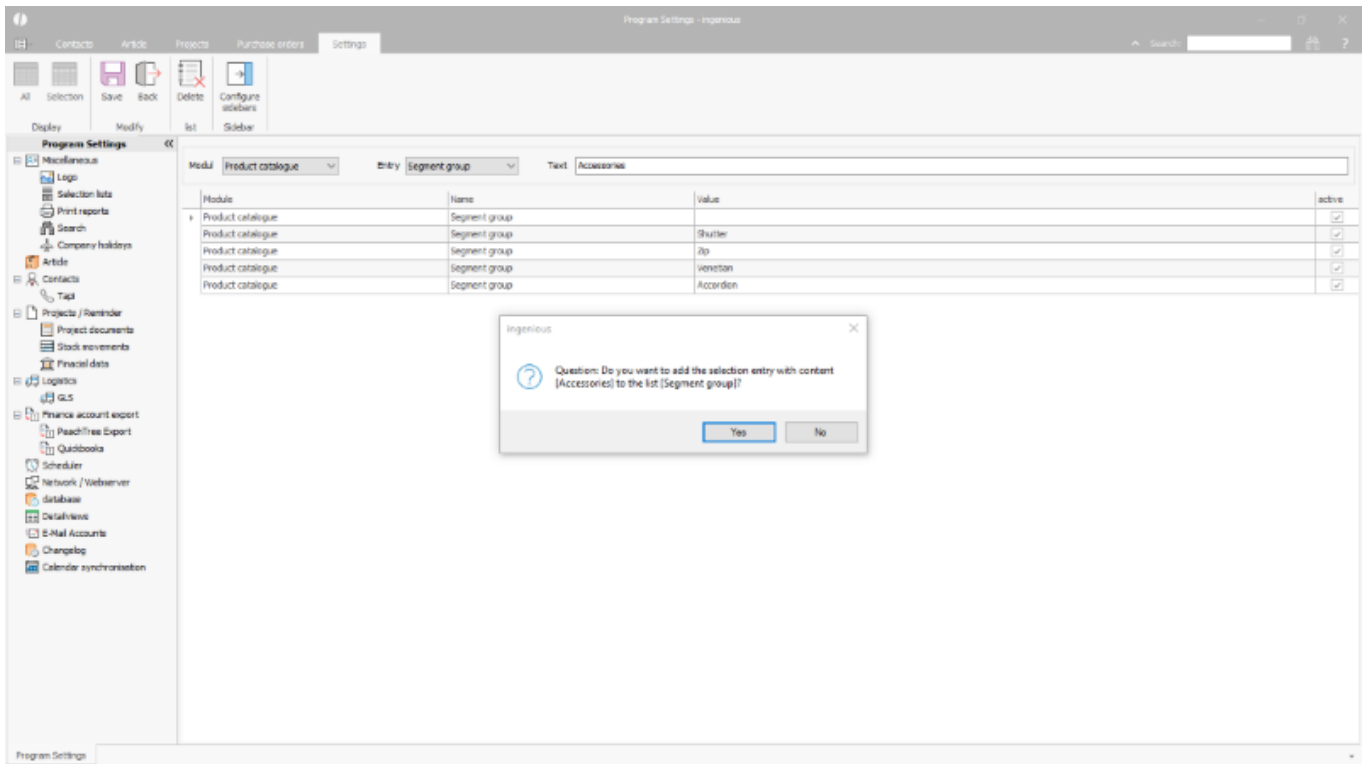
The new entry is written in the field "text" and confirmed with the "enter" or "return" key on the keyboard.



Module	Name	Value	active
Product catalogue	Segment group		<input checked="" type="checkbox"/>
Product catalogue	Segment group	Shurler	<input checked="" type="checkbox"/>
Product catalogue	Segment group	Zip	<input checked="" type="checkbox"/>
Product catalogue	Segment group	Venctan	<input checked="" type="checkbox"/>
Product catalogue	Segment group	Accorden	<input checked="" type="checkbox"/>

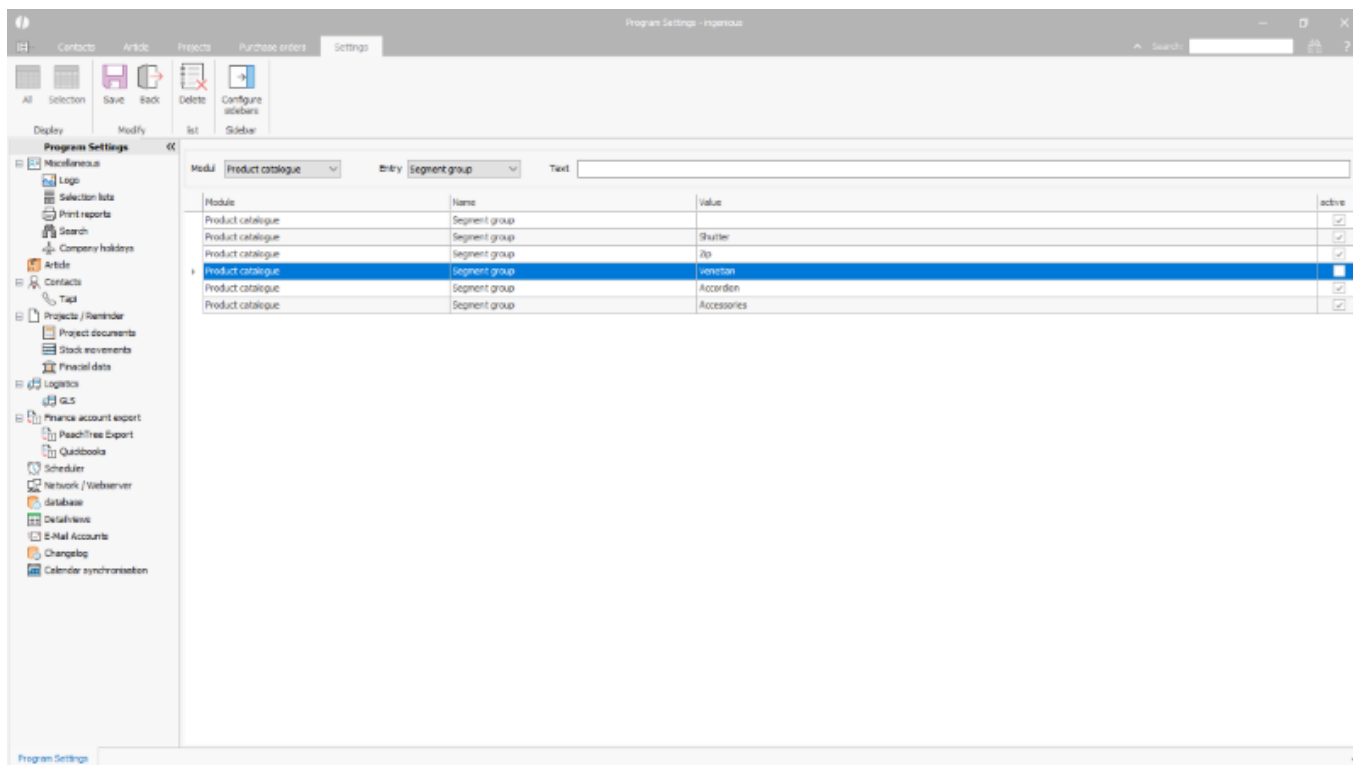
Adding the entry can be stopped or confirmed via "yes" or "no" in the following security query.






## Disable a selection list entry

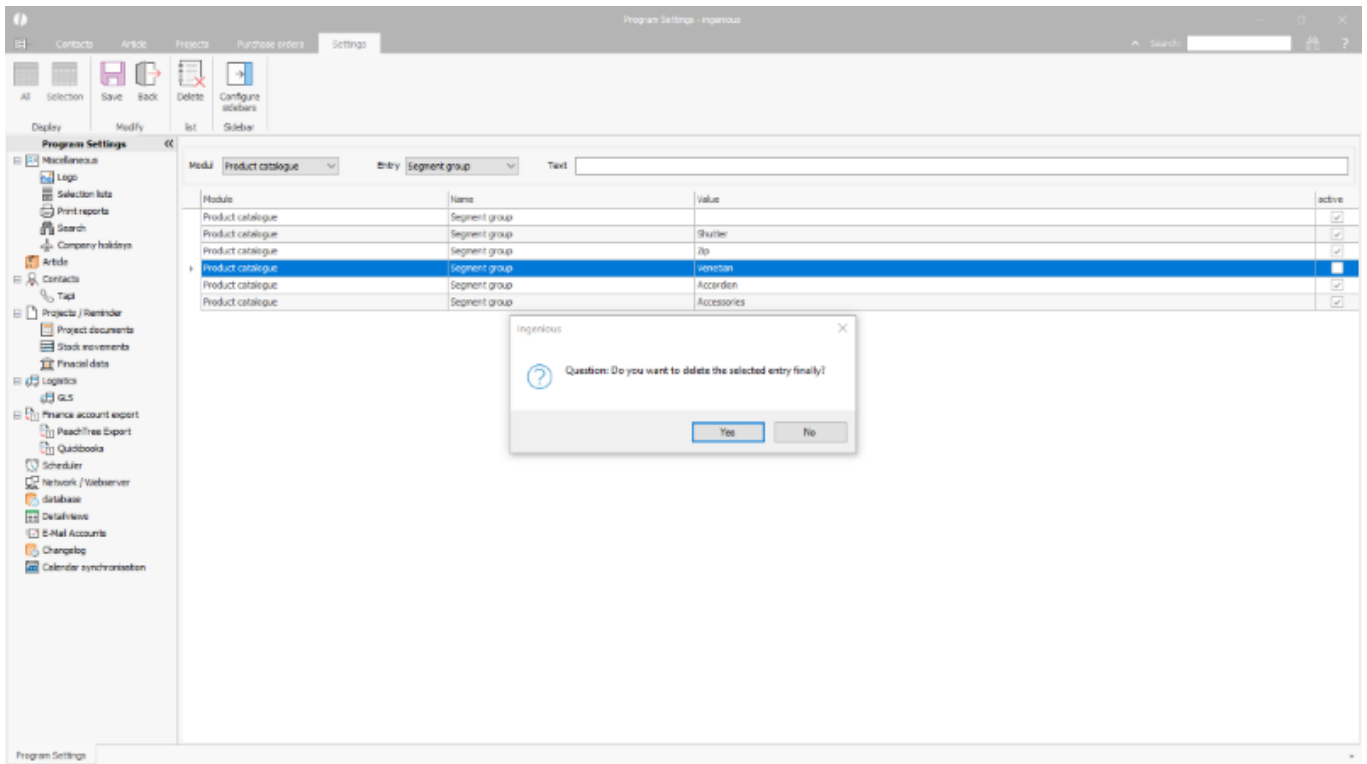
Via the checkbox behind every selection list entry in the table. singular values from the selection list can be disabled. A disabled value is not available for the modification of a data set. Data sets, who have been assigned to this value before it has been disabled, keep it and can still be filtered accordingly.



### Delete a selection list entry

Via the  button in the toolbar, a marked selection list entry can be deleted. With the confirmation of the security query, the entry is deleted ultimately.

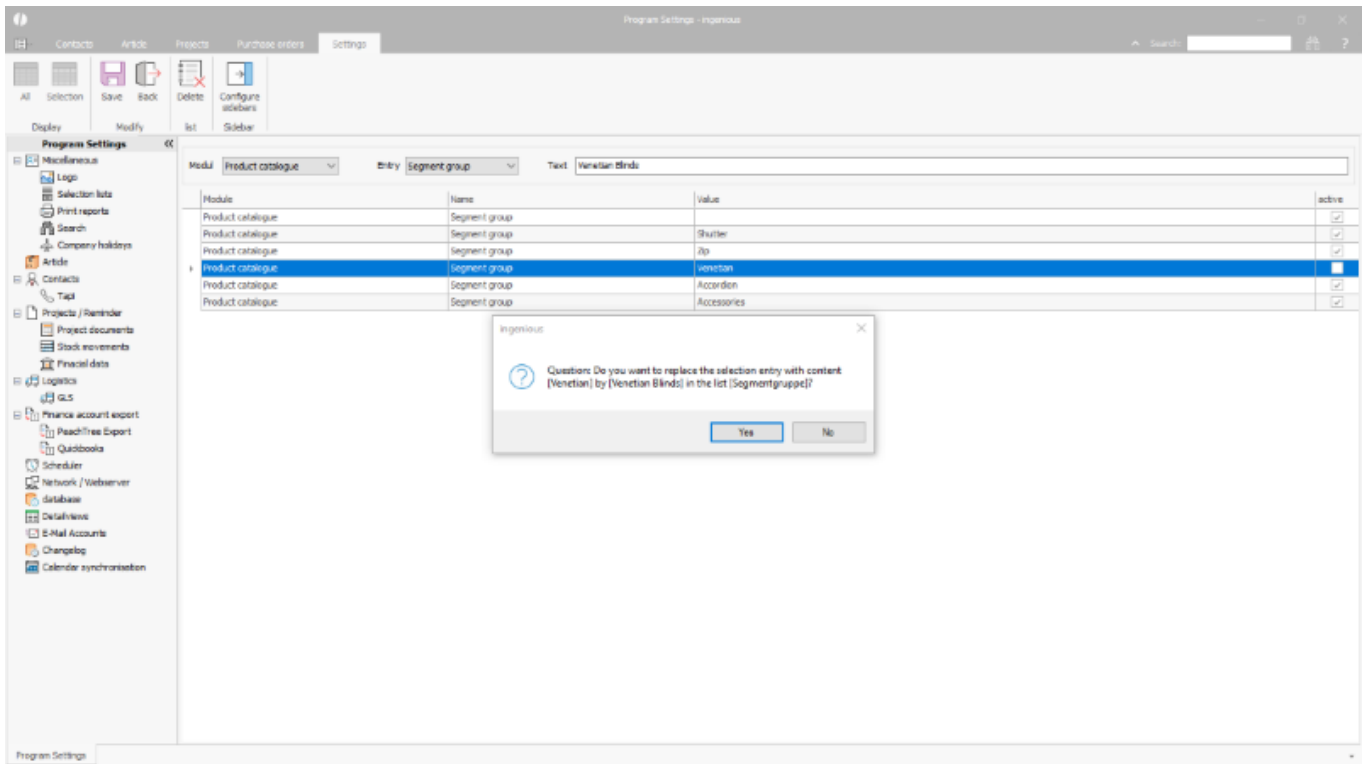
At the same time, the assigned value in the single data sets is deleted, too.



### Change the name of a selection list entry

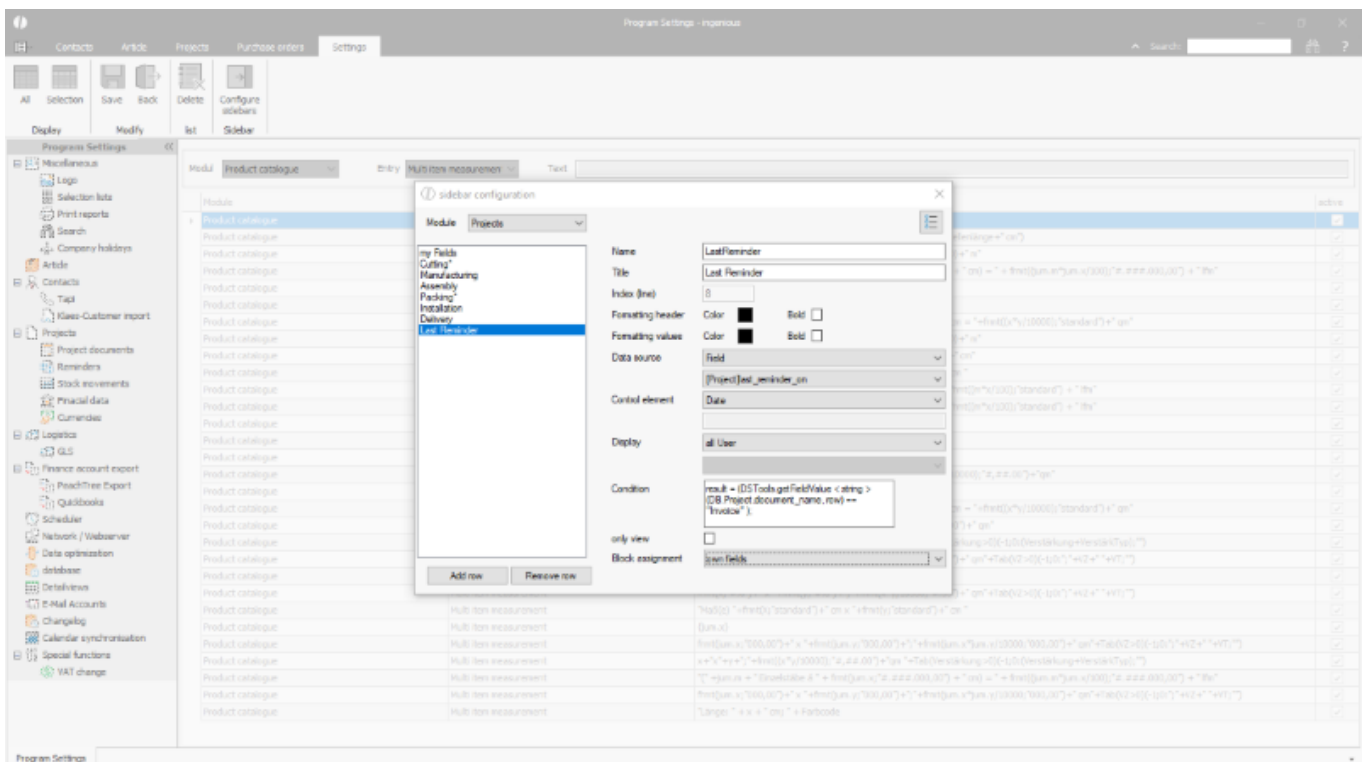
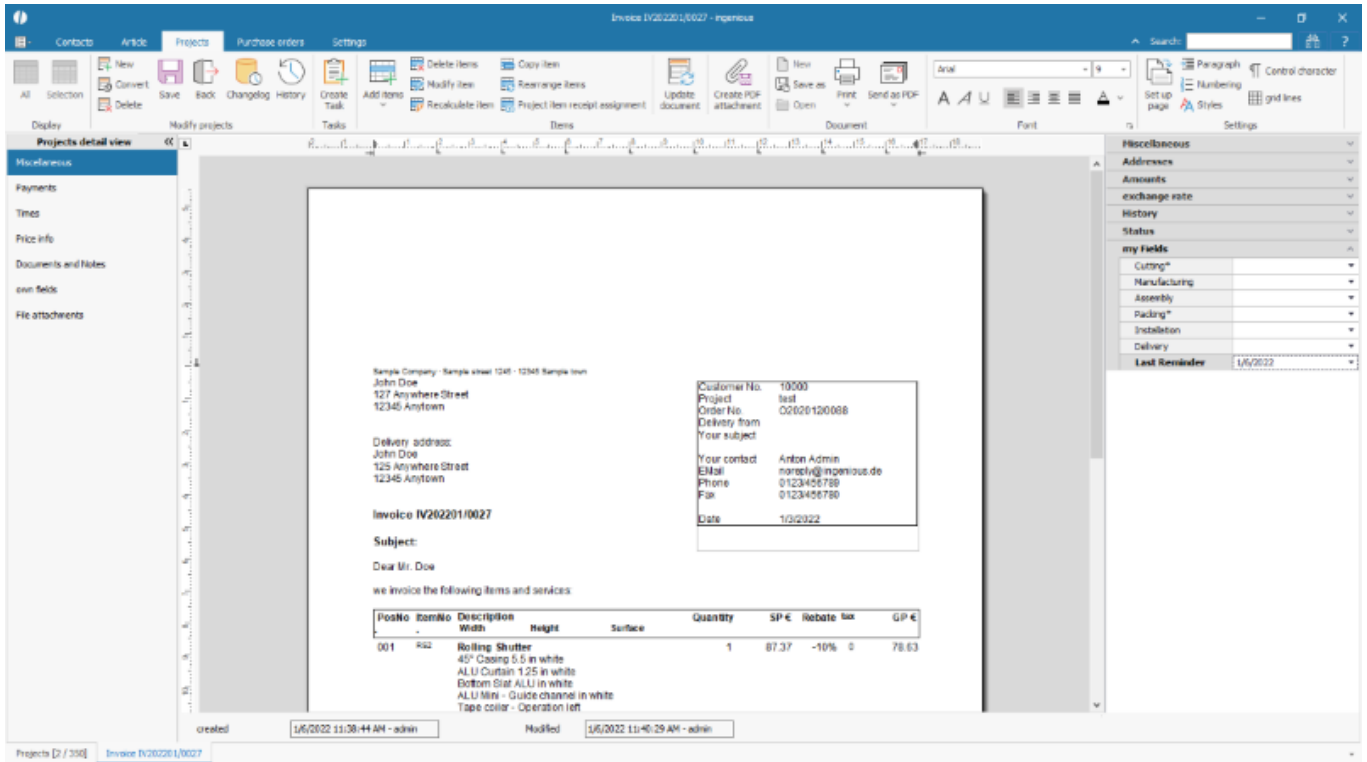
Existing selection list entries can be overwritten with new values. Doing so, the value to be changed is selected via a double-click. The previous value is adopted in the field "text" and can be overwritten as required. After using the "enter" or "return" key of the keyboard, a security query appears. Through confirming the dialog the changes are adopted.

The values already assigned to data set are adjusted as well.



## Configure sidebars

The sidebars are individual form templates, which can be displayed in the miscellaneous data of the detail views of the four main modules "contacts", "articles" and "projects" and "purchase orders" and their positions. In the templates, often applied mistakes of other navigation points and own defined fields can be displayed and modified.




In the sidebar configuration, the following parameters and functions are available:

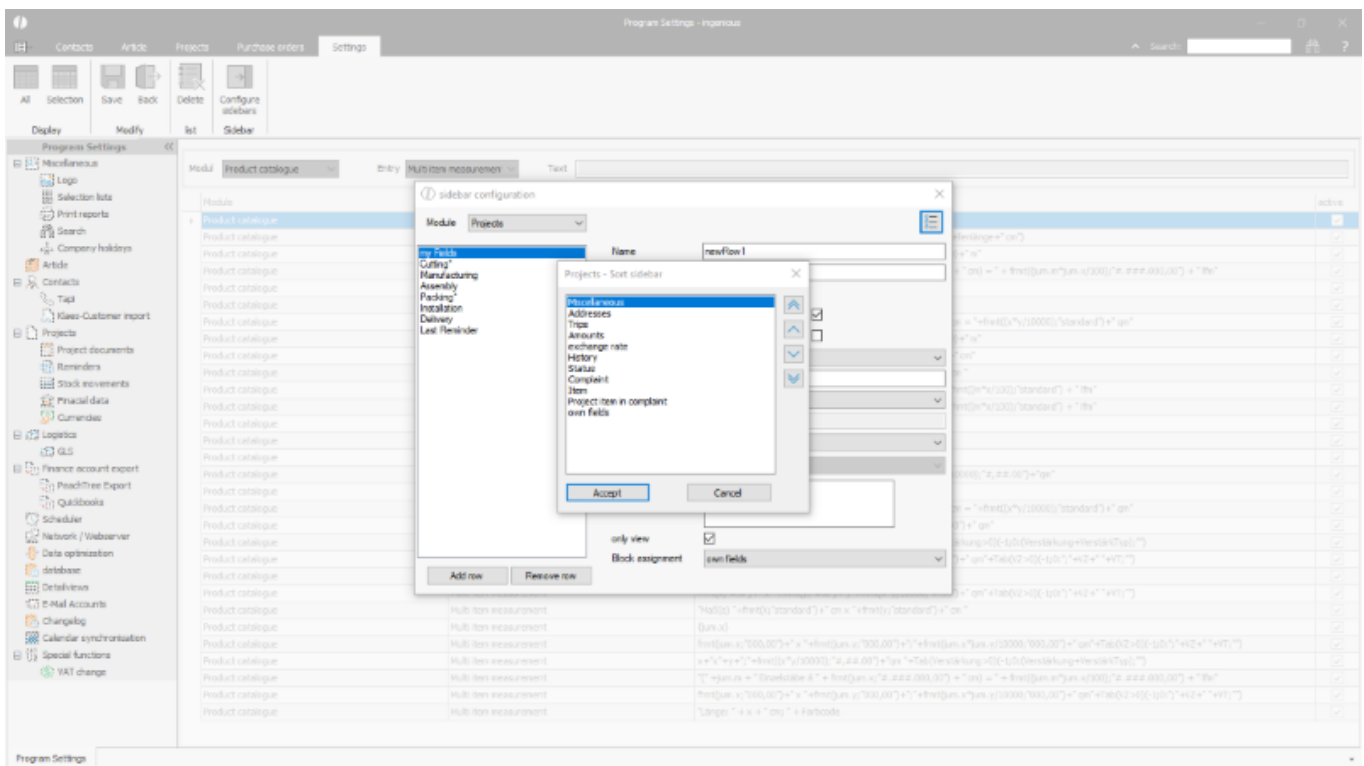
Module	Selection list	Selection of the module, of which the detail view shall be displayed in the sidebar.	
	List	Listing of all already defined rows in the sidebar; via drag&drop their order can be modified.	
Add row	Button	Adds a new row to the sidebar.	
Remove	Button	Removes the marked row from the sidebar.	
Name	Simple input field	Distinct internal name of the sidebar row (must be unique). The automatically assigned name can be kept.	
Title2	Simple input field	Designation of the field, which is shown to the user in the sidebar.	
Index (line)	Disabled field	Consecutive numbering of the rows according to their defined order.	
Formatting header		Options for highlighting of the designation of the singular rows. Via the color fields, the font color can be selected; if the checkbox is activated, the designation is printed in bold letters.	
Formatting values		Options for highlighting of the values of the singular rows. Via the color fields, the font color can be selected; if the checkbox is activated, the value is printed in bold letters.	
Data source	Selection list	Field	Shows an existing field of the table of the respective module; via the selection list below, the desired field can be selected.
		User field	User fields are own defined fields, which can be used for recording data that does not fit in any other of the available fields.  In the text field below, the unique name for the user field is assigned (user fields are also available for printing on documents).
		Calculated value	Via the calculated values, financial data is available, which has not been recorded in the regular table fields, but are calculated from a sum of values, e.g. the sales figures of a financial year, open invoices...
		Fixed value	A fixed value is an individual value, similar to the user field, but it is neither analysed nor modified, just informative. e.g. headlines in the sidebar. In the field below, a designation of the value can be assigned.
		Script	Via a script, a value can be set according to a dependency. This value cannot be modified further by the user.  The respective script is introduced for the respective module via the module "scripts" via the command  <div style="border: 1px solid gray; padding: 5px; margin: 5px 0;"> <p>Example Title</p> <pre>public override string SidebarText(IMdiChild form, DataRow row, String rowname)</pre> </div> whereas for "rowname", the name of the sidebar row has to be entered.

Control element	Selection list	Title	Displays the value of the row as headline
		Text	Displays the value of the row in a simple text field
		Text (long)	Displays the value of the row in a text field with several rows
		Num	Displays the numeric value
		Dropdown	For the definition of an own selection list for a user field. The values in the selection are inserted in the field below, divided through a semicolon.
		Dropdown(cboMap)	For the selection from the existing selection lists of the singular modules. In the fields below, the module and the entry is selected. Note: Only entries are displayed, for which values have been defined.
		Checkbox	For the display / selection of a checkbox of a user field
		Date	For the display of a date value in the calendar pop-up
		Time	For the display of a time
		Button (Script)	<p>Via clicking on this button, a script that triggers further actions (filling fields etc..) can be addressed.</p> <p>The respective script is introduced via the module "scripts" for the respective module with the command</p> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p>Example Title</p> <pre>public override void SidebarButton(IMdiChild form, DataRow row, String rowname)</pre> </div> <p>whereas for "rowname" the name of the sidebar row has to be entered.</p>
Display	Selection list	all users	Shows the row of the sidebar for all users
		Group	Shows the row only in the sidebar of a specific user group; in the field below, a user group can be selected via a selection list.
		User	Shows the row only in the sidebar of a specific user; in the field below, the user can be selected via a selection list.
		no display	hides this row of the sidebar for all users
Condition	simple input field	<p>A condition in macro language can be added here. This determines in which case the respective line should be displayed in the sidebar.</p> <p>In the following example, the field is only displayed for project documents named "Offer":</p> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <p>Example condition</p> <pre>result = (DSTools.getFieldValue &lt; string &gt; (DB.Project.document_name,</pre> </div>	

		<code>row) == "Offer" );</code>
only view	Checkbox	For activating that the values of this row cannot be modified but are only displayed.
Block assignment	Selection list	The block assignment can be used to determine in which block of the project sidebar the respective line of the individual sidebar entries should be displayed. The "Own fields" block is standard. Individual sidebar lines are added at the bottom within the predefined blocks.

The order of the sidebar blocks can be changed for the projects and purchasing modules using the button .



The individual blocks can be pushed up or down using the arrow keys.



## 8.6.5 Print reports


Print reports are various analyses, which are centrally administrated and be made accessible for all users (comp. report rights and user administration).

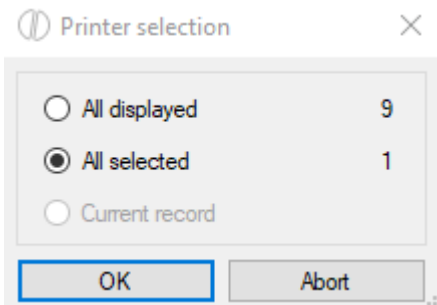
Via the toolbar, the following functions are available:

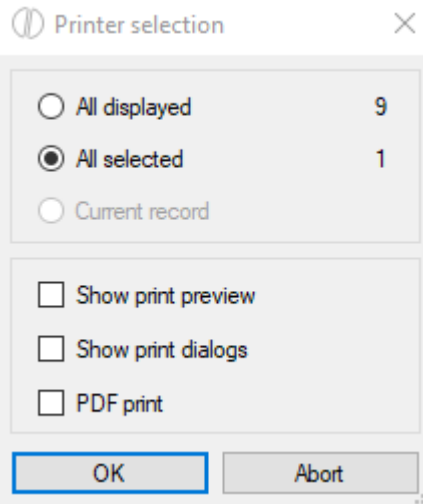
	Add a new print report
	Delete the marked print report



## Create a new print report

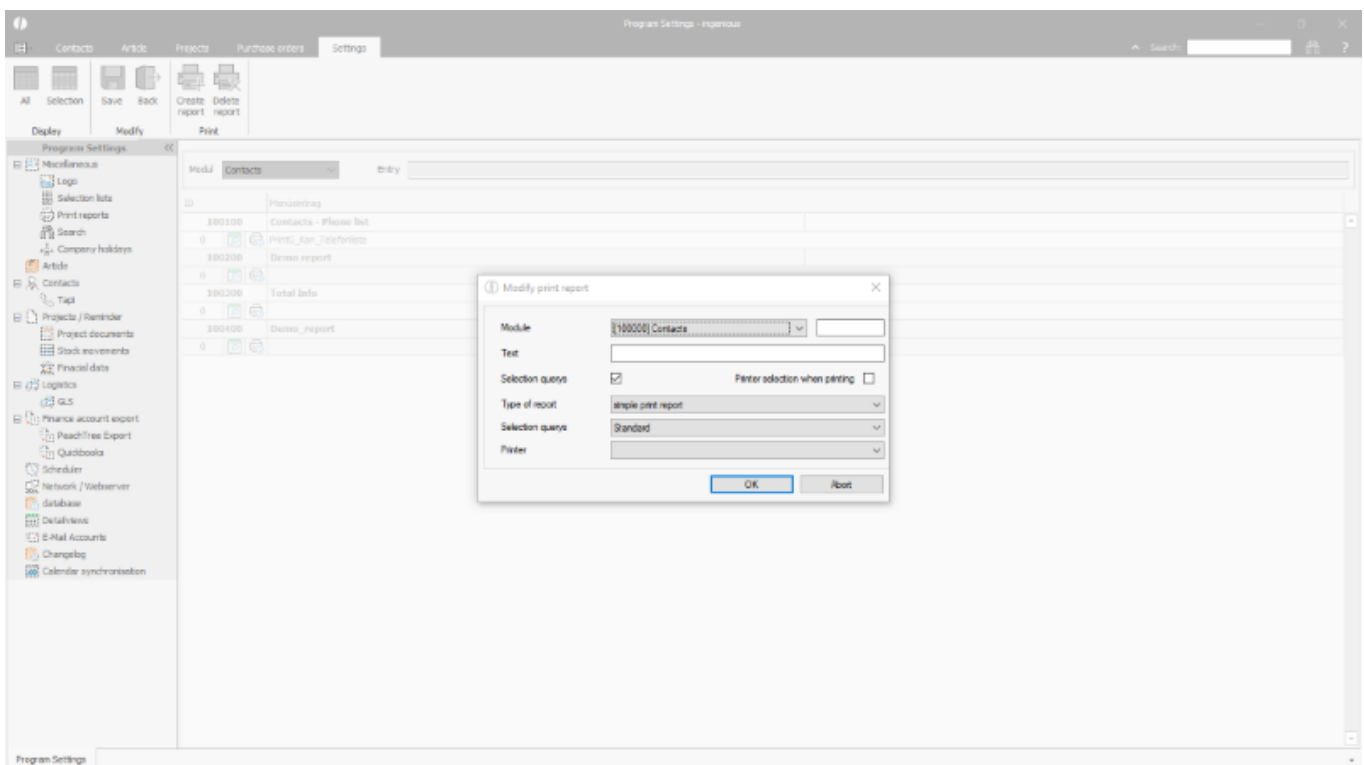
Via the  button in the toolbar, a new print report can be added. A configuration form opens, in which the following information is recorded:

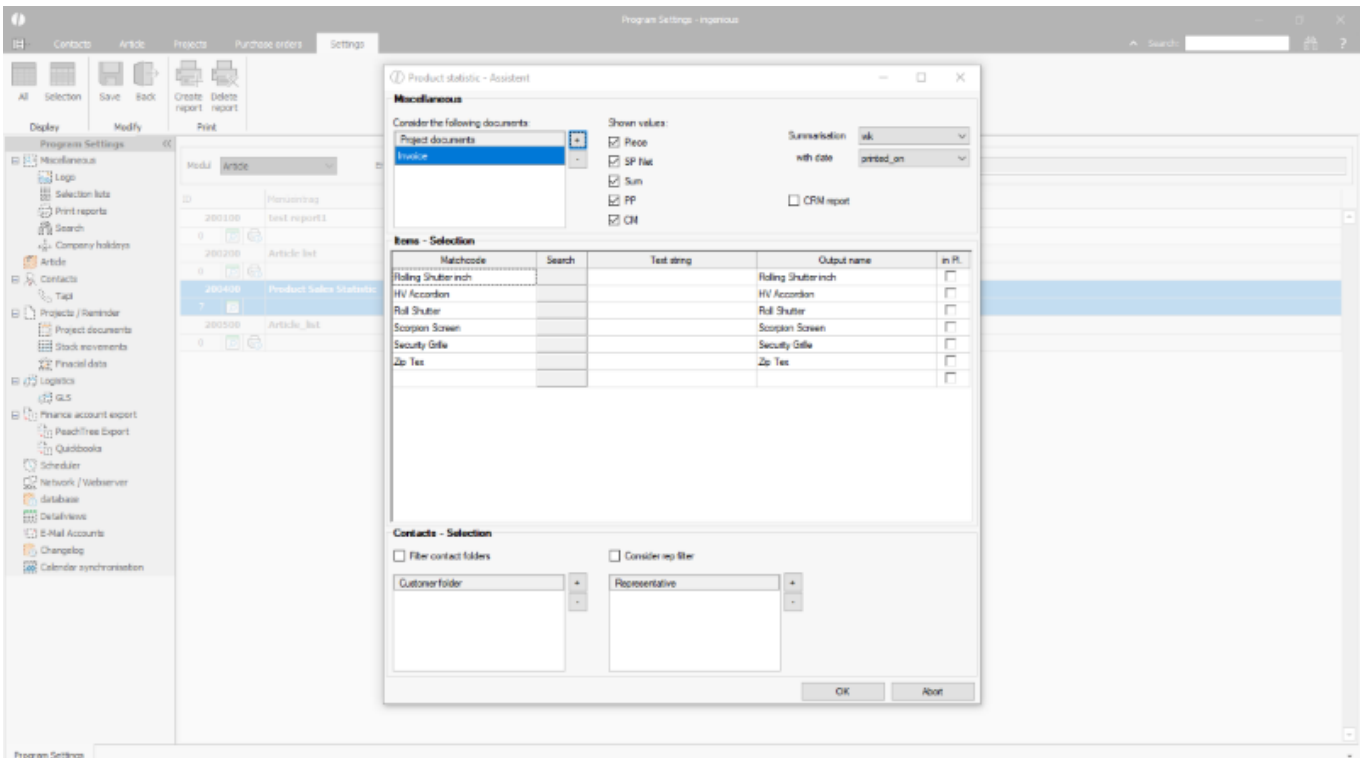
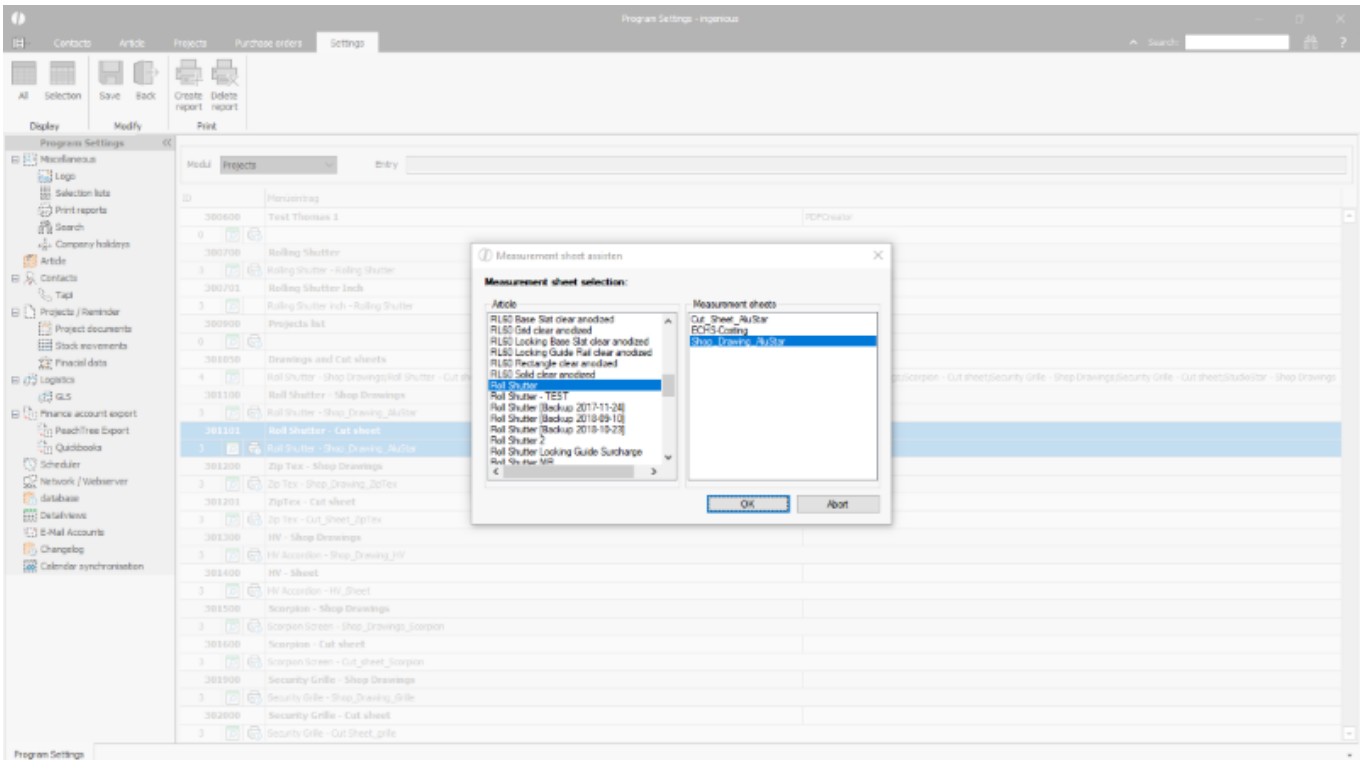
Module	Selection list	Selection of the program module, in which the print report shall be activated.
ID	Simple input field	Insertion of a six-digit number (ID) for ordering the print report in the selection hierarchically
Text	Simple input field	Individual text for describing the print report (this text is displayed to the user in the printer selection)
Selection query	Checkbox	Decision, if at the start of the print report an additional dialog is displayed to the user, in which he/she can select if all displayed data sets or only the marked shall be printed.  
Printer selection when printing	Checkbox	Decision, if at the start of the print report an additional dialog is displayed to the user, in which he/she can select a print preview and a printing dialog (on which printer shall the documents be issued).

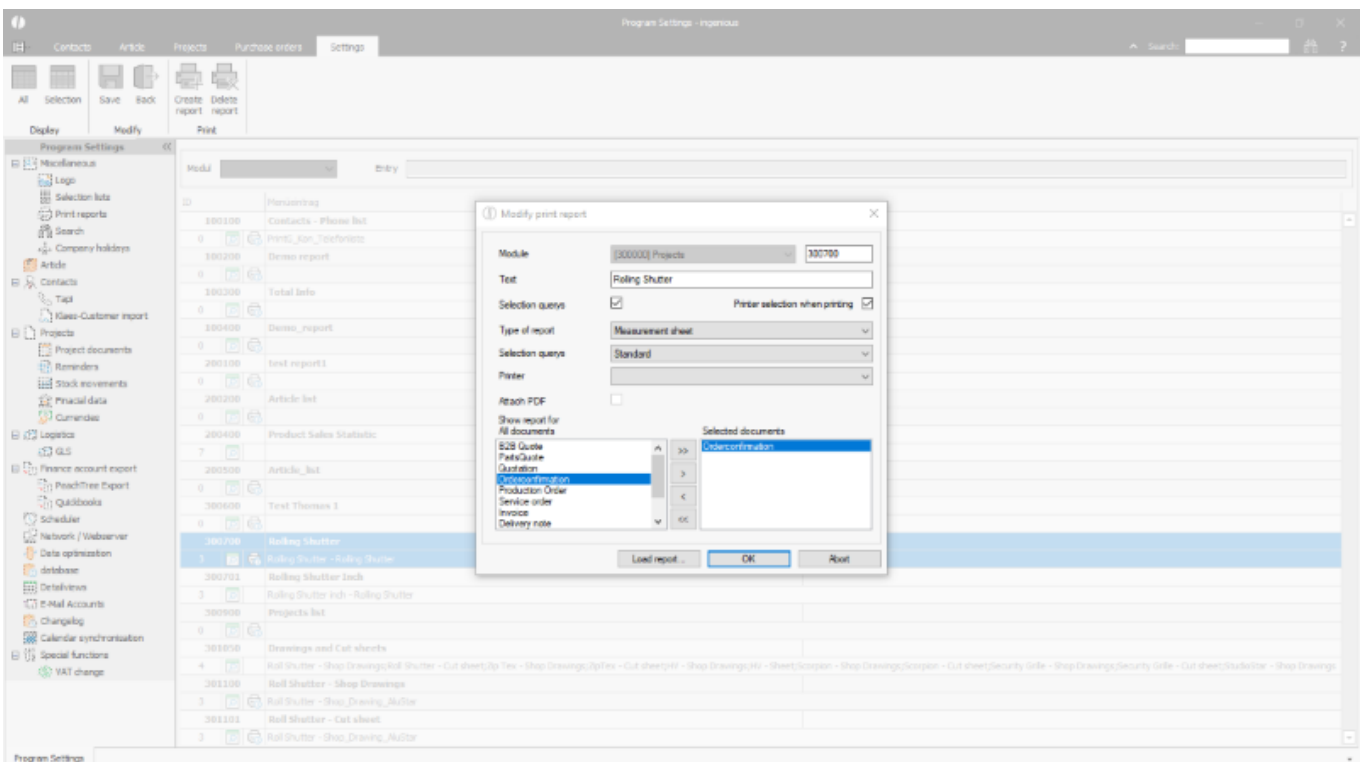
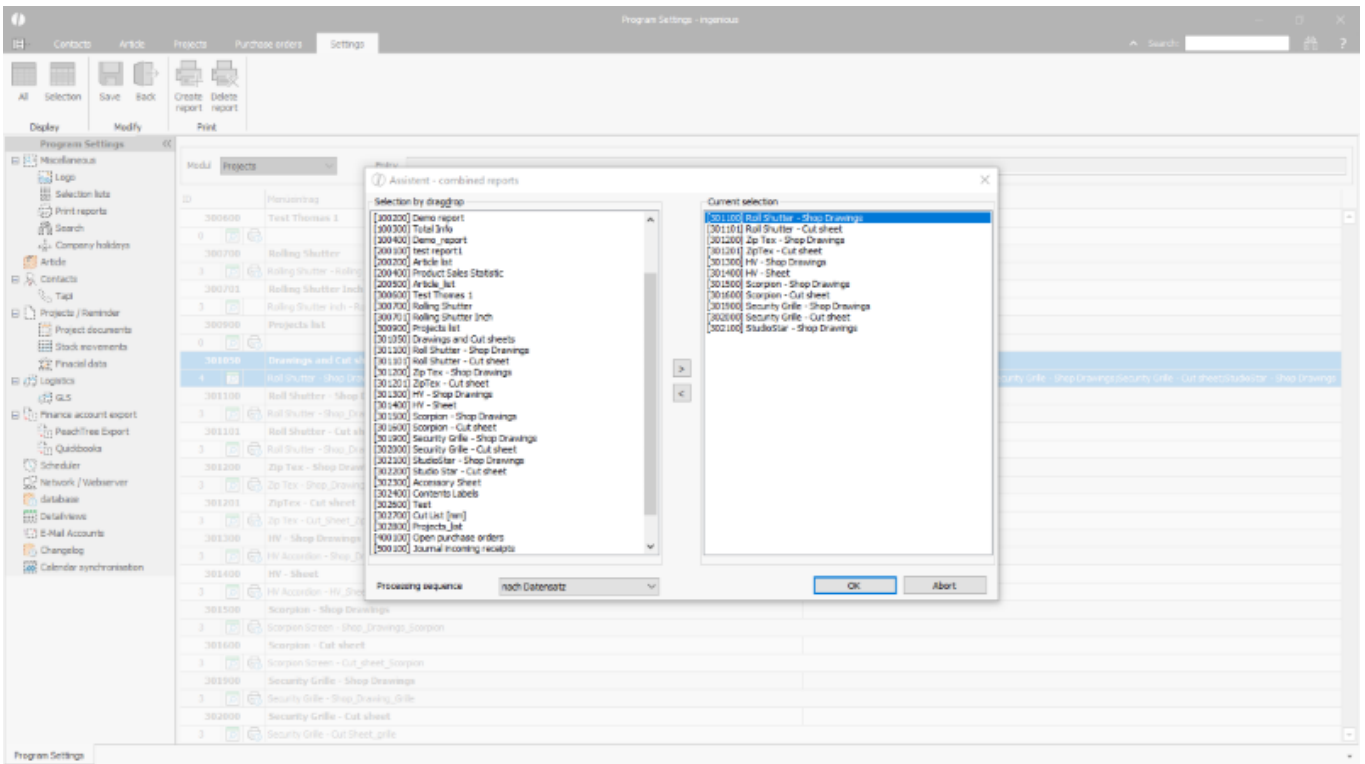


Type of report	Selection list	Simple print report	A simple print report is an individual report created with the print report designer.
		commission label	
		partlist label	
		Contact document print merge	During the print merge of contact documents, a prepared document from the text template administration/document templates can be printed for a selection of contacts simultaneously with one click. Via the button "selection" which appears during the configuration of the print report, the document template is determined.
		Measurement sheet	A measurement sheet contains production-relevant details of a part list item and is designed before in the part list of the respective item. Subsequently, a print report is created for the measurement sheet. Via the "load report" button that appears additionally for this configuration, a dialog opens, in which the desired template is selected from the part list with the available measurement sheets recorded there.
		Built-in word processing	Via the configuration "built-in word processing" and the additional button "Selection", a template can be selected from all the project templates in the text template administration. Alternatively, the entry [project document] can be selected, via which the template, connected with the project, prints. With this print report, several project documents can be printed at once, e.g. each one copy for the filing.
		Product statistic	A product statistic allows for the analysis of the order entries / Sales /etc. of single items in a certain time period. The configuration, which items shall be analyzed, is executed with the help of an assistant, which is started via the button "Assistent".
		Combined print reports	Out of all recorded print reports, a combined report can be configured, through which various print reports for a selection of data sets can be issued with one click. The combination of print reports is executed via the additional button "Assistent". There, also the order in which the documents are processed can be determined, which determines the order at printing.

Selection query	Selection list	Standard	Simple selection query for determination, if all marked or displayed data sets shall be taken into account.
		Special project time query	Selection query for the retrieval of a project-time reports with selection of a client / several commissions / a time period.
		Invoice salesrep selection	Selection query for the consideration of single representatives, e.g. sales analyses, provision calculations
		Purchase supplier selection	Selection query for the consideration of single suppliers. e.g. for purchase order statistics
		Supplier stock selection	Consideration of single suppliers for stock analyses.
Printer	Selection list	Selection of the printer on which the document shall be issued from the devices available from the pc.	
Attach as PDF	Checkbox	For the projects module, the additional option "Attach as PDF" is available for print reports of the type "Simple print report", "Commission label", "Partlist label" and "Built-in wordprocessing". If the checkbox is activated, the documents are also saved as PDF in the file attachments of the respective project during the printing process.	
View print report for	Selection box	Print reports for the Projects module can be restricted for individual project documents. This means that, for example, the print menu in the project detail view can be designed more clearly, since only the reports relevant to the document are displayed.  The selection is made using the arrow buttons.	








A newly created print report is at first only visible for the administrator and has to be enabled for the respective users via the print and report rights. Subsequently, the print report can be selected via the printing menu from the list and

detail view of the assigned module.

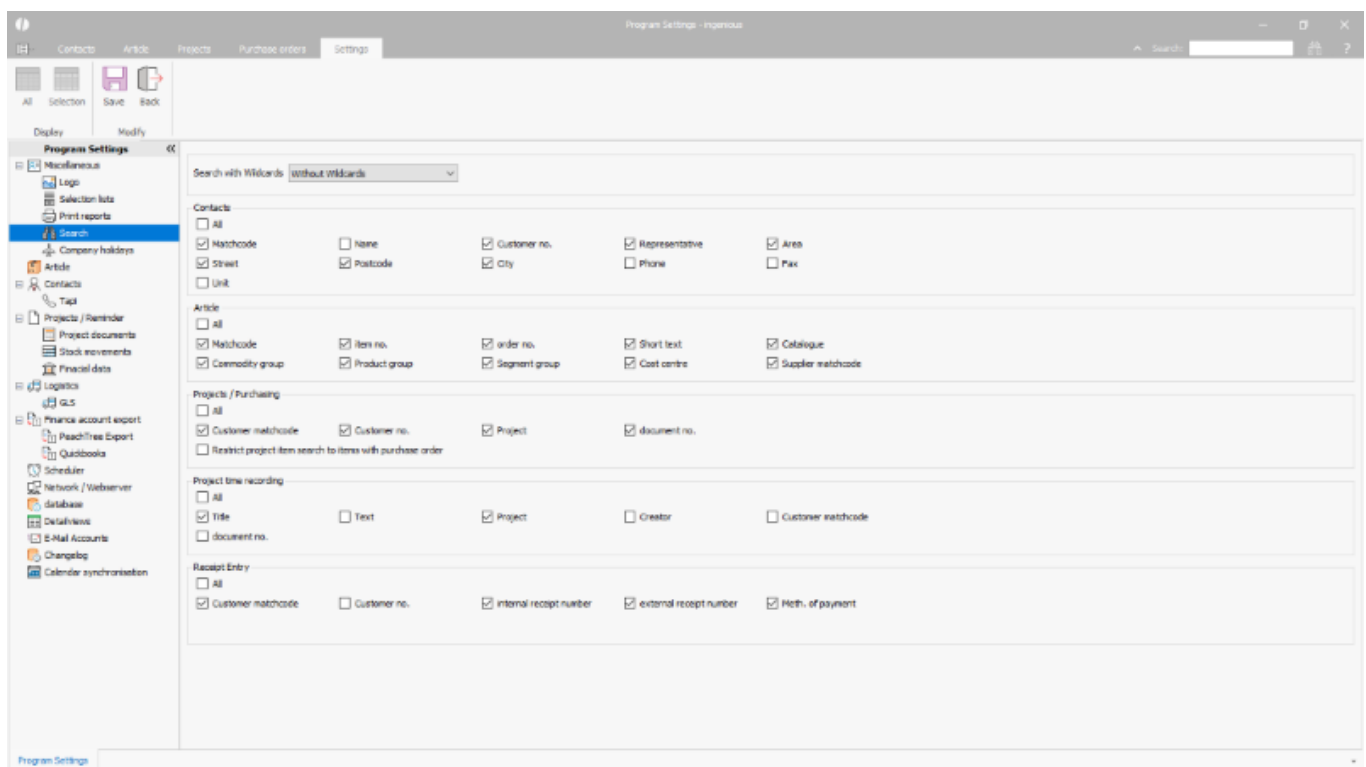
### Delete a print report

Via the  button, a marked print report configuration can be deleted. After finally confirming the modifications through saving them in the program settings, the print report is not available for any user anymore. But if the print report shall be only hidden /disabled temporarily for single users, this has to be determined via the report rights.

## 8.6.6 Search

In the main modules besides the extensive integrated search and filter functions of the module lists, also a quick search is available right on top in the toolbar.

This quick search searches for inserted signs in particular fields. Which fields will be searched, can be predefined globally in the program settings.



Additionally can be defined, if the search is carried out with or without wildcards (placeholders).

Without wildcards	Searches exactly for the inserted signs. Example: Search term: pattern-> "pattern" must exist on its own in the configured fields; "paymentpattern" would not be found. Potential additional signs can be found through adding a wildcard: "*".
-------------------	---




Starts with wildcard	A wildcard is used in front of the inserted signs during the search: Example: Search term: pattern-> finds "pattern" and "paymentpattern" but not "pattern payment"
Ends with wildcard	A wildcard is used following the inserted signs during search. Example: Search term: pattern-> finds "pattern"and "pattern payment" but not "payment pattern"
Starts and ends with wildcard	A wildcard is used in front of and following the inserted signs. Example: Search term: pattern-> finds "pattern"and "pattern payment" as well as "payment pattern" .

## 8.6.7 Company holidays

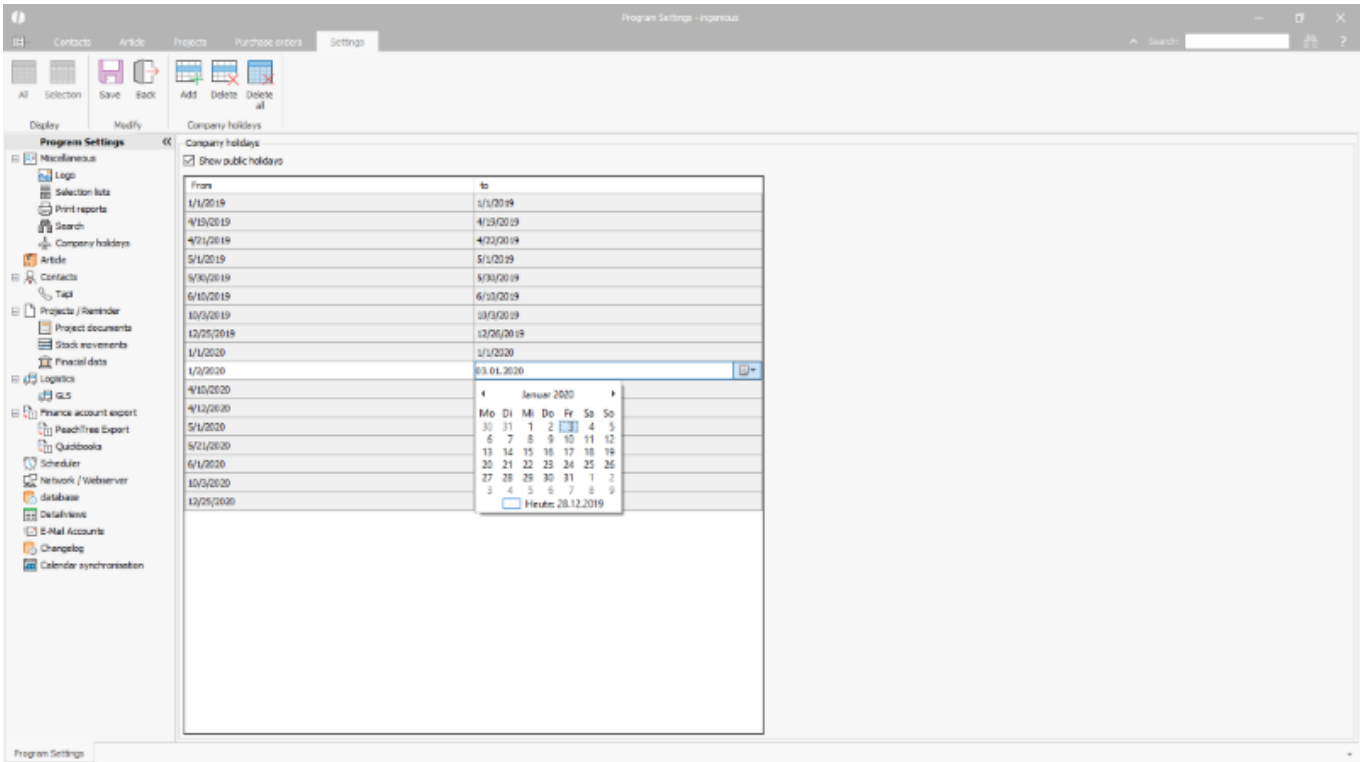
System-wide company holidays can be stored in the program settings, which can then be accessed from various modules, for example in capacity planning to exclude these days from planning.

National public holidays are saved in the program and do not have to be created separately. These can be shown using the corresponding checkbox. They are shown with gray line coloring.

Own company holidays can be managed using the buttons in the icon bar:

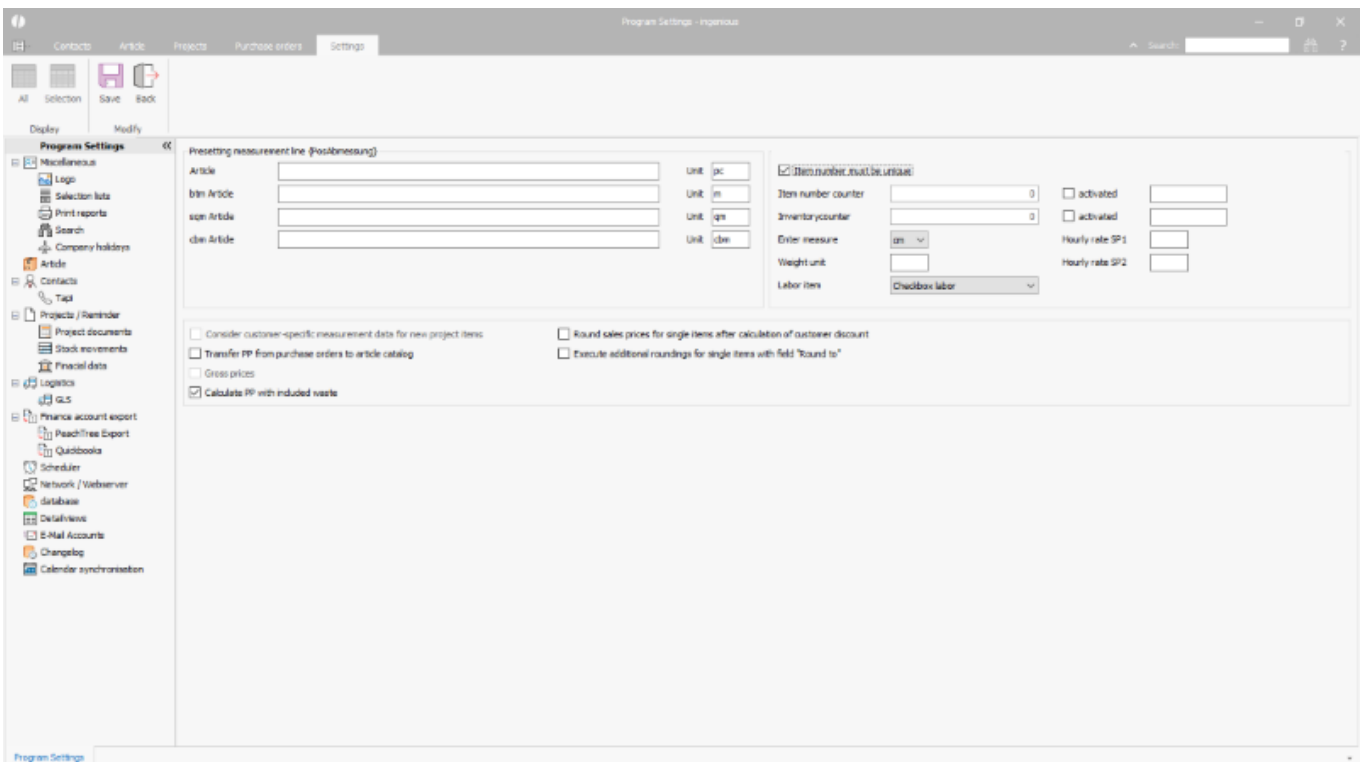
	Inserts a new line with the current date. The date values can be overwritten manually or set using the calendar button. This appears after clicking in the cell to be edited.
	Deletes the selected line
	Deletes all own entries from the table

Company holidays are shown in the list with a white background.



## 8.6.8 Items

In the program settings, values can be recorded that will be adopted when a new item is created.





The following fields can be defined:

Presetting measurement line	Simple input fields	Via the placeholder {PosMeasurement} the presetting measurement line can be issued on project documents. The definition can contain static text (in high commas) and part list variables. The single values are connected to each other via a plus sign.
btm article	Simple input fields	Via the placeholder {PosMeasurement} the presetting measurement line can be issued on project documents. The definition can contain static text (in high commas) and part list variables. The single values are connected to each other via a plus sign.
sqm article	Simple input fields	Via the placeholder {PosMeasurement} the presetting measurement line can be issued on project documents. The definition can contain static text (in high commas) and part list variables. The single values are connected to each other via a plus sign.
cbm article	Simple input fields	Via the placeholder {PosMeasurement} the presetting measurement line can be issued on project documents. The definition can contain static text (in high commas) and part list variables. The single values are connected to each other via a plus sign.
Item number must be unique	Checkbox	If this checkbox is activated, it is checked during the assignment of an item number, if it is unique. If the item number has already been assigned, an error notice follows.
Item number counter activated	Simple input fields and checkbox	If this checkbox is activated, an automatic item number counter can be used. The last value is displayed in the field in front of the checkbox. In the field behind the checkbox, a mask for the counter can be created.
Inventorycounter	Simple input field	Via this field, a decimal place, differing from the standard (2), can be determined for prices on project documents. For the respective field a suitable formatting has to be selected in the placeholder.
Enter measure	Selection list	Definition, in which unit the measurements are entered (cm, mm, inch).
Weight unit	Simple input field	Definition, in which unit the measurements, potentially a weight, is entered.
Hourly rate SP1	Simple input field	Record of a general hourly rate for the use in part lists.
Hourly rate SP2	Simple input field	Record of a second general hourly rate for the use in part lists.
Labor item	Selection list	Determining which articles should be counted as work performance. These articles can be specially evaluated in the project positions, eg for the summation and labeling in craftsman invoices to private individuals. The placeholders {NetLabor} and {GrossLabor} are available for separate identification on invoices. All other invoice items are evaluated as material and summarized in the placeholders {NetMaterial} and {GrossMaterial}. It can be determined either as

- |  |  |
|--|--|
|  | <ul style="list-style-type: none"> <li>- All articles marked via the "Labor item" checkbox in the article parameters or</li> <li>- all time articles = articles with PP / SP ratio Min / USD or</li> <li>- Articles marked as "Labor item" as well as time articles</li> </ul> |
|--|--|

Transfer purchase price from purchase orders to article catalog	Checkbox	If the position placeholder ItemPPP is overwritten in purchase orders, the new purchase price is transferred directly to the article.
Calculate purchase price with included waste	Checkbox	When calculating the item purchase price of length items, the sales length is not used, but the sales length plus the percentage waste (see <b>Article Prices</b> ) ( <b>Section 4.2.2.12</b> )
Round sales prices for single items after calculation of customer discount	Checkbox	Additional rounding of the position price after the customer special price calculation
Execute additional roundings for single items with field "Round to"	Checkbox	When selling a position with quantity > 1, do not round the total, but round the unit price before multiplying by the quantity

## 8.6.9 Contacts

In the area "contacts" of the program settings, values for different fields can be predefined, so that they do not have to be defined for every data set anew. When a new contact is created, these data is considered.

The following values / configurations can be defined:

Discount %	Simple input field	Discount rate, which is granted to every newly created contact. The value can be altered individually for each contact.
Discount deadline	Simple input field	Discount deadline, which is defined for every newly created contact. The deadline can be altered individually for each contact.
Net payment term	Simple input field	Net payment term, which is defined for every newly created contact. The net paym. term must be longer than the discount rate. The term can be altered individually for each contact.
Reminder 1	Simple input field	Deadline, how many days after billing / net paym. term (comp. program settings /project dunning) an open invoice shall be dunned for the first time. The deadline can be modified for each contact individually.
Reminder 2	Simple input field	Deadline, how many days after billing / the previous reminder (comp. program settings /project dunning) a second reminder shall be considered in the dunning run. The deadline can be modified for each contact individually.
Reminder 3	Simple input field	Deadline, how many days after billing / the previous reminder (comp. program settings /project dunning) a third reminder shall be considered in the dunning run. The deadline can be modified for each contact individually.
Default interest %	Simple input field	Default charges, which shall be set in the reminders of overdue payments.

Reminder fee	Simple input field	Fine, which shall be set in the reminders of overdue invoices.
Address generation	Special function	Function for formatting the address on documents (see below).
Extended entry mask	Checkbox	The extended entry mask for the address of a contact divides the field in salutation, title, first name, surname, company1, company2 and complements for the location a field "district".
Customer number counter	Simple input fields / Checkbox	The first field shows the most recent counter value of the client numbers, this value can be modified, if necessary (e.g. if a contact was created by accident and then deleted). The counter will be continued with every new contact, if the checkbox is activated. The formatting of the counter is defined in the field behind (e.g. 0000 for a four-digit number).
Customer number must be unique (Input control contact module)	Checkbox	Activates an input control, which checks if the customer number has been assigned only once.
Automatically initialize account receivable number with customer number (create new contact)	Checkbox	Activating the automatic initializing of the account receivable number with the customer number.
Store VAT percentage at contact	Checkbox	By rule, the same VAT percentages count full and half for all customers. In singular countries, differing rules exist. For these, the VAT percentages can be defined individually for a customer. If the checkbox "store VAT percentage at contact" is activated additionally, an individual VAT percentage can be recorded for the contact.

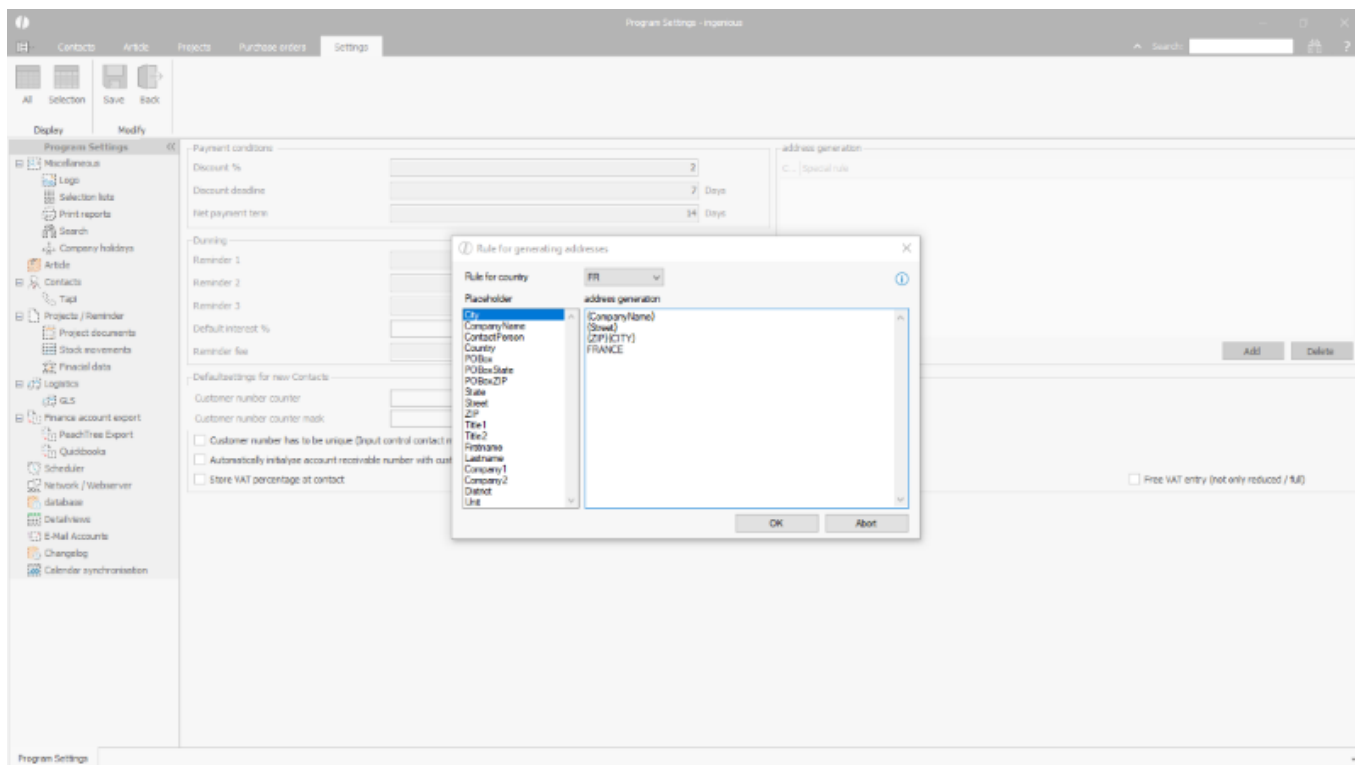
### Address generation

Within ingenious all addresses on project documents are printed in the following form:

John Doe  
123 Anywhere Street  
12345 Anytown

If this form shall be varied, respective rules can be recorded in the address generation. A standard formatting and one for each country can be defined. This is recommended for e.g. the sending to customers abroad, for which particular settings for the post service have to be considered, e.g. capitalization of the location and the country.

The placeholder available can be taken from the left side. In order to apply them correctly, they have to be written each by each in curly brackets.



## 8.6.10 Klaes contact import

Via the Klaes contact import, contact data records from the Klaes window construction software are imported into the ingenious database.


The data exchange takes place via an XML file that is read in by the ingenious scheduler in a time-controlled manner.

In the program settings / Klaes contact import, the import path and the paths for success and error are stored.

The imported method processes all files in the import directory and moves them to the appropriate folder if they were processed successfully or errors occurred.


The mapping of most fields in both databases is hard-coded in the import method.

For the contact types and the terms of payment, the mapping is defined in the program settings and can be changed at any time.


New entries are added using the  button.

The corresponding values can be written directly into the inserted line in the list.

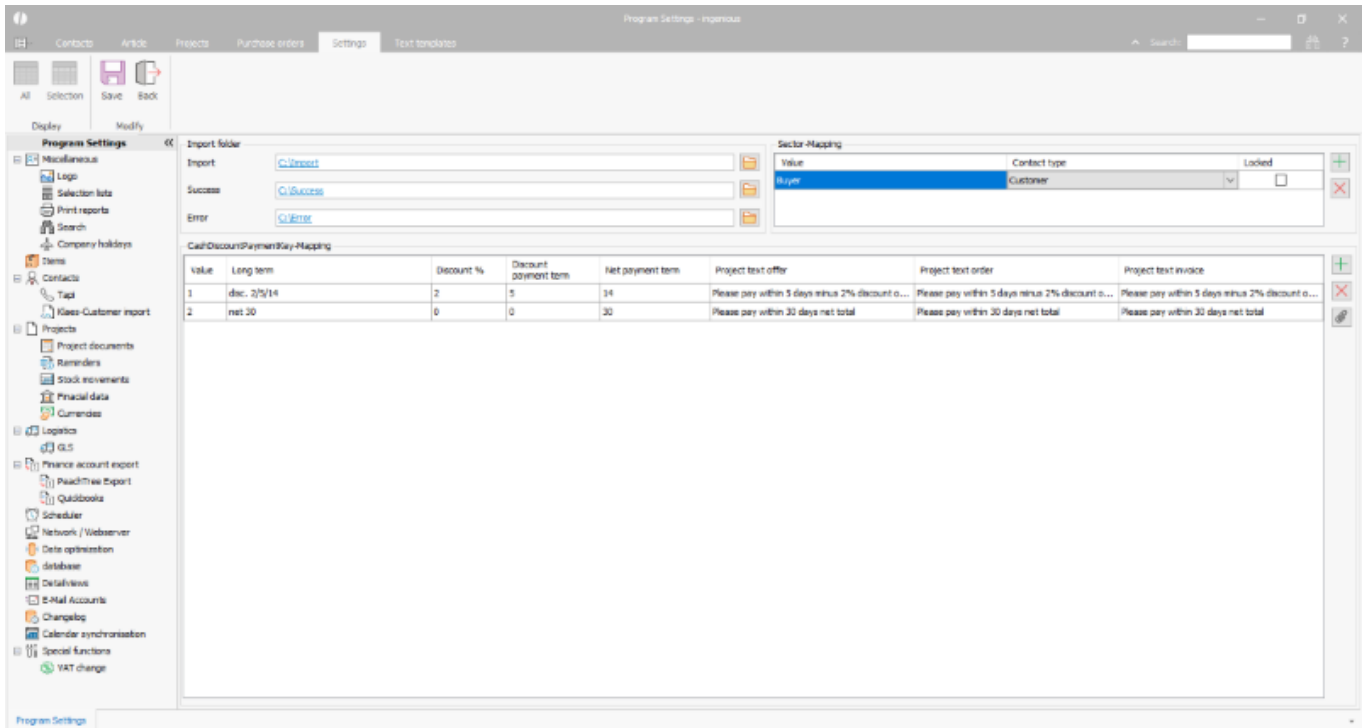
Existing values can also be edited accordingly.

An entry is removed from the list using the button .

Alternatively, the texts of the terms of payment can be imported from a .csv table.

The selection of the .csv file is initiated via the button .

The desired file is selected via the Windows Open dialog that appears.



The created or imported payment texts are written during the contact import into the project status-dependent texts and are inserted into the respective project documents using the placeholder {TextBoundToDocState}.

**Contacts Detailview**

**Classification**

Client: [dropdown] Meth. of payment: SEPA B2B direct debit [dropdown]  
 Group: Dealer [dropdown] Area: [dropdown]  
 Representative: Ronald Rich [dropdown] Commission group: [dropdown]

**Settlement**

Account receivable: 30300 Currency: EUR [dropdown]  
 Sales tax ID: [input] Country code: National [dropdown]  Sales tax status  
 Finanzgutsn.: [input]

**Method of payment**

Payment practice: [dropdown] Discount %: 2.00% Till disc. dead. [days]: 7 Net: 14  
 max. open balance: €3,000.00  Limit check

**Dunning**

Dunning run in days: [1] 18 [2] 22 [3] 26 Reminder fee: €5.00 Default interest %: 0.05%

**Bank details**

IBAN: DE31860553920123456789 BIC: WELADED3333  
 Bank: St u Nr 1pk Leipzig  Direct debit  
 Mandate reference: 00324 Mandate date: 12/20/2019

**Supplier defaults**

Terms of delivery: [dropdown] default form purchase order: [dropdown]

**(28) Texts bound to document status**

Document	Text
Project title	test
Quotation	Please pay within 30 days net total
Order confirmation	Please pay within 30 days net total
Invoice	Please pay within 30 days net total

## 8.6.11 Projects

In the global settings for projects, the presetting for certain formatting and singular actions are defined.

**Program Settings - ingenious**

**Project creation**

Commission counter: 0  activated  
 Commission counter mask (Project): [input]  
 Commission counter (Purchasing): 0  activated  
 Commission counter mask (Purchasing): [input]  
 Receipt entry counter: 13  activated  
 Receipt entry counter mask: [input]  
 Item number mask: 4000 [input]  
 Invoice address  
 Delivery  
 Address 3  
 Address 4  
 Contact person at convert: Leave from project [dropdown]  
 Action at second convert: Warning - (Check project name) [dropdown]  
 Convert despite blocked customer: Warning [dropdown]  
 \*Aktion bei Projektpreisänderung: [dropdown]  
 Action for address change: [dropdown]  
 Free text entry in projects: possible [dropdown]  
 Save when printing: Question - Print only when saving [dropdown]  
 default behavior print button: Print documents [dropdown]  
 Check produced project items on save  
 Two stage purchase process

**Surcharge settings**

Surcharge source: from program settings [dropdown]  
 Surcharge %: 5 [input]  
 Surcharge text: Energy surcharge [dropdown]

**Invoices**

Template partial invoice: [dropdown]  
 Template final invoice: Final\_Invoice [dropdown]

**Create project items**

Own entries in project item creation menu: Configuration [button]  
 Placeholder update only for current item  
 Gross price calculation for project  
 Transfer PP from purchase order to sales  
 Project item font: Arial [dropdown] 9 [dropdown]  
 Insert without formatting  
 Take from project template

**Multi item tab order**

[dropdown]

**E-mail sending**

Standard subject for emails: [dropdown]  
 Standard text for emails: Email [dropdown]  
 Send E-Mails with SMTP HTML [dropdown]  
 Send E-Mails with SMTP  
 additional entry window for E-Mail subject, text and attachments  
 Reminder E-Mail subject: [dropdown]  
 Reminder E-Mail text: [dropdown]  
 default behavior pdf send button: Send as PDF [dropdown]

Commission counter / mask (projects)	Simple input fields	Determines the format for the automatically assigned position numbers in project documents.
Commission counter / mask (purchasing)	Simple input fields	Determines the format for the automatically assigned position numbers in purchase order documents.
Commission counter / mask (receipts)	Simple input fields	Determines the format for the automatically assigned receipt numbers.
Item number mask	Simple input field	Determines the format for the project item numbers.
Ignore addresses at project creation	Checkboxes	The recorded additional addresses of contacts is inserted into the respective project documents by default (e.g. in invoices, if the invoice address is available). Via the checkboxes this function can be disabled for the single address types, and the main address of the contact is inserted.
Contact person at convert	Selection list	Commonly, the employee who created the project is inserted in the documents. When the project is converted, it is the employee who has worked on the project. It can be determined globally, if the user of the original document shall be maintained.
Action at second convert	Selection list	For safety, a project document can be protected against an OC/delivery/receipt/an invoice/a credit being created a second time from them. A respective warning can be issued or the action can be cancelled.
Convert despite blocked customer	Selection list	If a customer is disabled, no new project document can be created for him/her, since he/she must not purchase anything from the company. It is, however, sometimes necessary, to convert a document, e.g. because the customer has received a delivery for which an invoice has been created. It can be determined, if the conversion shall be possible with a warning notice or if the process shall be cancelled.
Action for project price change	Selection list	If the project total price is changed, all project item prices can be recalculated or a rebate position can be added.
Action for address change	Selection list	If the address is changed in the project, with the presetting can be defined, whether the changes should be taken over into the contact data.
Free text entry in projects	Selection list	Lock text entry if the cursor is not in a grey entry field.
Save when printing	Selection list	Here you can specify whether and under what conditions a project is saved before it can be printed. Options: Question - Print only when saving, Question - Print even if not saving, Automatic saving, Print without save.
default	Selection	Here you can specify whether the document is only to be printed using the standard

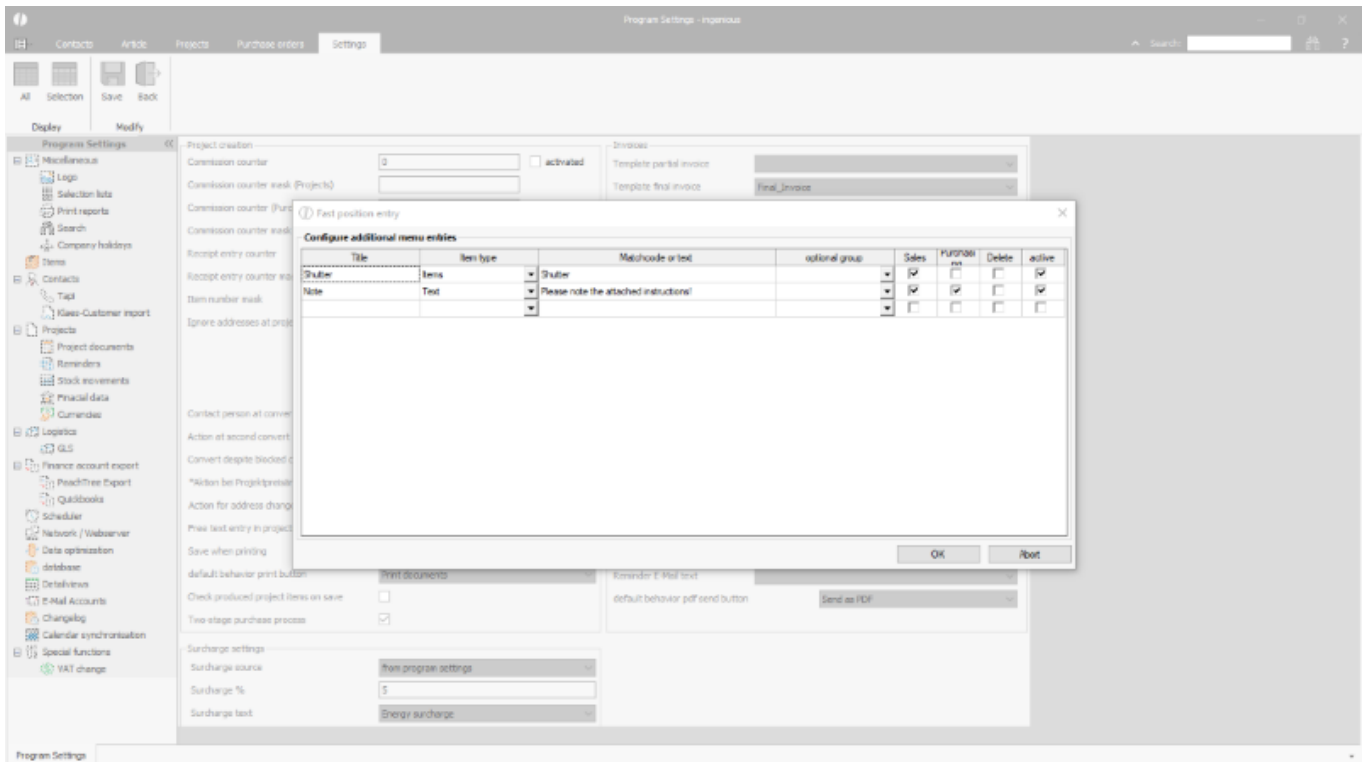


behavior print button	list	print button in the project or whether it is to be saved as a PDF file attachment at the same time. (Default is print only)	
Check produced project items on save	Checkbox	When editing parts lists that have already been produced, ask whether new PPS data records should be completed	
Two-stage purchase process	Checkbox	Activates the two-stage purchase process that allows the booking of partial deliveries from stock receipt documents	
Surcharge source	Selection list	no source	No project-related surcharge will be calculated
		from program settings	The project-related surcharge is calculated with the percentage written in the field below.
		from contact	The project related surcharge is calculated with the percentage that was entered in the <b>contacts details (Section 4.1.2.4)</b> .
Surcharge %	Simple input field	Here the global surcharge percentage is to be entered for the surcharge source "program settings".	
Surcharge text	Selection list	All free texts from the text templates are listed here to chose that one that is to be used for the surcharge text on the documents.	
Template partial invoice	Selection list	Selection of a project template to be used as default when creating a partial invoice.	
Template final invoice	Selection list	Selection of a project template to be used as default when creating a final invoice.	
Own entries in project creation menu	Button	Allows you to add individual entries (e.g. frequently used articles) in the menu "Add items" of the projects detail view. See below.	
Placeholder update only for current item	Checkbox	If this checkbox is activated, only the placeholders of the current, just change position ill be updates. If the checkbox is deactivated, a placeholder update is performed for all positions. Changes to this setting are only necessary in case of performance problems or when using special scripts.	
Gross price calculation for project	Checkbox	To determine whether the total VAT and gross price per item should be calculated and summed (checkbox not activated = default) or all individual net prices should be added up and then VAT and gross total amount are calculated from the net total.	
Project item font	Selection lists	Selection of the font and font size to be used as default when inserting items. This is helpful, for example, if formatted article texts are stored in different fonts in the product catalog, but the project document should have a uniform appearance.	
insert without formatting	Checkbox	If this checkbox is activated, the formatting of the article texts will be ignored when inserting them into a project item. The formatting of the project template is used.	
Tabs from	Checkbox	Especially for imported articles, tabulators are stored in the formatted article text, which	

project template		overwrite any tabulators on the project templates when inserting a position. With an activated checkbox, the tabulators of the project template are applied instead of those of the article text.
Multi item tab order	Selection list	In multi-item creation, several items of the same article with different characteristics are entered in a table. The selection list can be used to set whether navigation with the tab key should onl switch between quantity and dimensions, or navigation should take place through all available fields.
Standard subject for emails	Selection list	Selection of a free text (recorded in the text templates) that shall be used for subject in automatically sent emails.
Standard text for emails	Selection list	Selection of a free text (recorded in the text templates) that shall be used in automatically sent emails.
Send email via (MAPI or SMTP)	Radio-Buttons	Documents can be sent as PDF attachments from different locations in the program. It has to be determined, if they will be sent via the MAPI interface or SMTP. When the MAPI interface is used, the user can add other texts or attachments. Precondition for the use of MAPI is an installed Microsoft Outlook Client. During sending with SMTP, the login data have to be recorded in the network settings (comp. network settings / network web server). The sending via SMTP is usually done in the background with preselected texts. With the corresponding checkbox an additional window can be opened for each email where the user can change the recipients' email addresses, the subject and the text and where he can attach additional documents.
Reminder E-Mail subject	Selection list	Selection of a free text (recorded in the text templates) that shall be used for subject in automatically sent reminder emails.
Reminder E-Mail text	Selection list	Selection of a free text (recorded in the text templates) that shall be used in automatically sent reminder emails.
default behavior pdf send button	Selection list	Here you can specify whether the document should only be sent using the standard Send PDF button in the project or whether it should be saved as a PDF file attachment at the same time. (Standard is only sending)

### Project item creation

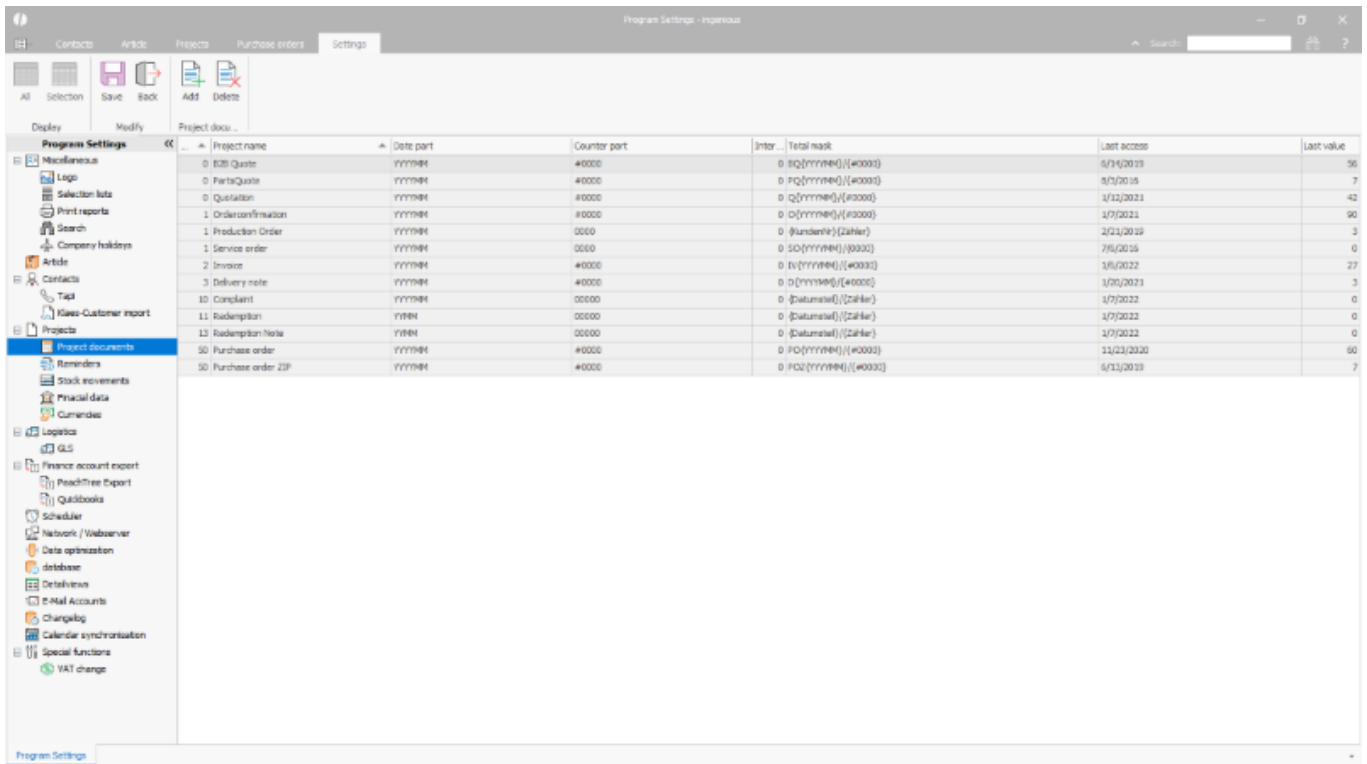
The button "Configuration" opens a windows to configure own menu entries in the create project item menu.



Title	Menu entry
Item type	Article or text
Matchcode or text	Enter a matchcode, if the project item is an article. Enter a text, if the project item is a text.
Group	Optional: Assign a formatting group
Sales	Visible in sales projects (quote, order, invoice, delivery note)
Purchasing	Visible in purchase projects (purchase order)
Delete	The menu entry does not create a project item, but deletes all items with the corresponding configuration
Active	Menu entry visible

## 8.6.12 Project documents

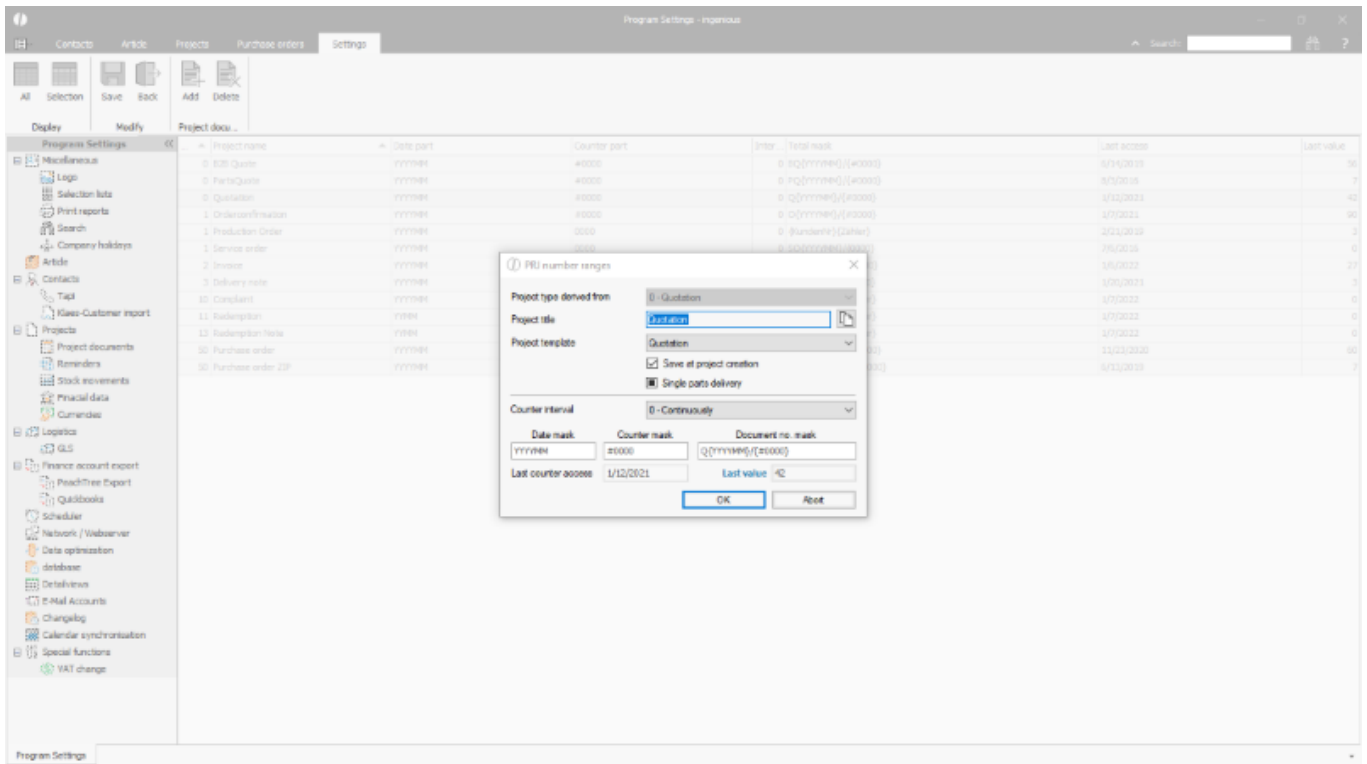
In the rubric "project documents", the different project stati are administrated. Counter and by default printing templates are defined.



Via the toolbar, the following functions are available:

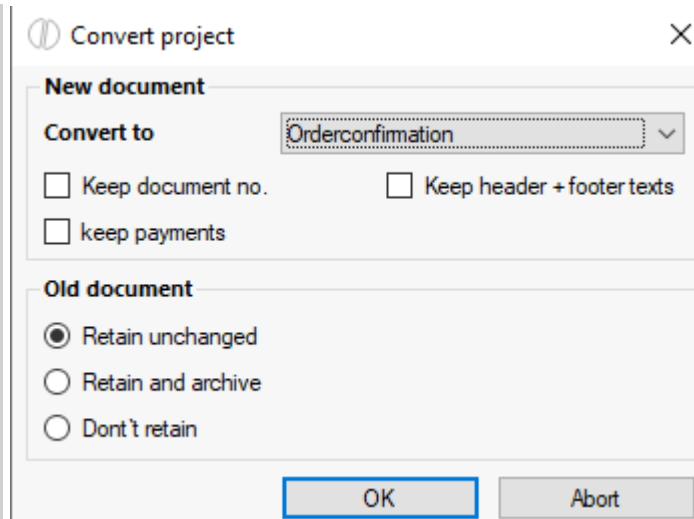
	Adds a new project document
	Deletes the marked project document.

The characteristics of a project documents are opened through double-clicking on the document. The window opens automatically, if a new project is created.



Definition of the single configuration parameters:

Project type derived from	Selection list	There are 9 or 10 different, logical project types: quotation, order confirmation, invoice, delivery note, credit note, complaint, redemption and redemption note and purchase order (with a two-stage ordering process: purchase order and goods receipt). For each project type any number of documents can be created, of which each is assigned an own counter and printing template. That way, e.g. a standard and a cash transaction invoice can be defined.
Project title	Simple input field	Individual name of the project document.
Convert project	Button	Via the button, another window opens, in which presettings can be defined, for which project document the currently processed shall be converted + other related functions.



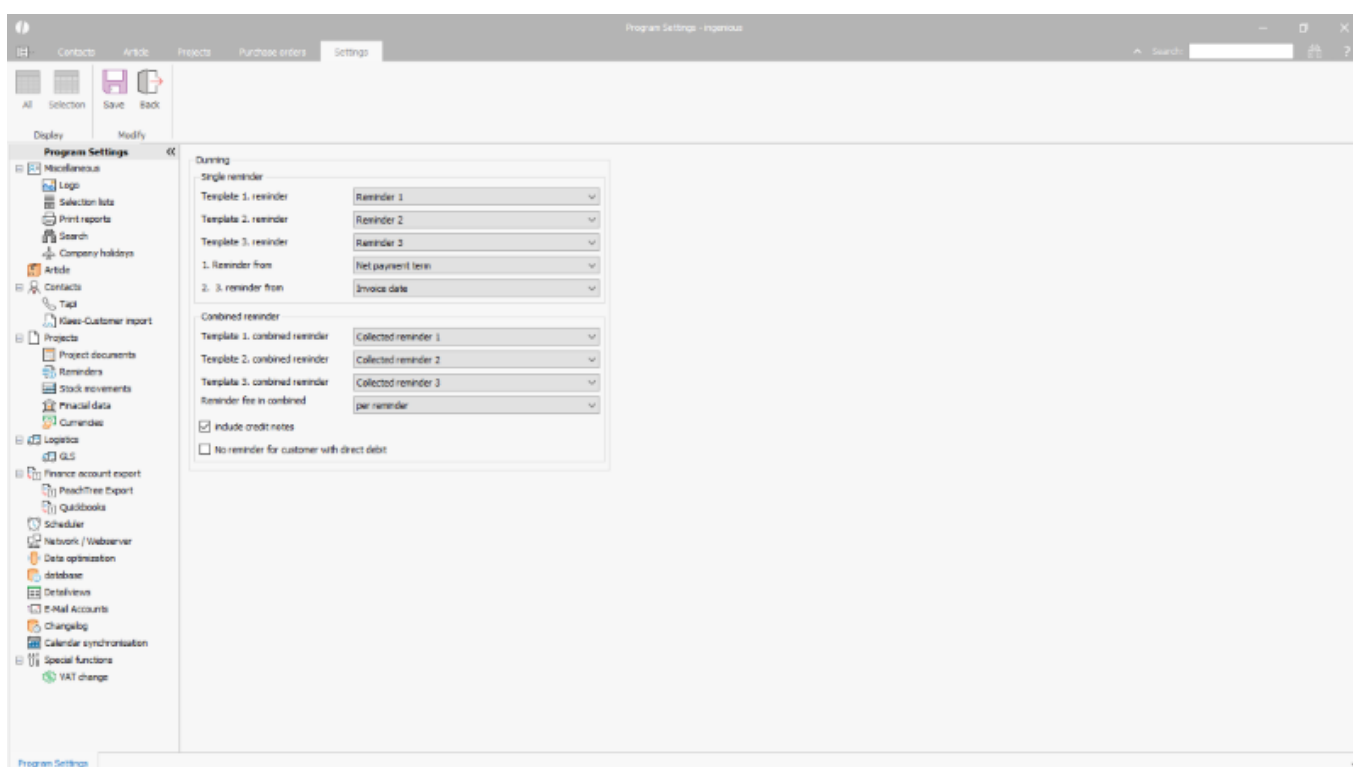
These option only constitute a predefinition during the conversion and can be modified with each conversion.

Project template	Selection list	Selection of a project template from the text templates, which shall be used as standard template for this project document. Within the projects themselves, a differing template can be selected, if necessary.
Save project at creation	Checkbox	Security option, through the document is saved at creation.
Single parts delivery	Checkbox	With a single parts delivery a part list in the previous document is splitted into its single parts when converted to a document with this checkbox checked. The single parts are inserted as individual positions instead of one position item with the part list.
Counter interval	Selection list	Selection, in which interval the counter shall start from the beginning. Possible settings: continuously, yearly, monthly, daily. ,
Date mask	Simple input field	A document number can only consist of one counter or the values of the actual date and fixed values can be added optionally. The date part can be with the letter combination DD for day, MM for month, YY for the year (in two signs) and YYYY for the complete year.
Counter mask	Simple input field	In the mask for the counter it is defined, how many digits a number shall have. A fixed number of digits is described with a zero (0), a variable number with #. For #0000 - always four fixed digits are displayed and, if needed, a fifths, e.g. 0002, 0158, 11570.
Document no mask	Simple input field	In the mask document number, the complete numbers constructed (from the date, counter and potentially other signs). The single preset parts are written as placeholders in curly brackets. {date part} and {counter}, additional signs are inserted directly in the respective place. E.g. Q{date part}/{counter}. The single masks can also be inserted direly: e.g. Q{YYYYMM}/{#0000}.
Last counter access	Disabled input field	In the field "last counter access" it is logged, when a project document was created last and the number counted up accordingly.
Last value	Protected input	The last value shows, which counter the last created document has received. Via double.clicking on the field name, the value can be modified e.g. if a document has been

field created and accidentally deleted.

## 8.6.13 Reminders

In the global settings for reminders, the presetting for the automatic dunning run and for the manual printed combined reminders are defined.



Template 1. reminder	Selection list	Selection of the project template for the first reminder from the text templates recorded in the project templates. Every reminder duns exactly one invoice.
Template 2. reminder	Selection list	Selection of the project template for the second reminder from the text templates recorded in the project templates. Every reminder duns exactly one invoice.
Template 3. reminder	Selection list	Selection of the project template for the third reminder from the text templates recorded in the project templates. Every reminder duns exactly one invoice.
1. reminder from	Selection list	Selection, if the due date of the first reminder shall be calculated from the invoice date or the net payment term.
2. ,3. reminder from	Selection list	Selection, if the due date of the second and third reminder shall be calculated from the invoice date or the previous reminder.
Template 1. combined reminder	Selection list	Selection of the project template for the first combined reminder from the text templates recorded in the project templates. Combined reminders contain a list of all due invoices of a particular client.

Template 2. combined reminder	Selection list	Selection of the project template for the second combined reminder from the text templates recorded in the project templates. Combined reminders contain a list of all due invoices of a particular client.	
Template 3. combined reminder	Selection list	Selection of the project template for the third combined reminder from the text templates recorded in the project templates. Combined reminders contain a list of all due invoices of a particular client.	
Reminder fee in combined	Selection list	per invoice (default)	In collective reminders, the fees are calculated for each invoice included.
		per reminder	In collective reminders, a one-time fee is calculated according to the highest reminder status of the invoices to be reminded.
Include credit notes	Checkbox	Decision, if in the list of open posts in combined reminders, the credit items of the respective client shall be considered (deducted).	
No reminder for customer with direct debit	Checkbox	If the checkbox is activated, the customers with direct debit selected in the <b>financial data (Section 4.1.2.4)</b> are not included in the dunning run.	

## 8.6.14 Stock movements

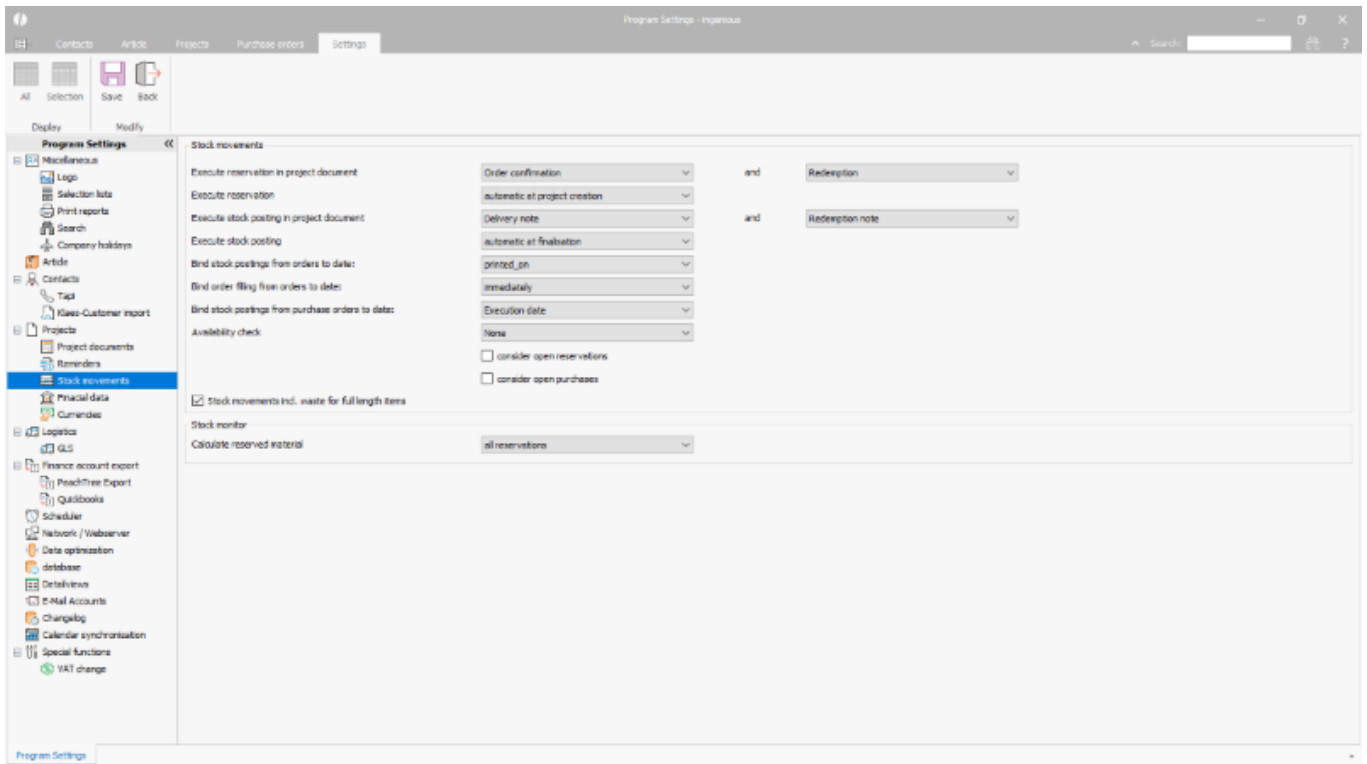
In the global settings for stock movements you configure how and when individual postings are to be taken into account.

The following options are possible:

Execute reservation in project document	Drop down	Selection of up to two project documents in which reservations should be possible.
Execute reservation	Drop down	Selection of when the reservation should be carried out: <ul style="list-style-type: none"> <li>• when manually ticking the checkbox</li> <li>• automatically when creating the project (and each subsequent saving) or</li> <li>• automatically when finalising the project</li> </ul>
Execute stock posting in project document	Drop down	Selection of up to two project documents in which inventory postings are to be made.
Execute stock posting	Drop down	Selection of when the inventory posting should be carried out: <ul style="list-style-type: none"> <li>• when manually ticking the checkbox</li> <li>• automatically when creating the project (and each subsequent saving) or</li> <li>• automatically when finalising the project</li> </ul>
Bind stock postings from	Drop	Selection with which date value the booking is taken into account. Available



orders (sales) to date:	down	are: - Print date of the document (default) - Dates 1-9 - Dates of manufacturing, installation and delivery - Individual date 1-5
Bind order fillings from orders (sales) to date:	Drop down	Selection with which date value the booking is taken into account. Available are: - Immediately (default) - Reservation date of the project - Print date of the document - Dates 1-9 - Dates of manufacturing, installation and delivery - Individual date 1-5
Bind stock postings from purchase orders to date:	Drop down	Selection with which date value the booking is taken into account. Available are: - Execution date (default) - Print date of the document - Individual date 1-5
Action if not available	Drop down	Selection of what should happen if the articles used in the project are not available. Available are: - No action (default) - Stock bookings - Warning message - Stock bookings - Prevent finalisation - Reservations - Warning message - Reservations - Prevent finalisation - All bookings - Warning message - All bookings - Prevent finalisation
consider open reservations	Checkbox	Selection of whether open reservations should be included in the inventory check.
consider open purchases	Checkbox	Selection of whether open order quantities should be included in the inventory check.
Stock movements including waste for full length items	Checkbox	If an article is sold in full stock / order length, the percentage cut off stored is not calculated when the checkbox is activated (since no cut is necessary).
Calculate reserved material	Drop down	Configuration of how far reservations booked in the future should be taken into account when determining the available stock of the individual items. Available are: - All reservations (default) - Till current date - Till 1 week after current date - Till 2 weeks after current date - Till 3 weeks after current date



## 8.6.15 Financial data

In the financial data, important bank account data is recorded for printing on documents and for the use of the SEPA export function.

Additionally, the configuration of a possible counter for the module "payments" is executed here.

The financial data are in particular:

Name of the account holder	Simple input field	Name of the account holder
IBAN	Input field with validation	For recording the IBAN account number of the company. During insertion, the IBAN is validated according to verification criteria in order to exclude wrong entries.
BIC	Input field with validation	For recording the BIC of the company. During insertion, the BIC is validated according to verification criteria in order to exclude wrong entries
Name of bank	automatically filled, editable input field	If the correct BIC is inserted, the name of the corresponding bank is identified and inserted automatically.
Counter	Simple input field	The most recent automatically assigned number for a payment (while the counter was activated).
activated	Checkbox	If the checkbox is activated, a consecutive number is assigned automatically during the creation of a new payment.
Counter mask	Simple input field	Determines the format for the counter of payments.
editable	Checkbox	If the checkbox is activated, the counter of a payment can be overwritten.
Direct debits	Simple input	In the receipt texts, with the help of static text and placeholders (the placeholders

(Reason for payment 1-5)	fields	available a re shown in the tooltips), a text can be predetermined, which will be displayed to the client as well as to the company on the statements of account.
Direct debit avis	Simple input field	For combined direct debits, a separate receipt can be determined (Avis).
Truster identification number	Simple input field	For submitting SEPA debits to the bank, a truster identification number is necessary. This has to be forwarded in the export-file and has to be recorded there.
Mandate reference counter	Simple input field	The mandate reference can be created automatically via a specially configured counter.
Mandate reference mask	Simple input field	The formatting of the mandate reference counters is executed via a mask in the format #0000, whereas the zeros designate a fixed number of numerics and the # symbol a variable number.
Template basic debit mandate	Selection list	Document template from the template administration, which shall be used for a basic debit mandate.
Template direct debit mandate (company)	Selection list	Document template from the template administration, which shall be used for a direct debit mandate.
Method payment basic debit	Selection list	Selection, for which payment method a basic debit data set shall be created.
Method payment direct debit (company)	Selection list	Selection, for which payment method a direct debit data set shall be created.
Bank transfer (Reason for payment 1-5)	Simple input field	In the receipt texts, with the help of static text and placeholders (the placeholders available are shown in the tooltips), a text can be predetermined, which will be displayed to the supplier as well as to the company on the statements of account.
Bank transfer avis	Simple input field	For combined transactions, a separate receipt text can be defined (Avis).
Select method of payment	Selection list	Selection, for which payment method the transaction data set shall be created.

## 8.6.16 Currencies

The ingenious software calculates with a fixed system currency that is defined in the **general program settings (Section 8.6.2)**.

On the outgoing project documents, all prices can be displayed in the system currency or, in deviation, in any other currency.

In this way, foreign customers can receive invoices in their own currency, for example.

This is also used in the ingenious web modules, for example.

A specialist dealer who purchases from the company in EUR can write his own offer to his end customer in his currency in the ingenious B2B portal.

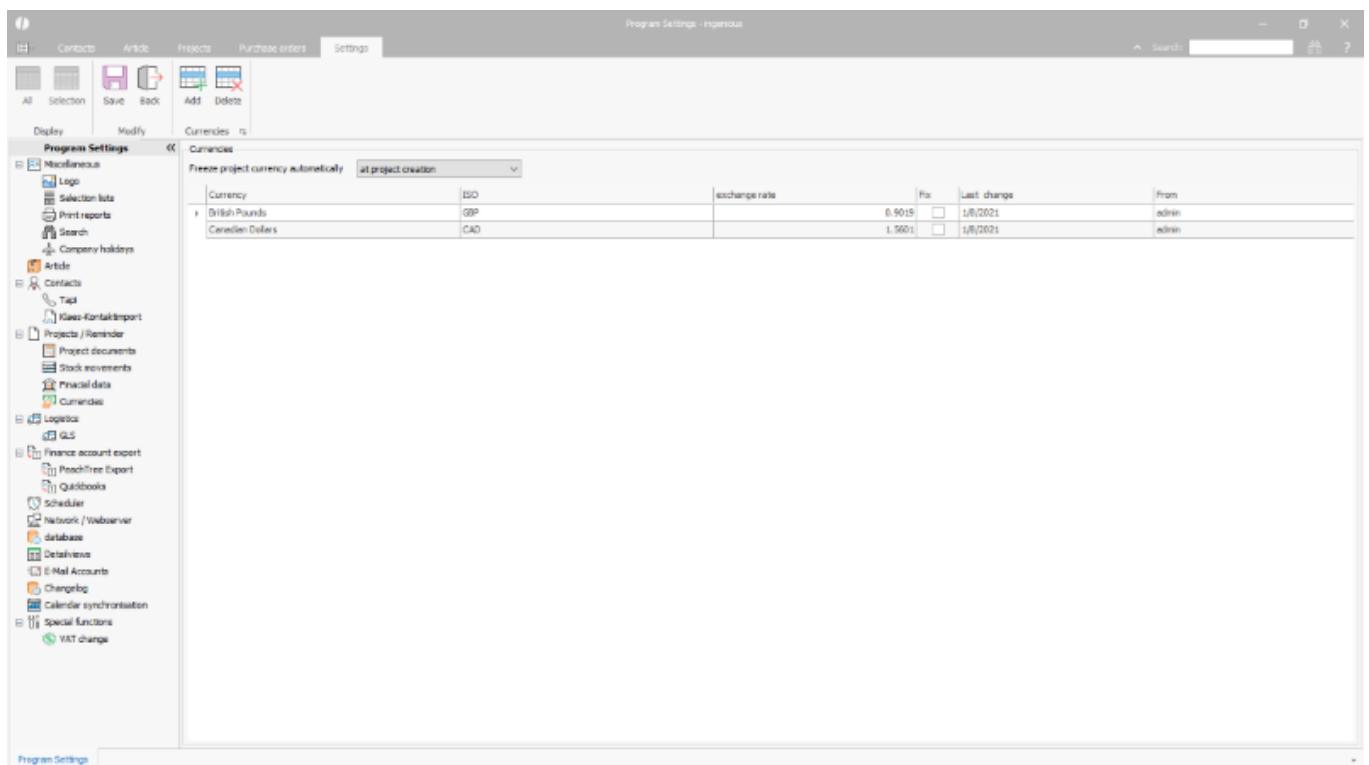
All currencies that were created in the program settings / currencies are available in the projects.


The exchange rate can be fixed in the project, either when creating the project or when printing or emailing.

This fixes the offer price in the currency.

Exchange rate fluctuations until the receipt of the payment are then borne by the biller.

Alternatively, if you select "never" to fix the project currency for the price calculation, the updated daily exchange rate is used again and again, e.g. in the case of long-drawn out offer processes.

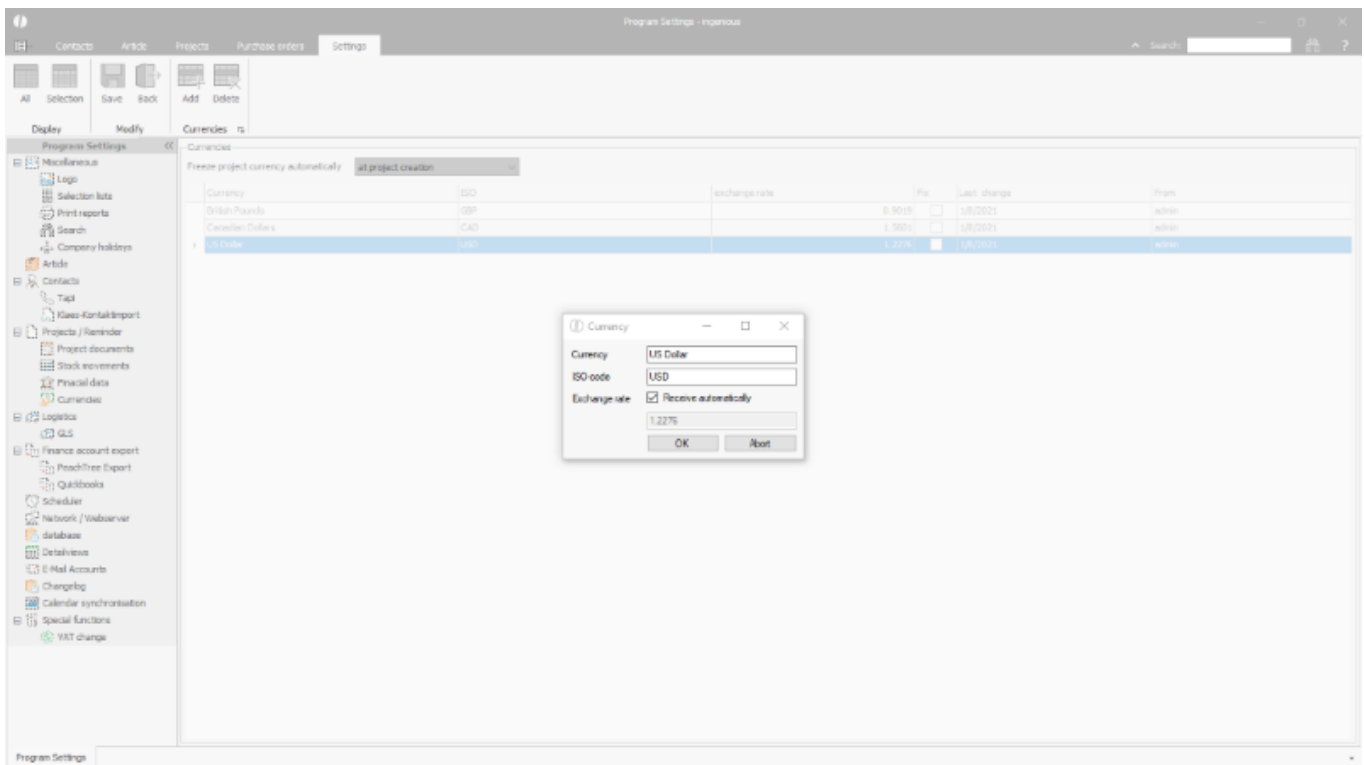


A new currency is created using the button .

The following settings must be made in the input mask:

Currency	Simple input field	Name of the currency (informative for identification in the list)
ISO code	Simple input field	Currency ISO code with that the exchange rate can be obtained online. The ISO code can be output in the project documents using placeholders.

Receive automatically	Checkbox	If the check mark is set here, the software queries the updated daily exchange rate online.
exchange rate	Simple input field	The exchange rate is entered in this field. If the online query has been activated, the exchange rate is entered automatically and the field is protected from changes.

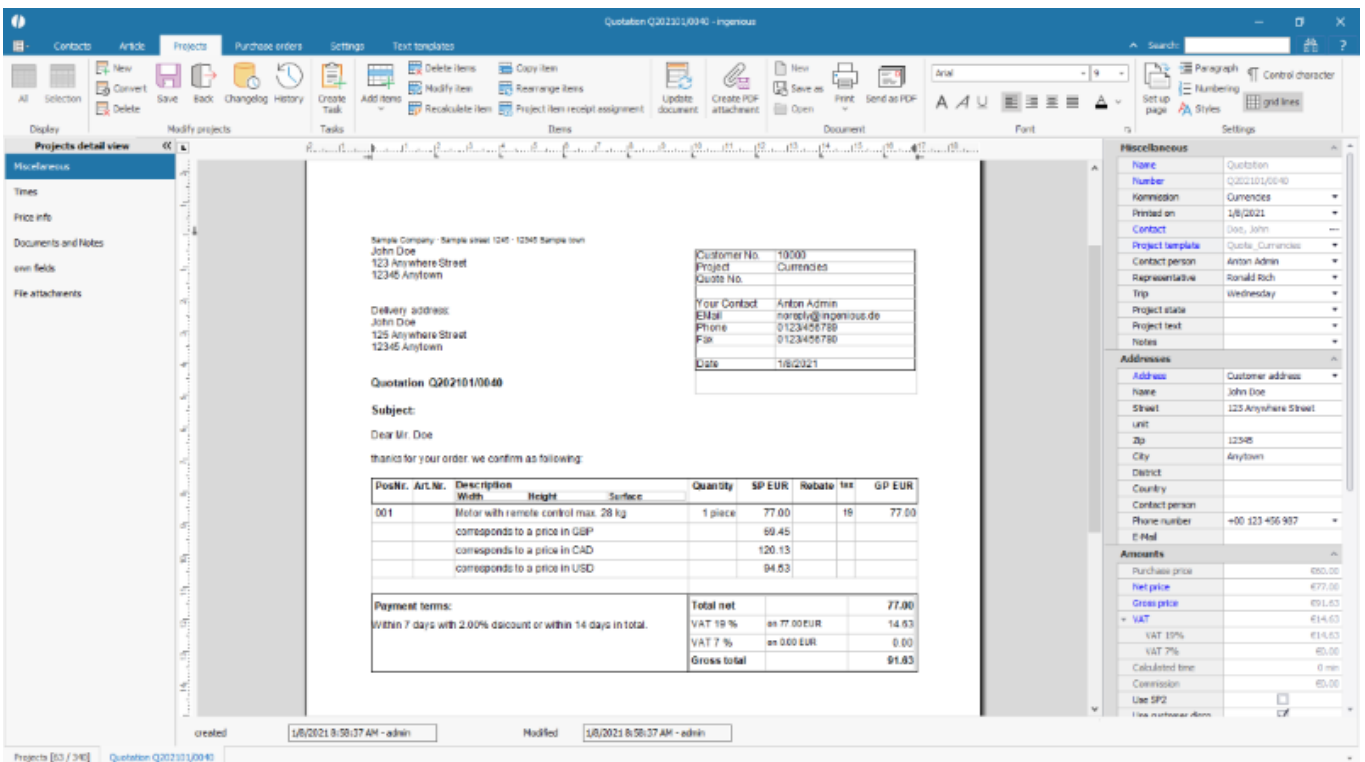
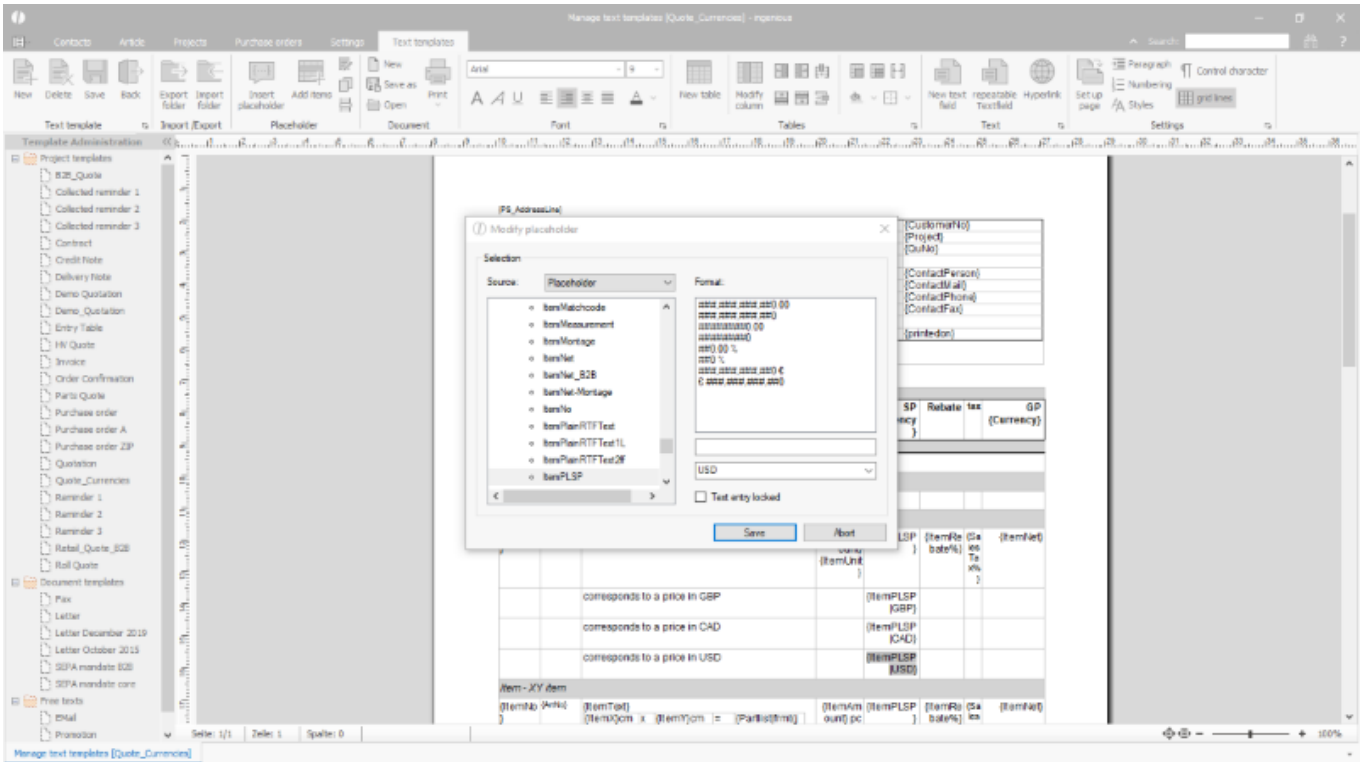


A currency can be selected for all price placeholders in the project templates.

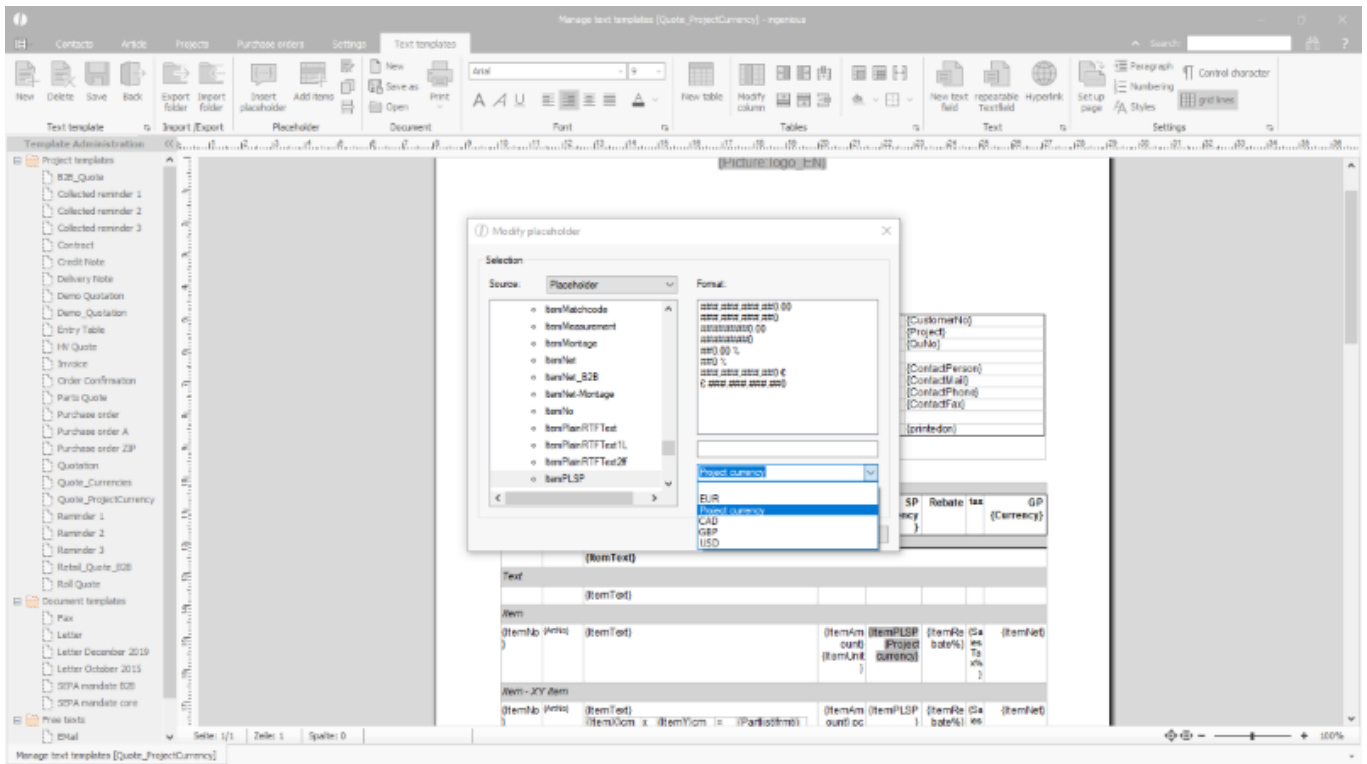
The currencies that were created in the program settings are available here.

As long as no currency has been selected from the selection list, the price is printed in the system currency.

After selecting a currency, the converted price is output.



In contrast to the permanently defined currency placeholders, the addition "project currency" can also be used. Then the currency is set in the project.



A project currency can be set below the "Amounts" block in the sidebar of a project document.

The exchange rate is loaded and the placeholders for the prices and currencies are updated.

If necessary, the exchange rate can be overwritten.

The fields with blue lettering can be changed by double-clicking on the field name.

The exchange rate can be fixed in the project.

Exchange rate fluctuations until the receipt of the payment are then borne by the biller.



The screenshot displays the 'ingenious' software interface for creating a quotation. The main window shows a document titled 'Quotation Q2021010040'. The document content includes:

**Customer Information:**  
 Simple Company - Simple street 12345 Simple town  
 John Doe  
 123 Anywhere Street  
 12345 Anytown

**Delivery address:**  
 John Doe  
 125 Anywhere Street  
 12345 Anytown

**Customer Contact Details:**  
 Customer No.: 10000  
 Project: Currencies  
 Quote No.:  
 Your Contact: Anton Admin  
 Email: morecli@ingenious.de  
 Phone: 0123456789  
 Fax: 0123456789  
 Date: 18/02/21

**Quotation Details:**  
 Quotation Q2021010040  
 Subject:  
 Dear Mr. Doe  
 Thanks for your order, we confirm as following:

Pos.Nr.	Art.Nr.	Description	Quantity	SP USD	Rebate	tax	GP USD
001		Motor with remote control max. 28 kg	1 piece	94.53		19	94.53

**Payment terms:**  
 Within 7 days with 2.00% discount or within 14 days in total

Total net		94.53
VAT 19 %	as 77.00 USD	17.95

The interface also shows a sidebar on the left with navigation options like 'Miscellaneous', 'Times', 'Price info', 'Documents and Notes', 'own fields', and 'File attachments'. On the right, there is a 'Settings' panel with various options like 'Currency', 'exchange rate', 'Status', and 'my Fields'. A bottom status bar shows 'created' and 'modified' timestamps.

A corresponding module license is required to use the currencies.

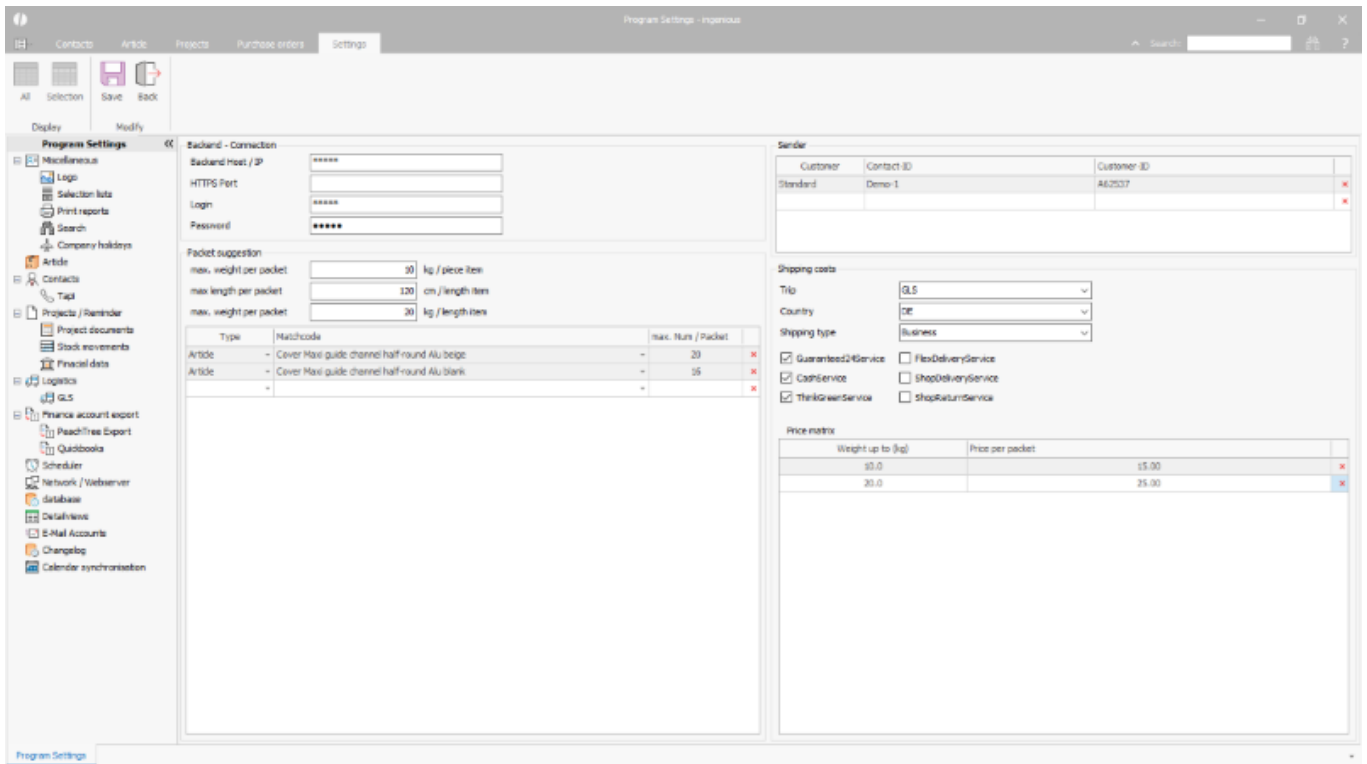
If the module license is missing, the corresponding configurations are not visible.

## 8.6.17 Logistics

Configurations for connecting external delivery partners, such as parcel services, are stored in the logistics system block. The general interface configuration and details on package sizes and weight as well as delivery options for express, etc. are stored.

Different configurations may be required for different logistics partners. Separate interfaces and forms are required, which can be programmed on request.

Example GLS:



In the project documents, the package configuration can be accessed to calculate the number of packages, to select the cheapest delivery options and to determine the shipping costs.

Depending on the logistics partner, it is also possible to track the delivery status.

In the PPS, a separate website can be configured for sending and the transfer and feedback can be (partially) automated.

## 8.6.18 Finance account report

With the help of the finance account report, invoices and credit notes of a time period can be transferred to a book keeping program e.g. Datev. A time costly double recording through the bookkeeper can be avoided.

In the program settings it is determined, on which accounts which revenues are booked. Further, the formatting of the export file is preset.

Finance target format	Selection list	<p>Selection from currently two different end formats. Datev; unified proceeds account - the revenues will be booked on the standard accounts.</p> <p>Datev; differentiated proceeds accounts- The revenues are booked on different accounts (see billing accounts of the items).</p> <p>IBM (df2); unified proceeds account - the revenues will be booked on the standard accounts.</p>
Export type	Selection list	The export can be executed for the completely whole time period or differentiated; documents already exported are not considered twice.
Configure file	Button	Column selection for the export file.
Debitors	Selection list	The debtor export can be done for all contacts of differential only for contacts within the exported projects.
Configure file	Button	Column selection for the debtor export file.
Export file	Simple input fields/ Checklist	The export file is saved with the name "FibuExp+time stamp". If the file shall be always consistent, an own name can be defined here and the respective checkbox activated. If a prefix separator is used in the document numbers, it has to be mentioned.
Configure file	Simple input field / Button	As field separator, the sign expected from the bookkeeping program has to be used. Further

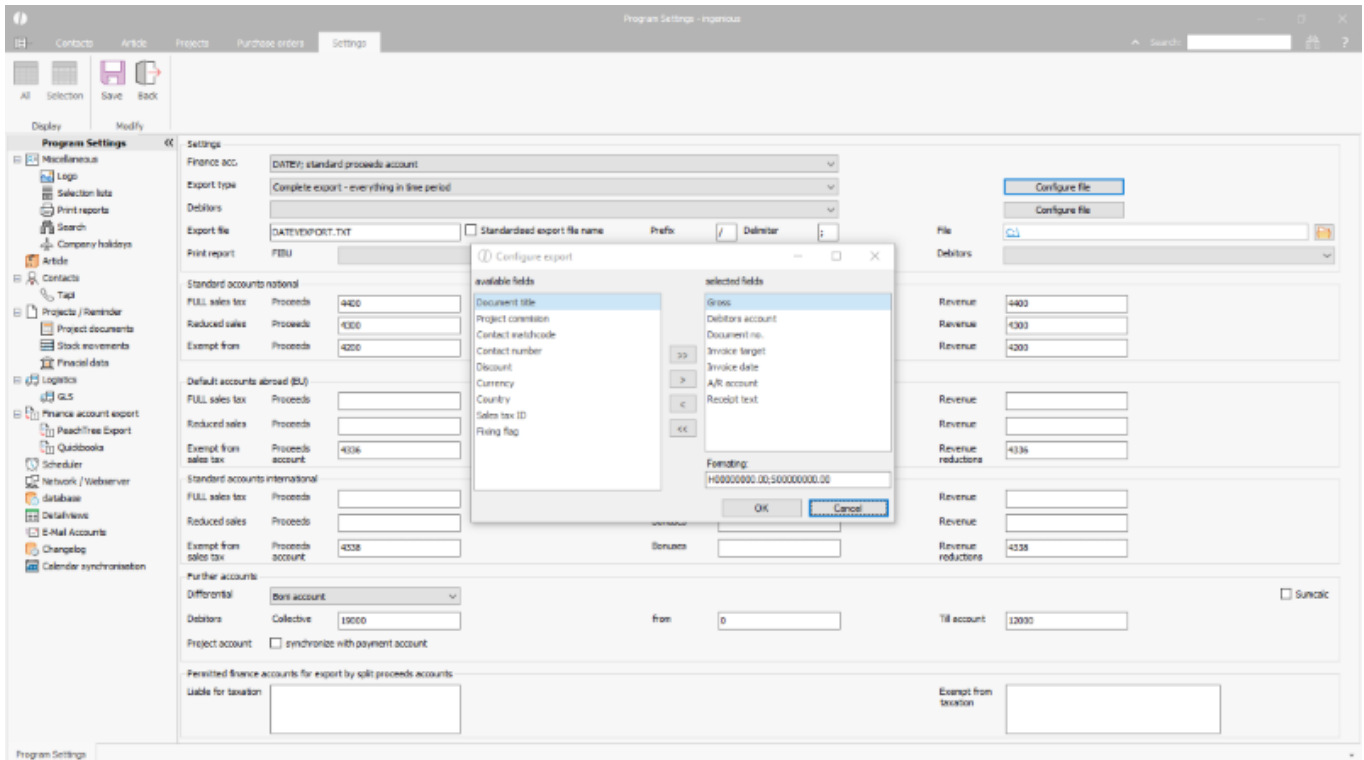
		formatting of the export file can be executed via the "configure file" button.
File depository	Simple input fields / Button	In the input field, the path under which the FIBU export file shall be saved can be inserted. Via the button, the path can be selected with the windows standard dialogs.
Print reports	Selection list	Reports that shall be executed after export.
Standard accounts national	Simple input field	The standard accounts, according to the presettings from the bookkeeping / the tax accountant are to be inserted here, divided in revenue accounts, bonuses accounts and accounts for sales deductions for domestic sales, full and half - tax rate and after tax- free sales separately.
Default accounts abroad (EU)	Simple input fields	The standard accounts, according to the presettings from the bookkeeping / the tax accountant are to be inserted here, divided in revenue accounts, bonuses accounts and accounts for sales deductions for EU sales, full and half - tax rate and after tax- free sales separately.
Standard accounts international	Simple input fields	The standard accounts, according to the presettings from the bookkeeping / the tax accountant are to be inserted here, divided in revenue accounts, bonuses accounts and accounts for sales deductions for international sales, full and half - tax rate and after tax- free sales separately.
Further accounts	Selection list / Checkbox / Simple input fields	Through the gross booking and the separate booking of discounts rounding differences around 1-cent-can occur, which are booked up to choice either on the account for bonuses or a separate account. If no splitting of the discounts is desired, the checkbox "sumcalc" can be checked (booking of the real revenues).
Permitted finance accounts for export by split proceeds account	Simple input fields	During the export to split proceeds accounts, the revenues can be booked on different accounts, e.g. according to the sales positions in the documents (goods, own products...). The definition of an account is executed in the document itself. Which of the individual accounts is considered in the export, has to be inserted in the program settings.

### Configure export file

The export file is created by default in the following structure:

```
+00001813,56;10000;0006;;12.01.2013;4400;Mustermann
+00002866,71;10200;0007;;12.02.2013;4400;Franke
+00001018,64;10500;0008;;12.03.2013;4400;Wagner|
+00000185,64;10000;0009;;12.04.2013;4400;Mustermann
+00000427,97;10000;0001;;23.05.2013;4400;Mustermann
```

If a different format is needed of the bookkeeping program, the structure can be modified via the button "configure file". The available fields can be dragged and dropped into the selection in the desired order. For each value, also the formatting can be adjusted (there are the options of a c# string formatting).

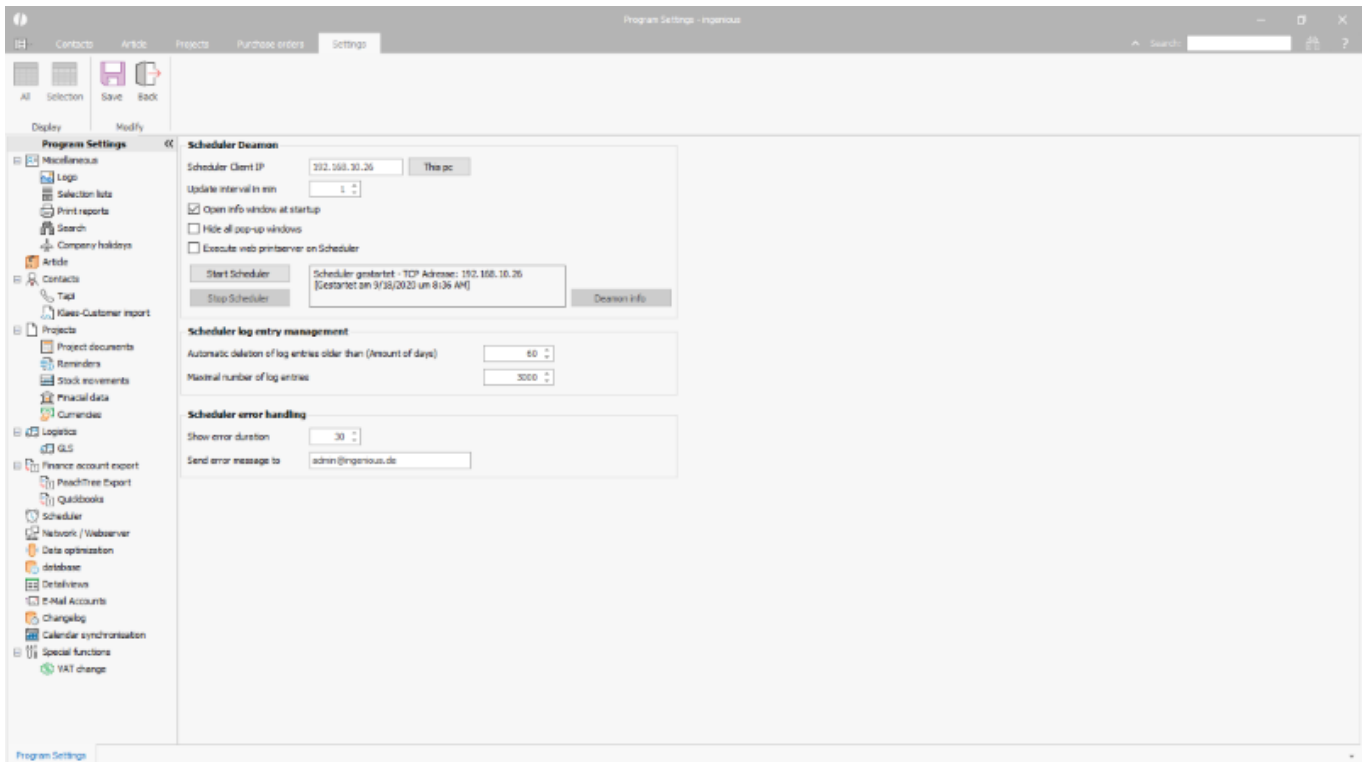


Modified structure and modified formatting:

```
H00001813,56;10000;0006;110213;12012013;4400;Mustermann
H00002866,71;10000;0007;140313;12022013;4400;Mustermann
H00001018,64;10000;0008;110413;12032013;4400;Mustermann
H00000185,64;10000;0009;120513;12042013;4400;Mustermann
H00000427,97;10000;0001;240513;23052013;4400;Mustermann
```

## 8.6.19 Scheduler configuration

Via the scheduler, individual functions of scripts can be executed time controlled. In the program settings it is defined, among other things, which pc hosts the scheduler.



Scheduler client IP	Simple input field / Button	IP address of the PC hosting the scheduler. If the IP address is unknown, it can be determined and inserted via the button "this pc".
Update interval in min (...)	Simple input field	Interval, in which the display of the scheduler shall be updated (in minutes).
Open info window at startup	Checkbox	Determination, if the information window shall be opened when starting the scheduler client. The information window always contains the most recent notice of the scheduler. It can be placed anywhere on the screen as well as outside the ingenious program window.
Hide all pop-up windows	Checkbox	Determination of whether appearing pop-up windows of the program should be hidden on the scheduler client.
Execute web printserver on Scheduler	Checkbox	Configuration of whether the scheduler client should execute the print service for the web applications ingenious WEB, B2B and PPS. Otherwise, the print service must be started on the web server using a separate program.
Start / stop scheduler	Buttons	Via the buttons, the scheduler is stopped and started. Starting the scheduler is only possible from the PC that also hosts it. In the information field next to it, it is logged when the scheduler is started and stopped.
Daemon Info	Button	Shows the information window, if necessary, also on clients that do not host the scheduler.

Automatic deletion of log entries older than (...)	Simple input field	Number of days after which the old log entries of the scheduler shall be deleted.
Maximal number of log entries	Simple input field	Number of log entries that shall be recorded at maximum,
Show error duration	Simple input field	Specification of the duration in minutes for how long an error message from the program should be displayed on the scheduler client before the client is exited in a controlled manner (and restarted using the separate tool <b>Ingenious Restarter (Section 9.2)</b> , if necessary).
Send error message to	Simple input field	Enter an e-mail address to which the message should be sent in the event of an error.

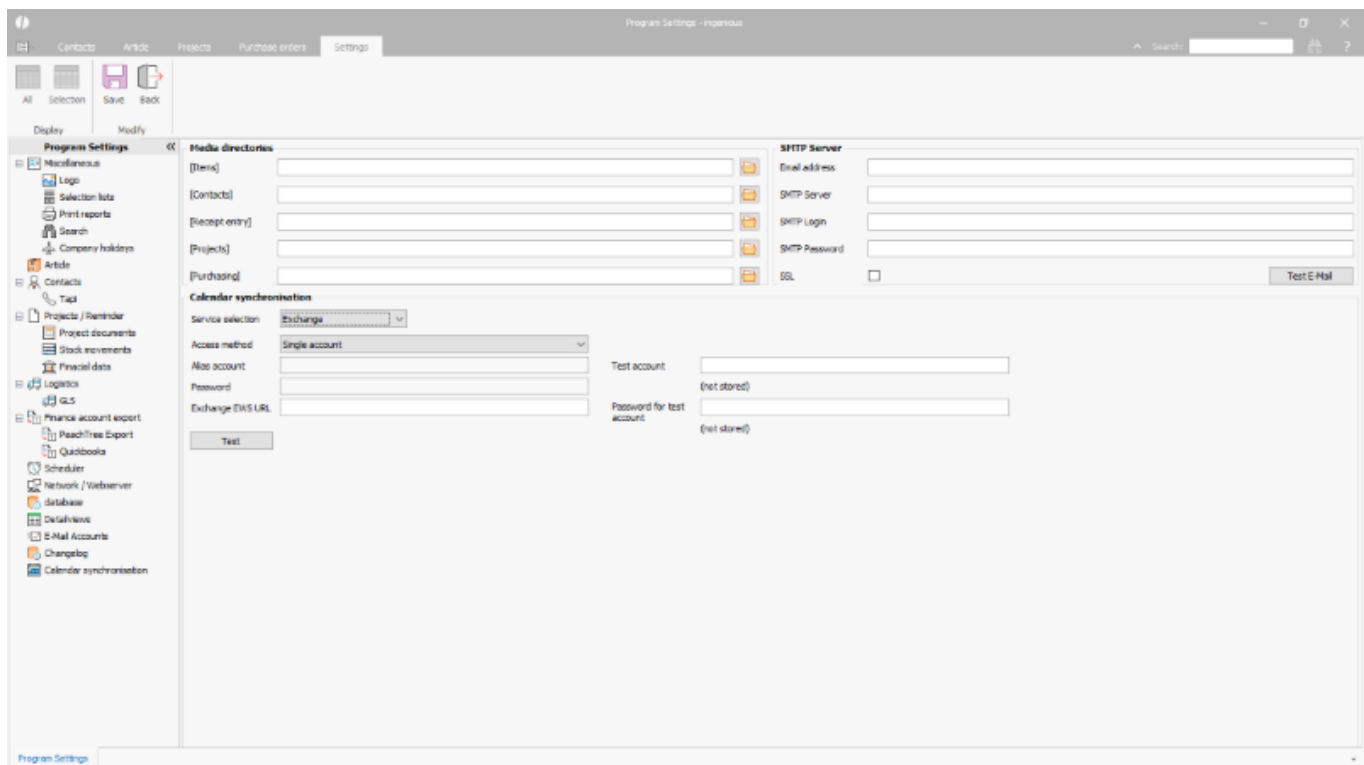
## 8.6.20 Network and WebServer

In the network settings, data for access within the network is recorded.

As such count on the one hand the media directories. In the media directories file attachments and pictures are deposited, in order not to expand the data base unnecessarily. In a local data base, media data can be recorded in a local directory / in the user data. In the networking, the media directories must be accessible from every client. Respectively, a share for the single directories has to be created, and the paths have to be recorded in a form accessible from every client. If the directories are not accessible from a particular client, the user receives a respective error notice at login.

The SMTP data is recorded during the network configuration on the other hand, if the documents shall be sent as an email (without MAPI interface, comp. program settings /projects dunning).

The sender's email address, the SMTP server that hosts them, the SMTP login and the SMTP password have to be recorded. The SSL encryption has to be activated, if appropriate. The necessary data can be asked from the provider.



## Calendar synchronization

Entries from time recording / scheduling can be synchronized with external calendars (e.g. Microsoft Exchange Server). At this point, the corresponding service must be selected and the URL of the Exchange Web Service entered. The type of access must also be determined. In the case of a representative position or a change of identity, the alias service account must be stored with the associated password.

Regardless of the type of access, for each user whose appointments are to be synchronized the user alias must be stored in the **user administration (Section 8.5.2)**. The password is also required if the type of access is to be made using a single account.

Access can be tested using the "Test" button.

### Overview and configuration of the access types

#### Single account

The single account access type is recommended for individual accounts for which synchronization is to be set up. When accessing individual accounts, each user must store their Exchange alias password in the user details. No settings are necessary in the exchange server.

#### Service account representative position

The access type representative position is suitable for the configuration of fewer accounts. The agent account "sends on behalf of". For access via a service account with representative status, the distribution account must be saved with a password.

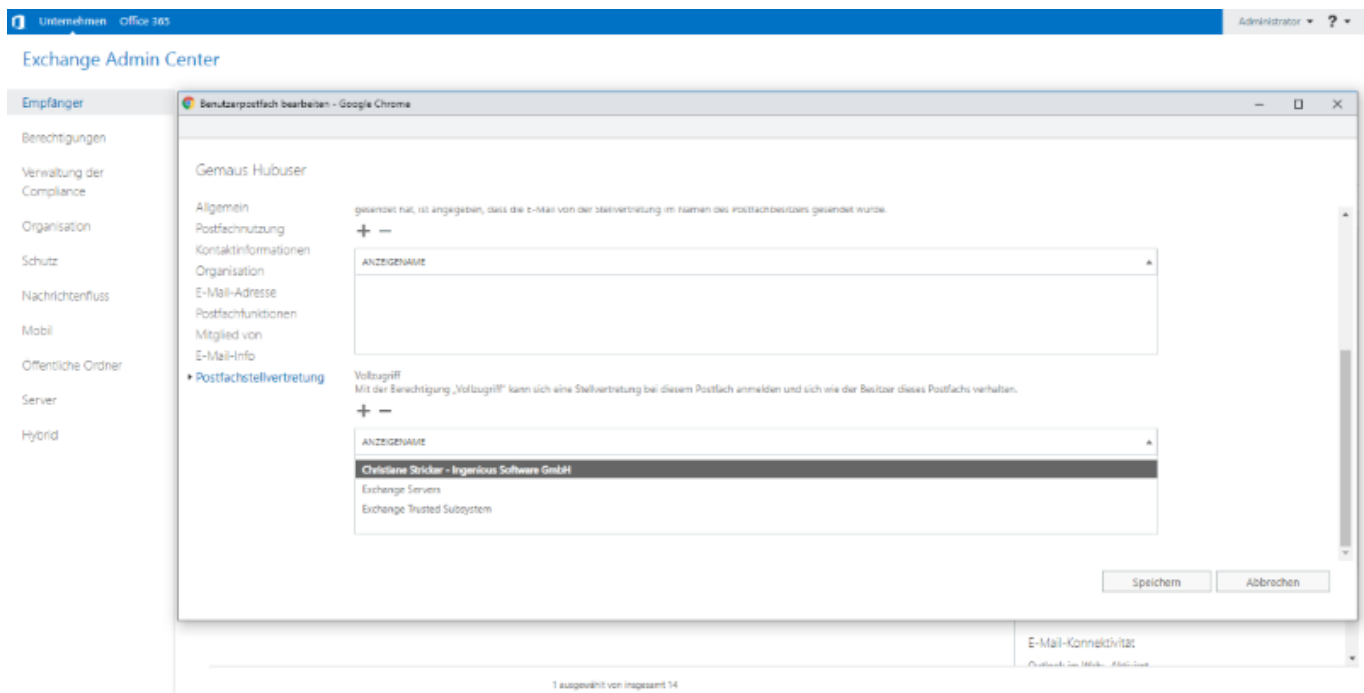


### Exchange rules set up

The representative regulation serves to give one person / service access rights to another person's account. (e.g. as part of a representation)

The representative rule is managed via the Exchange management console, on current Exchange servers specifically via the web portal "Exchange Administrative Center". The registration must be made with an administration account.

After logging on to the portal, double-click on the profile for which the representative rule is to be set up, i.e. the user who should be the representative, from the list of recipients. In the details of the user mailbox, full access must be created for all accounts for whose calendars entries are to be synchronized via the Ingenious calendar synchronization under the item mailbox representative.



### Impersonation

Impersonation is useful if you want to access many or all of the calendars in an Exchange database or if the user should act as the owner rather than "on behalf". For access via a service account with identity change, the distribution account must be stored with a password.

### Exchange impersonation setup

The following elements are required to configure an impersonation:

1. A domain service account that is used to perform the impersonation. For these instructions, the name of the account is "distributor account".
2. A domain distribution group that will later add the accounts for which you want to impersonate
3. An Exchange "write area" with which Exchange can be informed for which domain group the impersonation applies
4. An administration role in Exchange that connects everything.

## Creation of the distribution group

For the sake of clarity, the distribution group is created here in a separate organizational unit.

The following values are required for the system:

1. Name of the new group, here "Test-ewsimpersonateUser"
2. Display name of the group, here also "Test-ewsimpersonateUser"
3. Group type, fixed "Distribution"
4. Name of the organizational unit, here "test distributor"
5. Domain name, e.g. "Company.Org"

To create the group, the "Exchange Management Shell" has to be executed:

### Creation of the group

```
New-Distributiongroup -name "Test-ewsimpersonateUser" -Displayname "Test-ewsimpersonateUser" -Type "Distribution" -Organizationalunit "OU=TestVerteiler,DC= company,DC=org"
```

(Without line break)

The command is used to list the existing distribution groups:

### List distribution groups

```
Get-Distributiongroup
```

The following command can be used to list the details of a group:

### List details of a group

```
Get-Distributiongroup Test-ewsimpersonateUser | fl
```

The appendix "|fl" forces the listing of the properties, without only a general overview would be shown.

## Create writing area / management scope for Exchange

The following values are required for this:

1. Name of the area, here "TestImpersonateScope"
2. Path to domain group from previous step

The following command must also be executed in the "Exchange Management Shell":

### Creation of writing area

```
New-ManagementScope -Name:"TestImpersonateScope" -RecipientRestrictionFilter {MemberOfGroup -eq "CN=Test-ewsimpersonateUser,OU=TestVerteiler,DC= company,DC=org"}
```

(Without line break)

A list of already created writing areas is listed with the command

List writing areas

```
Get-ManagementScope
```

Details of a writing area are given accordingly

List details of writing area

```
Get-ManagementScope TestImpersonateScope | fl
```

The attachment "|fl" forces the detailed display.

## Create administration role in Exchange

The administration roles are created in the Exchange management console, on current Exchange servers via the web portal "Exchange Administrative Center". The registration must be made with an administration account.

After logging in, click on "Permissions" in the list on the left. Possibly, is now to switch to the "Administration roles" list in the upper area:

The screenshot shows the Exchange Admin Center interface. On the left, a navigation pane lists various management areas, with 'Berechtigungen' (Permissions) selected. The main area is titled 'Administratortrollen' (Administrator Roles) and contains a list of roles. 'Compliance Management' is highlighted. To the right, a detailed view for 'Compliance Management' is shown, including a description, a list of assigned roles, and a list of members.

Editing is opened by double-clicking on an entry. New roles are created by clicking on the plus symbol. In both cases, an input mask opens.

The following values must be entered here:

Name: Name of the administration role, here "TestImpersonation"

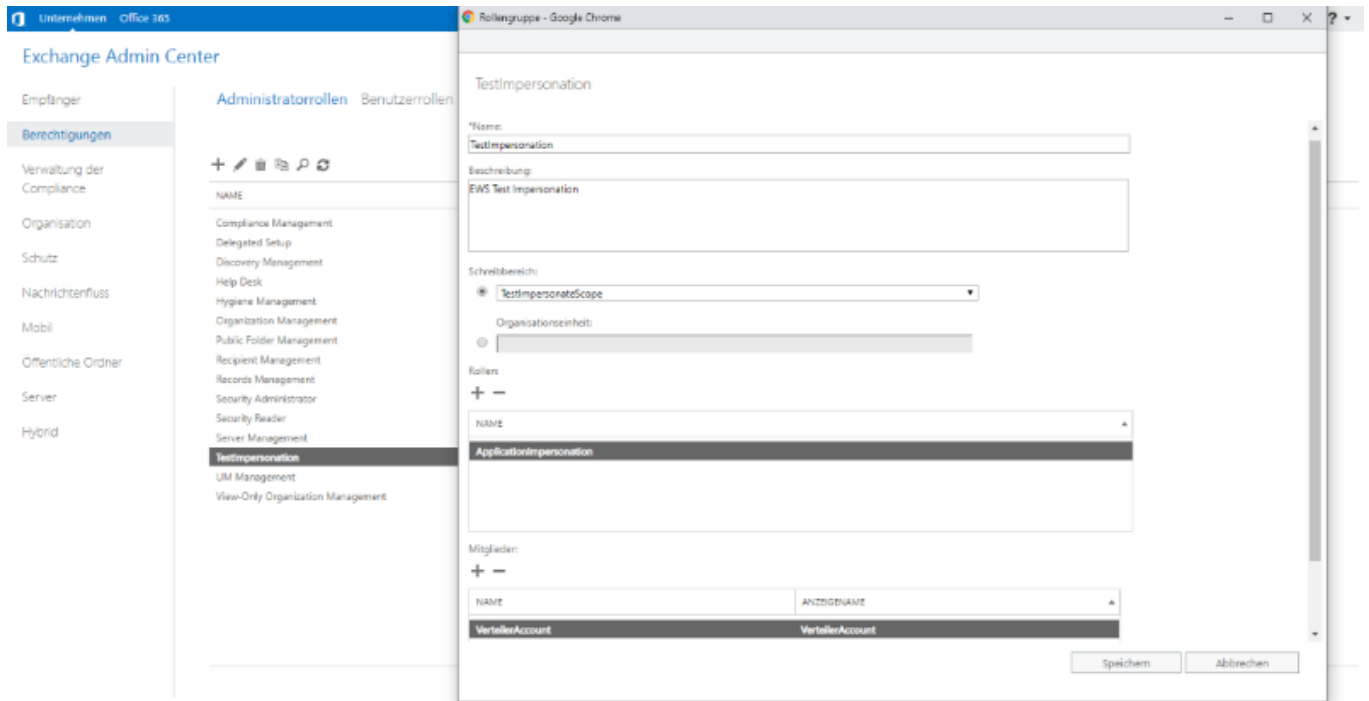
Description: A description of the role

Writing area: Select the upper radio box -> select the management scope from the previous steps from the dropdown box

Roles: This is the list of assigned rights / functions

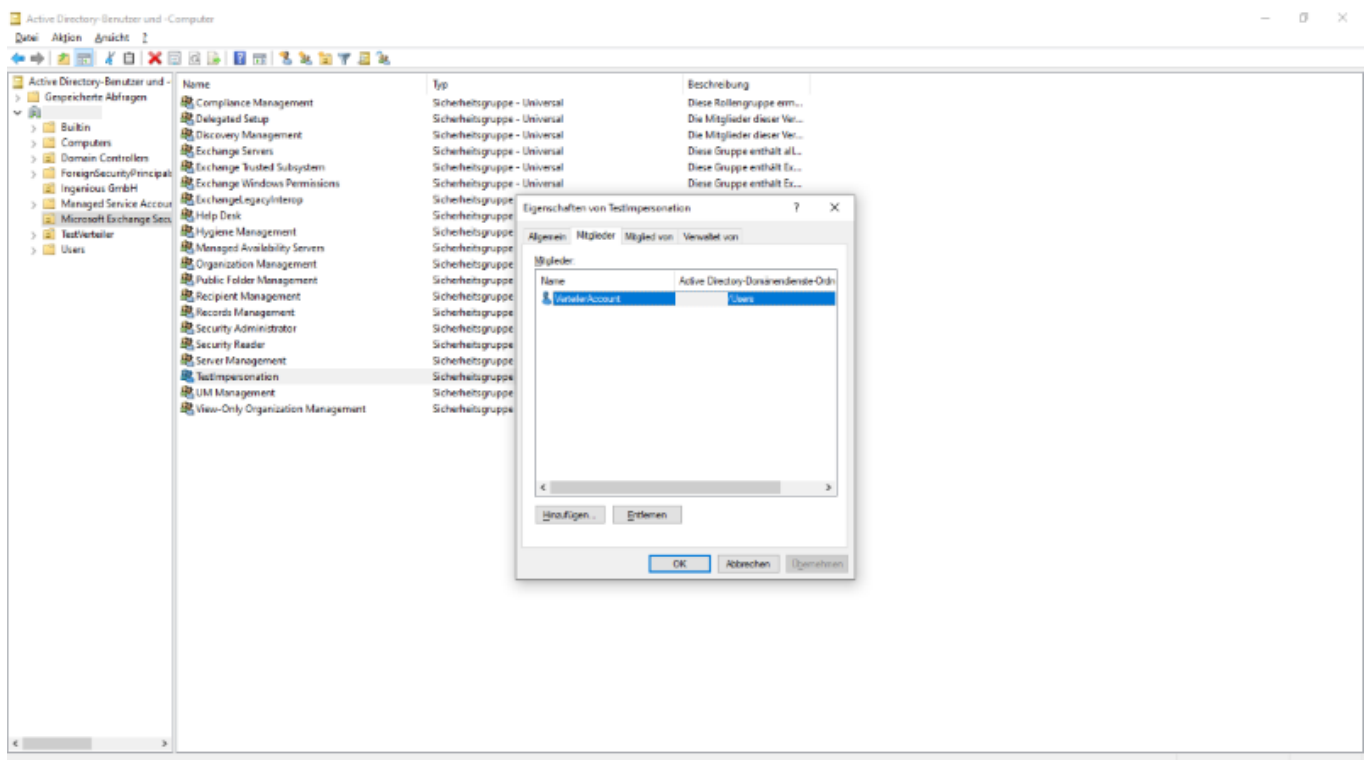
Click on Plus and select "ApplicationImpersonation" from the list of roles.

Members: List of domain accounts that are allowed to impersonate. The list for selecting the user is opened via the plus button.



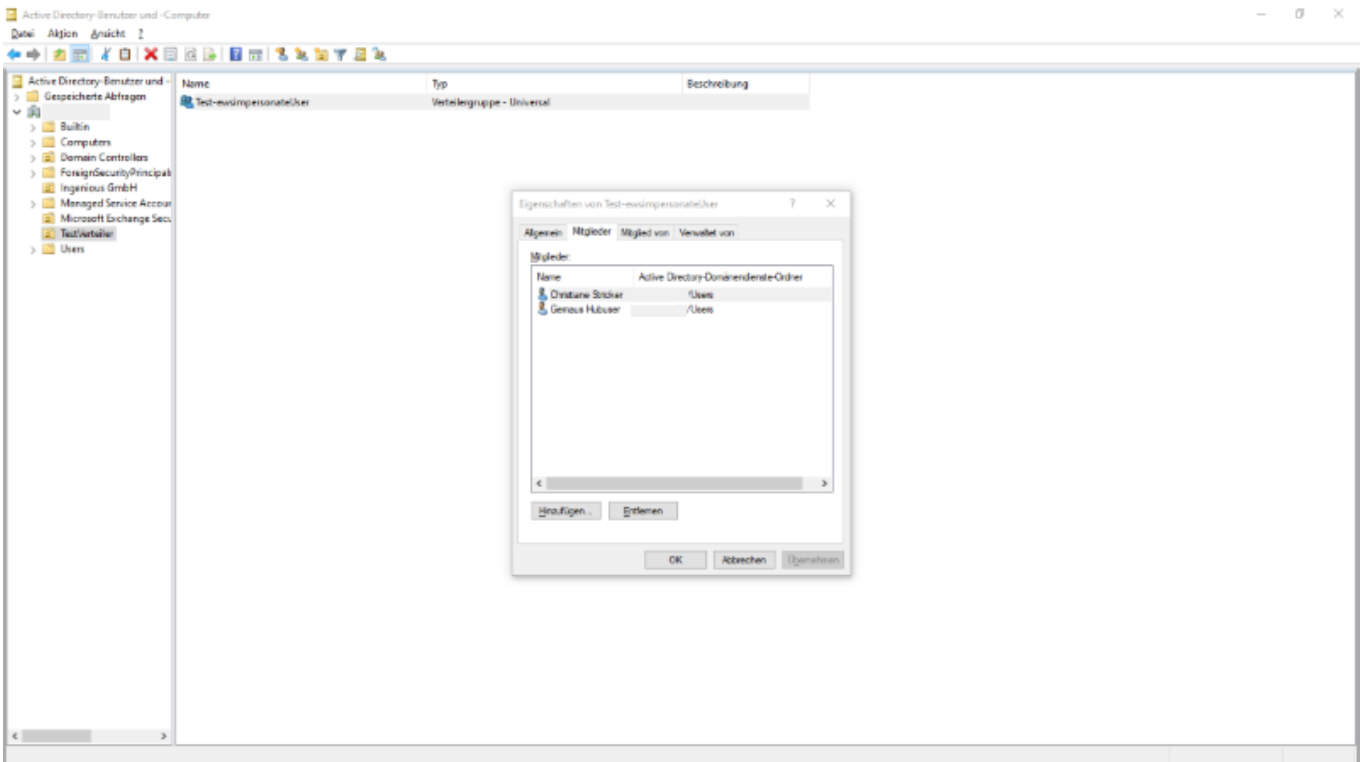
If the administration role was created correctly, there is a corresponding entry in the "AD Users and Computers" list under "Microsoft Exchange Security Groups".

The entry can be edited with a double click. The entry "Distribution Account" should now be visible in the "Members" tab.



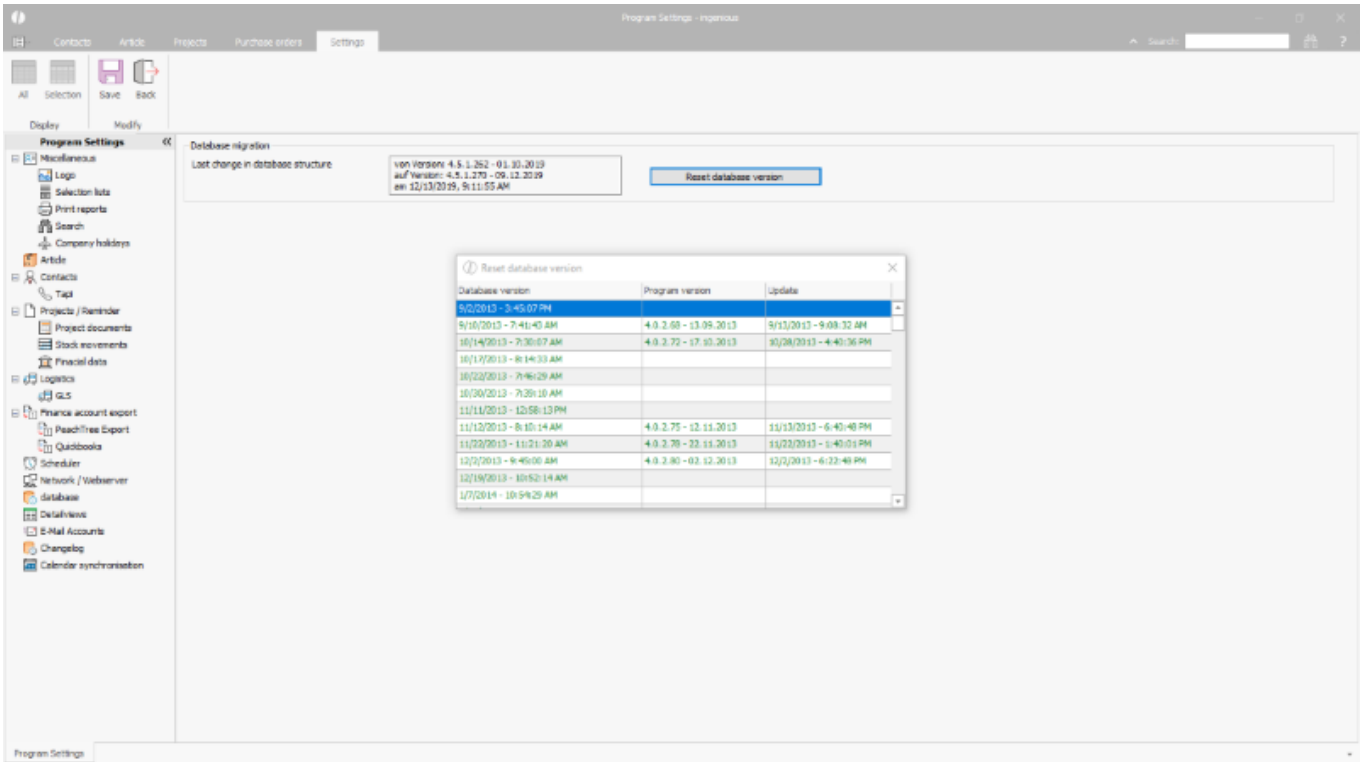
## Assignment of users for whom impersonation is to be allowed

Finally, in the distribution group "Test-ewsimpersonateUser" the list of users for whom the impersonation is to be carried out must be maintained:

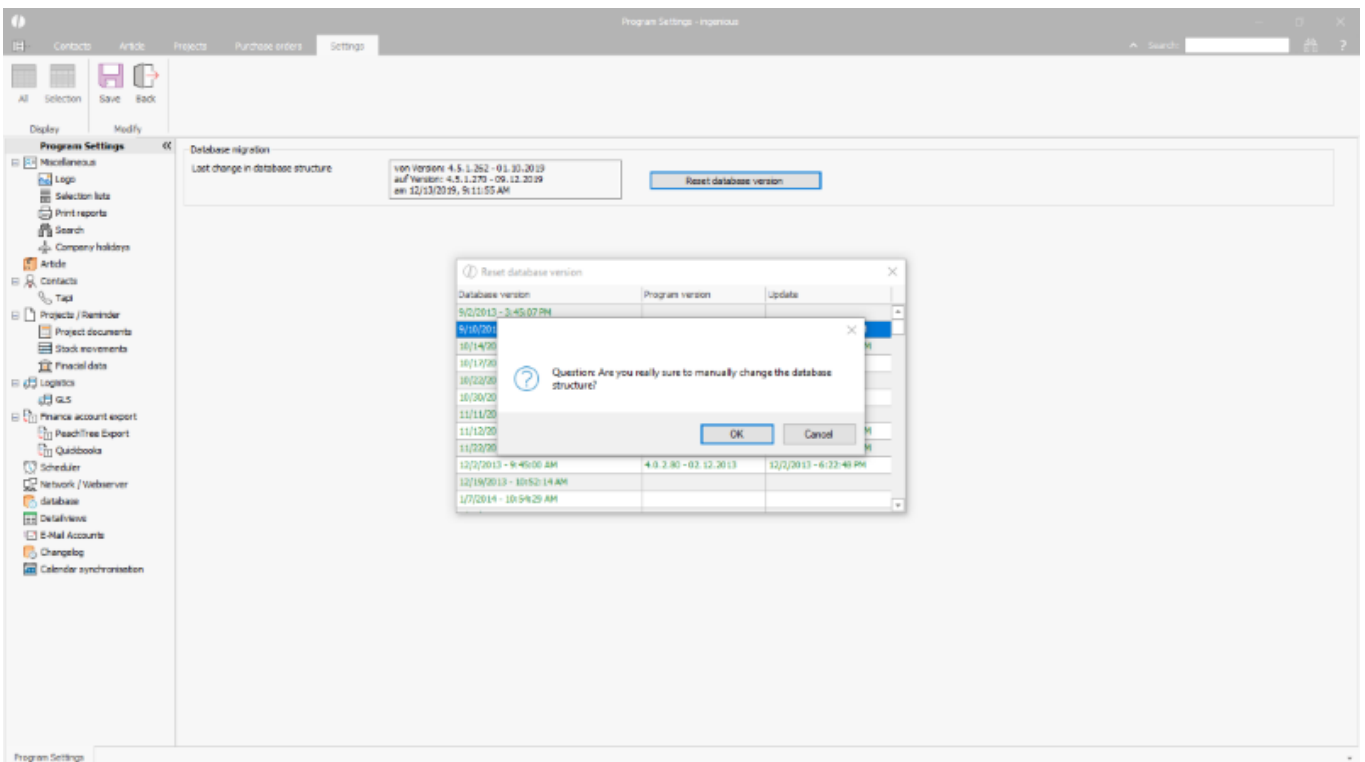


## 8.6.21 Database

The data base administration is available in the local installations (The administration of a data base in the network is ideally executed via the Microsoft SQL Management console). In the data base is shown, when the last version update has been installed. In case of problems with the actual version, a previous version can be selected from a list that can be accessed through the reset data bank version.



Via double-clicking on the respective version the reset is started. After the confirmation of the security query the modification is started.

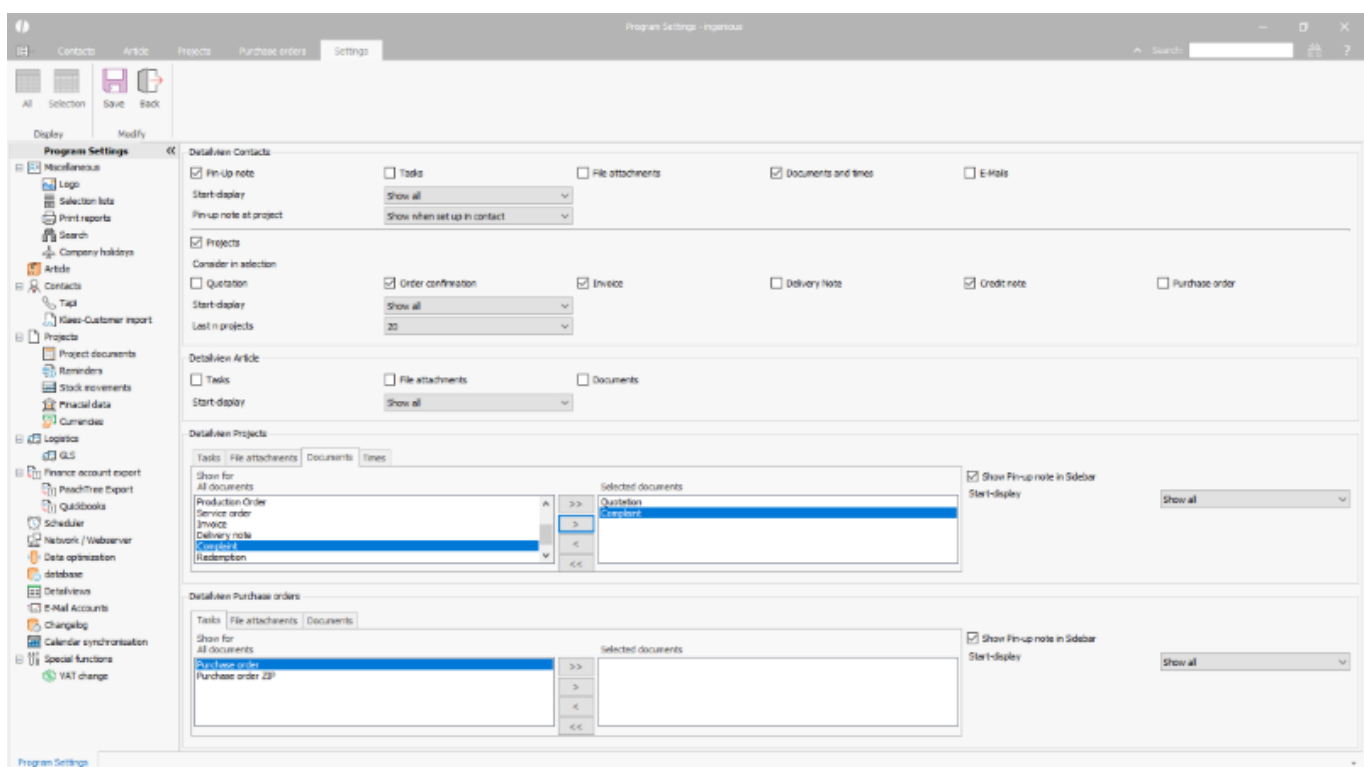


## 8.6.22 Detail views

In the detail views of the main modules, on the respective first pages, additional documents can be displayed next to the miscellaneous data, on order to capture the most important details immediately without having to switch to the subordinated forms.

For the detailed view of projects and orders, it is necessary to define the project documents for which the individual areas are to be displayed

For example, the tasks and documents can be of interest, especially in the offer phase and in the event of complaints, and can be displayed separately for these project documents.



The additional documents such as file attachments and tasks are displayed in the detail views in the lower half. Each area can be collapsed individually, which is how the user can define the size of the display area for the details most important to him.



The screenshot displays the 'Contact Detailview' for 'Doe, John'. The interface is organized into several sections:

- Top Bar:** Shows the user 'Doe, John - ingenious' and a search bar.
- Toolbar:** Contains icons for 'New', 'Copy', 'Save', 'Back', 'Changelog', 'Add', 'Delete', 'Create Task', and 'Show from projects'.
- Contact Detailview:**
  - Contact data:** Matchcode: Doe, John; Customer: 10000; Contacttyp: [Icons].
  - Miscellaneous:** Company / Name: John Doe; Street: 123 Anywhere Street; Country, State, ZIP, City, District, and Birthday fields.
  - Communication:** Phone: +00 123 456 987; Fax; Email; WWW: http://ingenious.net.
  - Documents and lines:** A table listing documents with columns for Type, Topic, Category, Created, created by, Modified, and changed by.
 

Type	Topic	Category	Created	created by	Modified	changed by
Linked sales offer			12/19/2019 11:22:46 AM	admin	12/19/2019 11:22:46 AM	admin
Letter	December 2019		12/18/2019 9:29:31 AM	admin	12/18/2019 9:29:31 AM	admin
- Customer Status:** Credit hold: Severely Past Due Invoices; Contact Status: 30, Qualified; Sales PR: \$50,120.58; Open Balances: \$59,161.24 [X].
- Classification:** Group: Dealer; Representative: Ronald Rich; Next appointment.
- Projects:** A table listing project documents with columns for Project docu..., DocNo., Date, Project, Gro..., Q..., F..., R1, R2, R3.
 

Project docu...	DocNo.	Date	Project	Gro...	Q...	F...	R1	R2	R3
Closing invoice	IV201912/00...	12/20		10.	0.				
Invoice	IV201912/00...	12/22	Demo	566.	5.				
Invoice	IV201912/00...	12/22	Demo	794.	7.				
Orderconfir...	O201912/0068	12/22	Demo	262.	2.				
Invoice	IV201902/00...	2/21	RollShutter	269.	0.				
Invoice	IV201902/00...	2/21	RollShutter	2.7.	2.				
Invoice	IV201912/00...	9/5/2		7.7.	7.				
Invoice	IV201912/00...	11/30		5.6.	5.				
Invoice	IV201912/00...	12/39		15.	1.				
Part payment	IV201912/00...	12/20		10.	1.				
Orderconfir...	O201912/0070	12/20	Purchase	520.	5.				
Orderconfir...	O201912/0069	12/20	Demo	794.	7.				
Invoice	IV201509/00...	9/6/2	Demo3	6.7.	0.				
Orderconfir...	O201906/0056	6/13		9.6.	9.				

If single additional areas are configured for the detail view, the corresponding additional functions are available via the toolbar. Through double-clicking an entry, e.g. a file attachment, the display directly switches to the display of the detail view.

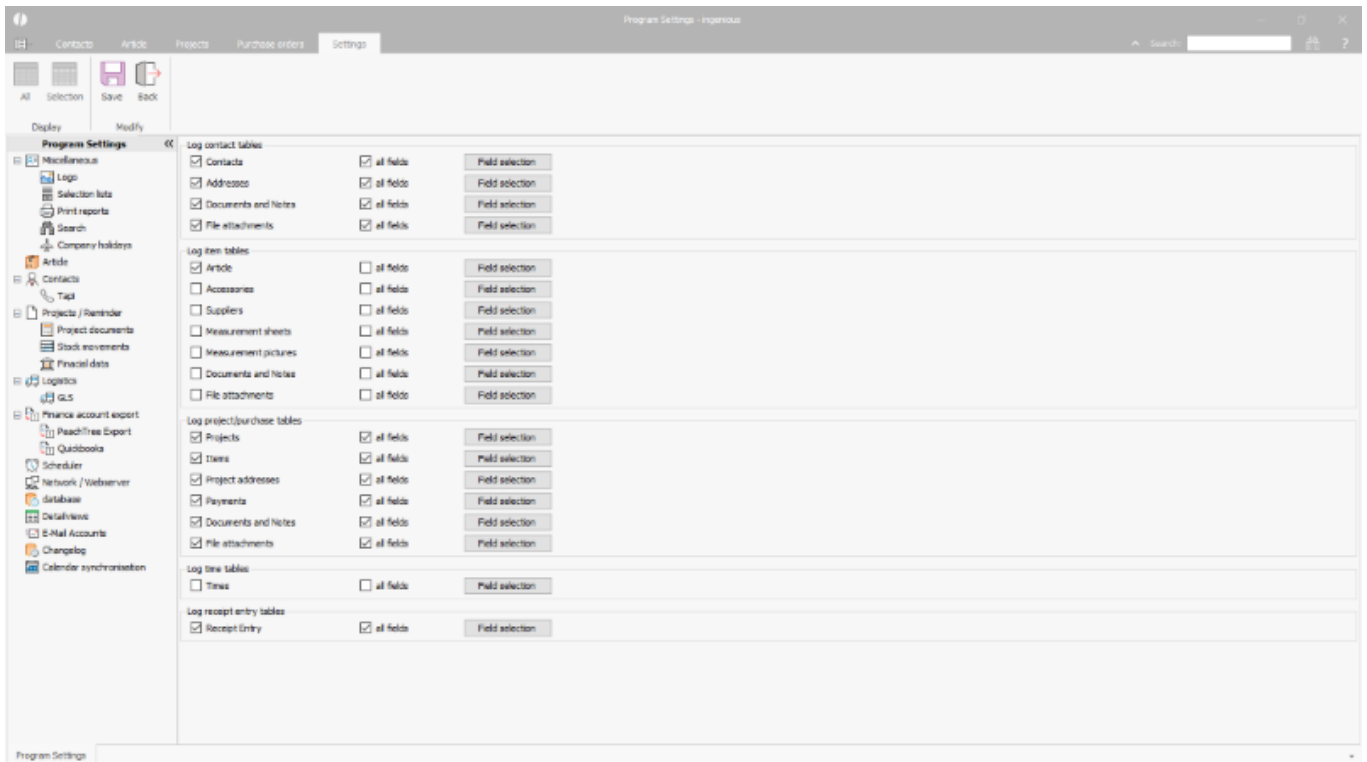
## 8.6.23 Changelog


With the changelog all changes in the tables respectively fields of the main modules can be recorded depending on the configuration in the program settings. This documentation can be used for the verification of a good and workmanlike accounting or also to detect mistakenly deleted records.

The changelog is secured by user right. The configuration should only be permitted to an administrator and also not everyone should be able to view the changelog.

For configuration either all tables can be activated or single important ones.

Single fields will be chosen with drag&drop from the separate window.



The changelog records all data accordingly to the configuration that was changed after the installation of the annual update 2018 -> 2019 and after the activation of the changelog. It can be opened in the corresponding modules by clicking the button . Opening it from the list view, all records from that table are listed. Via the search the list can be filtered by matchcode and with the date fields the sample space can additionally be reduced. The matchcode is always the most distinct attribute of a record depending from the table, e.g. the contact matchcode for contacts, the project number for projects and the processing number for incoming receipts.

The list can be ordered by each column. To display the changes of one single record the changelog can be opened from its detailview.

Table	Matchcode	Field	old value	new value	Info	Timestamp	Login
Contact	Doe, John	sepa_recipient_name		John Doe	ContactDetail Save	12/22/2019 - 11:17:14	admin
Contact	Doe, John	sepa_debit_reference			ContactDetail Save	12/22/2019 - 11:17:14	admin
Contact	Doe, John	sepa_debit_reference			ContactDetail Save	12/22/2019 - 11:17:14	admin
Contact	Doe, John	sepa_debit_reference			ContactDetail Save	12/22/2019 - 11:17:14	admin
Contact	Doe, John	sepa_debit_reference			ContactDetail Save	12/22/2019 - 11:17:14	admin
Contact	Doe, John	mandate_date		12/01/2019 12:00:00 AM	ContactDetail Save	12/22/2019 - 11:14:19	admin
Contact	Doe, John	mandate_reference		03024	ContactDetail Save	12/22/2019 - 11:14:19	admin
Contact	Doe, John	bic		WELADEDXXX	ContactDetail Save	12/22/2019 - 11:14:19	admin
Contact	Doe, John	iban		DE3186010010123456789	ContactDetail Save	12/22/2019 - 11:14:19	admin
Contact	Doe, John	bank		St u W Spk Leobsg	ContactDetail Save	12/22/2019 - 11:14:19	admin
Contact	Doe, John	method_of_payment_id	d83b0314-03ac-40fe-85ff-...	8f5d45e-5369-41f3-9697-...	ContactDetail Save	12/22/2019 - 11:14:18	admin
Contact_document	Parler, Paul - Request for partial delivery				ProjectDetail Save	12/20/2019 - 10:05:07	admin
Contact_document	Doe, John - Request for approval				ProjectDetail Save	12/20/2019 - 10:52:40	admin
Contact_document	Doe, John - Request for approval				ProjectDetail Save	12/20/2019 - 10:52:40	admin
Contact_document	Doe, John - Catalogue				ProjectDetail Save	12/20/2019 - 10:49:37	admin
Contact_document	Doe, John - Request for approval				ProjectDetail Save	12/20/2019 - 10:49:03	admin
Contact	>>Doe, John				ContactDetail Delete	12/19/2019 - 11:41:48	admin
Contact	>>Doe, John				ContactDetail Delete	12/19/2019 - 11:39:55	admin
File_attachment	Doe, John - 1.pdf				ContactDetail Save	12/19/2019 - 11:37:20	admin
File_attachment	Doe, John - Demo.xls				ContactDetail Save	12/19/2019 - 11:37:20	admin
Contact_document	Doe, John - Limited sales offer				ContactDetail Save	12/19/2019 - 11:37:20	admin
Contact_document	Doe, John - Letter October 2015				ContactDetail Save	12/18/2019 - 9:31:19	admin
Contact_document	Doe, John - Limited sales offer				ContactDetail Save	12/18/2019 - 9:31:19	admin

Table	Matchcode	Field	old value	new value	Info	Timestamp	Login
Project_item	Quotation Q2019120036 - 001 Simple curtain	format	PopP	PopHabc	ProjectDetail Save	12/22/2019 - 11:56:46	admin
Project	Quotation Q2019120036	rf_document	Byte[3462]	Byte[3690]	ProjectDetail Save	12/22/2019 - 11:56:46	admin
Project	Quoting Invoice I2019120017	rf_document	Byte[3964]	Byte[5000]	ProjectDetail Save	12/22/2019 - 11:55:21	admin
Project	Invoice I2019120019	method_of_payment_id	d83b0314-03ac-40fe-85ff-...	8f5d45e-5369-41f3-9697-...	ProjectDetail Save	12/22/2019 - 11:29:21	admin
Project	Invoice I2019120019	price_filing_id		12/25/2019 12:00:00 AM	ProjectDetail Save	12/22/2019 - 11:29:21	admin
Project_item	Invoice I2019120019 - 003 Simple curtain				ProjectDetail Save	12/22/2019 - 11:29:11	admin
Project	Invoice I2019120019	let_price_in_euro	794.96	936	ProjectDetail Save	12/22/2019 - 11:29:11	admin
Project_item	Invoice I2019120019 - 002 Simple curtain				ProjectDetail Save	12/22/2019 - 11:29:11	admin
Project_item	Invoice I2019120019 - 002 Simple curtain	number	034	032	ProjectDetail Save	12/22/2019 - 11:29:11	admin
Project	Invoice I2019120019	open_payments	794.96	936	ProjectDetail Save	12/22/2019 - 11:29:11	admin
Project	Invoice I2019120019	rf_document	Byte[3246]	Byte[3433]	ProjectDetail Save	12/22/2019 - 11:29:11	admin
Project	Invoice I2019120019	b2b_sales_price_gross	413.55	67.2	ProjectDetail Save	12/22/2019 - 11:29:11	admin
Project	Invoice I2019120019	gross_price_euro	794.96	936	ProjectDetail Save	12/22/2019 - 11:29:11	admin
Project	Invoice I2019120019	b2b_sales_price_net	413.55	67.2	ProjectDetail Save	12/22/2019 - 11:29:11	admin
Project	Invoice I2019120019	net_price_in_euro	794.96	936	ProjectDetail Save	12/22/2019 - 11:29:11	admin
Project	Invoice I2019120019				Convert	12/22/2019 - 11:28:40	admin
Project	Invoice I2019120018	price_filing_id		12/25/2019 12:00:00 AM	ProjectDetail Save	12/22/2019 - 11:18:24	admin
Project	Invoice I2019120018	rf_document	Byte[3246]	Byte[3228]	ProjectDetail Save	12/22/2019 - 11:18:24	admin
Project	Invoice I2019120018	method_of_payment_id	d83b0314-03ac-40fe-85ff-...	8f5d45e-5369-41f3-9697-...	ProjectDetail Save	12/22/2019 - 11:18:24	admin
Project	Invoice I2019120018	rf_document	Byte[3438]	Byte[3248]	ProjectDetail Save	12/22/2019 - 11:18:12	admin
Project	Invoice I2019120018				Convert	12/22/2019 - 11:17:53	admin
Project	Orderconfirmation O2019120066	rf_document	Byte[3972]	Byte[3966]	ProjectDetail Save	12/22/2019 - 12:36:46	admin
Project	Orderconfirmation O2019120066	rf_document	Byte[3972]	Byte[3972]	ProjectDetail Save	12/22/2019 - 12:36:32	admin
Project	Orderconfirmation O2019120066	printed_on	12/20/2019 12:00:00 AM	12/20/2019 12:00:00 AM	ProjectDetail Save	12/22/2019 - 12:36:32	admin

It's recommended to document the configuration of the changelog as well as each change on it with timestamp. This applies to other program configurations, too, especially for user rights, project document counters, individual scripts etc. Together with the work instructions for the employees this gives an auditable process documentation.

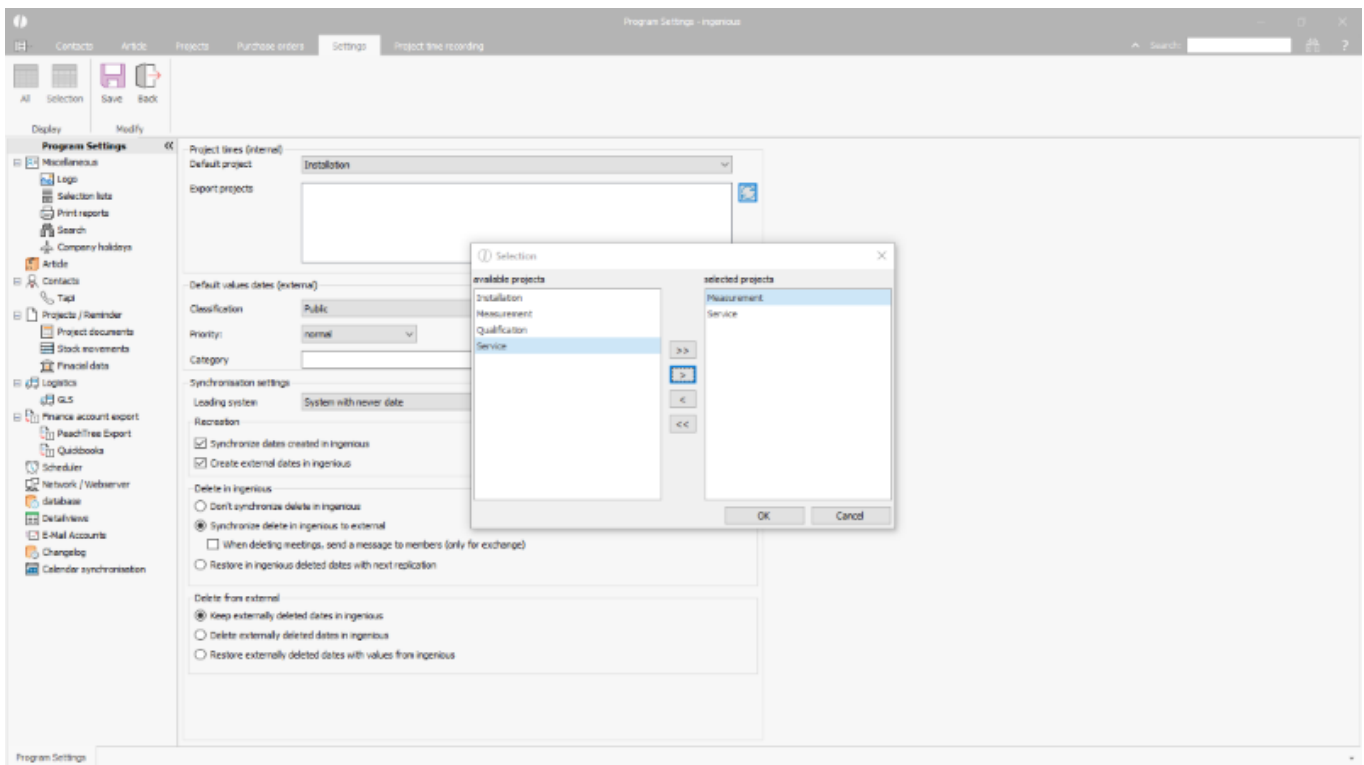
If data is changed in another way than the direct entry within the program, e.g. by scripts, those changes are not inherently recorded. Several methods are available with that also these changes can be logged.

## 8.6.24 Calendar synchronization


The calendar synchronization allows the dates from the ingenious time recording to be transferred to external systems such as the Microsoft Exchange Server and vice versa. This allows users to view their ingenious times in Outlook and, depending on the configuration, also on the go. This makes it easy to plan appointments in the office and transmit them to the responsible employees / fitters.

The basic configuration of communication with the server takes place under **Network and WebServer (Section 8.6.20)**.

Settings made in the "Calendar synchronization" tab are: which appointments should be synchronized, how they should be displayed externally, whether external appointments should also appear in ingenious and which is the leading system.



The settings include:

Standard commission	Selection list	Selection to which commission new entries in ingenious are assigned by default. If dates are imported from outside, they are assigned to the standard commission.
Commissions to be exported	List + Button	Selection of the commissions to be exported. Time entries assigned to other commissions are not transferred to the external system. The selection of the possible commissions takes place via a separate dialog, which can be opened via the button 

Classification	Selection list	Definition of how appointments from ingenious should be classified in the external system - public, private or confidential. This determines the marking of the appointment in the mail client and possible access by third parties.	
Priority	Selection list	Marking the priority of an appointment from ingenious in the mail client as high, normal or low.	
Category	text field	Enter a category of the mail client to which the appointments from ingenious should be assigned. Can remain empty.	
Leading system	Selection list	Selection of which system should be the leading one, i.e. which system determines the timelines of the data and overwrites any changes to the other system	
		Ingenious	All changes to the appointment in ingenious are transferred externally, external changes are rejected, the content from ingenious is restored in the external system.
		External	All changes to the appointments in the external system are transferred to ingenious, changes in ingenious are discarded, the content from the external system is restored in ingenious.
		System with a newer date	All recent changes within a synchronization interval are updated in both systems. The system in which the most recent change was made determines the details of the appointment.
Synchronize appointments created in ingenious	Checkbox	Determining whether appointments from ingenious should be transferred to the external system.	
Create external appointments in ingenious	Checkbox	Determining whether appointments from the external system should be created in ingenious.	
Delete in ingenious	Radio buttons	Configuration of what should happen to the appointments in ingenious if they have been deleted in the external system:	
		Do not sync delete in ingenious	If an appointment is deleted in ingenious, it remains in the external system.
		Synchronize deletion in ingenious to external	If an appointment is deleted in ingenious, it is also removed from the external system. In addition, it can be determined whether a message should be sent to any participants in Exchange.
		Restore appointments deleted in ingenious at the next replication	If an appointment is deleted in ingenious, it will be restored with the data from the external system during the next synchronization.
External	Radio	Configuration of what should happen to the appointments in ingenious if they have	

deletion	buttons	been deleted in the external system:	
		Keep externally deleted appointments in ingenious	If appointments are deleted in the external system, they remain in ingenious
		Delete externally deleted appointments in ingenious	If appointments are deleted in the external system, they are also removed from ingenious
		Restore externally deleted appointments with values from ingenious	Externally deleted appointments remain in ingenious and are restored in the external system with the details from ingenious.

All appointments that correspond to the configuration and that are a maximum of 100 days back and a maximum of 100 days in the future are always taken into account.

## Synchronization Implementation

Depending of the size of the company and the number of appointments to be synchronized, the synchronization can be started manually or timed.

### Manual start of synchronization

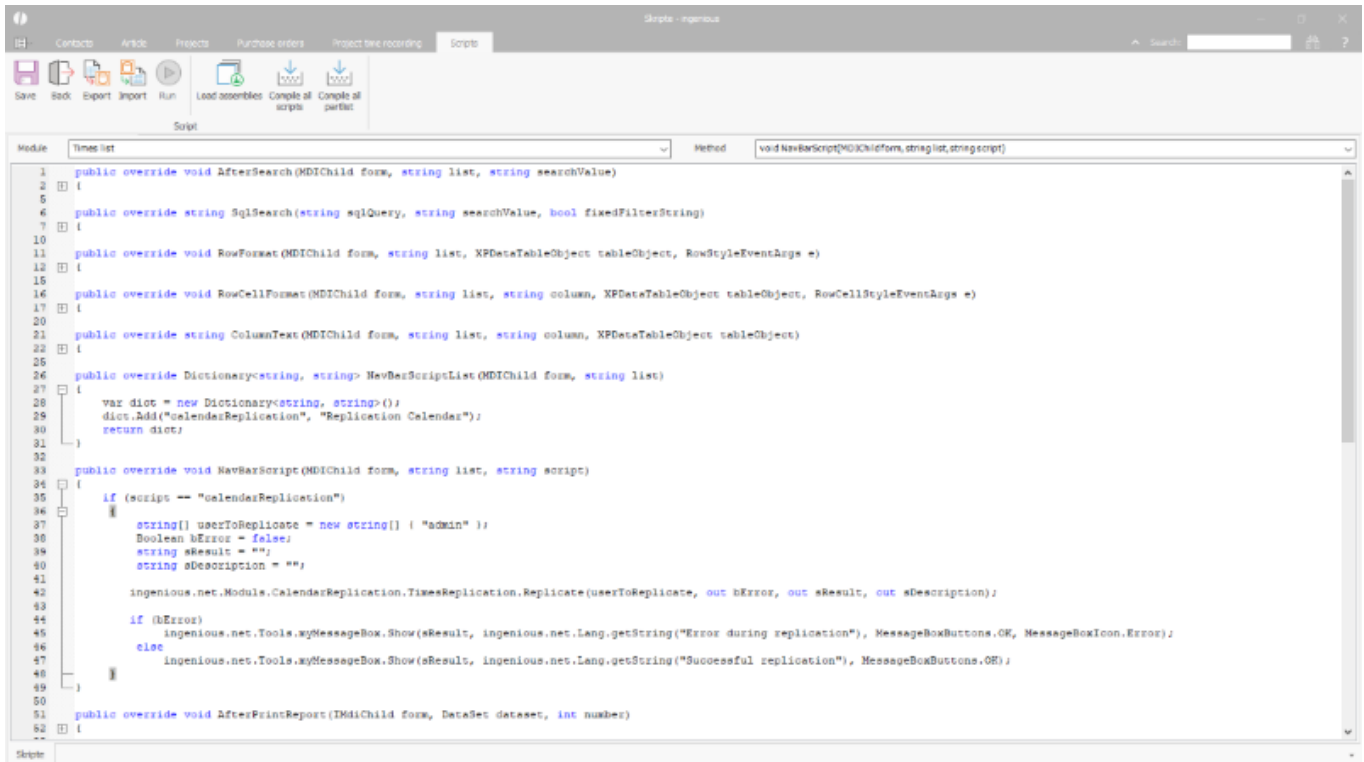
For manual start, the following script must be created, for example, for execution in the times list.

Within public override Dictionary

```
var dict = new Dictionary<string, string>();
dict.Add("calendarReplication", "Replication Calendar");
return dict;
```

Within public override void NavBarScript

```
if (script == "calendarReplication")
{
    string[] userToReplicate = new string[] { "admin" };
    Boolean bError = false;
    string sResult = "";
    string sDescription = "";
    ingenious.net.Moduls.CalendarReplication.TimesReplication.Replicate(userToReplicate, out bError, out sResult, out sDescription);
    if (bError)
        ingenious.net.Tools.myMessageBox.Show(sResult, ingenious.net.Lang.getString("Error during replication"), MessageBoxButtons.OK, MessageBoxIcon.Error);
    else
        ingenious.net.Tools.myMessageBox.Show(sResult, ingenious.net.Lang.getString("Successful replication"), MessageBoxButtons.OK);
}
```



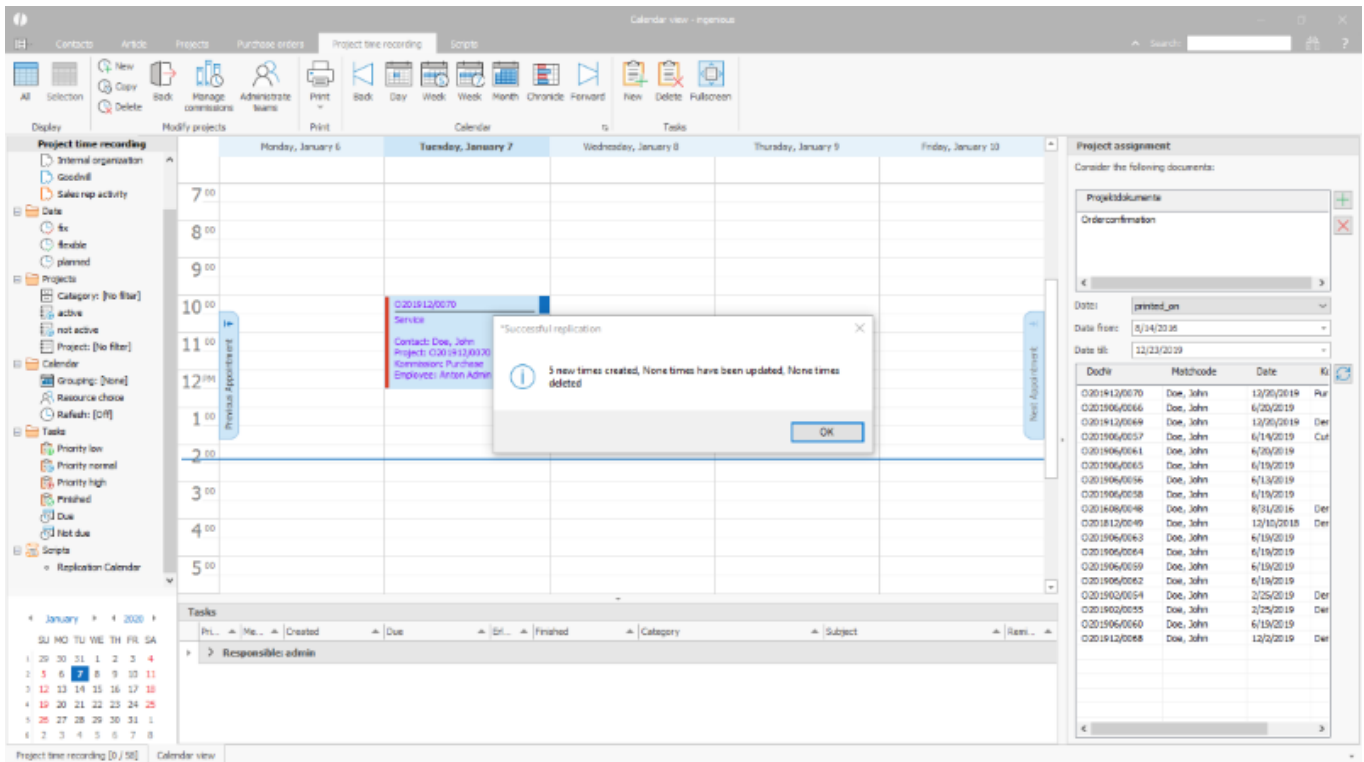
```
1 public override void AfterSearch(MDIChild form, string list, string searchValue)
2 {
3 }
4
5 public override string SqlSearch(string sqlQuery, string searchValue, bool fixedFiltersString)
6 {
7 }
8
9
10 public override void RowFormat(MDIChild form, string list, XPDataTableObject tableObject, RowStyleEventArgs e)
11 {
12 }
13
14
15 public override void RowCellFormat(MDIChild form, string list, string column, XPDataTableObject tableObject, RowCellStyleEventArgs e)
16 {
17 }
18
19
20 public override string ColumnText(MDIChild form, string list, string column, XPDataTableObject tableObject)
21 {
22 }
23
24
25 public override Dictionary<string, string> NavBarScriptList(MDIChild form, string list)
26 {
27     var dict = new Dictionary<string, string>();
28     dict.Add("CalendarReplication", "Replication Calendar");
29     return dict;
30 }
31
32
33 public override void NavBarScript(MDIChild form, string list, string script)
34 {
35     if (script == "calendarReplication")
36     {
37         string[] userToReplicate = new string[] { "admin" };
38         Boolean bError = false;
39         string sResult = "";
40         string sDescription = "";
41
42         ingenious.net.Modules.CalendarReplication.TimesReplication.Replicate(userToReplicate, out bError, out sResult, out sDescription);
43
44         if (!bError)
45             ingenious.net.Tools.MyMessageBox.Show(sResult, ingenious.net.Lang.GetString("Error during replication"), MessageBoxButtons.OK, MessageBoxIcon.Error);
46         else
47             ingenious.net.Tools.MyMessageBox.Show(sResult, ingenious.net.Lang.GetString("Successful replication"), MessageBoxButtons.OK);
48     }
49 }
50
51 public override void AfterPrintReport(MDIChild form, DataSet dataset, int number)
52 {
53 }
```

If the calendars of several users are to be synchronized, the logins of the users must be listed separately with a semicolon:

#### Aufzählung der Benutzer

```
string[] userToReplicate = new string[] {"admin", "admin2"};
```

The synchronization is started via the script entry in the project times list. A notification of success or errors is issued after completion.



## Scheduled synchronization execution

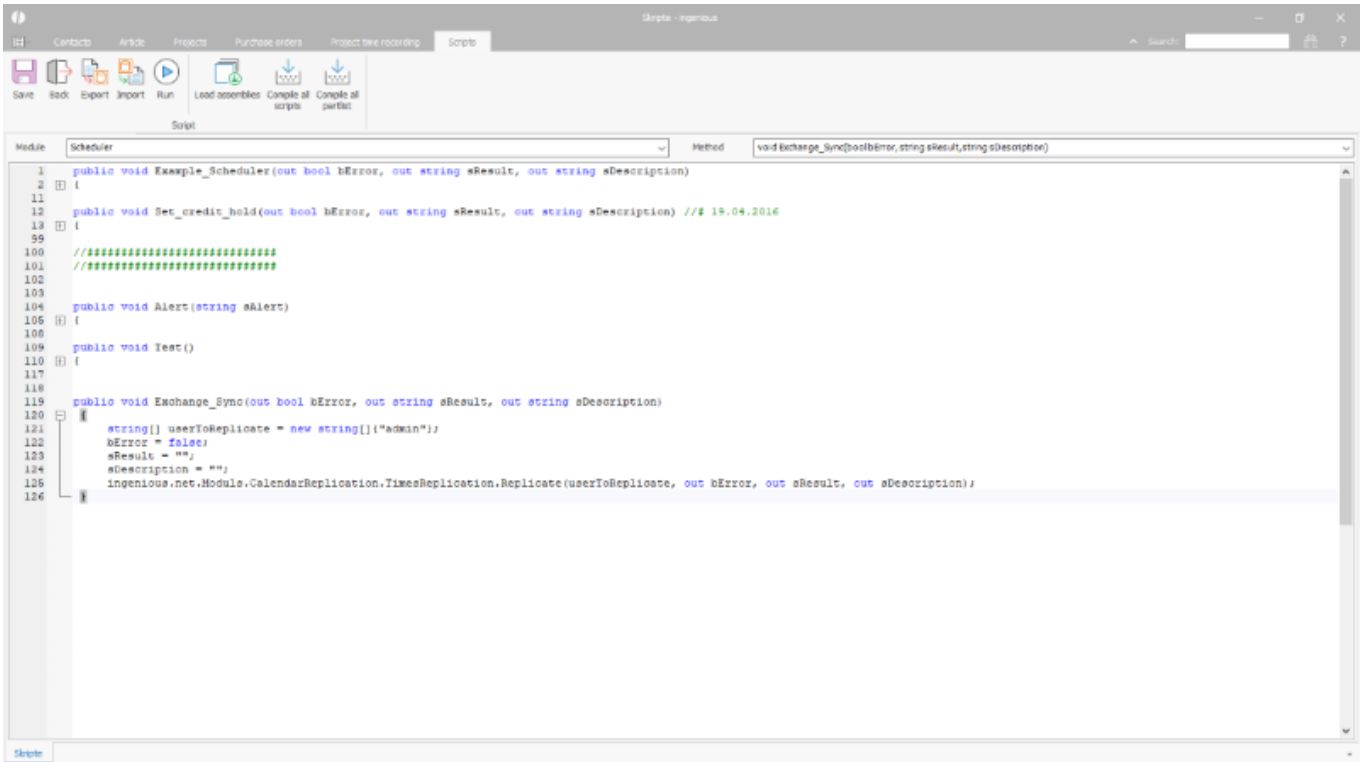
The ingenious scheduler, a fee-based additional module, is required for the time-controlled execution of the calendar synchronization.

A script must be created for the scheduler module.

### Scheduler script calendar synchronization

```
public void Exchange_Sync(out bool bError, out string sResult, out string sDescription)
{
    string[] userToReplicate = new string[]{"admin"};
    bError = false;
    sResult = "";
    sDescription = "";
    ingenious.net.Moduls.CalendarReplication.TimesReplication.Replicate(userToReplicate, out bError, out sResult, out sDescription);
}
```





The screenshot shows the 'ingenious' software interface. The top menu bar includes 'Contacts', 'Article', 'Projects', 'Purchase orders', 'Project time recording', and 'Scripts'. Below the menu is a toolbar with icons for 'Save', 'Back', 'Export', 'Import', 'Run', 'Load assemblies', 'Compile all scripts', and 'Compile all perFile'. The main window displays a C# script for the 'Scheduler' module, with the method 'void Exchange\_Sync(bool bError, string sResult, string sDescription)' selected. The script code is as follows:

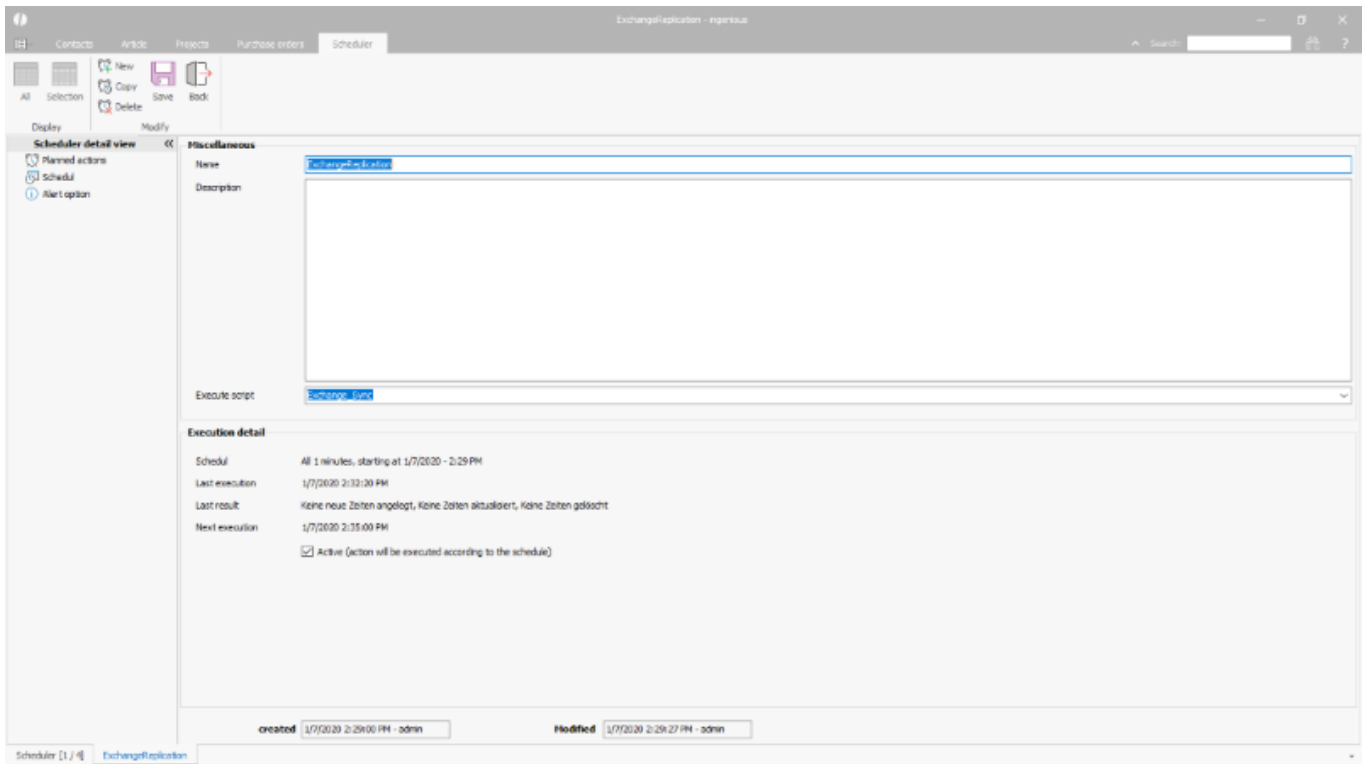
```
1 public void Example_Scheduler(out bool bError, out string sResult, out string sDescription)
2 {
11 }
12 public void Set_credit_hold(out bool bError, out string sResult, out string sDescription) // 19.04.2016
13 {
14 }
99
100 //#####
101 //#####
102
103
104 public void Alert(string sAlert)
105 {
106 }
107
108 public void Test()
109 {
110 }
111
112
113
114
115
116 public void Exchange_Sync(out bool bError, out string sResult, out string sDescription)
117 {
118     string[] userToReplicate = new string[]{"admin"};
119     bError = false;
120     sResult = "";
121     sDescription = "";
122     ingenious.net.Module.CalendarReplication.TimeReplication.Replicate(userToReplicate, out bError, out sResult, out sDescription);
123 }
124
125
126 }
```

If the calendars of several users are to be synchronized, the logins of the users must be listed separately with a semicolon:

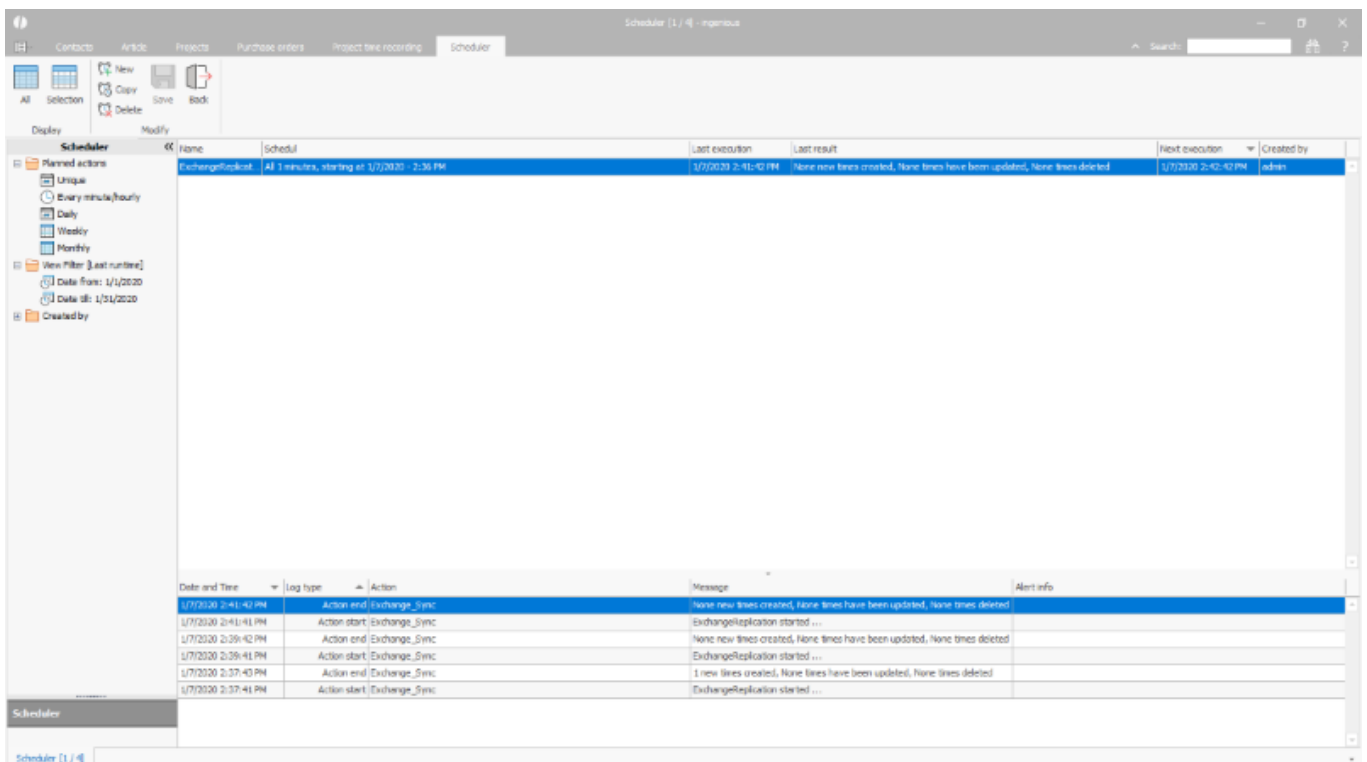
Enumeration of users

```
string[] userToReplicate = new string[]{"admin", "admin2"};
```

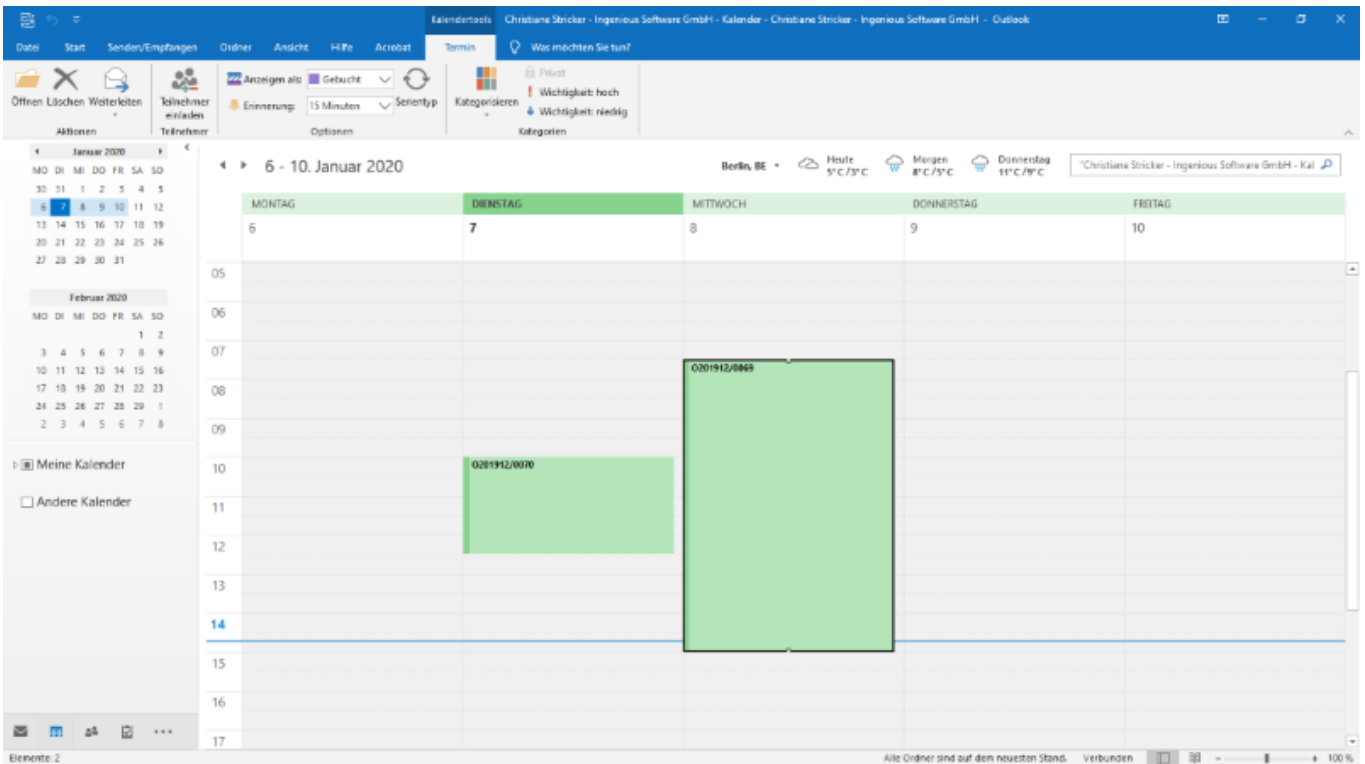
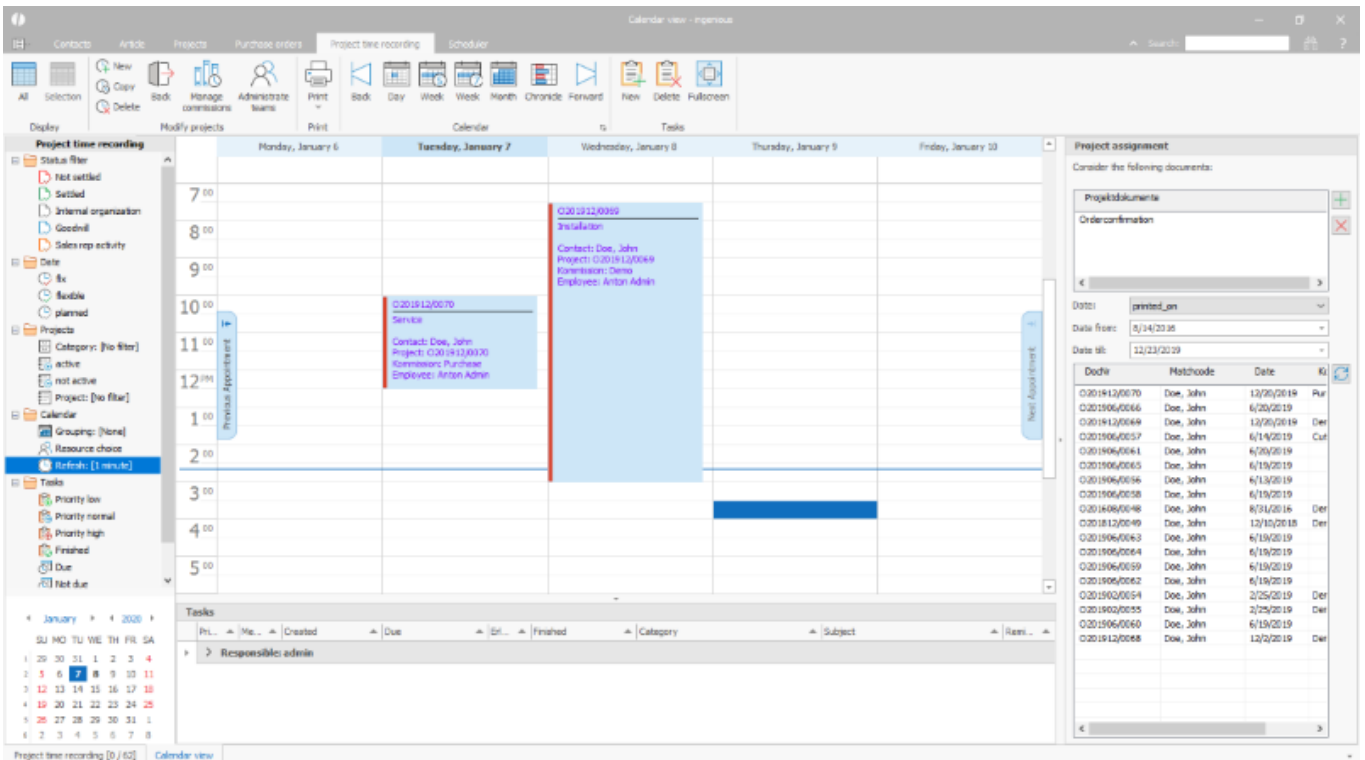
An action plan with the desired interval that executes the script must be created in the scheduler.



Success and error messages are written into the log of the scheduler.



To use the time-controlled calendar synchronization, an automatic update of 1 or 5 minutes can be set in the calendar settings within the filter block.

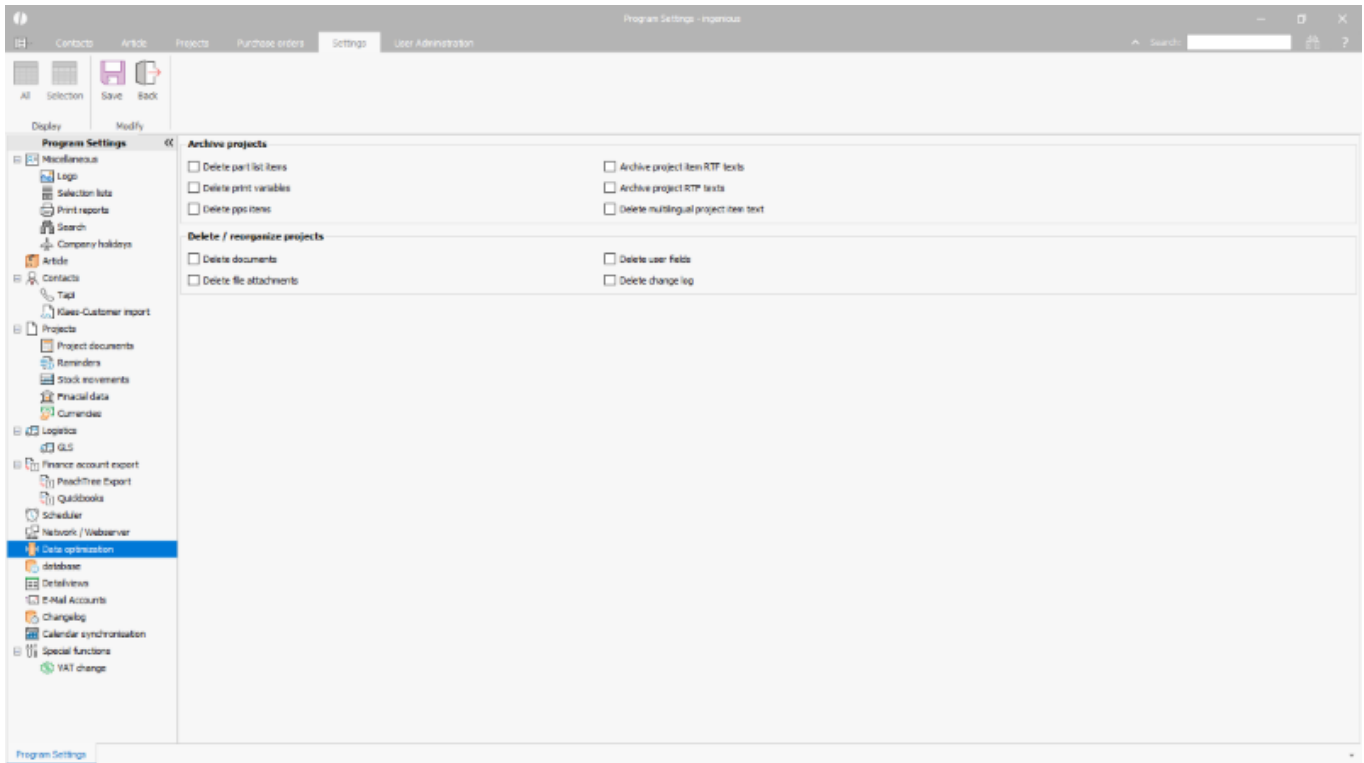


## 8.6.25 Data optimization

In the program settings / data optimization it is defined how the database size can be kept small.

For example, details of the original project that are no longer required can be removed by archiving when switching a project document to the next status.

It is also determined which linked data should also be deleted when deleting a data record.



## Archive project documents

When project documents are archived, details that were necessary for the creation of the document and for subsequent processes but are no longer required for further (archive) storage are deleted or converted.

Which details are deleted in detail is determined via the checkboxes.

Delete part list items	Once deleted, part list items are no longer available in reports, cut lists, stock movements, etc.
Delete print variables	Deletion of saved service items and the calculations, print variables, etc. (except configurator variables for the recalculation)
Delete pps items	Deleting linked PPS records
Archive project item RTF texts	Conversion of position texts from formatted (RTF) texts to simple (ASCII) texts (overwrites the original ASCII texts)
Archive project RTF texts	Conversion of header and footer texts from formatted (RTF) texts to simple (ASCII) texts
Delete multilingual project item text	Deletion of the localized position texts

Deleting and converting is applied to the following archiving actions:

- when manually activating the "Archived" checkbox in a project document
- if the "keep and archive" option is selected when converting a project document
- during collective archiving in the data reorganization module

## Delete project documents

When deleting project documents, not all linked data are automatically removed.

Some data remain for evaluation purposes, eg file attachments of a project can still be viewed on the contact record.

If this data is also to be deleted, this can be specified in the program settings.

The following deletion settings are possible:

- Delete user fields
- Delete documents
- Delete file attachments
- Delete change log

These settings work

- when deleting a project document manually
- if the "do not keep" option is selected when converting a project document
- during collective deletion in the data reorganization module

## 8.7 Data reorganization

### 8.7.1 The data reorganization

In order to reduce the database size of databases that have been in use for many years, a module was created with which an administrator can systematically and collectively remove data records that are no longer required.

The module can be reached via the main menu / system and is secured via the user right "[940000] data reorganization - module access".

No extra license is required to use the module.

## General presettings

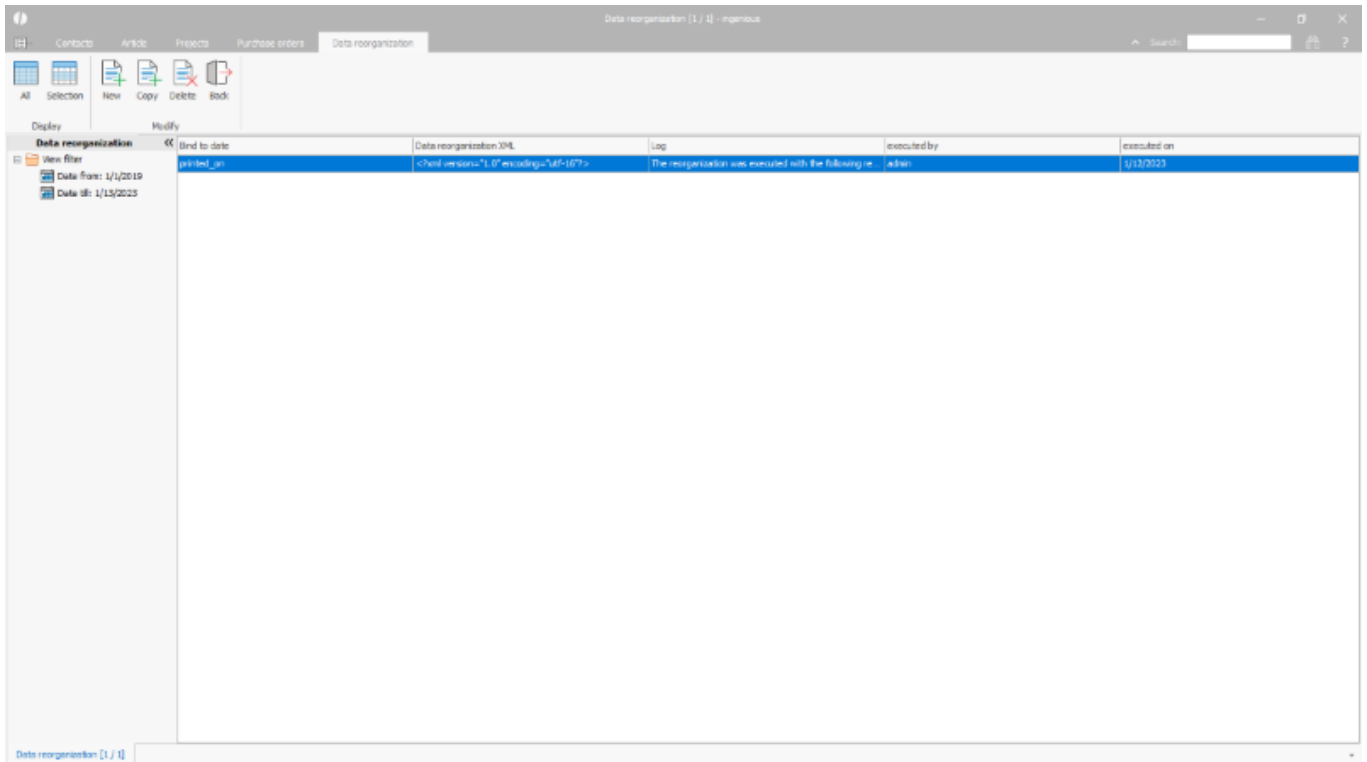
In the program settings / **data optimization (Section 8.6.25)** it is defined how the database size can be kept small.

The options selected there for archiving and deleting are also taken into account when carrying out a data reorganization.






## List view

All planned and executed data reorganizations are listed in the list view.

Double-clicking on an entry loads its detail view with the saved settings.










## The following functions are available in the list view

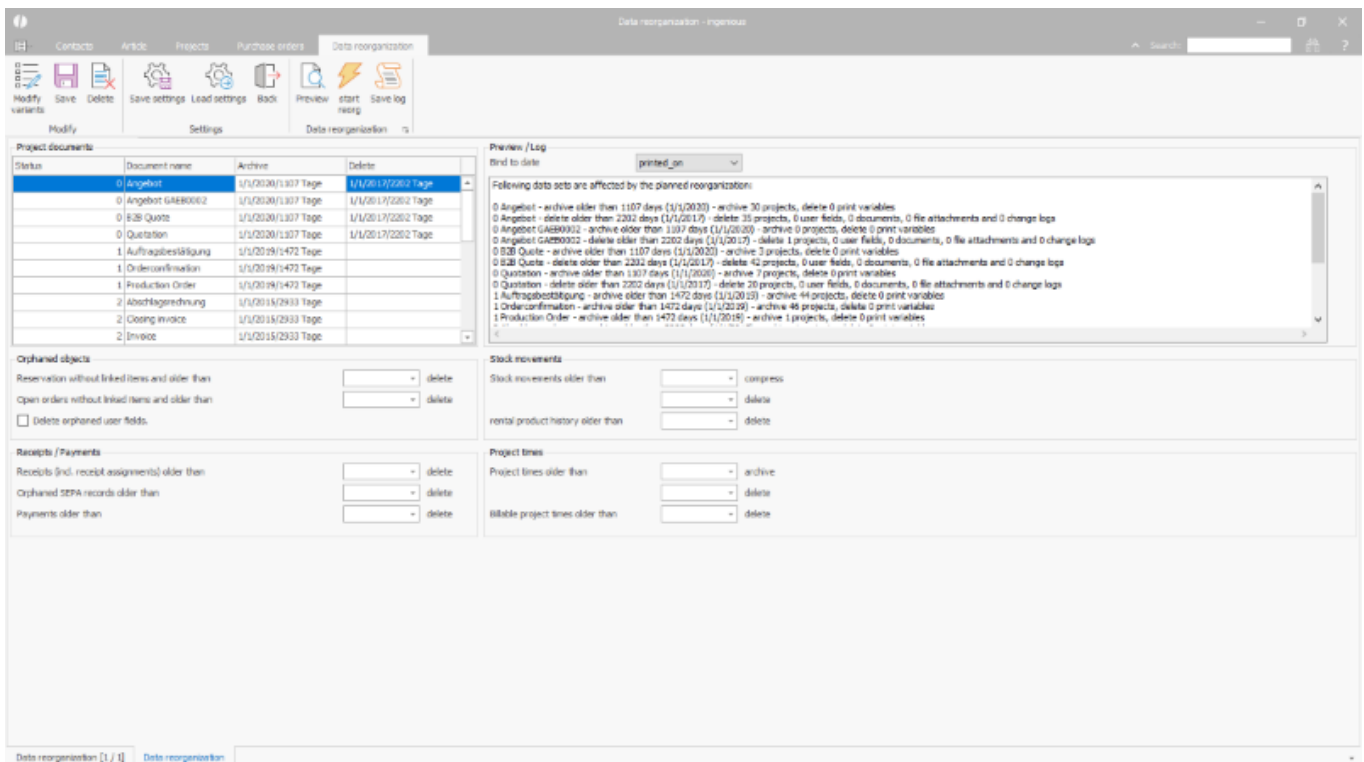
	Show all records
	Restrict the records displayed to the selected ones
	Configure a new data reorganization
	Copy the settings of an existing data reorganization
	Delete the marked entry
	Exit the modules

The list can be filtered by date from and date to.

## Functions in the detail view

The following functions are available via the icon bar:

	The parameters for the selected project documents are edited collectively via Modify variants. The dialog for setting the parameters opens. Only project documents with the same status can be edited together.
	The settings are saved in an XML for later use.
	Previously saved settings can be loaded using the button
	Closes the module
	Simulates the data reorganization and lists how many records are archived/deleted with the current settings at a time.
	Executes the reorganization with the set parameters
	Saves the result of the reorganization in a log on disk.
Binding to date	Selection of which project date should be decisive for archiving / deleting a project document



The screenshot displays the 'Data reorganization' module. The top toolbar includes icons for 'Modify variants', 'Save', 'Delete', 'Save settings', 'Load settings', 'Back', 'Preview', 'start reorg', and 'Save log'. Below the toolbar, there are three main sections: 'Project documents', 'Preview / Log', and 'Orphaned objects'.

**Project documents table:**

Status	Document name	Archive	Delete
0	Angebot	1/1/2020/1307 Tage	1/1/20/17/2262 Tage
0	Angebot GA890002	1/1/2020/1307 Tage	1/1/20/17/2262 Tage
0	EBB Quote	1/1/2020/1307 Tage	1/1/20/17/2262 Tage
0	Quotation	1/1/2020/1307 Tage	1/1/20/17/2262 Tage
1	Auftragsbestätigung	1/1/2019/1472 Tage	
1	Orderconfirmation	1/1/2019/1472 Tage	
1	Production Order	1/1/2018/2933 Tage	
2	Abschlagrechnung	1/1/2018/2933 Tage	
2	Closing invoice	1/1/2018/2933 Tage	
2	Invoice	1/1/2018/2933 Tage	

**Preview / Log section:**

Bind to date:

Following data sets are affected by the planned reorganization:

- 0 Angebot - archive older than 1107 days (1/1/2020) - archive 30 projects, delete 0 print variables
- 0 Angebot - delete older than 2302 days (1/1/2019) - delete 10 projects, 0 user fields, 0 documents, 0 file attachments and 0 change logs
- 0 Angebot GA890002 - archive older than 1107 days (1/1/2020) - archive 0 projects, delete 0 print variables
- 0 Angebot GA890002 - delete older than 2302 days (1/1/2019) - delete 1 projects, 0 user fields, 0 documents, 0 file attachments and 0 change logs
- 0 EBB Quote - archive older than 1107 days (1/1/2020) - archive 3 projects, delete 0 print variables
- 0 EBB Quote - delete older than 2302 days (1/1/2019) - delete 42 projects, 0 user fields, 0 documents, 0 file attachments and 0 change logs
- 0 Quotation - archive older than 1307 days (1/1/2020) - archive 7 projects, delete 0 print variables
- 0 Quotation - delete older than 2302 days (1/1/2019) - delete 20 projects, 0 user fields, 0 documents, 0 file attachments and 0 change logs
- 1 Auftragsbestätigung - archive older than 1472 days (1/1/2020) - archive 44 projects, delete 0 print variables
- 1 Orderconfirmation - archive older than 1472 days (1/1/2020) - archive 46 projects, delete 0 print variables
- 1 Production Order - archive older than 1472 days (1/1/2019) - archive 1 projects, delete 0 print variables

**Orphaned objects section:**

- Reservation without linked items and older than  delete
- Open orders without linked items and older than  delete
- Delete orphaned user fields.

**Receipts / Payments section:**

- Receipts (incl. receipt assignments) older than  delete
- Orphaned SEPA records older than  delete
- Payments older than  delete

**Stock movements section:**

- Stock movements older than  compress
- rental product history older than  delete

**Project times section:**

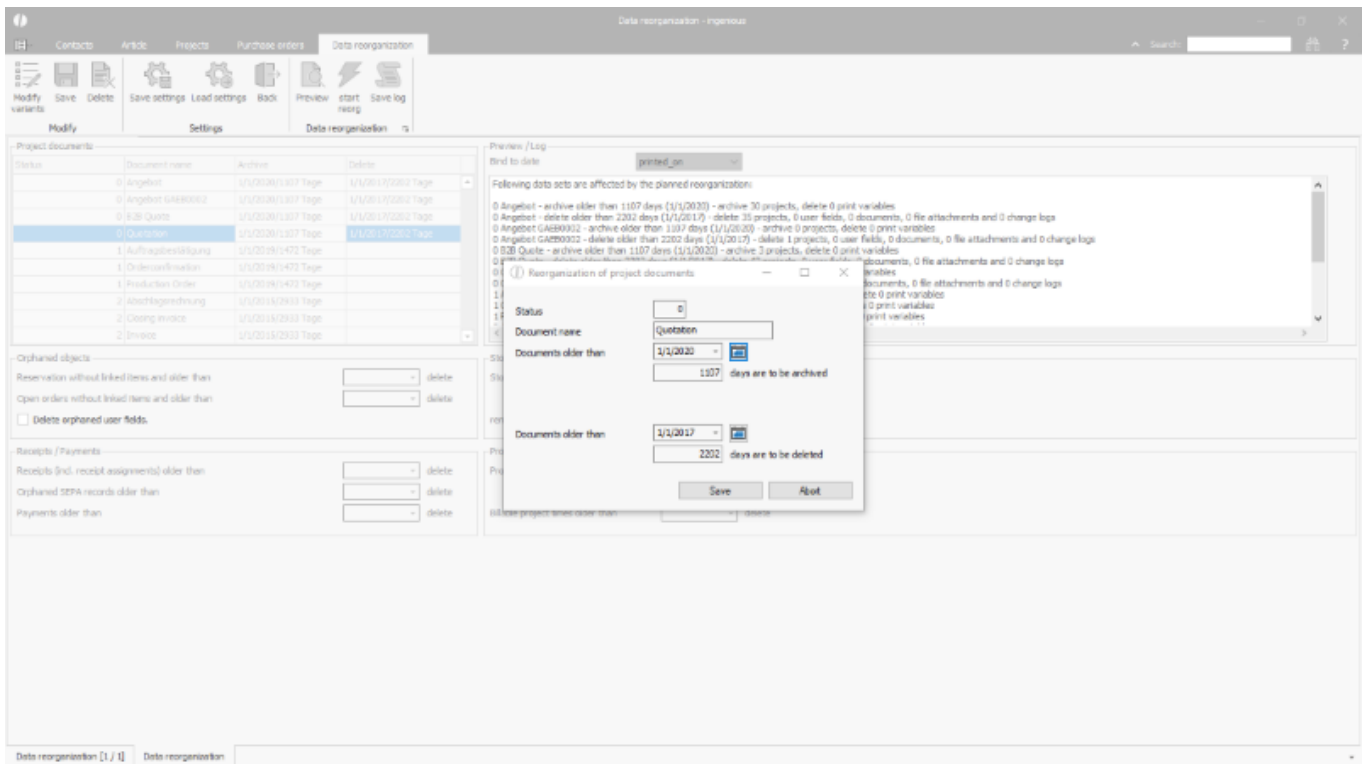
- Project times older than  archive
- Project times older than  delete
- Billable project times older than  delete

All (ever) configured and used (also renamed) project document types are listed in the list of project documents.

For each project document type, it can be determined individually from which point in time / from which number of days the project documents should be archived / deleted retrospectively.

The parameters of the project documents are edited for a single project document by double-clicking on the project document.


The dialog for setting the parameters opens.



Status	read-only text field	Status of the project type
Document name	read-only text field	Document name; may have been overwritten in the project
Documente older than ... days are to be archived	Date picker and numeric field	Documents before the selected date or older than the specified days will be archived. If a date is set, the number of days is determined automatically and vice versa.
Documente older than ... days are to be deleted	Date picker and numeric field	Documents before the selected date or older than the specified days will be deleted. If a date is set, the number of days is determined automatically and vice versa.

The parameters can also be set uniformly for a selection of project document types.

To do this, the desired project documents are marked and the parameters are defined using the "Edit variants"

button. 



In addition to the project documents, further data can be deleted with the reorganization.

Due to various deletion processes, **orphaned objects** can remain in the database, which can be removed separately here.

This includes:

- Reservations whose position assignments are missing
- Open orders that are missing item assignments
- User fields whose related records have been deleted

From the **Incoming Receipts / Payments** modules

- Incoming documents (incl. document assignments)
- orphan SEPA records and
- payments

older than a selected date can be deleted.

Old **stock movements** can be compressed or deleted.

When compressing, the postings are summarized on a monthly basis.


Entries in the rental item history can be deleted from the selected date.

When archiving **project times**, file attachments are deleted if this is configured in the **program settings / data optimization (Section 8.6.25)**.

Project times can also be deleted completely, just like the project times commissions.

**All archiving, compression and deletion processes of data reorganization are based on the selected date under "Binding to date" in the "Preview / Log" block.**

## Preview / Log

The reorganization can be simulated using the "Preview" button  in the icon bar.

It is listed how many projects / data sets are affected by the individual configurations.

After executing the reorganization, a log is written here that contains the parameters and the result sets.

Data reorganization - ingenious

Contacts Article Projects Purchase orders **Data reorganization**
Search

Modify variants
Save
Delete

Save settings
Load settings
Back

Preview
start reorg
Save log

**Project documents**

Status	Document name	Archive	Delete
0	Angebot	1/1/2020/1307 Tage	1/1/20 17:22:02 Tage
0	Angebot GA880002	1/1/2020/1307 Tage	1/1/20 17:22:02 Tage
0	EBB Quote	1/1/2020/1307 Tage	1/1/20 17:22:02 Tage
0	Quotation	1/1/2020/1307 Tage	1/1/20 17:22:02 Tage
1	Auftragbestätigung	1/1/2019/1472 Tage	
1	Orderconfirmation	1/1/2019/1472 Tage	
1	Production Order	1/1/2019/1472 Tage	
2	Abschlagsrechnung	1/1/2015/2933 Tage	
2	Closing invoice	1/1/2015/2933 Tage	
2	Invoice	1/1/2015/2933 Tage	

**Preview / Log**

Bind to date:

The reorganization was executed with the following result:

Reorganization started: 1/12/2023 12:32:28 PM  
Reorganization completed: 1/12/2023 12:33:36 PM

0 Angebot - archive older than 1107 days (1/1/2020) - archive 30 projects, delete 0 print variables  
0 Angebot - delete older than 2202 days (1/1/2017) - delete 35 projects, 0 user fields, 0 documents, 0 file attachments and 0 change logs  
0 Angebot GA880002 - archive older than 1307 days (1/1/2020) - archive 0 projects, delete 0 print variables  
0 Angebot GA880002 - delete older than 2202 days (1/1/2017) - delete 1 projects, 0 user fields, 0 documents, 0 file attachments and 0 change logs  
0 EBB Quote - archive older than 1107 days (1/1/2020) - archive 3 projects, delete 0 print variables  
0 EBB Quote - delete older than 2202 days (1/1/2017) - delete 42 projects, 0 user fields, 0 documents, 0 file attachments and 0 change logs  
0 Quotation - archive older than 1307 days (1/1/2020) - archive 7 projects, delete 0 print variables  
0 Quotation - delete older than 2202 days (1/1/2017) - delete 20 projects, 0 user fields, 0 documents, 0 file attachments and 0 change logs  
1 Auftragsbestätigung - archive older than 1472 days (1/1/2019) - archive 44 projects, delete 0 print variables

**Orphaned objects**

Reservation without linked items and older than  - delete

Open orders without linked items and older than  - delete

Delete orphaned user fields.

**Receipts / Payments**

Receipts (incl. receipt assignments) older than  - delete

Orphaned SEPA records older than  - delete

Payments older than  - delete

**Stock movements**

Stock movements older than  - compress

rental product history older than  - delete

**Project times**

Project times older than  - archive


Project times older than  - delete

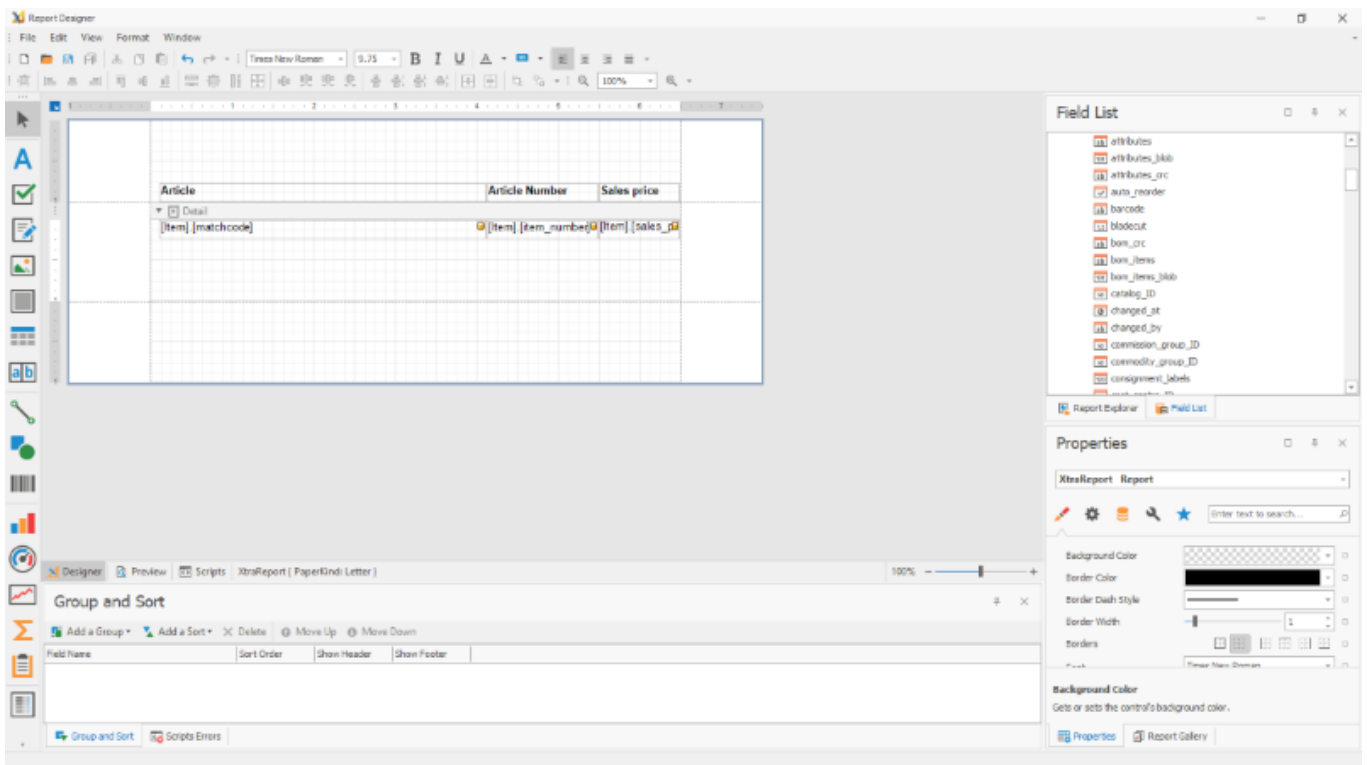
Billable project times older than  - delete

Data reorganization [1 / 1] [Data reorganization](#)

## 9 Tools

### 9.1 Print report designer

With the help of the print report designer, you can create individual analyses and reports. The print report designer can be called up for already recorded print reports via the selection from printing menu below the  button when simultaneously pressing the Ctrl+ shift keys of the keyboard.



The print report designer is divided in a processing area, in which can be switched between processing area, designer mode, preview, HTML-view and the script editor, and the selection area.

Left from the processing area different elements can be added to the report via quick templates.

On the right side, in the report explorer, the elements of the report are displayed in hierarchical list and you can switch to list of data base fields in order to assign them.

Below this template, the characteristics of the marked election are displayed.

On the lower window fringe the grouping and sorting of the issue takes place. Also script errors are shown in this area.

The ingenious print report designer is based on the DevExpress reporting plugin. A comprehensive documentary of the respective functions can be found in the online help of the producer.

## 9.2 Ingenious Restarter

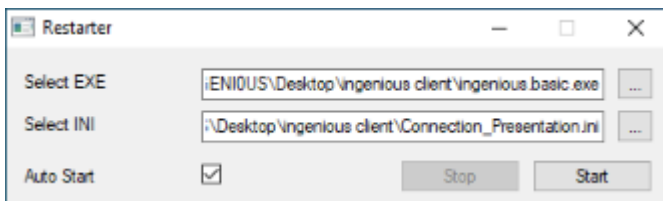
The ingenious Restarter is a small additional program that monitors the ingenious scheduler and restarts the client in the event of a crash or a controlled termination by the scheduler itself (see **Scheduler configuration (Section 8.6.19)**).

In the tool, select the ingenious program file that is to be started automatically if the ingenious client is not running. In addition, select the ingenious .ini file in which the parameters for the client start are stored (server, database and login data).

The monitoring of the process is activated with the check mark in Automatic start.

The configuration details are saved in a Settings.ini in the same folder and loaded each time the tool is started.

The ingenious restart is started with the start button, and it is ended with the stop button.



With a link to the ingenious Restarter in the Windows Autostart folder, the Restarter can restart itself when Windows is restarted.

## 10 Web modules

### 10.1 General installation and configuration

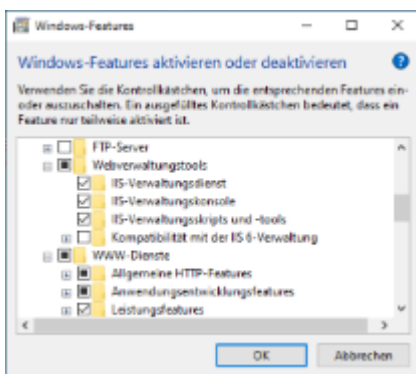
#### Installation IIS

An IIS (Internet Information Services) Server is needed to run the ingenious web modules. This can be installed on any client pc or server that is available in the network and might be published online.

The IIS services are part of the Windows operating system and has to be activated for usage.

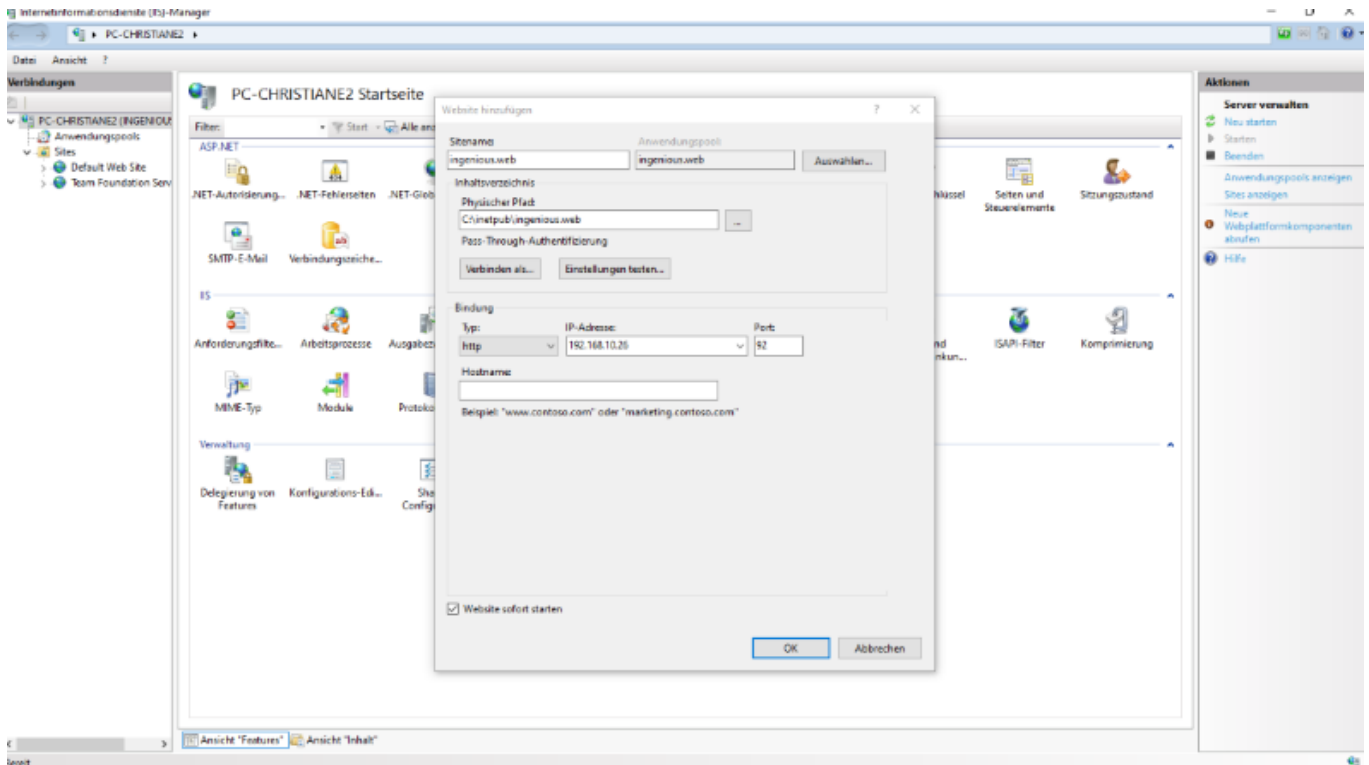
This is done in the system control -> software and features -> Windows features activate or deactivate

The WWW services and optionally the web administration tools are needed.

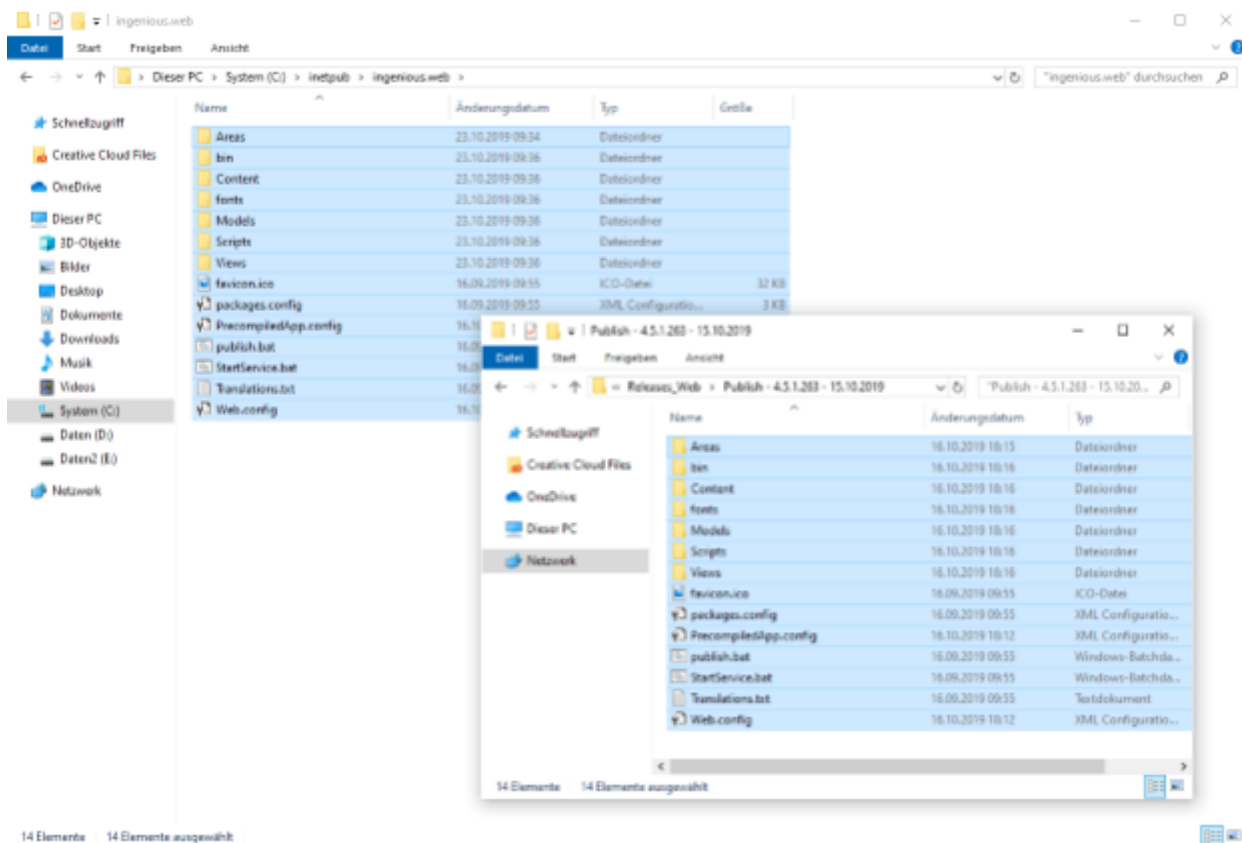


#### Creating the website

With the internet information services (IIS)- manager a ne website is created and its physical path and its address is defined.



Into the physical path of the website the provided program files including the web templates need to be inserted. An update of the ingenious web component is done in the same way by copying and replacing the files.

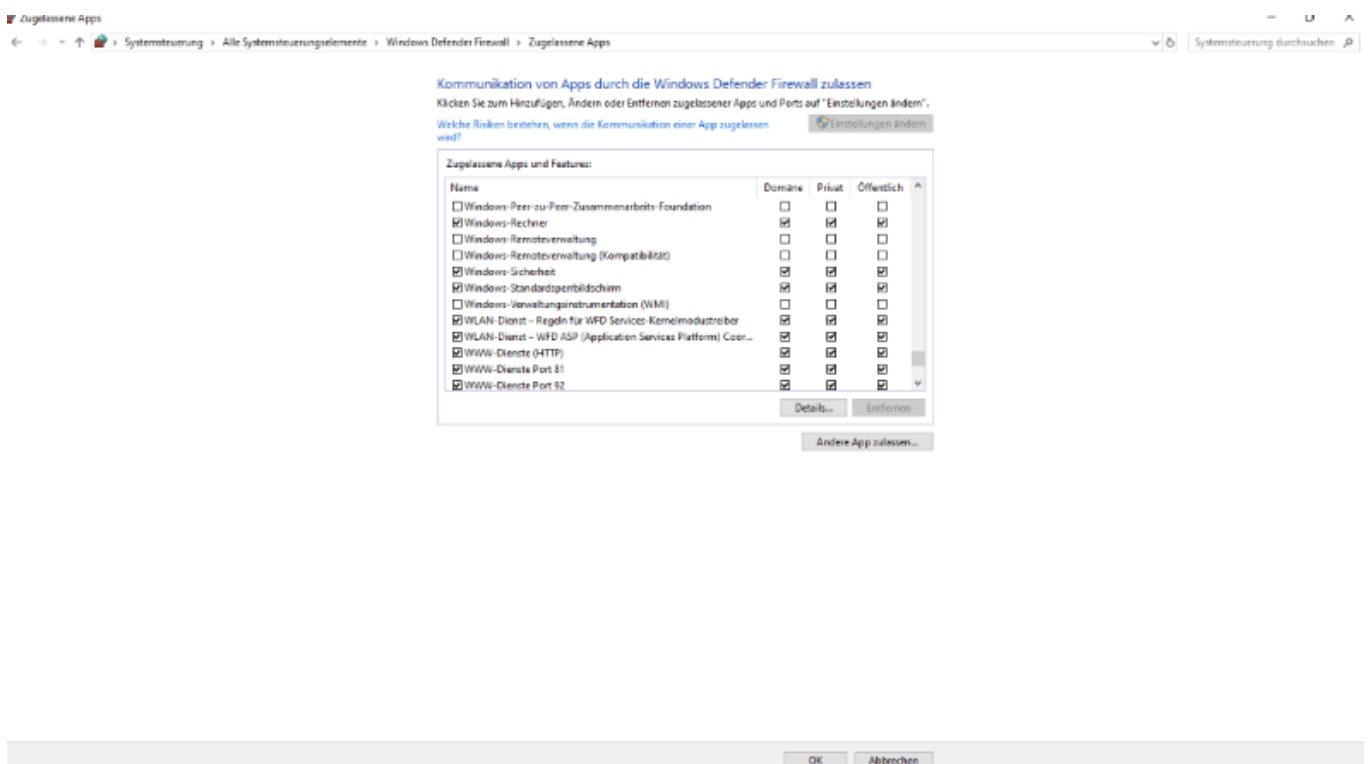


## Setup of the Windows firewall

For publishing the website the WWW services has to be allowed in the Windows firewall. The WWW services has to be activated in the allowed programs in the system control -> Windows firewall.

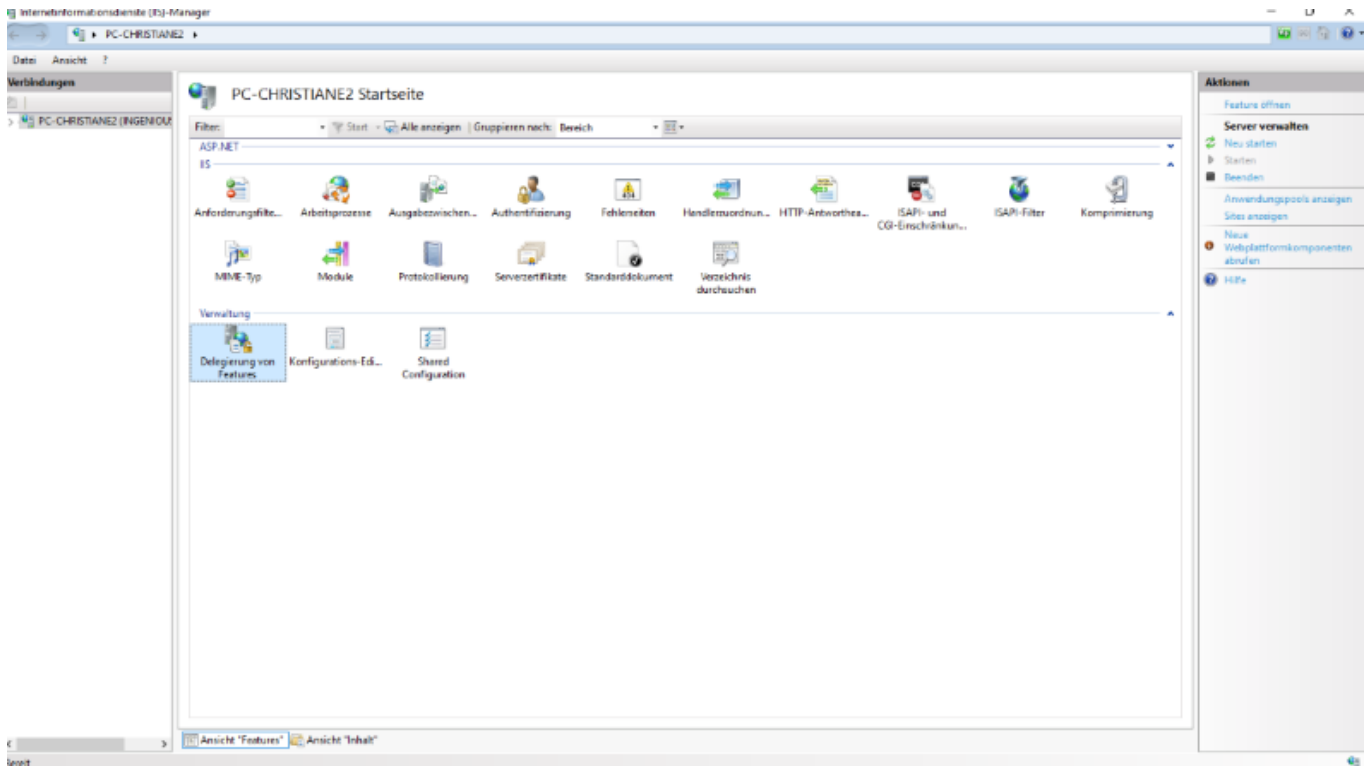
If another port than default port 80 was defined for the website, the firewall parameters has to be modified or enhanced in the extended settings (incoming rule).

Depending on who should be able to access the website, the passing has to be activated for domain, private and/or public.

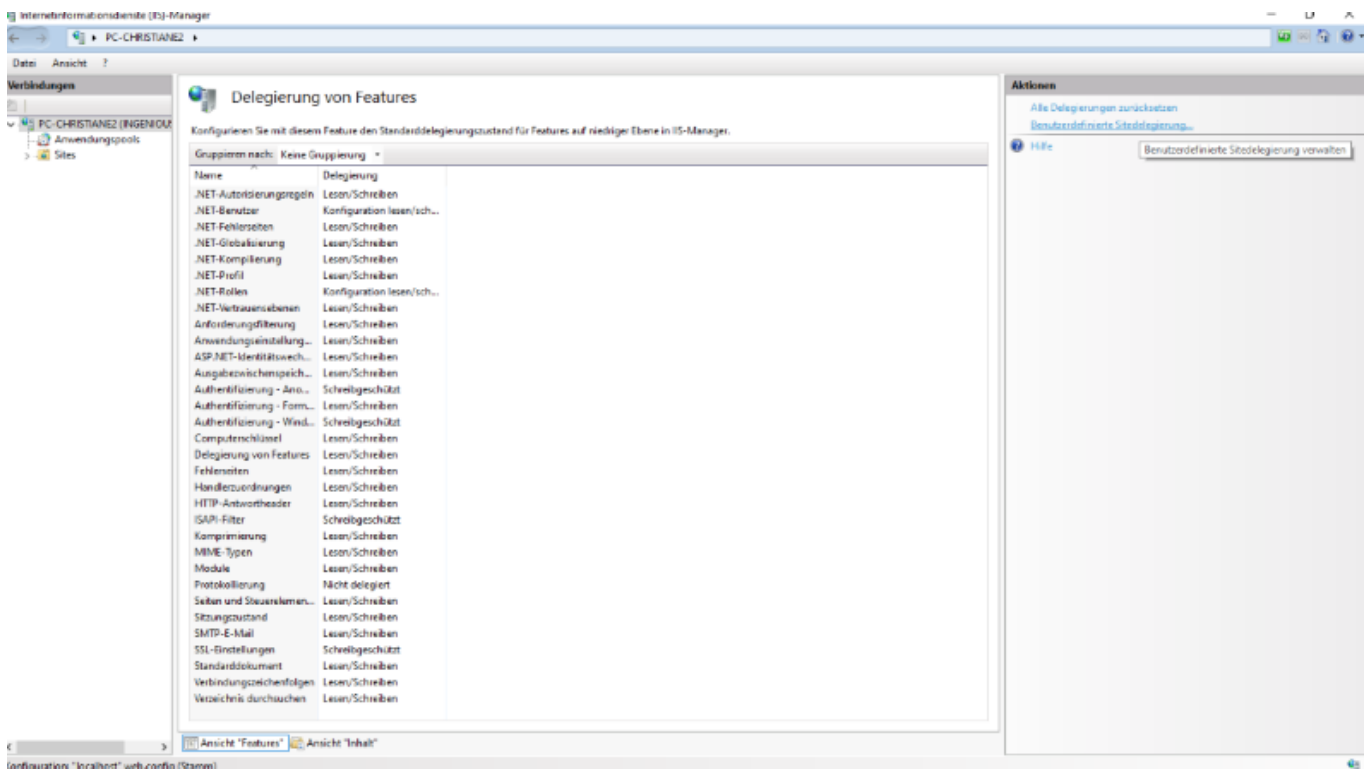


## Configuration of the website

The ingenious web modules require read and write rights for the website. For setting up these rights the tool "Delegation of features" has to be opened for the server (highest node below connections) by double clicking.



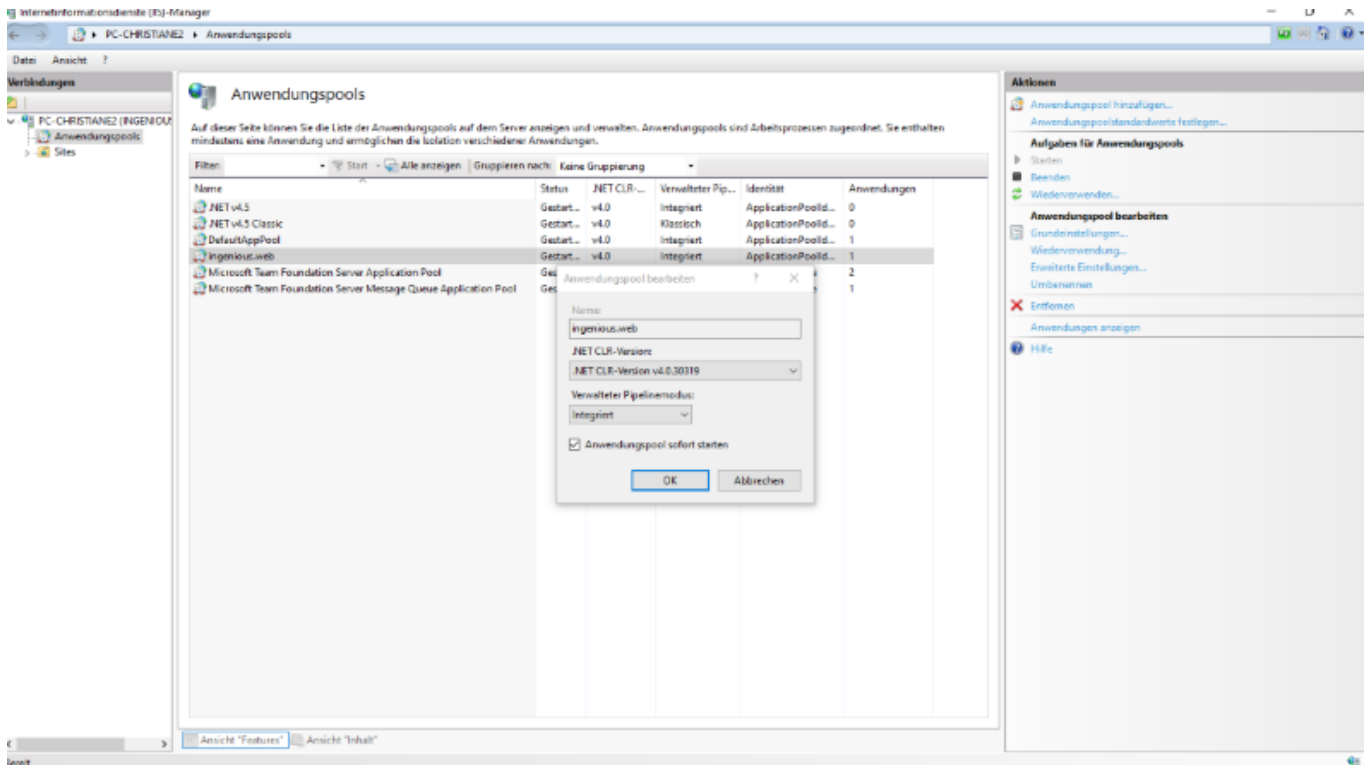
In the appearing window the "user defined site delegation" is opened in the right area below "Actions".



The site needs to be selected from drop-down menu. Now the delegations for "handler assignment" and "modules" have to be set to read/write.

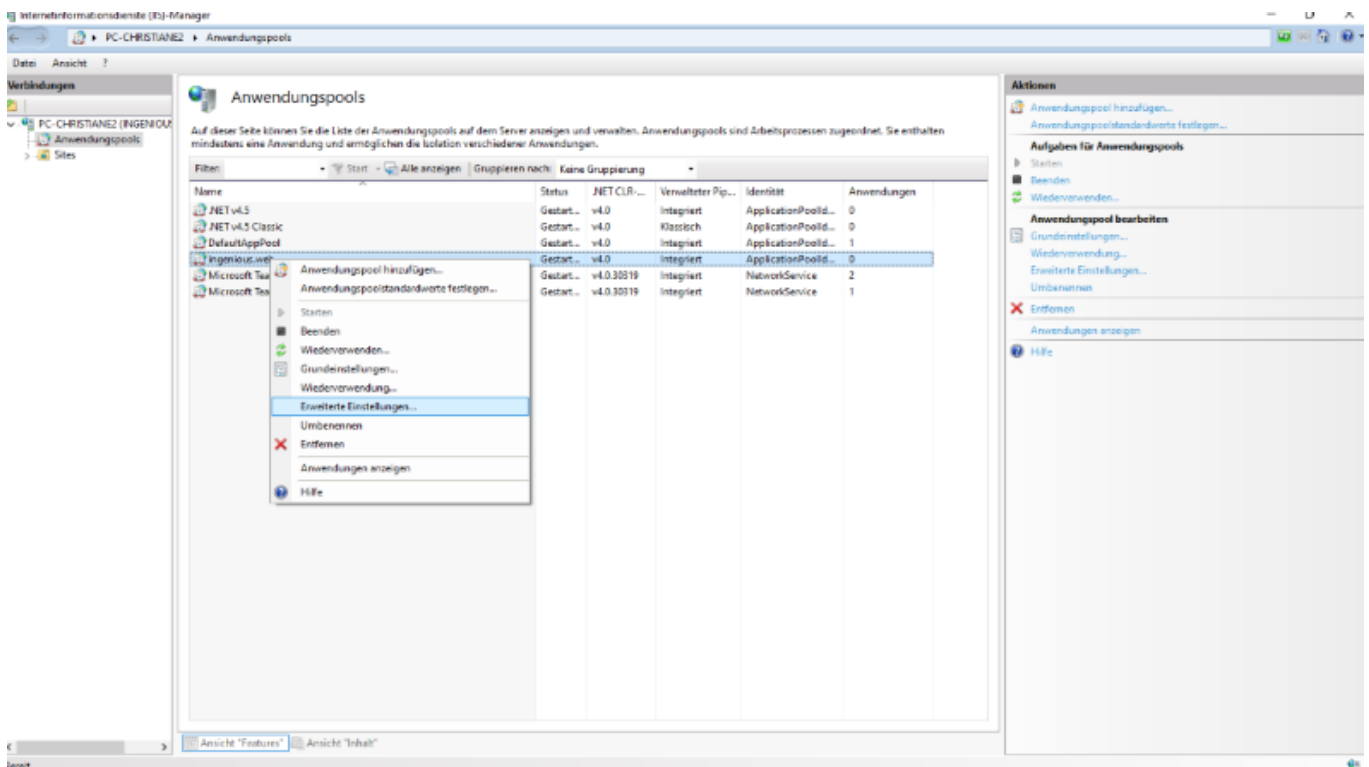


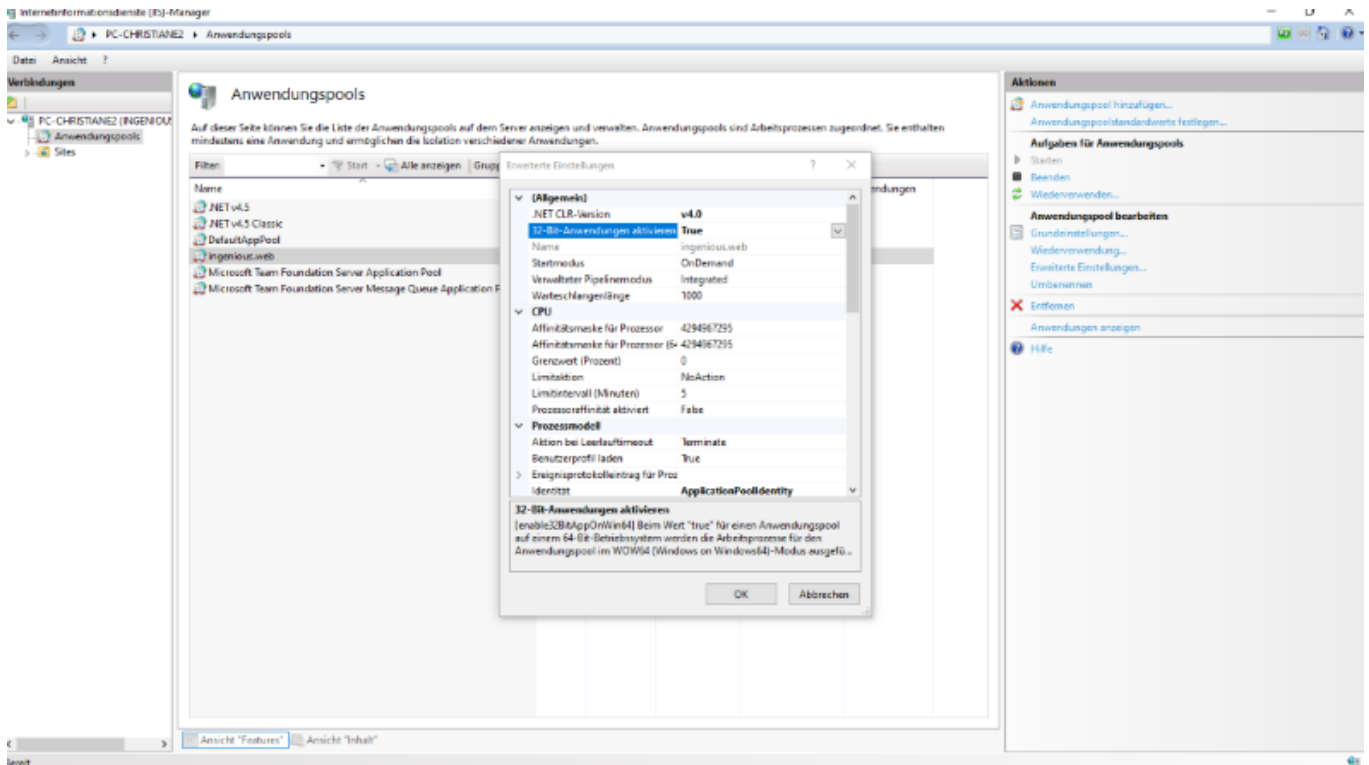




## 2. The ingenious web tools need the 32 bit mode activated

To activate the 32 bit mode the extended settings of the website has to be opened with right click on the website in the application pool. There the value for "activate 32 bit applications" has to be set to true.





For possible additional individual specialties in your configuration, please contact the support.

### Connection of the web application with the ingenious database

The website directory contains a web.config file where the parameters for the connection to the ingenious server and the database is setup amongst others.

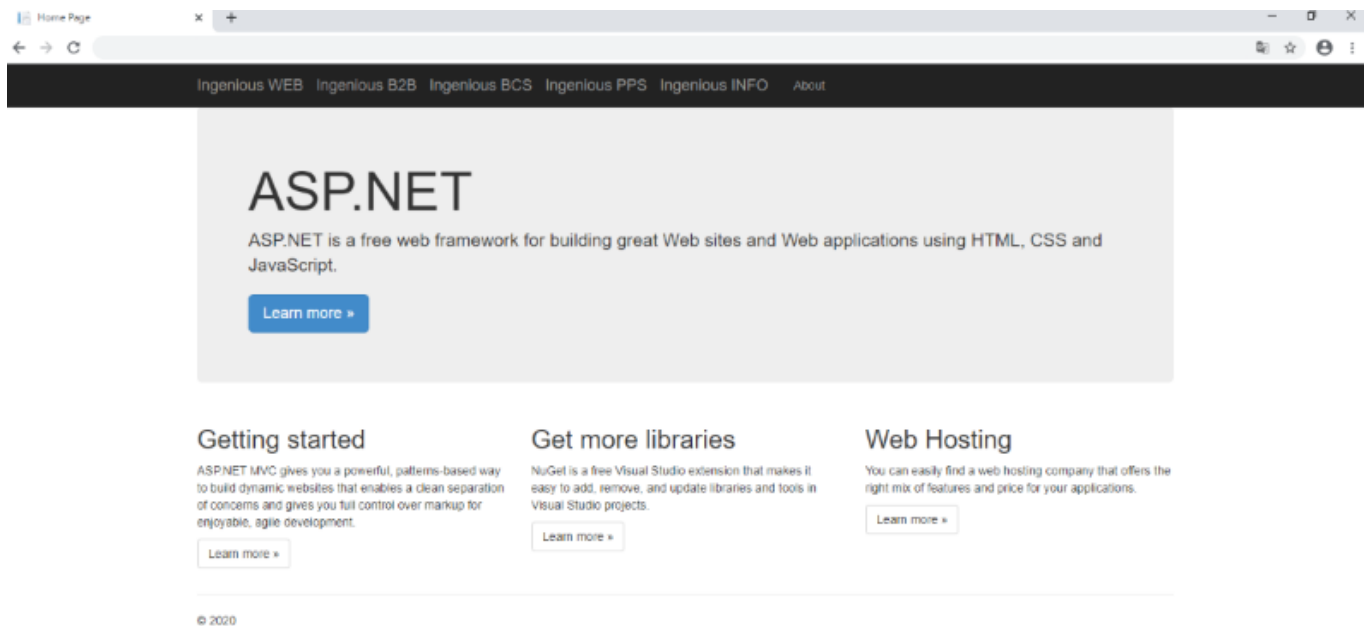
In the tag <connectionStrings> the database parameters and login credentials are to be entered.

#### Example connection string

```
<add name="ingeniousConnectionString" connectionString="Data Source=ingeniousserver;Initial Catalog=ingenious_Test;Persist Security Info=True;User ID=Anwender;Password=12345" providerName="System.Data.SqlClient" />
```



After the start of the website it can be opened via the configured address and port.

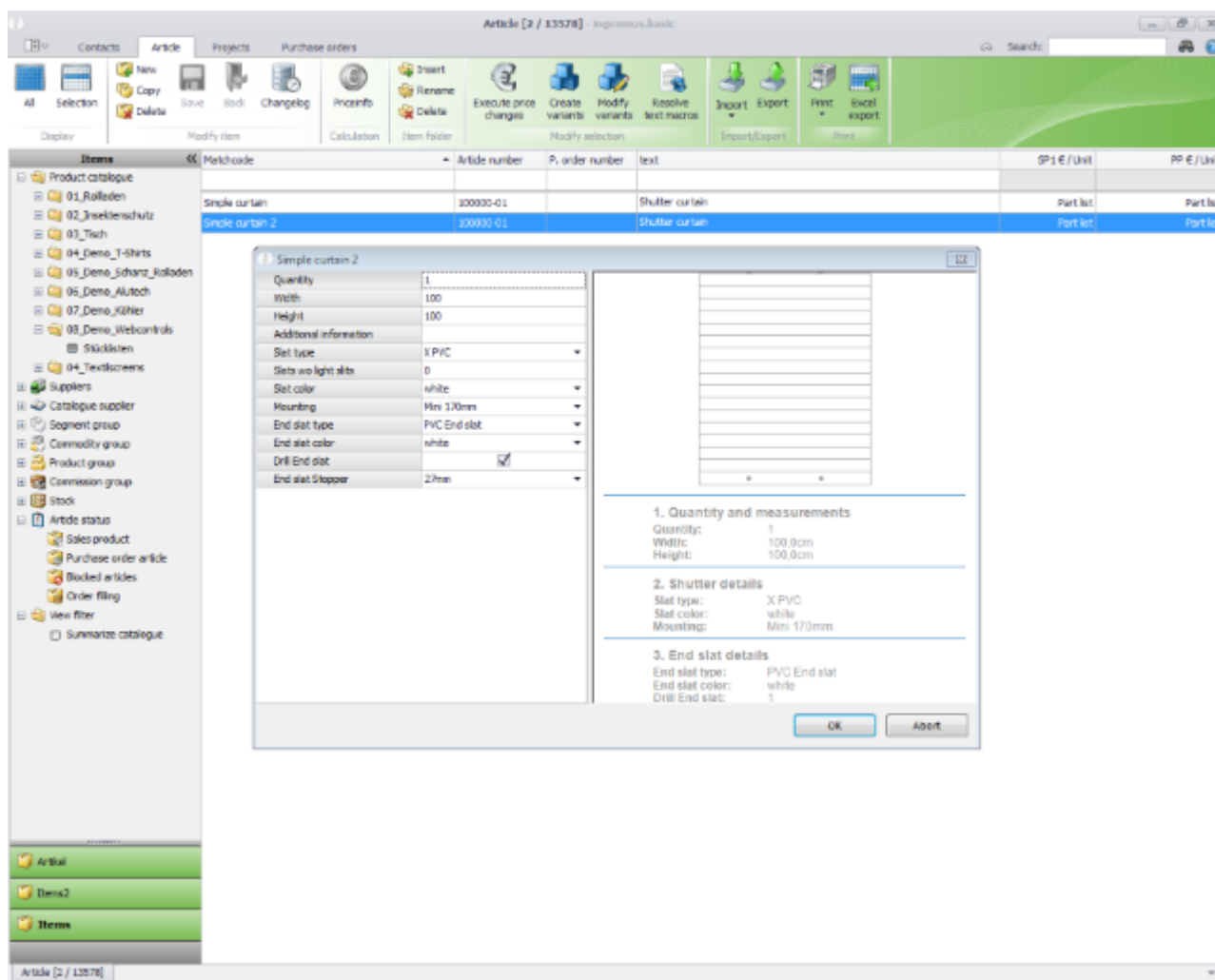


## 10.2 Product configurators in the web

The ingenious part lists / product configurators can be published in the web modules WEB (mobile access for employees), B2B (quote and ordering tool for dealers) and price info (calculation tool for end customers). This way each audience gets the possibility to calculate actual prices of the products on offer also without higher technical skills and also without difficulty searching in catalogues and price lists.

The integrated validation widely preempts that wrong or incomplete configurations are calculated and ordered or even produced.

By default the part lists will be displayed in the web in the same technical, contentual and designed way as in the ingenious client.




Which part lists are published in the web is defined by matchcode. The call for a price info could be for example:  
["URL:Port/INFO/Matchcode"](URL:Port/INFO/Matchcode)

Simple curtain 2

Price calculation for Simple curtain 2

Simple curtain 2	
Quantity	1
Width	100
Height	100
Additional information	Additional
Slat type	X PVC
Slats wo light slits	0
Slat color	white
Mounting	Mini 170mm
End slat type	PVC End slat
End slat color	white
Drill End slat	<input checked="" type="checkbox"/>
End slat Stopper	27mm



<b>1. Quantity and measurements</b>	
Quantity:	1
Width:	100,0cm
Height:	100,0cm
<b>2. Shutter details</b>	
Slat type:	X PVC
Slat color:	white
Mounting:	Mini 170mm
<b>3. End slat details</b>	
End slat type:	PVC End slat
End slat color:	white
Drill End slat:	1
End slat Stopper:	27mm

Net: 56,00

Gross: 56,00

For dealers and especially for end customers the user guidance should be optimized to simplify the operating and to make the product configurators easier to understand.

For this various possibilities come into consideration.

### 1. Controls in the web

With various web controls the values of the part list variables can be represented in different ways and can be enriched with additional notes. The following web controls are predefined in the standard web templates. Additional are possible on request. In principle all controls to be used need to be defined in the accordingly web template (`_PartlistItemPartial.cshtml`) and has to be defined there.

Type	Description
Text input field	Within such a text input field free text can be entered. It is standardly used for part list options without value assignment.
Numeric input field	As distinct from text input fields the numeric input field only allows numbers, but no letters. It is standardly used for part list options of type INTEGER or FLOAT.
Checkbox	Checkboxes are either activated or not. They are standardly used for part list options of type YES/NO or

NO/YES.

#### Checkbox

```
@if (iControlType == 1) // 1 - Checkbox
{
    <span class="input-group-addon" style="border: none; border-left: 1px solid #ccc; height : 32px;">
        <input id='checkbox@(Model.sBindingValue)' type="checkbox" @(Model.sValue == "1" || Model.sValue == "-1" ? "checked" : "") onclick="OnCheckboxChanged('checkbox@(Model.sBindingValue)', '@(Model.sBindingValue)')">
    >
        </span>
        <span class="input-group-addon" style="border: none; width :100%;"></span>
    }
}
```

Dropdown  
/  
Combobox

Selection lists are standardly used for part list options of type LIST.

#### Dropdown

```
@if (iControlType == 10 || iControlType == 11) // 10 - Dropdown, 11 - Combobox
{
    <select id='select@(Model.sBindingValue)' class="form-control" onchange="OnSelectChanged('select@(Model.sBindingValue)', '@(Model.sBindingValue)')">
        @if (!Model.asValueList.Contains(Model.sValue))
        {
            <option value='@Model.sValue' selected>@Model.sValue</option>
        }
        @for (int i = 0; i < Model.asValueList.Count; i++)
        {
            <option value='@(Model.asValueList[i])' @(Model.asValueList[i] == Model.sValue ? "selected" : "")>@(Model.asTranslatedValueList[i])</option>
        }
    </select>
}
}
```

Radio  
Buttons

Radio Buttons can alternatively be used for selection lists.

#### Radio Buttons

```
@if (iControlType == 20) // 20 - Radiobuttons
{
    if (!Model.asValueList.Contains(Model.sValue))
    {
```



```

        Model.asValueList.Insert(0, Model.sValue);
    }
    for (int i = 0; i < Model.asValueList.Count; i++)
    {
        <div class="basicRadio-primary">
            <div class="basicRadio">
                <input id="radio@(Model.sBindingValue)_@(i.ToS
tring())" type="radio" name="radio@(Model.sBindingValue)" class="form-control"
value="@((Model.asValueList[i])" onclick="OnRadioChanged('radio@(Model.sBinding
Value)_@(i.ToString())', '@(Model.sBindingValue)')" style="@((i == 0 ? "border-
top: none;" : i == Model.asValueList.Count - 1 ? "border-bottom: none;" : ""))"
@(Model.asValueList[i] == Model.sValue ? "checked" : "")">
                    <label for="radio@(Model.sBindingValue)_@(i.To
String())" style="@((i == 0 ? "border-top: none;" : i == Model.asValueList.Coun
t - 1 ? "border-bottom: none;" : ""))">@(Model.asValueList[i])</label>
                </div>
            </div>
        }
    }
}

```

Slider /  
Tracker for  
numeric  
values

Sliders can alternatively be used for numeric entry fields. Certainly they better suit for small ranges and integer values.

#### Slider

```

@if (iControlType == 23) // 23 - Slider
{
    string[] asValues = Model.dictWebControl["control"].Substr
ing(6).Replace("[", "").Replace("]", "").Split(';');
    <div class="basicRange_1">
        <div class="basicRange_2 col-lg-10 col-md-10 col-sm-11
col-xs-11 col-xxs-12">
            <input id="range@(Model.sBindingValue)" name="rang
e@(Model.sBindingValue)" type="range" class="form-control" min="@((asValues[0])
" max="@((asValues[1])" step="@((asValues[2])" value="@((Model.sValue)" oninput="
OnRangeChanged('range@(Model.sBindingValue)', '@(Model.sBindingValue)'" onloa
d="OnRangeLoad('range@(Model.sBindingValue)', 'text@(Model.sBindingValue)', @(
Model.sValue), @(asValues[0]), @(asValues[1]), @(asValues[2]))" />
            </div>
            <div class="basicRange_2 col-lg-2 col-md-2 col-sm-1 co
l-xs-1 hide-xxs">
                <span>@(Model.sValue)</span>
            </div>
        </div>
    }
}

```

Colorpicker

Colorpicker are suited as an alternative to selection lists. they allow both the illustration of a color by RGB code and the inclusion of a picture or pictures script stored in the part list, e.g. for RAL colors or special patterned foils.

## Slider

```

@if (iControlType == 21) // 21 - Colorpicker
    {
        if (!Model.asValueList.Contains(Model.sValue))
        {
            Model.asValueList.Insert(0, Model.sValue);
        }
        string[] asValues1 = Model.dictWebControl["control"].Subst
ring(5).Replace("[", "").Replace("]", "").Split(':');
        string[] asValues2 = asValues1[1].Split(';');
        asValues1 = asValues1[0].Split(';');
        string[] asValueStyles = new string[Model.asValueList.Coun
t];

        string[] asValuesWhite = new string[Model.asValueList.Coun
t];

        for (int i = 0; i < Model.asValueList.Count; i++)
        {
            int index = Array.IndexOf(asValues1, Model.asValueList
[i]);

            if (!asValues1.Contains(Model.asValueList[i])) { }
            else if (asValues2[index] == "#ffffff") { }
            else if (asValues2[index].StartsWith("#"))
            {
                asValueStyles[i] = "background-color: " + asValues
2[index] + ";";
            }
            else if (!Model.dictWebControlImages.ContainsKey(asVal
ues2[index])) { }

            else
            {
                asValueStyles[i] = "background-image: url(" + Mode
l.dictWebControlImages[asValues2[index]] + ")";
            }
            if (string.IsNullOrEmpty(asValueStyles[i]))
            {
                asValueStyles[i] = "background-color: #ffffff; bor
der: 1px solid #ccc;";
                asValuesWhite[i] = "white";
            }
        }
        <ul id="color@(Model.sBindingValue)" class="nav navbar-nav
" style="width:100%;" tabindex="0">
            <li class="dropdown" style="width:100%;">
                <div class="dropdown basicColor">
                    <a href="#" data-toggle="dropdown" class="drop
down-toggle">

                        <div class="basicColor_pickedColor">
                            <span style="@asValueStyles[Model.asVa
lueList.IndexOf(Model.sValue)]"></span><label>@(Model.sValue)</label><b class=
"caret caret_right"></b>

```

```

        </div>
    </a>
    <ul class="dropdown-menu dropdown-caret">
        @for (int i = 0; i < Model.asValueList.Count; i++)
        {
            <li><a class="colorpicker @(Model.asValueList[i] == Model.sValue ? "selected" : "") @(asValuesWhite[i])" href="#" style="@asValueStyles[i]" onclick="OnImgSelectionChanged('@(Model.sBindingValue)', '@(Model.asValueList[i]))'></a></li>
        }
    </ul>
</div>
</li>
</ul>
}

```

Picture Slider

Picture Sliders can alternatively be used for selection lists. They illustrate the single possible variants in pictures or picture scripts that are stored in the part list.

#### Picture Slider

```

@if (iControlType == 22) // 22 - Picture slider
{
    string[] asValues1 = Model.dictWebControl["control"].Substring(7).Replace("[", "").Replace("]", "").Split(':');
    string[] asValues2 = asValues1[1].Split(';');
    asValues1 = asValues1[0].Split(';');
    string[] asValueStyles = new string[Model.asValueList.Count];

    for (int i = 0; i < Model.asValueList.Count; i++)
    {
        int index = Array.IndexOf(asValues1, Model.asValueList[i]);

        if (!asValues1.Contains(Model.asValueList[i])) { }
        else if (Model.dictWebControlImages.ContainsKey(asValues2[index]))
        {
            asValueStyles[i] = "background-image: url(" + Model.dictWebControlImages[asValues2[index]] + ");";
        }
        else
        {
            asValueStyles[i] = "background-color: #ffffff;";
        }
    }
    <div class="basicPicture-container">
        <div class="basicPicture-wrapper">
            <ul id="pict@(Model.sBindingValue)" class="nav nav-tabs basicPicture-list" tabindex="0">
                @for (int i = 0; i < Model.asValueList.Count; i++)

```

```

        {
            <li>
                <a class="basicPict @(Model.asValueList
t[i] == Model.sValue ? "selected" : "")" href="#" style="@asValueStyles[i]"
onclick="OnImgSelectionChanged('@(Model.sBindingValue)', '@(Model.asValueList[
i])')"></a>

                </li>
            }
        </ul>
    </div>
</div>
}

```

Button

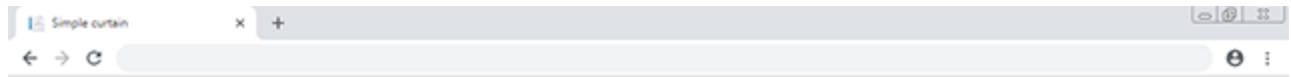
Buttons can alternatively be used for selection lists. They illustrate the single possible variants in graphic interface control buttons.

Button




```

@if (iControlType == 24) // 24 - Button
{
    <div class="basicPicture-container">
        <div class="basicPicture-wrapper">
            <ul id="pict@(Model.sBindingValue)" class="nav nav
-tabs basicPicture-list" tabindex="0" style="height:100%;">
                @for (int i = 0; i < Model.asValueList.Count;
i++)
                {
                    <li>
                        <button name="submitform" value="@Mode
l.asValueList[i]" class="btn basicButton @(Model.asValueList[i] == Model.sValu
e ? "basicButtonSelected" : "")" onclick="OnImgSelectionChanged('@(Model.sBind
ingValue)', '@(Model.asValueList[i])')">
                            <span>@Model.asValueList[i]</span>
                        </button>
                    </li>
                }
            </ul>
        </div>
    </div>
}

```



Price calculation for Simple curtain

Measurements	Curtain	End slat
Slat type	   X PVC    XL PVC    XXL PVC	
Slats w/o light slits	<input type="range" value="0"/>	
Slat color	<input type="checkbox"/> white	
Mounting	Mini 170mm	



#### 1. Quantity and measurements

Quantity: 1  
Width: 100,0cm  
Height: 100,0cm

#### 2. Shutter details

Slat type: X PVC  
Slat color: white  
Mounting: Mini 170mm

#### 3. End slat details

End slat type: PVC End slat  
End slat color: white  
Drill End slat: 1  
End slat Stopper: 27mm

Net: 56,00

Gross: 56,00

Price calculation for Simple curtain

Measurements	Curtain	End slat
<p><b>End slat type</b></p> <input checked="" type="checkbox"/> PVC End slat <input type="checkbox"/> Alu Endslat <input type="checkbox"/> Angular Endslat		
<p><b>End slat color</b></p> <input type="checkbox"/> white <input type="checkbox"/> creme <input type="checkbox"/> beige <input type="checkbox"/> brown <input type="checkbox"/> light gray <input type="checkbox"/> gray <input type="checkbox"/> R/		
<p><b>Drill End slat</b> <input checked="" type="checkbox"/></p>		
<p><b>End slat Stopper</b></p> <p>27 mm</p> <input checked="" type="checkbox"/> 27mm <input type="checkbox"/> 40mm <input type="checkbox"/> 60mm <input type="checkbox"/> without		

<p><b>1. Quantity and measurements</b></p> <p>Quantity: 1  Width: 100,0cm  Height: 100,0cm</p>	
<p><b>2. Shutter details</b></p> <p>Slat type: XPVC  Slat color: white  Mounting: Mini 170mm</p>	
<p><b>3. End slat details</b></p> <p>End slat type: PVC End slat  End slat color: white  Drill End slat: 1  End slat Stopper: 27mm</p>	

Net: 56,00      Gross: 56,00

## 2. Definition of the controls in the part lists

### Tabular notation (compatibility mode previous version)

General	The web control of each individual option is determined by a separate line in the measurement definition of the part list with the name "=webcontrol variable" As value the respective syntax of the web control is entered together with the relevant values.
Text input field	A variable defined as text does not need an extra webcontrol. The text input field is displayed by default. However, with the definition as Webcontrol additional texts etc. can be displayed. With the value "description =" + any text, an explanatory text can be deposited, which is displayed as a placeholder until the user enters his own text in the configurator field.
Numeric input field	For a variable defined as INTEGER or FLOAT, a numeric entry field is displayed by default. It is not necessary to specify an extra webcontrol.
Checkbox	For the control checkbox, which is defined with Yes / No or No / Yes, no extra Webcontrol is required.
Drop down / Combobox	All list items (Fixed List, List) are displayed in a drop-down by default. The definition as extra Webcontrol is not required.

Radio Buttons	Radio Buttons are an alternative to the classic drop-down list. The values are displayed fluently with a prefixed clickable circular option field. The definition is made with the expression "control = radio".
Slider / Tracker for numeric values	A slider for numerical values, which is displayed instead of an input field, is defined by the expression "control = slider [0; 10; 1]". The values in square brackets stand for: [start value, end value, running steps].
Colorpicker	A color picker for the alternative representation of a selection list with colors is defined via "control = color [values; color codes]". Example: control = color [white; brown; gray; green; RAL: #ffffff; # b97a57; # a0a0a0; # 26392f; RAL] For colors that can not be displayed using hex code, images or image scripts can be loaded, but the name of the image must be entered instead of a color code. For example, RAL and foil coatings often use a multi-color image.
Picture Slider	In a picture slider, images are displayed instead of a classic selection list, which visually clarify the options. Notation: control = picture [Values: Image names] Example: control = picture [X PVC; XL PVC; XXL PVC: X_PVC; XL_PVC; XXL_PVC] The images must be inserted in the respective parts list in the saved images or as a saved image script. The name of the individual image must be specified within the square brackets of the webcontrol.
Button	Buttons are an alternative to the classic drop-down list. The values are displayed individually in clickable buttons. The definition is made with the expression "control = button".
<b>Extras</b>	Each webcontrol can contain, in addition to its actual content, namely the selection of options, additional information which is intended to make the selection easier for the user. For each extra content, create a separate line for the same variable. "= webcontrol variable name" The extras can each be displayed for the variable as a whole or for the individually selected (clicked) selection.
Title	Each option can be highlighted with a title / headline a) the option as a whole title = title or b) every single variant title = {tab (variable) ("value1", "value2"; ... "Heading 1", "Heading 2" ...)}
Description	For each option, an explanatory description text can be deposited, namely a) for the option as a whole description = Description Text or b) for each variant description = {tab (variable) ("Value1"; "Value2"; ... "Description text 1"; "Description text 2"; ...)}
Picture	For each option, in addition to the possible images in a slider, a larger / different preview image can be displayed, namely a) for the option as a whole picture = Picture Name or b) for each variant picture = {tab (variable) ("Value1"; "Value2"; ... "Picture Name 1"; "Picture Name 2"; ...)}
Tooltip	For each option, additional information from a picture or PDF can be loaded via a tooltip a) for the option as a whole tooltip = Information

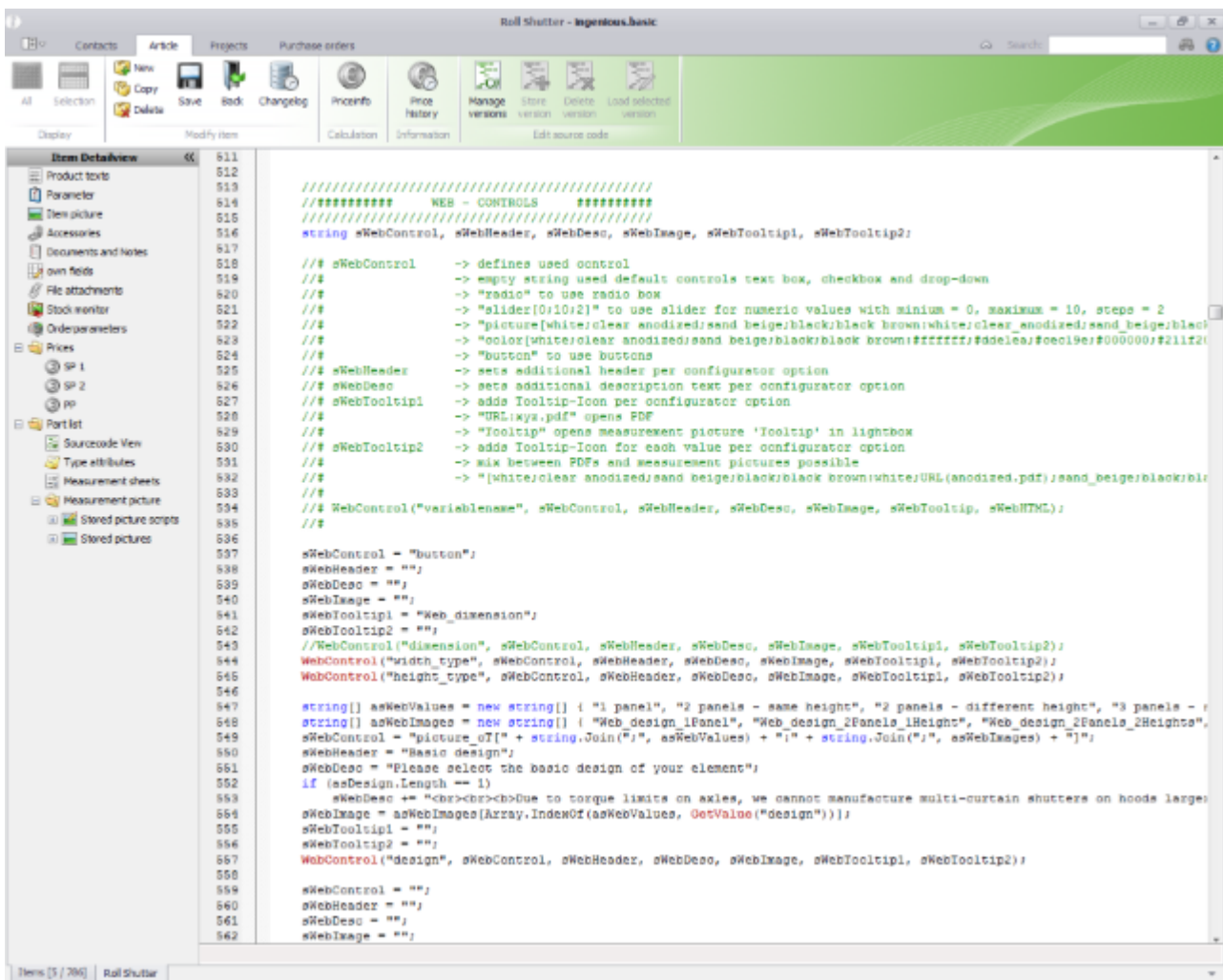




The individual strings of the webcontrol can also be defined in advance for readability:

```
sWebControl = "";
sWebHeader = "";
sWebDesc = "";
sWebImage = "";
sWebTooltip1 = "";
sWebTooltip2 = "";
WebControl("Variable", sWebControl, sWebHeader, sWebDesc, sWebImage, sWebTooltip1, sWebTooltip2);
```

The same web controls are available as for the tabular notation.



## Segments

Even in the presentation in the client / server version, groups of variables can be summarized into segments.

Notation in tabular form: "= section 1. Dimensions"

Notation in the source code view: "Conf\_Section (" title1 ", " 1. Dimensions ", true);" - Specify true or false whether the segment is open or closed when opening the configurator.

But while in the client the segment separates the individual groups only by means of headlines, they are visibly separated one from another on the Web. Depending on the definition on the Web templates (\Views\Partlist\Partlist.cshtml), the separated areas are displayed as tabs or segments.

At the beginning of the Partlist.cshtml either the template of the tabs is loaded or that of the segments.

```
@model ingenious.mvc.Models.PartlistModel  
@Html.Partial("_PartlistReiterPartial", Model)
```

```
@model ingenious.mvc.Models.PartlistModel  
@Html.Partial("_PartlistSegmentsPartial", Model)
```

Price calculation for Simple curtain

Measurements	Curtain	End slat
Quantity	1	
Width	100	
Height	100	
Additional information	Please enter additional information here. Additional	

1. Quantity and measurements  
Quantity: 1  
Width: 100,0cm  
Height: 100,0cm

2. Shutter details  
Slat type: X PVC  
Slat color: white  
Mounting: Mini 170mm

3. End slat details  
End slat type: PVC End slat  
End slat color: white  
Drill End slat: 1  
End slat Stopper: 27mm

Net: 56,00

Gross: 56,00


Simple curtain x +

Price calculation for Simple curtain

Measurements	
Quantity	1
Width	100
Height	100
Additional information	Please enter additional information here. Additional

Curtain

End slat



<b>1. Quantity and measurements</b>	
Quantity:	1
Width:	100,0cm
Height:	100,0cm
<b>2. Shutter details</b>	
Slat type:	X-PVC
Slat color:	white
Mounting:	Mini 170mm
<b>3. End slat details</b>	
End slat type:	PVC End slat
End slat color:	white
Drill End slat:	1
End slat Stopper:	27mm

Net: 56,00

Gross: 56,00

## 10.3 Online price info

Via the online price information, the (end customer) list prices for selected products can be queried quickly and easily. The invocation of an article to be queried takes place via predefined buttons, which can be freely added to the web template or by direct call. For the shortcut, the matchcode of the article is appended to the URL.

The price information is available via <URL:Port/INFO/>, an article with matchcode "rollershutter" is accessed via <URL:Port/INFO/rollershutter>.

Price calculation for Simple curtain

**Measurements**

**Curtain**

**End slat**

End slat type:  PVC End slat  
 Alu Endslat  
 Angular Endslat

End slat color:  white  creme  beige  brown  light gray  gray  R/

Drill End slat:

End slat Stopper: **27 mm**  
 27mm  40mm  60mm  without

1. Quantity and measurements  
Quantity: 1  
Width: 100,0cm  
Height: 100,0cm

2. Shutter details  
Slat type: X PVC  
Slat color: white  
Mounting: Mini 170mm

3. End slat details  
End slat type: PVC End slat  
End slat color: white  
Drill End slat: 1  
End slat Stopper: 27mm

Net: 56,00      Gross: 56,00

For the sake of clarity and for specific provision to the customer group "end customer" the price information contains no further functions, but really only the price inquiry. No project document is created in the database, etc. Conceivable follow-up actions would be the sending of a request form.

The online price information can be operated on a separate web server as a separate website or inserted via iFrame into any (corporate) website.

## 10.4 Sales rep access

ingenious provides a web portal with the help of which the sales representatives have access to the customer data and can view and create offers and orders.

The interface of the web portal is freely adaptable via HTML. The call for the field service module is URL: Port / WEB /. Any general content can be inserted in the appearing homepage. The modules provided by ingenious are accessible via the menu.

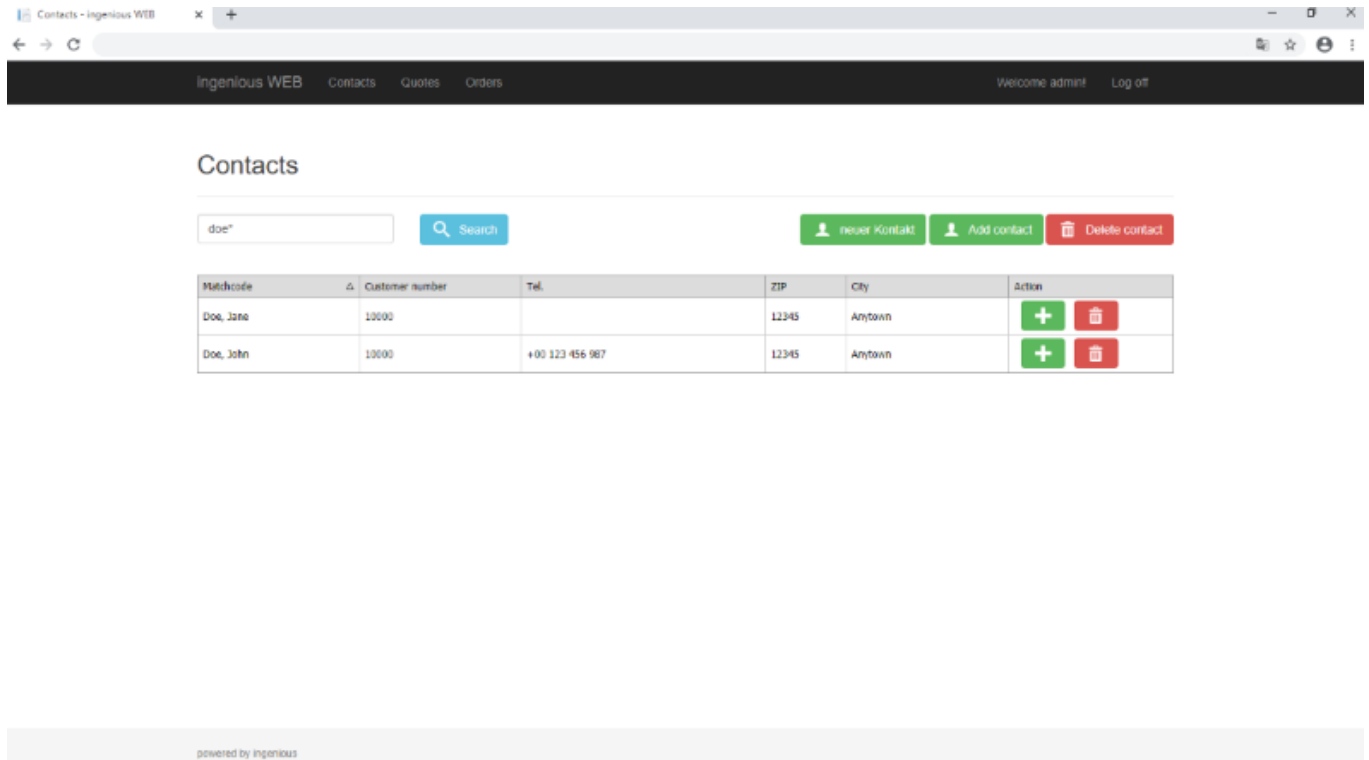
The field service web portal is password protected. The employees must be created as users in the ingenious database and use the same access data both locally and on the Web. If the web templates are prepared accordingly, then the

same user rights are available on the Web as locally.

In detail, the following functions are available:

## Contacts list view

Customers can be searched for and edited through the contact list.



Via the respective buttons per table row, a quotation can be created for the respective customer or the contact data record can be deleted. A new contact is added via the button "Create contact".

## Contacts detail view

In the Contacts Detail view, the field representative can view and edit the general contact details of the selected customer, e.g. Add notes or change the contact.

The screenshot shows the 'Contact data' tab for a contact named 'Doe, John - 10000'. The form contains the following fields:

- Name: John Doe
- City: Anytown
- ZIP: 12345
- Country: (dropdown menu)
- Street: 123 Anywhere Street
- Contact: (dropdown menu)
- Phone: +00 123 456 987
- Fax: (empty field)
- Email: (empty field)
- WWW: http://ingenious.net
- Client: (dropdown menu)
- Sales rep: Ronald Rich
- Note: (empty text area)

At the bottom right of the form are three buttons: 'Save', 'Save & Back', and 'Back'. The footer of the page reads 'powered by ingenious'.

Via tabs further details can be opened for the contact.

This way, the sales representative can open the file attachments stored for the customer and, if necessary, download them or even delete them when data is no longer up-to-date.

The screenshot shows the 'File attachments' tab for the same contact. It features a 'New file attachment' section with a text input field, a 'Durchsuchen...' button, and an 'Upload' button. Below this is a table listing existing attachments:

Type	File name / Link	Description	Created	
	1.pdf	Conditions	12/19/2019 - admin	
	Demo.xls	Sales analysis	12/19/2019 - admin	

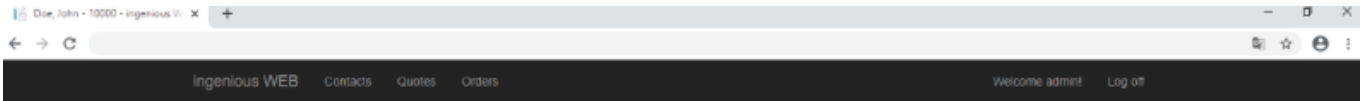
The footer of the page reads 'powered by ingenious'.

Via the special prices tab you can view and edit the individual customer prices and discounts. So the sales representative is always able to provide his customer with information without having to take special lists.

The screenshot shows the 'Special prices' tab for contact 'Doe, John - 10000'. The 'Specialprice template' is set to 'Cash payers'. The table below lists five special prices:

Category	Name	SP 1	SP 2	Scale 1	SP 1	SP 2	Scale 1	SP 1	SP 2	%	
Items	Zip Tax	-10	0	0	0	0	0	0	0	0	<input checked="" type="checkbox"/>
Items	Rolling Shutter inch	-10	0	0	0	0	0	0	0	0	<input checked="" type="checkbox"/>
Items	Rolling Shutter	-10	0	5	-20	0	0	0	0	0	<input checked="" type="checkbox"/>
Items	Roll Shutter 2	-15	0	0	0	0	0	0	0	0	<input checked="" type="checkbox"/>
Items	Roll Shutter	-10	0	0	0	0	0	0	0	0	<input checked="" type="checkbox"/>

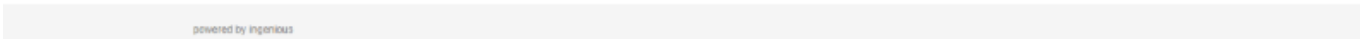
The notes display all notes of the contact, equivalent to the **documents and notes (Section 4.1.2.8)** in the local contacts detail view.



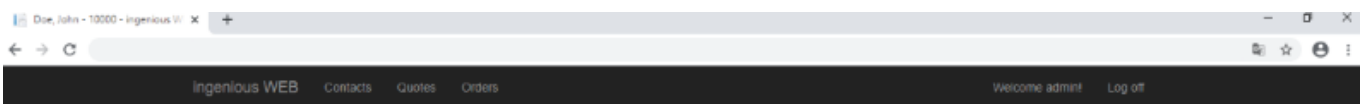
## Doe, John - 10000

Tabbed interface with 'Notes' selected. Includes a 'New note' form and a table of existing notes.

Created at	Subject	
12/20/2019 - admin	Request for approval	
12/20/2019 - admin	Catalogue	
12/19/2019 - admin	Limited sales offer	
12/18/2019 - admin	Letter December 2019	



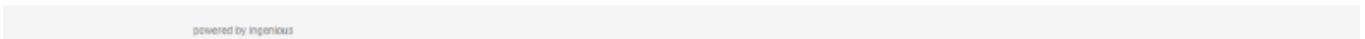
The additional addresses, such as the invoice and / or delivery address, are listed and maintained in the additional addresses.



## Doe, John - 10000

Tabbed interface with 'Additional addresses' selected. Includes a 'Create new address' button and a table of existing addresses.



Type	Name	Contact	Phone	Street	ZIP	City	Country	
Inv	John Doe		00123456789	127 Anywhere Street	12345	Anytown		
Obj	John Doe		00123456789	125 Anywhere Street	12345	Anytown		
Contact	John Doe Jr.		00147258369	130 Anywhere Street	12345	Anytown		





The screenshot shows a web browser window with the URL 'Doe, John - 10000 - ingenious'. The page title is 'Doe, John - 10000'. The navigation menu includes 'Ingenious WEB', 'Contacts', 'Quotes', and 'Orders'. The user is logged in as 'admin'.

The main content area is titled 'Doe, John - 10000' and has several tabs: 'Contact data', 'File attachments', 'Special prices', 'Notes', and 'Additional addresses'. The 'Additional addresses' tab is active, showing a table of addresses and a form for editing one.

Type	Name	Contact	Phone	Street	ZIP	City	Country	
Inv	John Doe		00123456987	127 Anywhere Street	12345	Anytown		 

**Address type:** Invoice address  Default address

**Name:**



**Street:**

**ZIP:**  **City:**

**Contact:**

**Phone:**  **Fax:**

**E-Mail:**  **WWW:**

Obj	John Doe		00123456987	127 Anywhere Street	12345	Anytown		 
-----	----------	--	-------------	---------------------	-------	---------	--	---

powered by ingenious

## Quotes and orders

Via the main menu the sales representative can navigate to the lists of all offers and all orders. There he can view all project documents, search for individual and edit if necessary.

The screenshot shows the 'Quotes' section of the Ingenious WEB application. At the top, there is a search bar and four action buttons: '+ Create Quote' (green), 'Convert Quote' (blue), 'Finalise Quote' (orange), and 'Delete Quote' (red). Below these is a table listing various quotes.

Printed	Document	Number	Project Name	Contact	FP	SP	d.	Action
12/20/2019	Quotation	Q201912/0036	Demo	Doe, John	0.00	794.96	<input type="checkbox"/>	
12/20/2019	Quotation	Q201912/0035	Demo	Doe, John	82.22	190.15	<input type="checkbox"/>	
6/19/2019	Quotation	Q201906/0033		Doe, John	2,193.53	8,183.23	<input type="checkbox"/>	
6/14/2019	Quotation	Q201906/0032		Doe, John	2,520.22	6,707.06	<input type="checkbox"/>	
6/13/2019	Quotation	Q201906/0031		Doe, John	2,471.92	9,616.97	<input type="checkbox"/>	
2/21/2019	Quotation	Q201902/0029		Demo Customer	336.89	3,354.58	<input type="checkbox"/>	
12/17/2018	Quotation	Q201812/0024	Demo	Doe, John	0.00	1,852.92	<input type="checkbox"/>	
12/10/2018	Quotation	Q201812/0023	Demo	Doe, John	0.00	450.00	<input type="checkbox"/>	
8/31/2016	Quotation	Q201608/0022	Demonstration	Doe, John	1,001.10	5,081.42	<input type="checkbox"/>	
8/17/2016	Quotation	Q201608/0021	Demo	Doe, John	0.00	0.00	<input type="checkbox"/>	
8/9/2016	Quotation	Q201608/0020		Lehmann's	0.00	0.00	<input type="checkbox"/>	
8/9/2016	Quotation	Q201608/0019	Test 1	Doe, John	801.51	2,861.38	<input type="checkbox"/>	
8/3/2016	Quotation	Q201608/0018	Order 2016/08/03	Doe, John	1,162,877,260.73	1,679.80	<input type="checkbox"/>	

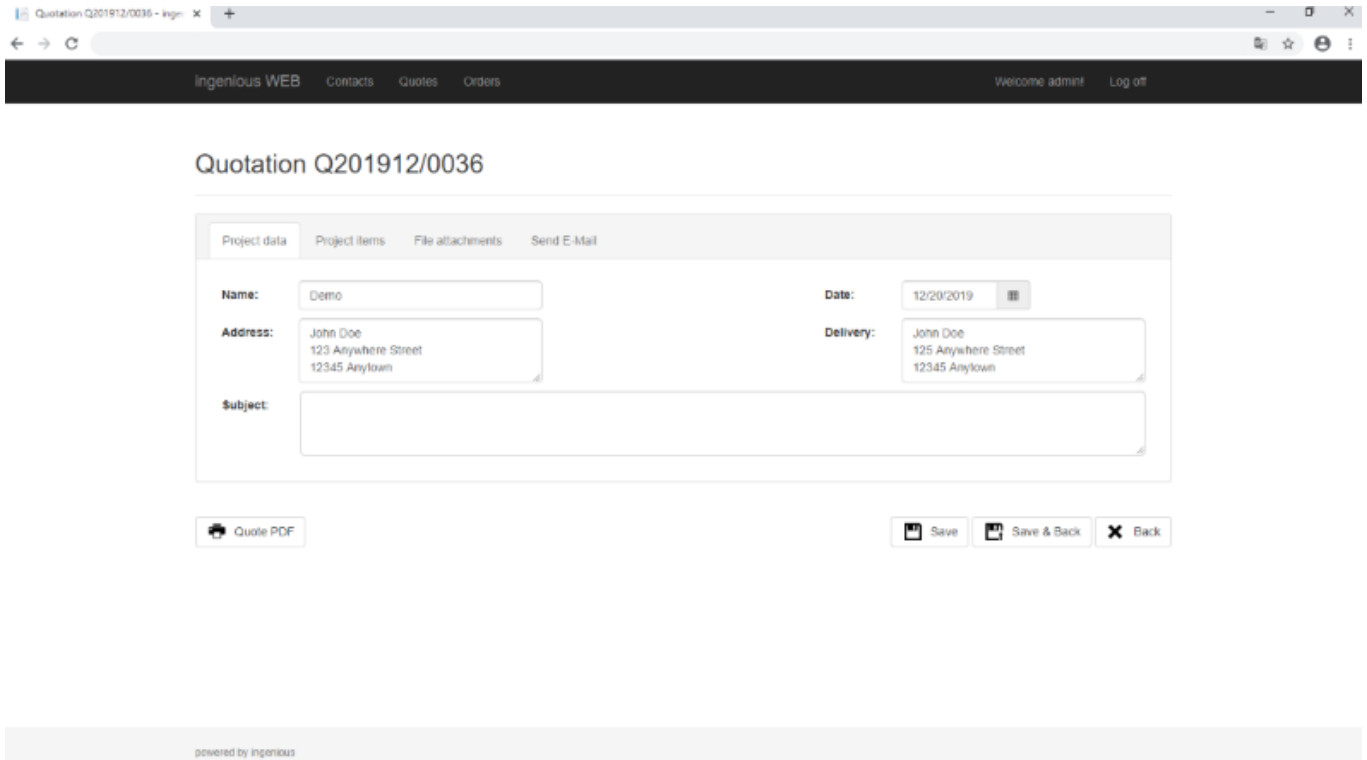
powered by ingenious

The employee can be provided with the following functions:

- Create a new offer
- Convert an offer to an order
- Finalize an offer
- or delete an offer

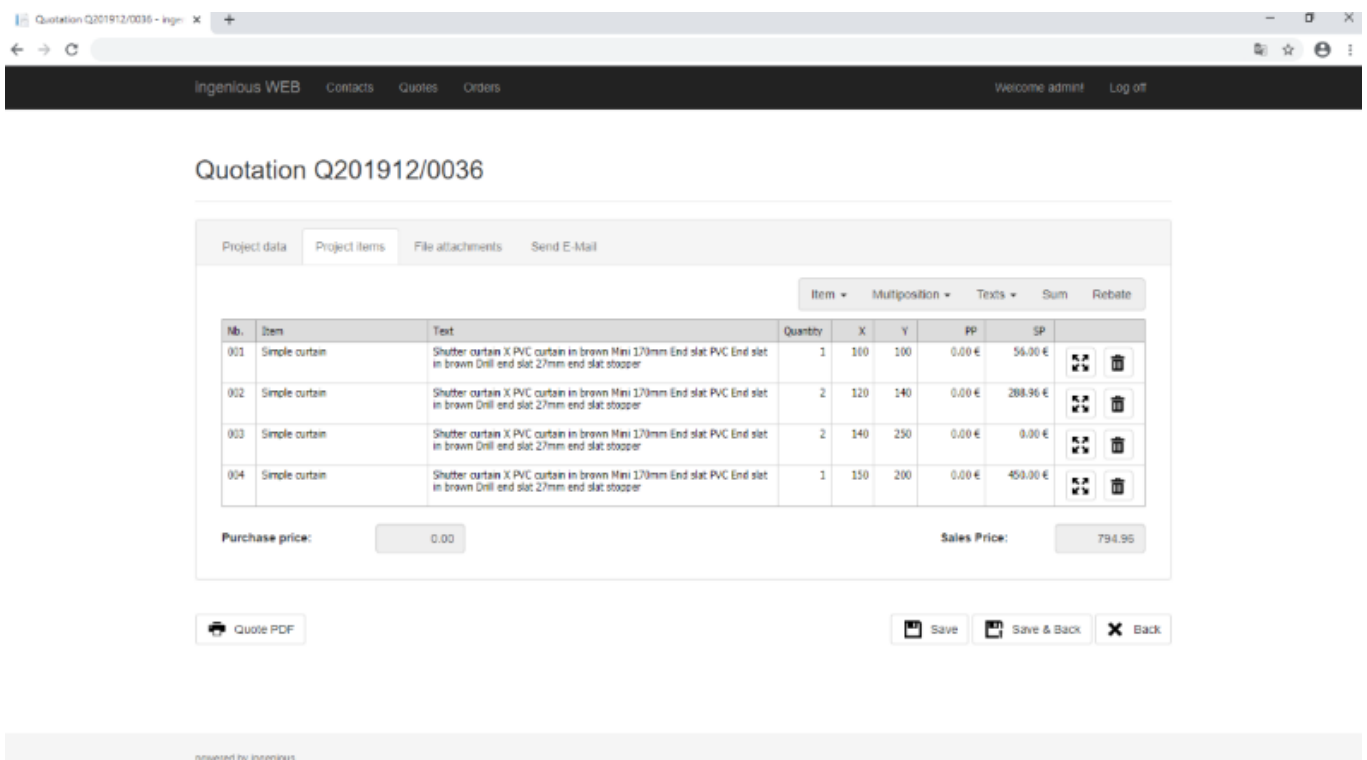
An existing project document can be opened by double-clicking.

The detailed view is divided into 4 sections for a better overview. The individual forms can be opened via tabs.



The general project data provide an overview of the project addresses that were loaded from the referenced contact and contain the date as well as a project name (= commission) and a subject for free entry to be filled in by the processor.

In the project items all offer items are recorded, such as articles, free texts, discounts, etc.



The article menu ideally contains the matchcodes of the company's main products, which are added to a quotation via product configurators. For less used (single) items is an article search available.

Within the product configurators, logics ensure that only technically feasible combinations can be ordered. Errors or hints are displayed to the user immediately after each validation.

The screenshot shows a web browser window displaying the '003 Simple curtain' product configurator. The interface includes a navigation bar with 'Ingenious WEB', 'Contacts', 'Quotes', 'Orders', 'Welcome admin!', and 'Log out'. The main content area is titled '003 Simple curtain' and features a 'Measurements' form on the left and a product image on the right. The 'Measurements' form has the following fields:

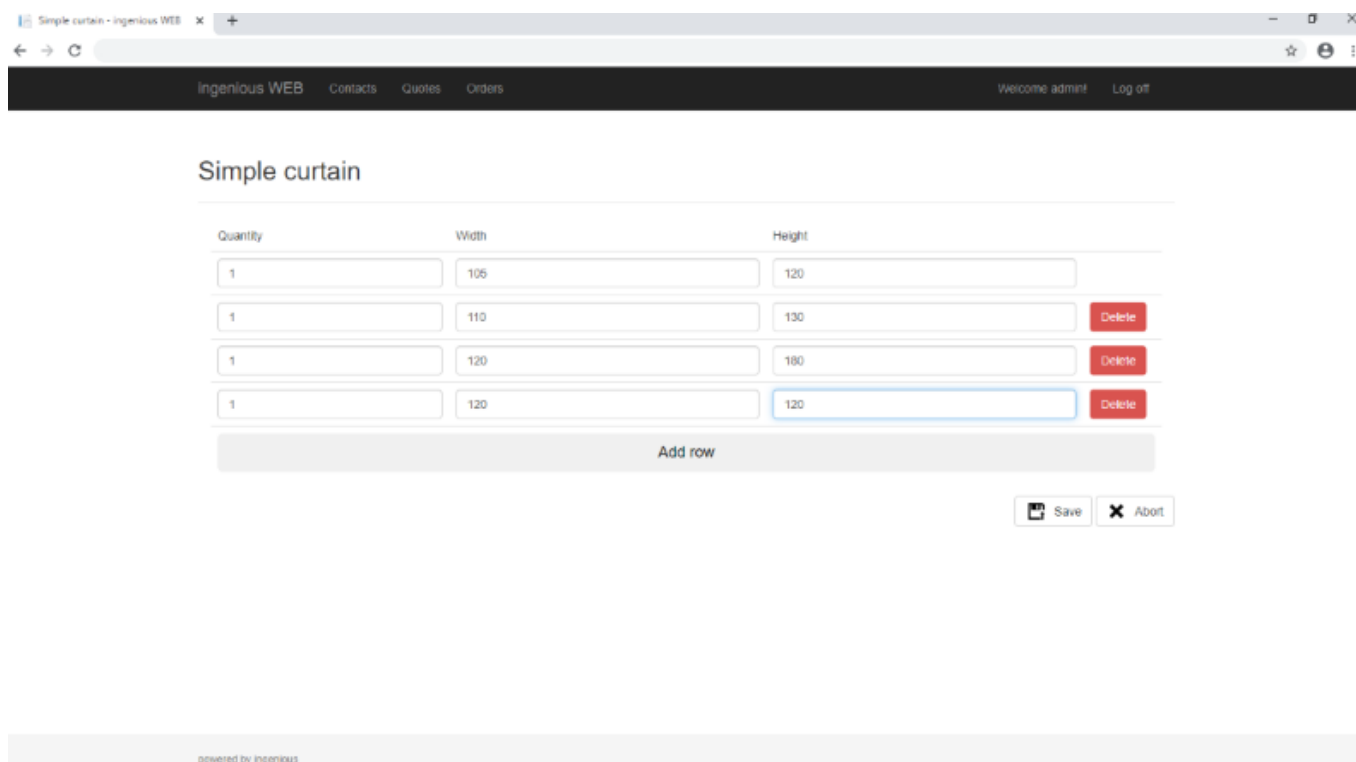
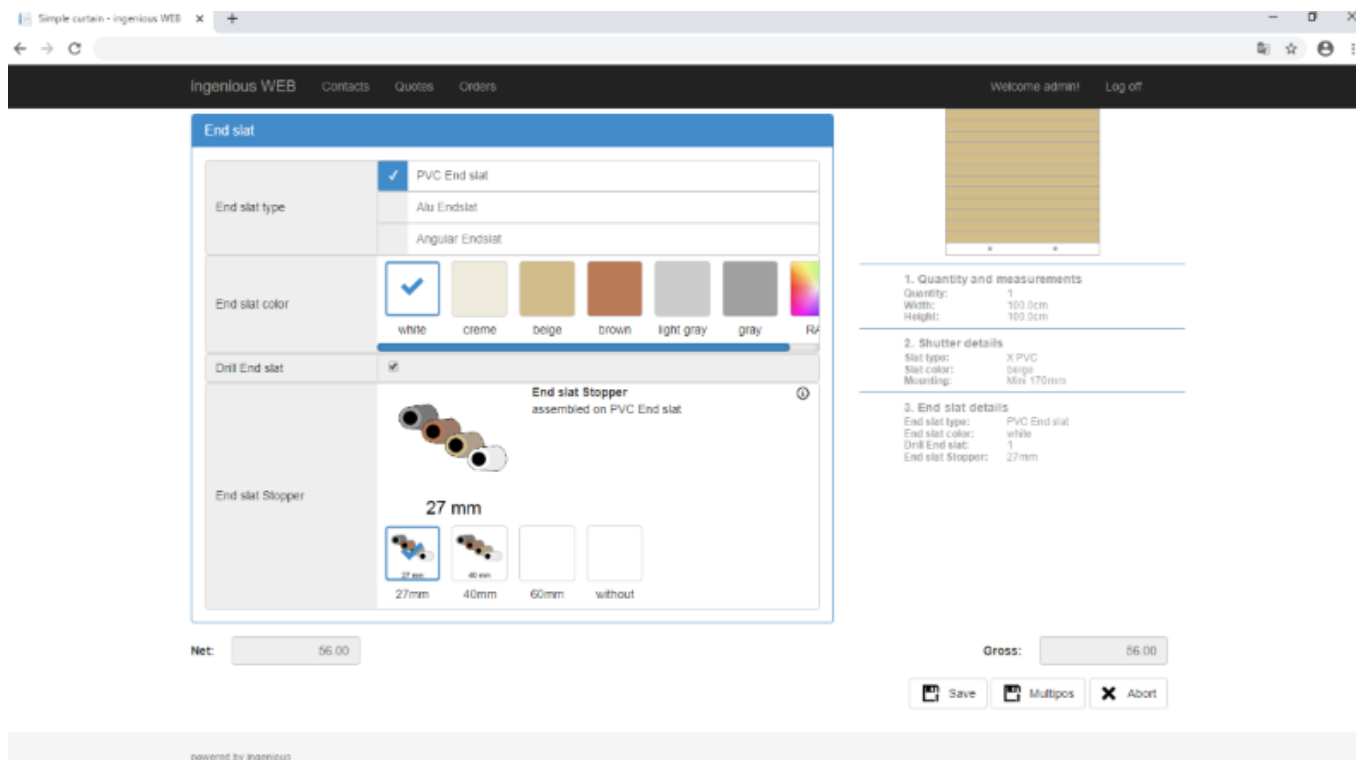
Measurements	
Quantity	1
Width	250
Height	200
Additional information	Please enter additional information here. Additional

Below the form are two buttons: 'Curtain' and 'End slat'. To the right is a 3D rendering of a brown wooden-style curtain with two vertical slats. Below the image are three sections of configuration details:

- 1. Quantity and measurements**  
Quantity: 1  
Width: 250.0cm  
Height: 200.0cm
- 2. Shutter details**  
Slat type: X-PVC  
Slat color: brown  
Mounting: Nbr 170mm
- 3. End slat details**  
End slat type: PVC End slat  
End slat color: brown  
Drill End slat: 1  
End slat Stopper: 27mm

A light blue warning box at the bottom left states: 'ⓘ The maximum width for X-PVC is 150.00 cm. No warranty!'. The footer of the page reads 'powered by ingenious'.

If several positions of the same article but with different dimensions and possibly in different variants are to be recorded, the use of the multiposition is recommended. After the basic variant has been configured, the individual values are recorded in a separate form.



After completing the offer, it can be printed via the corresponding button in a PDF for further use / distribution.

Project data | Project items | File attachments | Send E-Mail

Nb.	Item	Text	Quantity	X	Y	PP	SP	
001	Simple curtain	Shutter curtain X PVC curtain in brown Mini 170mm End slot PVC End slot in brown Drill end slot 27mm end slot stopper	1	100	100	0.00 €	56.00 €	
002	Simple curtain	Shutter curtain X PVC curtain in brown Mini 170mm End slot PVC End slot in brown Drill end slot 27mm end slot stopper	2	120	140	0.00 €	188.06 €	
003	Simple curtain	Shutter curtain X PVC curtain in brown Mini 170mm End slot PVC End slot in brown Drill end slot 27mm end slot stopper	1	150	200	0.00 €	450.00 €	
004	Simple curtain	Shutter curtain X PVC curtain in beige Mini 170mm End slot PVC End slot in white Drill end slot 27mm end slot stopper	1	105	120	0.00 €	91.08 €	
005	Simple curtain	Shutter curtain X PVC curtain in beige Mini 170mm End slot PVC End slot in white Drill end slot 27mm end slot stopper	1	110	130	0.00 €	108.68 €	
006	Simple curtain	Shutter curtain X PVC curtain in beige Mini 170mm End slot PVC End slot in white Drill end slot 27mm end slot stopper	1	120	180	0.00 €	137.60 €	
007	Simple curtain	Shutter curtain X PVC curtain in beige Mini 170mm End slot PVC End slot in white Drill end slot 27mm end slot stopper	1	120	120	0.00 €	109.44 €	
		Running sum				0.00 €	1,342.66 €	

Purchase price: 0.00      Sales Price: 1,342.66

powered by ingenious

Alternatively, the sales representative can send the offer directly as an attachment to an email. To do this, he opens the mail editor via the "Send e-mail" tab.

Project data | Project items | File attachments | Send E-Mail

To: noreply@ingenious.de

CC:

BCC:

Reply to:

Subject: Quotation Q201912/0036 Demo

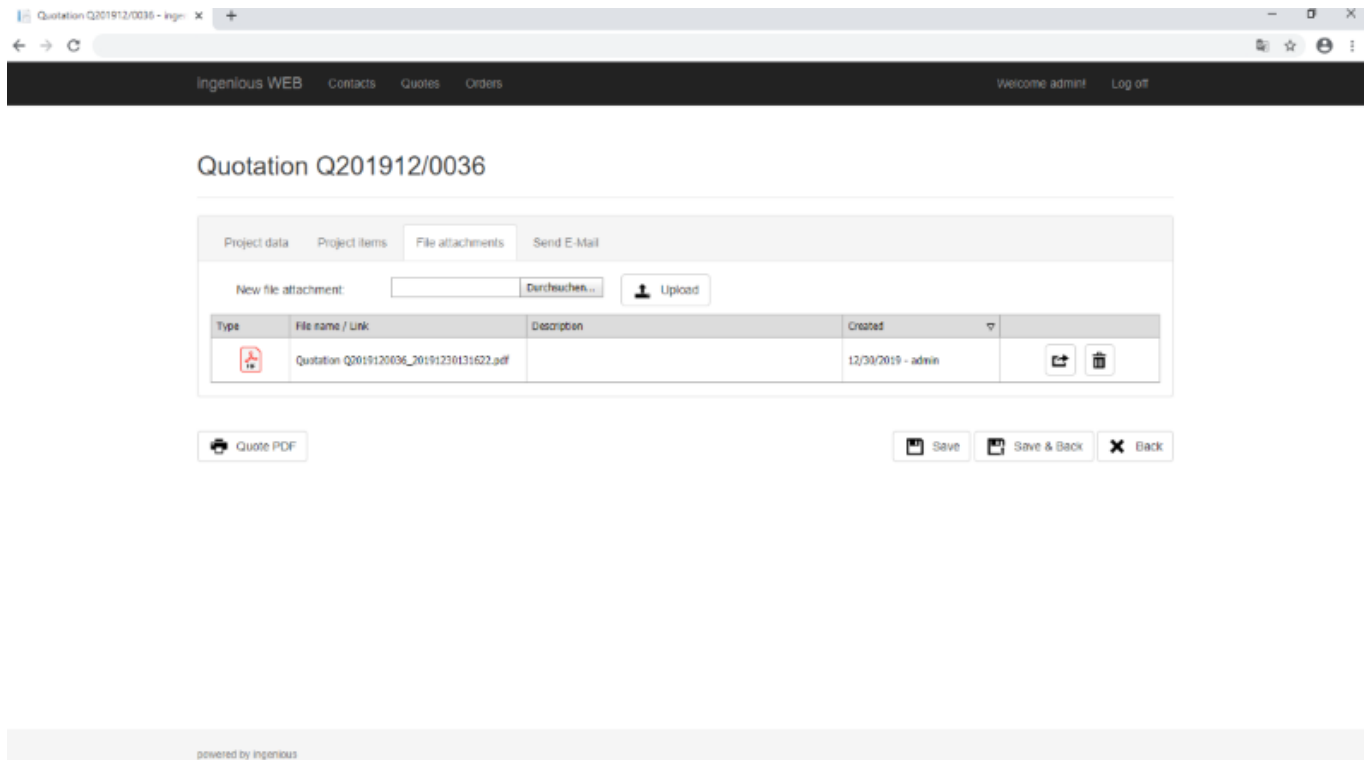
Message:

Attachment:  Quote  Quote B2B

powered by ingenious

The e-mail address of the linked customer is already used in the mail editor, as long as it is stored in the contact. The processor can also send the email to additional recipients and enter a message text. He may also add the offer as an attachment.

If there are further explanatory documents for a project, e.g. a hand sketch of the measurement, a fax with the request of the customer, a photo of the installation situation, etc., then these documents should be collected as file attachments in the project. This can be added by the sales representative via the tab "File attachments".

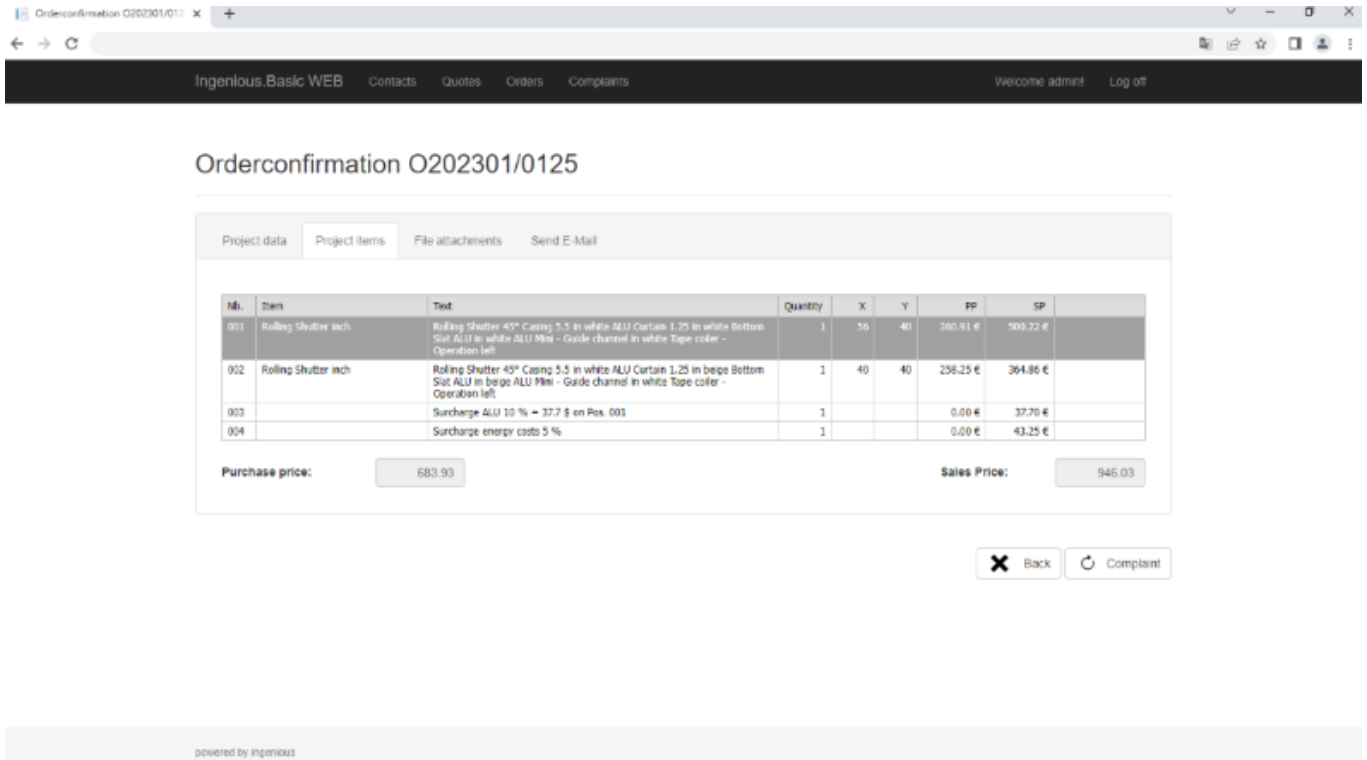


## Complaints

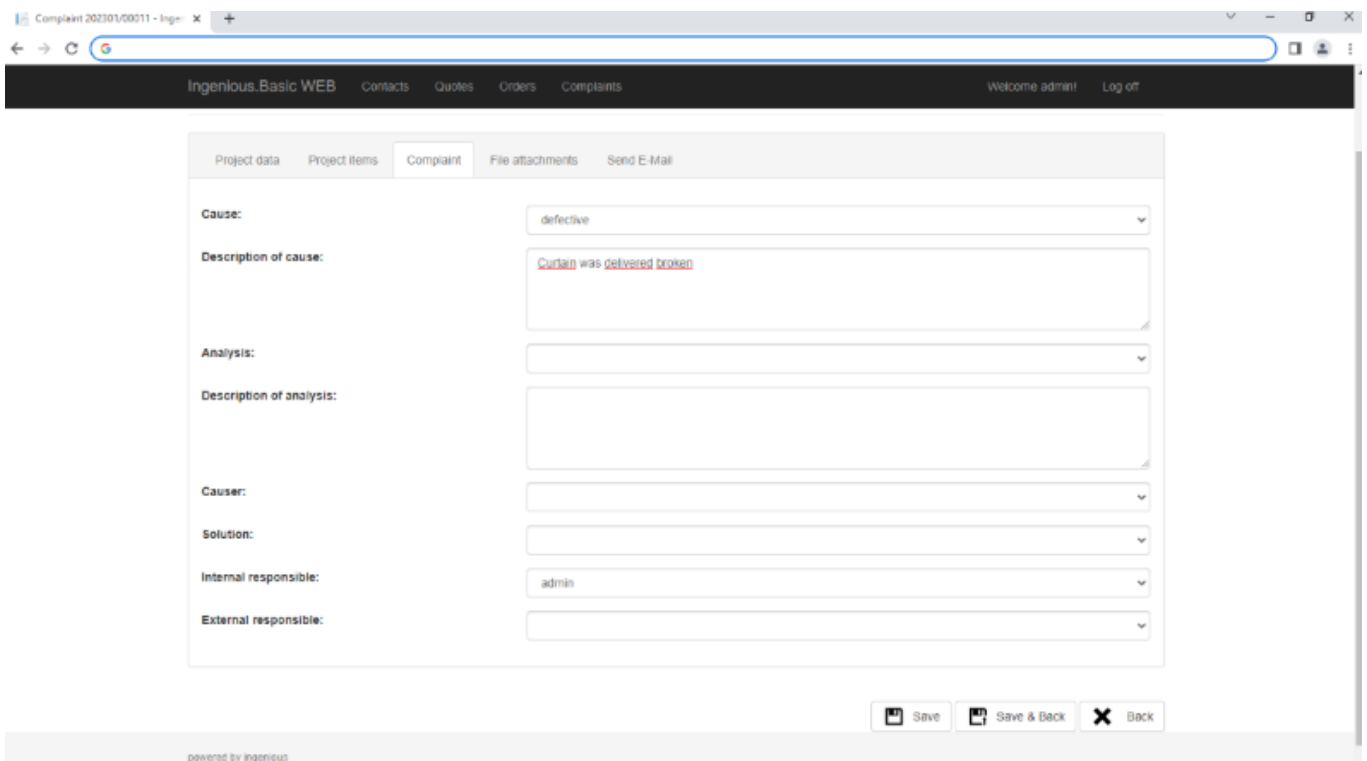
Complaints about commissioned, delivered and calculated project items can be initiated and processed via web access.

A complaint is started via the original document, e.g. an order confirmation.

The item(s) to be complained about is/are marked and the "Complaint" button is pressed.

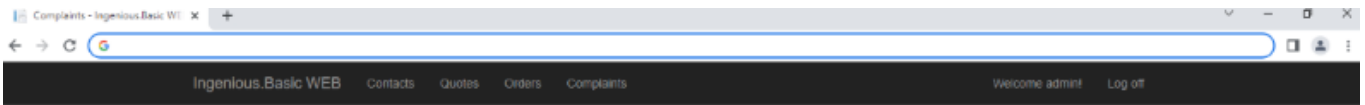


A new complaint document is created that contains the data taken from the order and the item complained about. In the additional "Issue" tab, the details of the complaint can be recorded and saved.



A list view of all complaints can be displayed via the Complaints item in the main menu.





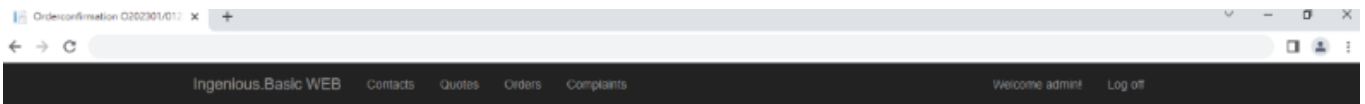
## Complaints

Search

Printed	Document	Number	Project Name	Contact	Cause
1/16/2023	Complaint	202301/00011	RS2	Doe, John	Curtain was delivered broken
4/29/2022	Complaint	202204/00010	Demo 10	Doe, John	see
4/29/2022	Complaint	202204/00009	Demo 9	Doe, John	customer ordered brown, but actually want to have white
4/29/2022	Complaint	202204/00008	Demo 8	Model, Matt	Side cage missing 2nd item damaged
4/29/2022	Complaint	202204/00007	test	Doe, John	
4/27/2022	Complaint	202204/00006	Demo	Doe, John	
4/12/2022	Complaint	202204/00004	Demo 7	Dessauer BauSERVICE	
4/12/2022	Complaint	202204/00003	Demo 5	Miller & Partner	Cable broken, Shutter wrong size
1/11/2022	Complaint	202201/00002	Demo	Doe, John	The curtain was delivered crushed
1/11/2022	Complaint	202201/00001		Doe, John	

powered by ingenious

In the original document, items complained about are marked with a corresponding icon after the item number.



## Orderconfirmation O202301/0125

Project data		Project items	File attachments	Send E-Mail			
Nr.	Item	Text	Quantity	X	Y	FP	SP
001	Rolling Shutter inch	Rolling Shutter 45° Casing 5.5 in white ALU Curtain 1.25 in white Bottom Slot ALU in white ALU Mini - Guide channel in white Tape colier - Operation left	1	56	40	360.91 €	509.22 €
002	Rolling Shutter inch	Rolling Shutter 45° Casing 5.5 in white ALU Curtain 1.25 in beige Bottom Slot ALU in beige ALU Mini - Guide channel in white Tape colier - Operation left	1	40	40	258.25 €	364.86 €
003		Surcharge ALU 10 % = 37.7 \$ on Pos. 001	1			0.00 €	37.70 €
004		Surcharge enepnr costs 5 %	1			0.00 €	43.25 €
<b>Purchase price:</b>		683.93	<b>Sales Price:</b>		945.03		

Back Complain

powered by ingenious

The structure and content of the web views can be designed individually.

In addition to the standard fields, further individual and/or user fields can be displayed.

## 10.5 Dealer ordering system

ingenious offers resellers the ability to calculate and order the company's products. Through the product configurators, all variants are made both technically and priced. As a special feature, with ingenious B2B, retailers are given a tool with which they can simultaneously create offers for their own end customers - based on the company's product offering, with their own sales price calculation based on percentage and absolute mark-ups. The retailer can print their own B2B offer containing their logo, contact details or even their own quote template.

The dealer portal is secured via login and password. The website can provide general information on the home page, e.g. with the company's news, a master data page, as well as an overview of the offers and orders of the dealer. In addition, additional individual pages can be inserted and external content incorporated, e.g. a Twitter channel or Facebook account.

The screenshot shows a web browser window with the URL 'Settings - ingenious B2B'. The page has a dark navigation bar with 'ingenious B2B', 'Settings', 'Quotes', and 'Orders'. The main content area is titled 'Settings' and is divided into two columns. The left column is labeled 'Logo' and contains the ingenious logo, a search bar with the text 'Suchen...', and an 'Upload' button. The right column is labeled 'Address' and contains eight input fields. The first three fields contain the text 'John Doe', '123 Anywhere Street', and '12345 Anytown'. There is a 'Save' button at the bottom right of the address section. At the bottom of the page, there is a footer that says 'powered by ingenious'.

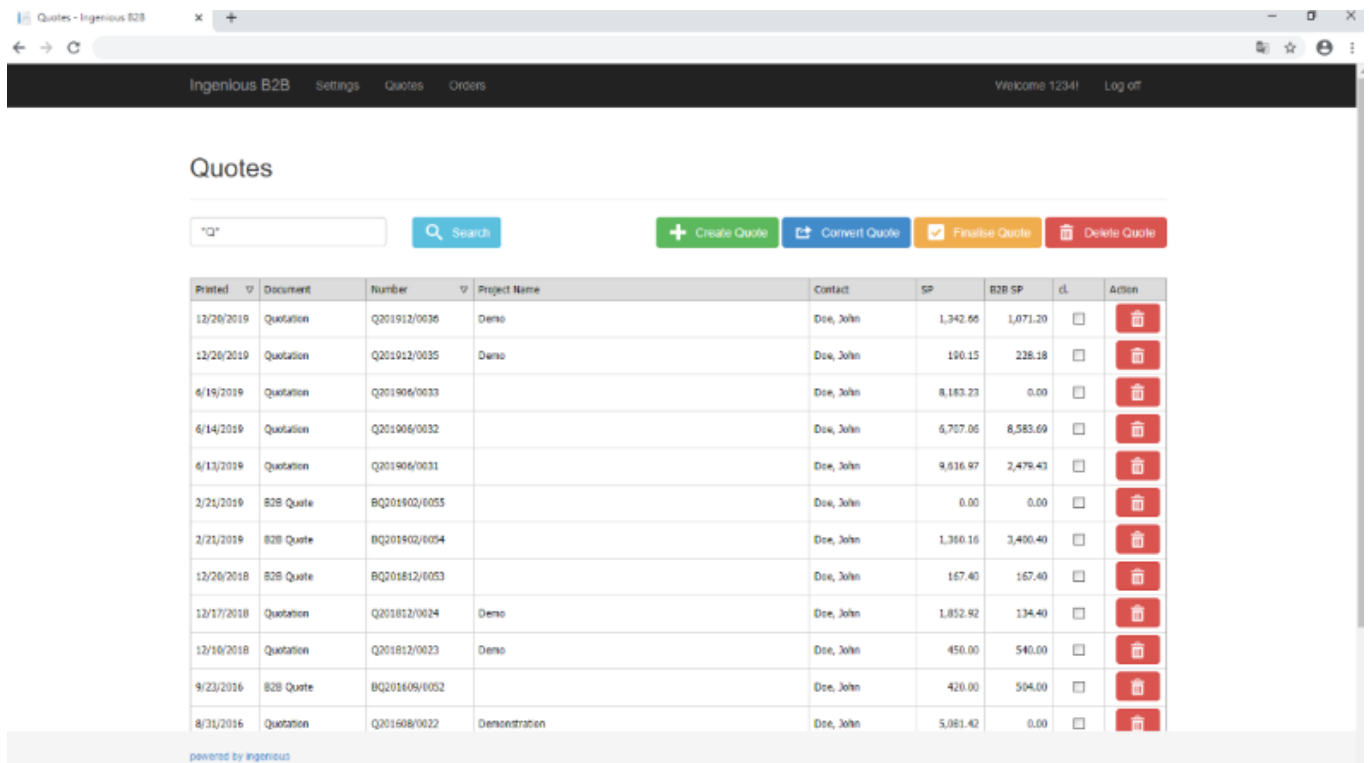
On the master data page, the dealer sees the address saved for him. These 8 address fields can be printed on B2B offers. If the dealer has a different representation, e.g. If he wants a different order, he can modify the address fields here. These special Web fields do not overwrite the main contact record, but are stored separately in the database. See **Contact web settings (Section 4.1.2.13)**

**(Section 4.1.2.13)** Furthermore, the retailer can upload his logo here for printing on the B2B offer.

Via the menu, the dealer can call up all offers or orders created for him.

In the offer list, he has the opportunity to view individual projects (by double-clicking open) and, if necessary, to change or create a new offer. The dealer sees both the offers that he has created himself and those that a consultant has written in the local system.

Using the buttons to convert or finalize an offer, an offer can be converted into a binding order, depending on how the processes are defined in-house.

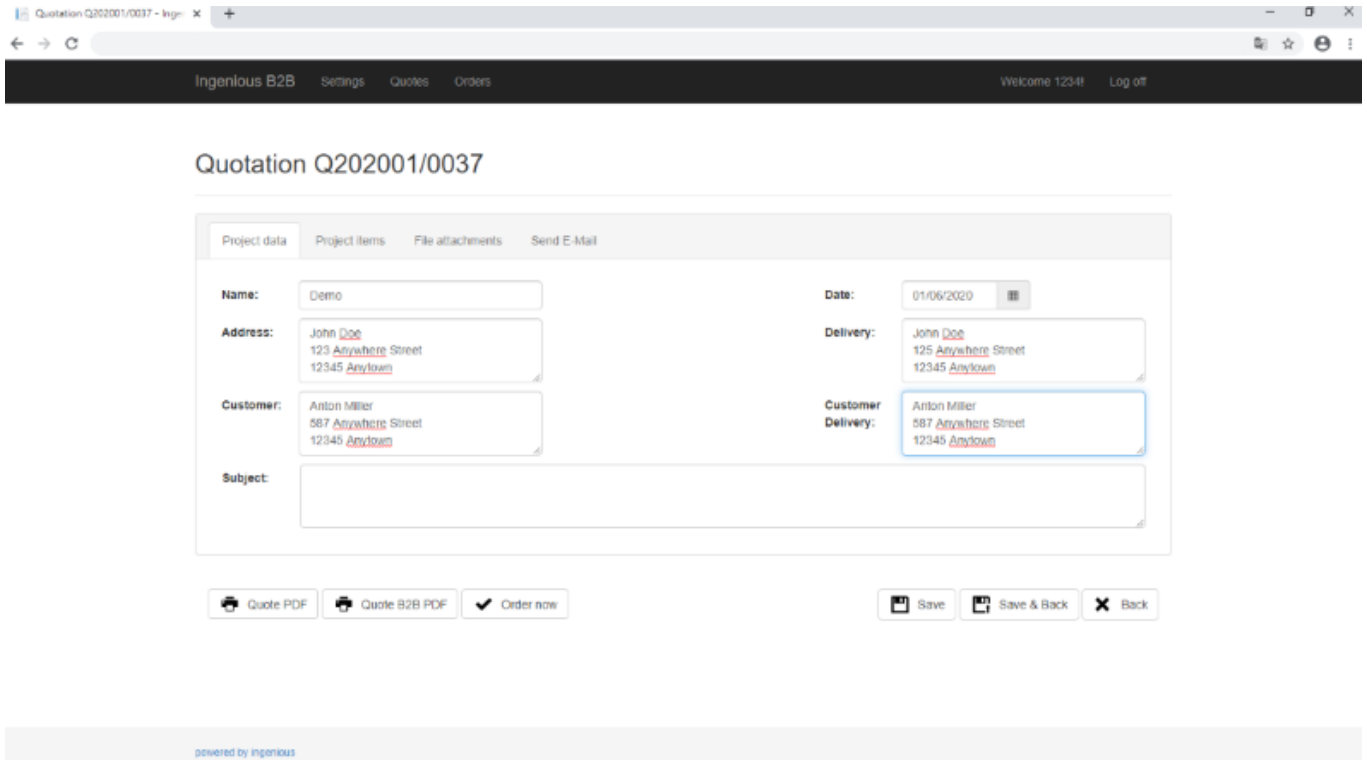


The screenshot displays the 'Quotes' section of the Ingenious B2B application. At the top, there is a search bar containing 'Q' and a search button. Below the search bar are four action buttons: '+ Create Quote' (green), 'Convert Quote' (blue), 'Finalise Quote' (orange), and 'Delete Quote' (red). The main content is a table with the following columns: Printed (with a dropdown arrow), Document, Number (with a dropdown arrow), Project Name, Contact, SP, B2B SP, cl, and Action (with a trash icon). The table contains 15 rows of data, including various quotes and B2B quotes with their respective dates, numbers, project names, and financial values.

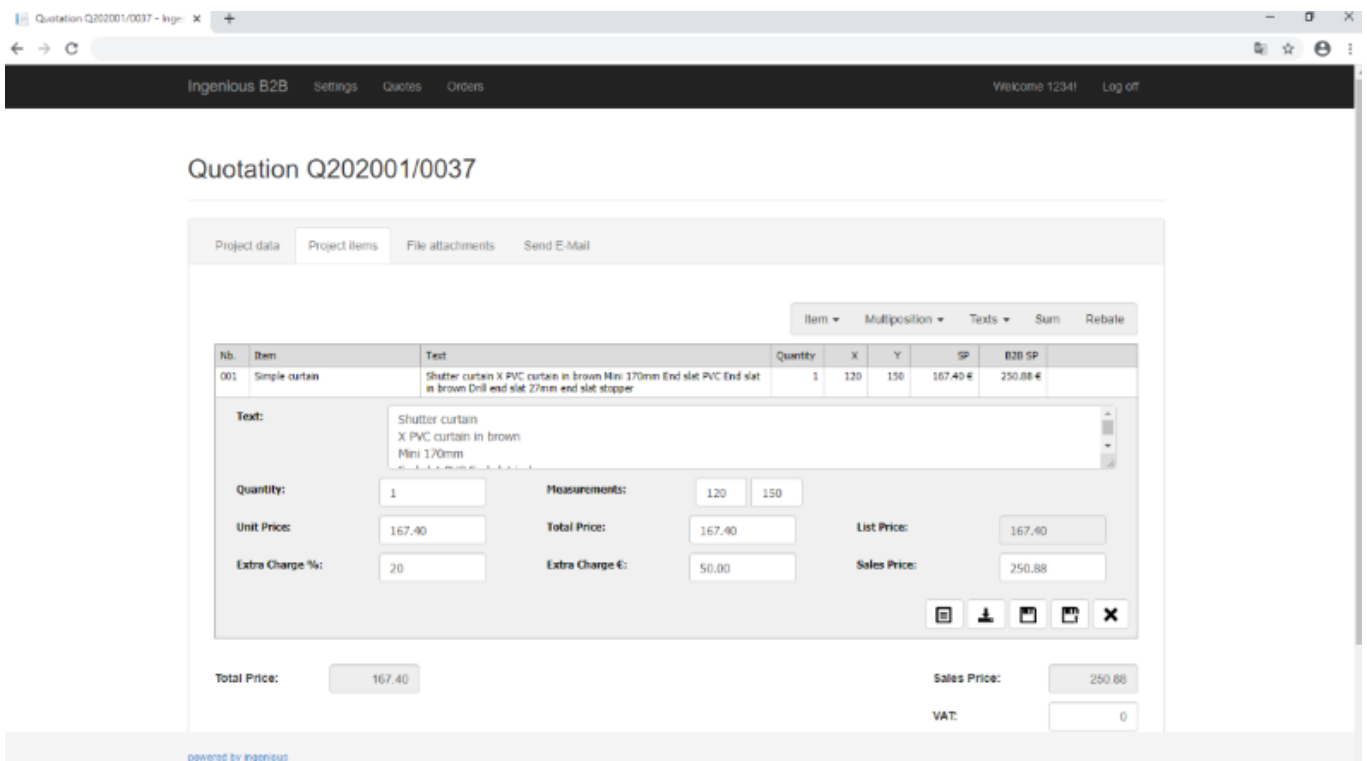
Printed	Document	Number	Project Name	Contact	SP	B2B SP	cl	Action
	Quotation	Q201912/0036	Demo	Dee, John	1,342.66	1,071.20	<input type="checkbox"/>	
	Quotation	Q201912/0035	Demo	Dee, John	190.15	226.18	<input type="checkbox"/>	
	Quotation	Q201906/0033		Dee, John	8,183.23	0.00	<input type="checkbox"/>	
	Quotation	Q201906/0032		Dee, John	6,707.06	6,583.69	<input type="checkbox"/>	
	Quotation	Q201906/0031		Dee, John	9,616.97	2,475.43	<input type="checkbox"/>	
	B2B Quote	BQ201902/0055		Dee, John	0.00	0.00	<input type="checkbox"/>	
	B2B Quote	BQ201902/0054		Dee, John	1,360.16	3,400.40	<input type="checkbox"/>	
	B2B Quote	BQ201812/0053		Dee, John	167.40	167.40	<input type="checkbox"/>	
	Quotation	Q201812/0024	Demo	Dee, John	1,852.92	134.40	<input type="checkbox"/>	
	Quotation	Q201812/0023	Demo	Dee, John	450.00	540.00	<input type="checkbox"/>	
	B2B Quote	BQ201609/0052		Dee, John	420.00	504.00	<input type="checkbox"/>	
	Quotation	Q201608/0022	Demonstration	Dee, John	5,081.42	0.00	<input type="checkbox"/>	

powered by ingenious

When creating a new offer, the dealer can enter the address data of his customer, if he wants to send a B2B offer. There are 2 address fields available, the main address and a possibly different delivery address. In addition, he can assign a project name (commission) and insert a free text in the subject line.



Then the dealer inserts the desired items on the "Project items" tab and calculates the sales prices with his surcharges.



If several variants are required for one article, eg different dimensions, the multiposition can be used for the entry.

After selecting the article, an extra input mask is opened, through which the variants are recorded.

The screenshot shows a web browser window with the title 'Simple curtain - ingenious B2B'. The browser's address bar is empty. The page header includes 'Ingenious B2B', 'Settings', 'Quotes', and 'Orders' on the left, and 'Welcome 1234!' and 'Log off' on the right. The main content area is titled 'Simple curtain' and contains a table with three columns: 'Quantity', 'Width', and 'Height'. The table has three rows of input fields. The first row contains '1', '105', and '120'. The second row contains '1', '110', and '120', with a red 'Delete' button to its right. The third row contains '1', '120', and '150', with a red 'Delete' button to its right. Below the table is a grey 'Add row' button. At the bottom right of the form are two buttons: 'Save' (with a floppy disk icon) and 'Abort' (with an 'X' icon). At the bottom of the page, there is a footer that says 'powered by ingenious'.

Quantity	Width	Height	
<input type="text" value="1"/>	<input type="text" value="105"/>	<input type="text" value="120"/>	
<input type="text" value="1"/>	<input type="text" value="110"/>	<input type="text" value="120"/>	<input type="button" value="Delete"/>
<input type="text" value="1"/>	<input type="text" value="120"/>	<input type="text" value="150"/>	<input type="button" value="Delete"/>

powered by ingenious

Once all items have been entered, the retailer can print the quotation once as a purchase offer and once as a sales offer.

Via the tab Send E-Mail he can also send the offer directly to his end customer.

The screenshot shows the 'Send E-Mail' tab in the Ingenious B2B interface. The page title is 'Quotation Q202001/0037'. The navigation bar includes 'Ingenious B2B', 'Settings', 'Quotes', 'Orders', 'Welcome 1234!', and 'Log off'. The 'Send E-Mail' tab is active, showing a form with the following fields:

- To:** noreply@ingenious.de
- CC:** (empty)
- BCC:** (empty)
- Reply to:** (empty)
- Subject:** Quotation Q202001/0037 Demo
- Message:** Dear Mr. Miller, (with a text area for additional content)
- Attachment:**  Quote,  Quote B2B

Buttons at the bottom include 'Quote PDF', 'Quote B2B PDF', 'Order now', 'Save', 'Save & Back', and 'Back'. A footer note says 'powered by ingenious'.

Additional documents relevant to the project can be stored by the dealer via the file attachments in the database and retrieved at any time.

The screenshot shows the 'File attachments' tab in the Ingenious B2B interface. The page title is 'Quotation Q202001/0037'. The navigation bar is the same as in the previous screenshot. The 'File attachments' tab is active, showing a form with the following elements:

- New file attachment:** A text input field with a 'Durchsuchen...' button and an 'Upload' button.
- Table:** A table with columns 'Type', 'File name / Link', 'Description', and 'Created'. The table is currently empty, with the text 'Keine Daten zum Anzeigen' (No data to display) centered below it.

Buttons at the bottom include 'Quote PDF', 'Quote B2B PDF', 'Order now', 'Save', 'Save & Back', and 'Back'. A footer note says 'powered by ingenious'.

## Dealer's own document templates


In the ingenious B2B web portal, specialist dealers can create quotes for their end customers.

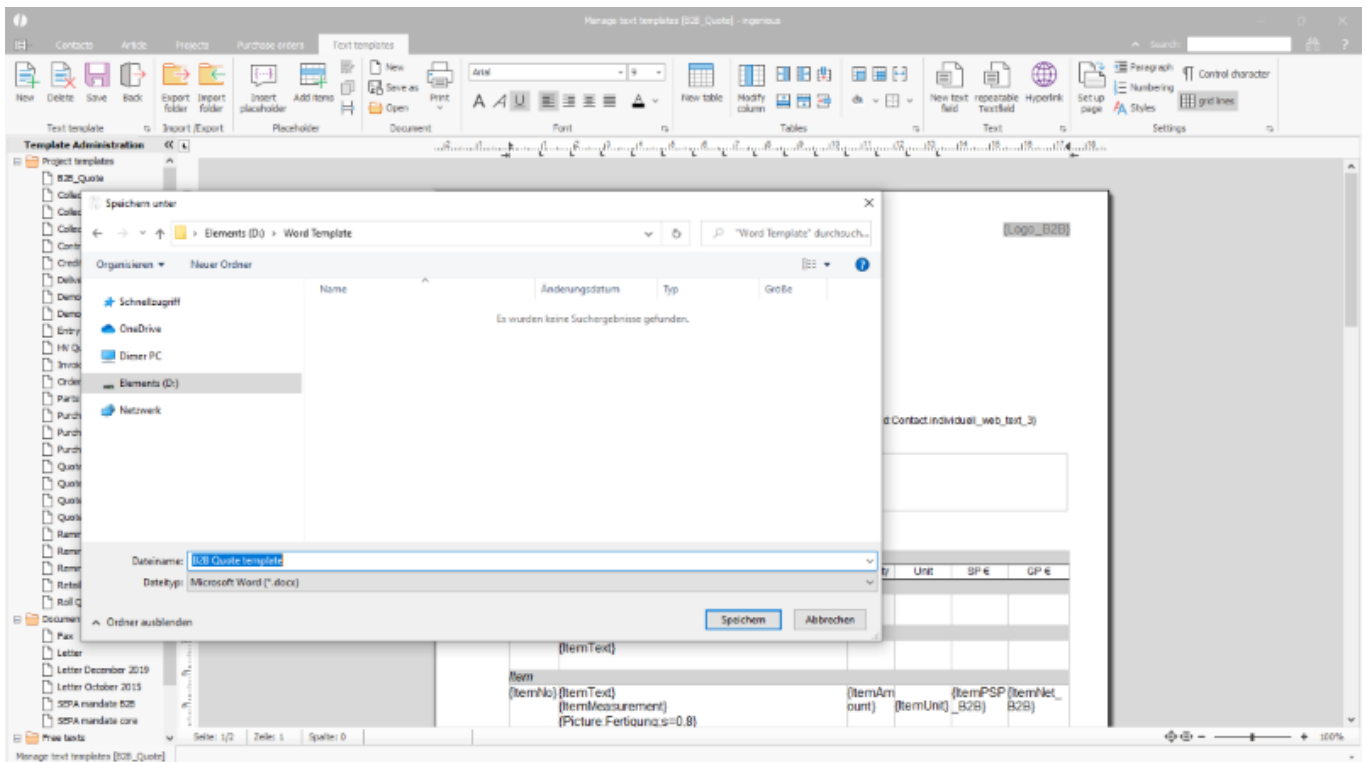
These are printed using a predefined project template that is only individualized using its address data and logo.

Alternatively, a Microsoft Word template can be used, which can be individually designed by the specialist dealer.

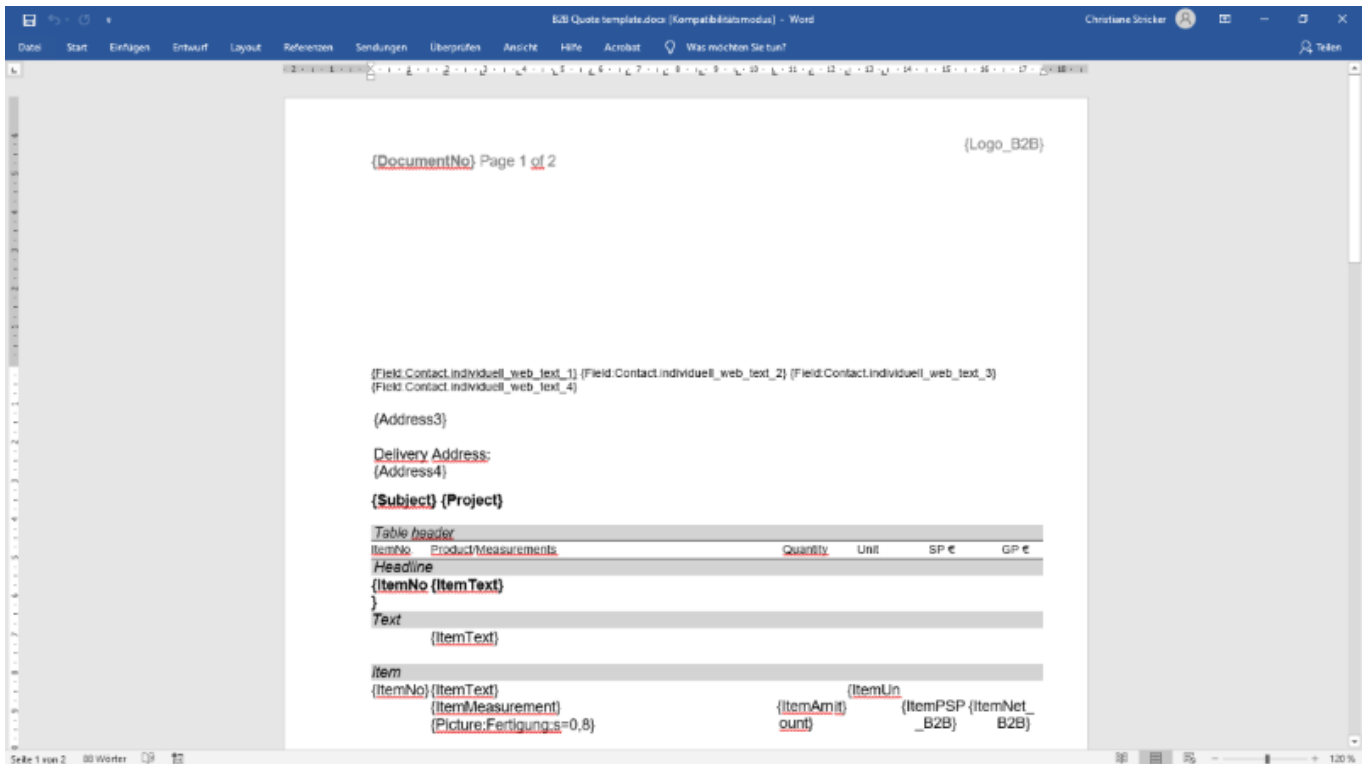
The Word template is "filled in" when the document is created using the ingenious placeholders.

The Word template can be created in .doc, .dot, .docx or .dotx format.

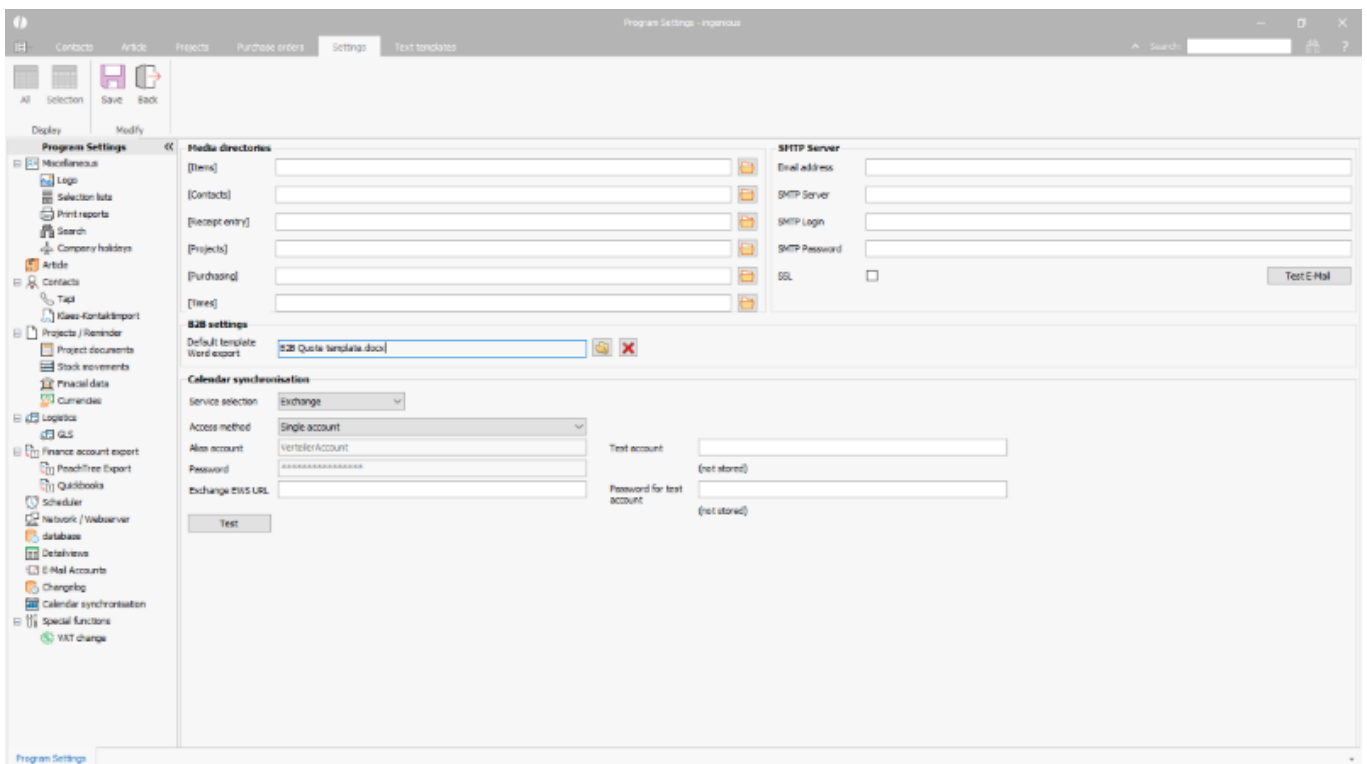
The easiest way to create the basic Word template is to save an existing B2B project template as a .doc or .docx file using the "Save as" button 



This Word document then contains all necessary placeholders.



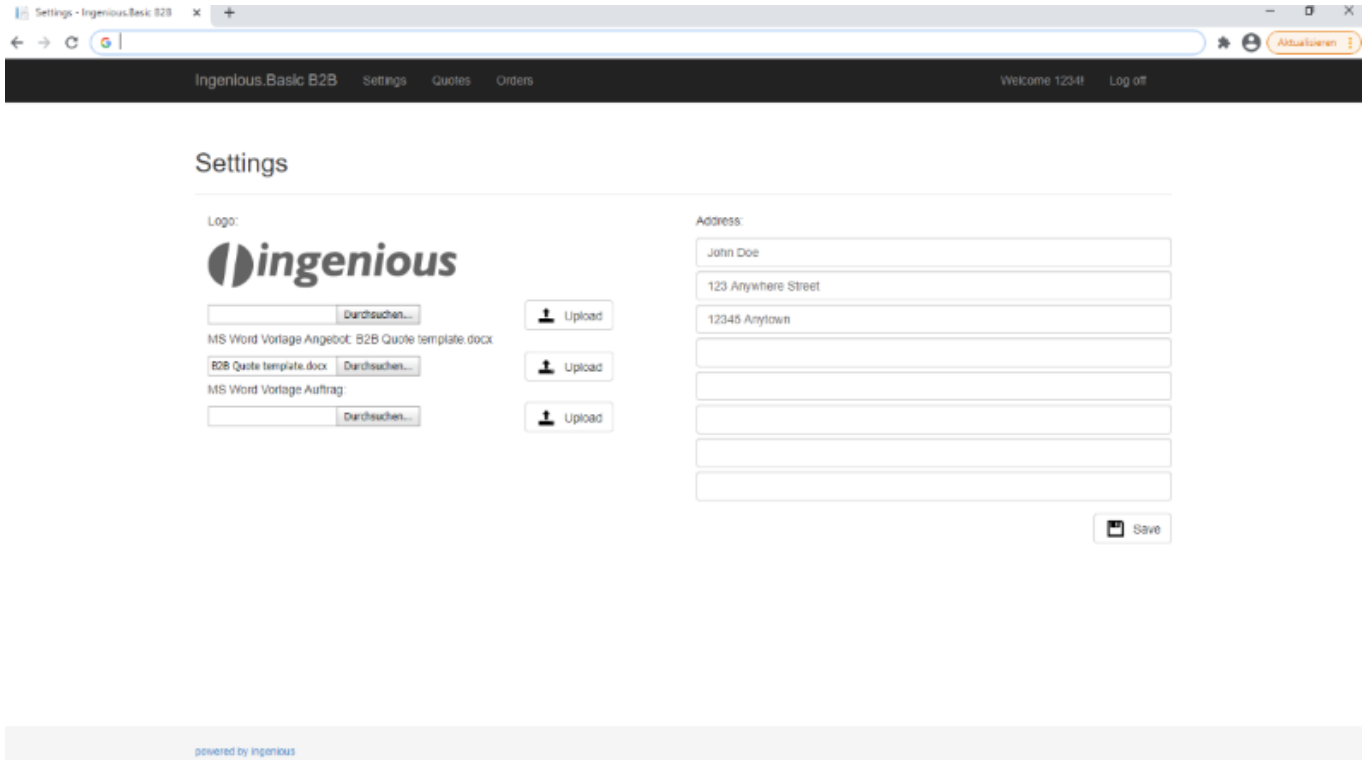
The standard template that is to be used for the Word export as long as the individual specialist dealers has not saved their own template is loaded into the program settings / network / web server.



The template can then be made available for download in the B2B web portal.



After the individual adaption of the design, the specialist dealer then uploads a Word template for each quote and order via the B2B settings page.



On the detail page of a quote or order the button for the Word export is integrated in addition to the print buttons.

Quotation Q202101/0039

Project data | Project items | File attachments | Send E-Mail

Name:

Address:

Customer:

Subject:

Date:

Delivery:

Customer Delivery:

The Microsoft Word program must be installed on the web server to create the Word documents.

## Complaints

Complaints about commissioned, delivered and calculated project items can be initiated and processed via web access.

A complaint is started via the original document, e.g. an order confirmation.

The item(s) to be complained about is/are marked and the "Complaint" button is pressed.

Orderconfirmation O202209/0123

Project data | Project items | File attachments

Nb.	Item	Text	Quantity	X	Y	SP	B2B SP
001	Rolling Shutter inch	Rolling Shutter 45° Casing 5.5 in white ALU/ Curtains 1.25 in white Bottom Slat ALU in white ALU Mini - Guide channel in white Motor with remote control - Operation left	1	56	40	572.22 €	0.00 €
002	Rolling Shutter inch	Rolling Shutter 45° Casing 5.5 in dark green ALU/ Curtains 1.25 in grey Bottom Slat ALU in grey ALU Mini - Guide channel in RAL 6009 Tape collar - Operation left	1	56	40	94.88 €	0.00 €
003	Rolling Shutter inch	Rolling Shutter 45° Casing 5.5 in white ALU/ Curtains 1.25 in white Bottom Slat ALU in white ALU Mini - Guide channel in white Tape collar - Operation left	1	40	40	78.63 €	94.36 €
004	Rolling Shutter inch	Rolling Shutter 45° Casing 5.5 in white ALU/ Curtains 1.25 in white Bottom Slat ALU in white ALU Mini - Guide channel in white Tape collar - Operation left	1	45	45	88.50 €	106.20 €

Total Price: 834.23      Sales Price: 200.56  
 VAT: 19.00  
 Gross Price: 238.67

Total Ex. VAT: 834.23      B2B Total Ex. VAT: 200.56      VAT %: 19.00

[Back](#) [Complaint](#)

powered by ingenious

A new complaint document is created that contains the data taken from the order and the item complained about. In the additional "Complaint" tab, the details of the complaint can be recorded and saved.

Complaint 202301/00012

Project data | Project items | Complaint | File attachments

Cause: defective

Description of the cause: Curtain was delivered broken

Analysis:

Description of the analysis:

Causer:

Solution:

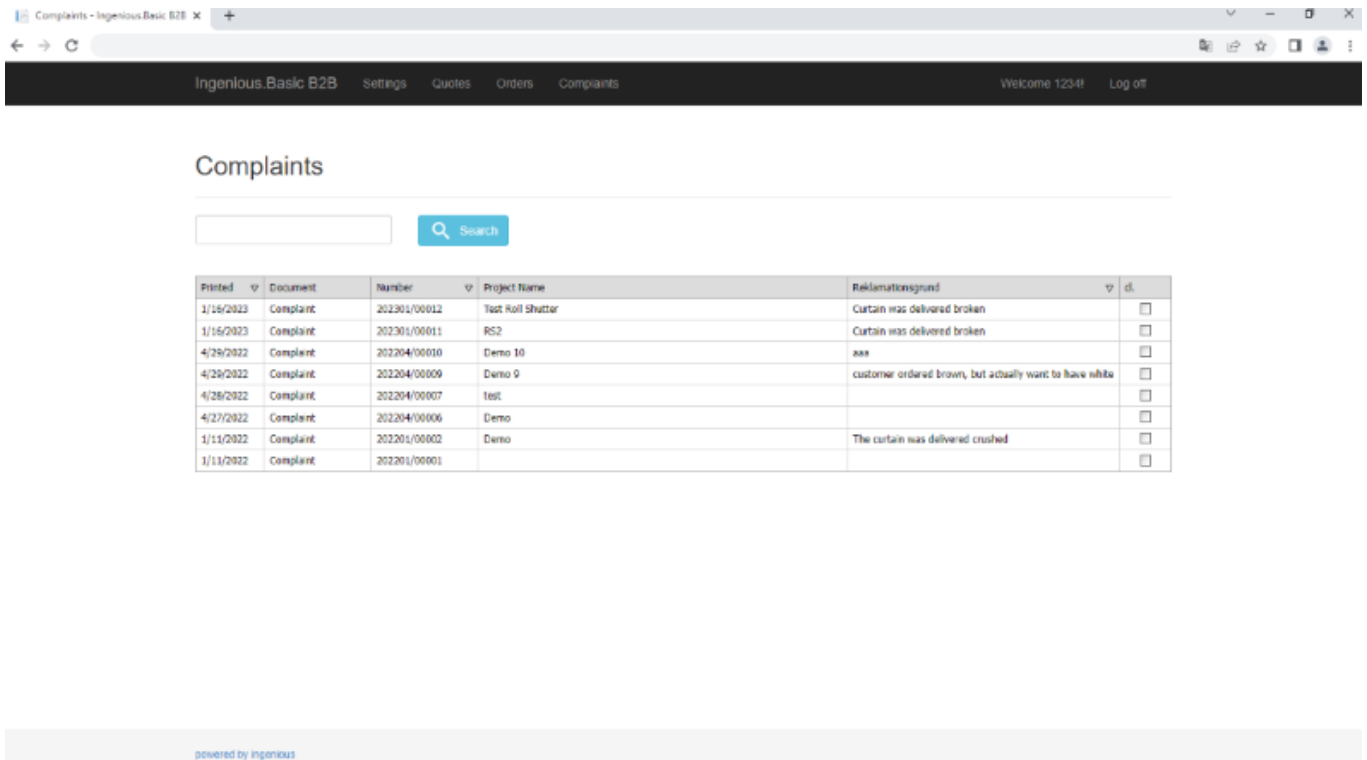
Internal responsible: admin

External responsible:

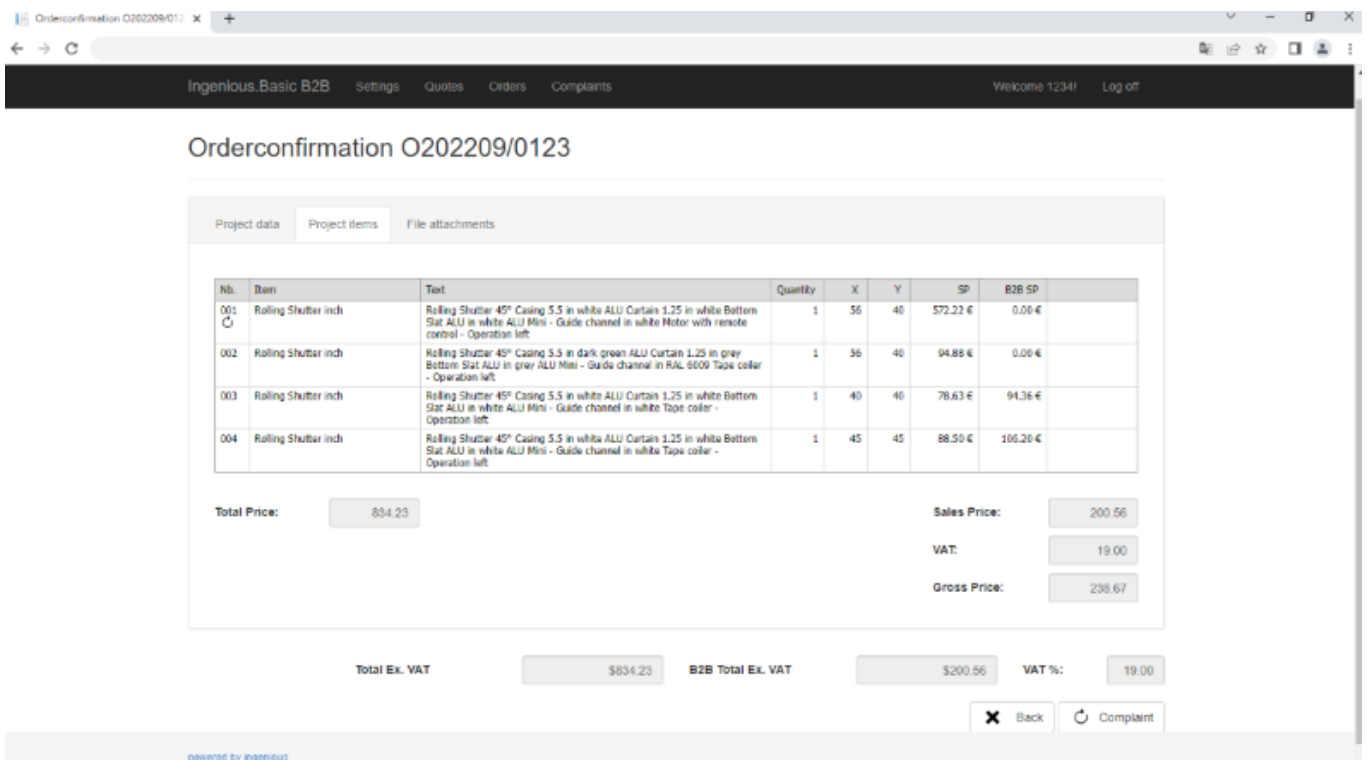
[Save](#) [Save & Back](#) [Back](#)

powered by ingenious

A list view of all complaints can be displayed via the Complaints item in the main menu.



In the original document, items complained about are marked with a corresponding icon after the item number.



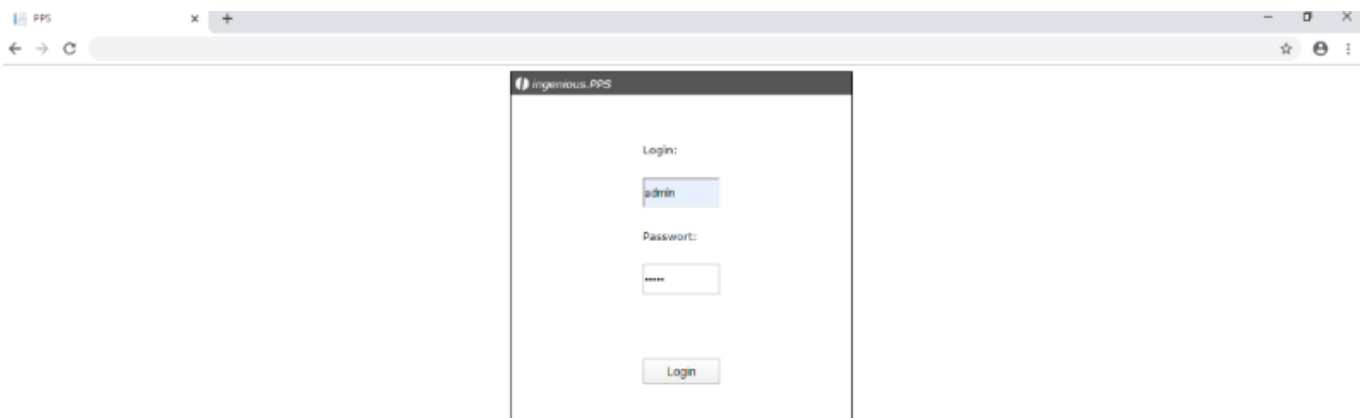
The structure and content of the web views can be designed individually.

In addition to the standard fields, further individual and/or user fields can be displayed.

## 10.6 Paperless production Webpages

In the paperless production, work instructions are digitally provided for workers in production and shipping. The work plans compiled in production planning are displayed on webpages on every conceivable browser-compatible device. The display is individually adapted to the individual process.

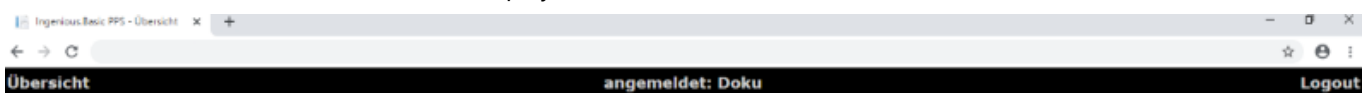
The webpages are secured with a login so that only authorized persons have access to the work plans.



For devices that do not have a keyboard or where the entry of login and password is generally difficult due to the small size of the device / screen, a quick login can be set up so that the user has access by entering a simple number code. For the quick login, a general PPS user must be created in the user administration and possible logins must be entered separated by semicolon in the quick login field.



After logging in, the user can be forwarded directly to the website of his workstation or an overview page with a selection of the available workstations is displayed.



Ingenious.Basis PPS - Zuschnitt | x +

Zuschnitt Endstäbe - Listenansicht angemeldet: Doku Logout

09.12.2019

Auftrag	Position	Typ	Farbe	Länge	
AB2019/0061	004	ALU-Endleiste	beige	185	Zurücksetzen
AB2019/0061	002	ALU-Endleiste	beige	125	Zurücksetzen
AB2019/0061	002	ALU-Endleiste	beige	125	Zurücksetzen
AB2019/0061	001	ALU-Endleiste	beige	120	Auswahl sägen
AB2019/0061	004	ALU-Endleiste	beige	185	Auswahl sägen
AB2019/0061	004	ALU-Endleiste	beige	185	Auswahl sägen
AB2019/0061	003	ALU-Endleiste	beige	180	Auswahl sägen
AB2019/0061	003	ALU-Endleiste	beige	180	Auswahl sägen
AB2019/0061	001	ALU-Endleiste	beige	120	Auswahl sägen
AB2019/0061	001	ALU-Endleiste	beige	120	Auswahl sägen

Ingenious.Basis PPS - Zuschnitt | x +

Zuschnitt Endstäbe - Detailsicht angemeldet: Doku Logout

### Zuschnitt Endstäbe

Fertigungsdatum

Auftrag  Position

---

Typ

Farbe

Länge

## 10.7 Inventory postings with barcodescanner

Inventory positings or general stock movements can be done in the ingenious client (see **stock monitor (Section 4.2.2.10)** or **inventory management (Section 7.2.1)**) or via mobile data entry with any browser capable device, e.g. a barcodescanner

The booking with mobile data entry requires a separate module licence with costs and an installed IIS server.

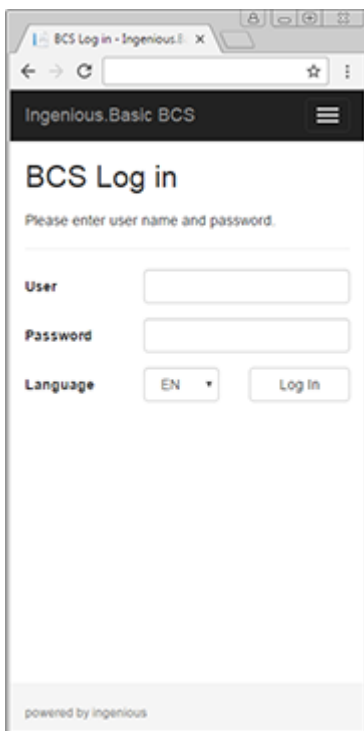
With the mobile data entry the incoming and outgoing goods and inventory can be booked directly. The stock is booked immediately.

Alternatively the inventory can be collected in an electronic inventory document. Afterwards it will be finally booked by a third person after he has checked the document.

### Login

The inventory booking module is secured by user right 870000. All users that are created in the ingenious database can login when the user right was assigned to them.

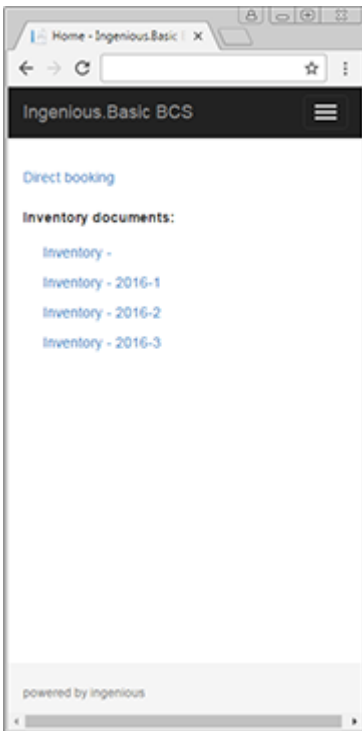
The user authorizes by entering his login and password. He additionally chooses the language (if multilingualism was licenced and configured)

A screenshot of a web browser displaying the 'BCS Log in' page. The browser's address bar shows 'Ingenious.Basic BCS'. The page title is 'BCS Log in'. Below the title, there is a prompt: 'Please enter user name and password.' The form contains three input fields: 'User', 'Password', and 'Language'. The 'Language' field is a dropdown menu currently set to 'EN'. To the right of the 'Language' dropdown is a 'Log In' button. At the bottom of the page, there is a small text 'powered by ingenious'.

After the login the user can choose from two possibilities

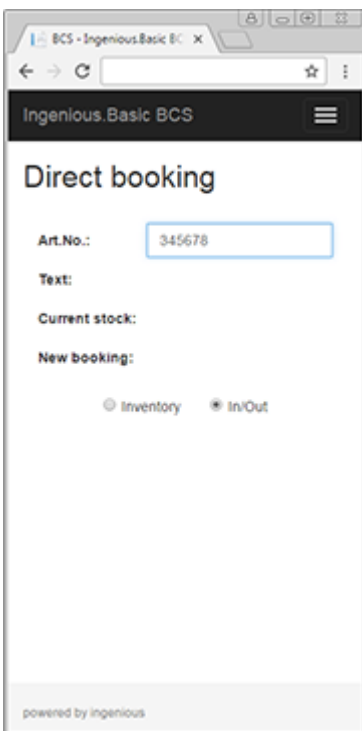
- direct booking
- entering the inventory into an inventory document





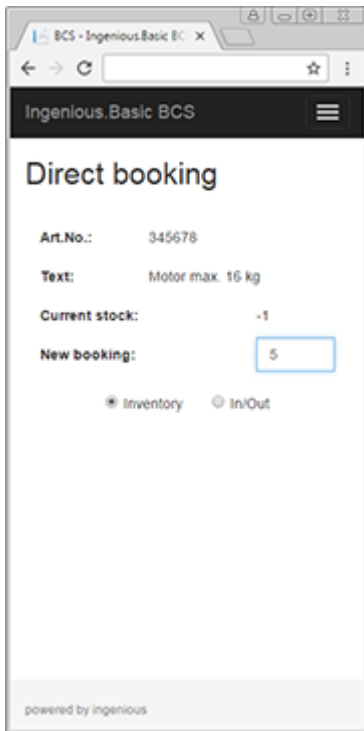
## Direct booking

With a direct booking the user captures the inventory or incoming or outgoing goods for a certain article. He enters the article number into the given field or scans the barcode with the article number.



The article is loaded from the database. With the shown article text the user can verify, that he is modifying the correct article. The current stock is additionally displayed.

The user enters the quantity to be booked into the field new booking. He chooses whether it's an inventory booking or for incoming or outgoing goods. For outgoing goods the quantity has to be entered with a minus. The user confirms the entry with enter.



Now the booking is finalized and the user can enter the next article.

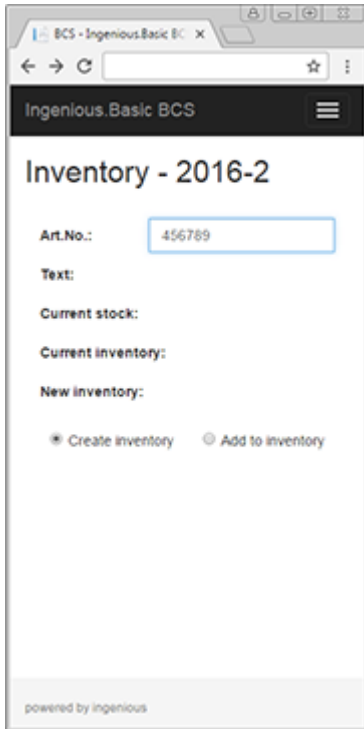
## Entering into inventory documents

For the collection of inventories various **inventory documents (Section 7.2.2)** for the articles of a single stock, shelf or product group can be created, e.g. to assign them to different users.

In this way the users can only change those articles they are responsible for.

In the overview all open (not final booked) inventory documents are displayed. (With individual web templates the view can additionally be restricted e.g. by user)

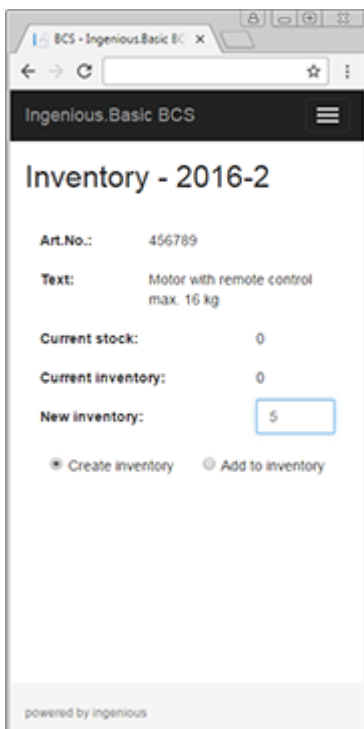
The user chooses the inventory document and enters the first article number.



Afterwards the article text and current stock is shown.

Because one article can be placed in different shelves or stocks, the quantities can be entered independently.

The already entered quantity of the actual inventory is displayed. The user can overwrite this quantity with option "Create inventory" or he can add an additional quantity with option "Add to inventory". The quantity is to be entered into the field New inventory.



The final booking of the inventory is done in the **inventory document (Section 7.2.2)** in the ingenious client.

## 11 Updates

### 11.1 Annual update 2015-2016

#### 11.1.1 Bugfixes 2015-2016

Among other things, the following bug fixes were corrected:

- Correction combined reminders – contact list
- Correction part list logic – measurement sheet with several jumbo formulas, of which one creates an empty string
- Correction measurement sheet <Printarea>
- Correction measurement sheet <Line VarNotNull...>
- Correction measurement sheet (Deleterow)
- Correction measurement sheet (Automatic number formatting)
- Correction Project filter
- Correction measurement sheet line sorting
- Correction coloring of the receipt entry list (rounding problem at payment with discount)
- Correction no print of empty measurement sheets
- Correction opening of the purchase list out of the contact (missing filter)
- Correction ABC analysis and revenue statistic (line limit repealed)
- Extension of the matchcode length in the special offers to 100 signs (corresponds the matchcode length of the articles)
- Correction coloring inventory lists
- Correction Localization
- Correction Removal of receipts in the detail view
- Correction the article connections in special offers
- Improved density of the stock bookings in the stock monitor
- Correction Stock booking in purchase orders when positions are deleted.
- Correction display SEPA export date

#### 11.1.2 Extensions 2015- 2016

##### New user rights

New user rights for opening read-only views of the modules contacts, articles, projects, and purchase orders.  
New user right 345550 for deleting and modifying already exported payments.

##### New placeholders

{ItemStockPosting} and {ItemStockCalc} for the stock booking in purchasing.  
{CustomerNo} and {RepresentativeNo} for the use in project counters.

##### New part list functions

test(variable;"standard value") - for checking, if a variable is available.

### New modules

Module	Description	Documentation
Capacity planning	Wall chart for contrasting the available capacities and those used in assignments: moving assignments at overload.	Capacity planning
Commission management	Accounting of representative commissions	in process
Payments	Combined recording and analysis at a central location: - incoming payments for invoices - outgoing payments for incoming receipts - payments without internal assignments (e.g. cash receipts)	Payments

### Larger extensions of functions

Function	Documentation
Combine project documents / Create combined invoices	Combine project documents
New Print report type Article statistic	Article statistic
Manual administration of project history	Miscellaneous Project data
New preview view for the insertion of free texts in project documents	Free texts
Presetting of the search fields of the main modules	Search
Datev-export with separate revenue accounts	The Fibu data manager/ finance account report
Extended detail views for the main modules for the fade in of documents, notes, and file attachments on the first detail page.	Detail views
Email import and display at the contact	in process
Transfer of connected data of a contact to another (e.g. file attachments)	contacts data transfer
Parts offer: Conversion of an offer with part list positions in an offer with single pieces of part lists.	in process
Recording of part payments in incoming receipts	Receipt entry payments
Enabling a commission order on project level	in process

### Various smaller extensions

- Extension of the placeholder available in the measurement sheets to formatting and miscellaneous placeholders.
- Action at project price changes in the program settings is changeable (creation of a rebate position or partial correction of all positions)
- Insertion of a date filter in the SEPA-module
- Adaptation of the calendar view in the time recording: show more information for time entry, new week view
- Combined printing of project documents from the project list view

- Display of the complete project address in the address columns of the projects and list views.
- Multiple row text issue in list views (e.g. for multiple row article texts)
- Global settings for the rounding of article selling prices
- Termination of the multiple position entry at part list errors
- Global settings for formatting emails in HTML, RTF or Plain Text
- Separate measurement line for purchase
- New script placeholder in measurement sheets
- Project selection at combined reminder print
- Checking double commission when creating a project
- define SP2 use per position
- New field „district“ for contact address
- repeal if the sign limit of payment terms in projects
- Recording the sorting and filtering settings per individual list view
- Insertion of hyperlinks in the text documents
- Enabling the insertion of measurements in multi positions via copy&paste
- Insertion of a receipt connection of project positions of incoming receipts
- Logging of breaks in the time recording
- Additional lot sum for project documents
- Grouping of stock bookings in the article stock monitor per month
- Recording of amounts in incoming receipts gross or net and automatic accounting of each the respective other values
- New options for the function „change price“ for copying prices among each other
- Changeable sorting of combined print reports and for printing project documents from the list view

## **Extension of the function for copy-pasting positions via Ctrl-shift and Ctrl+V**

During copying positions from one project to another, the user can decide in which form special positions shall be inserted.

As special positions count the alternative positions and the optional positions.

When copying from one offer to another, the special forms can be maintained, the positions can be converted in "normal" positions or the positions can be omitted.

During copying from one offer to a higher project type, in which alternatives and options are not available, special forms cannot be maintained (this option is not available). The original positions can be converted in "normal" position or can be omitted.

## **11.2 Annual update 2016-2017**

### **11.2.1 Bugfixes 2016-2017**

The following bugfixes and system optimizations were made:

- Correction error message when saving projects with open payment list
- Bugfix nested repeat in measurement sheets
- Correction FIBU export rounding for differential proceeds accounts
- Price changes with decimals
- Changes in measurement sheets: bugfix Deletrow and line hight for lines > 1
- Correction entry of free placeholders (F3) in position item texts
- Correction error message when closing receipt entry module from payment list

- Correction placeholder PartPayment#
- Correction placeholder for combined reminders
- Complement of localization
- Bugfix changing multiple part lists at once
- Bugfix place holders in measurement sheets with relation to project addresses
- Bugfix script calls on measurement sheets
- Bugfix Page numbers on text documents
- Setting the supplier when opening the purchase order module out of the contact
- Bugfix price changes, adding grid refresh
- Bugfix CRM information – Display annual analysis for customers without projects in the current year
- Bugfix missing update of textcontrol after entering multi item
- Bugfix task filter in the scheduler
- Bugfix memory leak TXRibbon (Contacts), refresh directory tree (items) and TXEventHandler (projects)
- Simple opening of project WYSIWYG preview (first detail view in projects) doesn't show question to save changes anymore
- Rebuilding the items texts too when recalculating the items
- Bugfix saving the individual date 3 in projects
- Bugfix displaying open payments / sum of payments in projects
- Bugfix user filter in project lists
- Correction of opening the project and purchase order lists from contact (Changing filters of all windows)
- Correction of displaying of multi line OKEnd errors and messages in part lists
- Setting the fully paid status of projects only when project amount is > 0
- Modification of function copy items in projects
- Bugfix update of placeholders and scripts in projects after field entry in the header or footer
- Bugfix stock calculation
- Selection of date field in cutting optimization
- Function of Textcontrol buttons in undocked windows
- Correction of the calculation of Project\_item.weight in part lists
- Correction of the algebraic sign in the payment list in the project details
- Correction cash discount at the creation of a position
- Bugfix rounding in part list calculation
- Bugfix disappearing of notes when saving the project the first time
- Bugfix transmission of order filling items with own checklist via purchase order assistant
- Bugfix Scheduler – Calculation of next execution
- Bugfix open payments of credit news
- Bugfix changing customer number despite missing user right
- Corrections in customer sales statistic (exceptions and turnover threshold)

## 11.2.2 Extensions 2016-2017

### New user rights

New user right 200180 for reviewing documents of an item

New user right 200185 for modification of documents of an item

### New placeholders

{CustomerAddrState} - {KdStaat} - State of the contact's address

{InAddrState} - {RgStaat} - State of the invoice address



{DelAddrState} – {ObjektStaat} - State of the delivery address

{ItemCalculatedNet} – {PosCGP} - Calculated sales price

{ItemConversion} – {PosUmrechnung} - Conversion of the sales price

{ItemPPConversion} – {PosEKUmrechnung} - Conversion of the purchase price

{Logo\_B2B} – {Logo\_B2B} - B2B contact logo

### New part list functions

up (Rounding up to decimal separator)

down (Rounding down to decimal separator)

### New Script events

BeforeSaveWeb (Saving contacts and projects)

BeforeSavePayment (Saving payments)

AfterDataCollection (Capacity planning – after searching for projects)

OnDispositionDoubleClick (Capacity planning – disposition of projects)

### New modules

Module	Description	Documentation
B2B and sales rep web module	Enables access for sales reps to contact and project data via web site + Online tool for dealers to calculate and order parts and configured products with customer related prices and own surcharges	<b>B2B (Section 10.5)</b> and <b>sales rep (Section 10.4)</b> web module
Peachtree export	Interface to export contact data, invoices and payments from ingenious to peachtree	on request
Quickbooks export	Interface to export contact, item, payment and purchase data and inventory positings (BOM) from ingenious to Quickbooks	on request
Inventory postings by barcodescanner	Execute inventory postings and in/out bookings with barcodescanner	<b>Inventory postings by barcodescanner (Section 10.7)</b>

### Bigger functional extensions

Function	Documentation
Documents and notes in the item module	<b>Documents and notes of the articles (Section 4.2.2.7)</b>
New CRM View for incoming receipts per contact	<b>CRM information (Section 4.1.2.6)</b>
Autologin the ingenious Client that runs the scheduler	<b>Scheduler (Section 7.5.1)</b>

Combined payments for projects	<b>Combined payments (Section 4.3.1.5)</b>
Extension of the inventory posts view in projects with order filling items; lines are colored blue	<b>Inventory posting (Section 4.3.2.5)</b>
Displaying priceinfo for part lists in projects	<b>Price info in the projects (Section 4.3.2.6)</b>
Implementation of global settings for scheduler log (max. number, max. age)	<b>Scheduler (Section 7.5.1)</b>
Availability of patterns in picture scripts	<b>Stored picture scripts (Section 4.2.3.8)</b>
Read only detail views for locked data sets	<b>The detail views (Section 3.6)</b>
Templates for customer related special prices for standard adjustment and administration of conditions for customer groups	<b>Special price templates (Section 4.1.1.4)</b>
Copy list views and release to other users	<b>Administration of list views (Section 3.5)</b>

### Diverse smaller extensions

- Possibility to enter empty strings in selection lists
- Canadian federal states added tot he CBOs of contacts and additional addresses
- Extension of the task table with new fields solved on and category
- API function for refresh of projects and purchase orders sidebar: Sidebar.RefreshPrjGrid()
- Script Projects AfterCopy can be called with additional parameter Guid (from the original project)  
For downward compatibility: the program first calls the standard script and afterwards the new optional script  
[public override void AfterCopy(IMdiChild form, DataRow row, Guid gOldProject)]"
- New item placeholders ItemConversion and ItemPPConversion
- Speed optimization project field entry, document refresh and multi item entry
- Display item type attributes independent from the part list developing module licence
- New parameter in the program settings to define the date for displaying order filling items in the purchase order assistant
- New column „current purchase price“ for inventory documents in the inventory module
- Generic supplementary methods Alert and SQL for scripts
- New sortable column „stock“ for inventory documents in the inventory module
- New preselection and checkbox to copy payments when converting a project
- Flag Globals.bStartApplication
- Setting changed at and changed by when changing contact documents
- Providing SEPA export path in the program settings
- New parameter in program settings / detailviews to show project notes below the WYSIWYG preview instead of in the sidebar
- Possibility to hide grid lines in project templates
- New parameter in program settings / projects and reminders to allow or forbid text entry beside fields in the project entry (Globals.iAllowFreeTextInProjects)
- generic PopUp (Tools.PopUps.GenericPopUp)
- Extension of Project sidebar with address field "State" for US and CN addresses
- Export of scripts
- Extension of the dispositon view of capacity planning with last 2 days
- Project search in the cutting optimization for stock posted projects instead of finalized projects
- The size of the areas with the additional information in the detail views of the main modules (Projects,

- Purchase orders, Contacts, Items) can be set by the user with movable splitter
- Simpler modification of project history by buttons for adding and deleting
- Simplified installation of local single place installations (LocalDB)
- Modification part list logic – Calculation of picture scripts that don't use service items also if the checklists creates an OK-End message
- Availability of additional information in picture scripts (Current user, display in checklist yes/no)
- Project-inventory post-grid: With Shift double-click on the matchcode -> Jump to the item; With double-click on the stock-posted amount -> quantity can be overwritten

## 11.3 Annual update 2017-2018

### 11.3.1 Bugfixes 2017-2018

The following bugfixes and system optimizations were made:

- Correction measurement line attribute "ColumnNotNull"
- Correction at Message, Error and Title in the partlist logic
- Change project item rebate with fixed sales price does not change the sales price anymore
- Correction product statistic wrong project date selection
- Correction save project item RTF text after text format changes
- Part list quantity 0 is now possible
- Changed cursor navigation in multi item window
- Correction price info rebates in projects
- Correction purchase price and recalculation in purchase order items
- Correction picture scripts RGB color codes
- Remove length limitations from user defined text fields
- Correction project item sidebar price from price matrix items
- Correction current purchase price in inventory lists
- Correction automatic reset of navbar "date to" in severnal modules
- Correction purchase order list - no grid update if no filter has been changed
- Speed optimization capacity planning
- Correction scheduler mailing
- Copy project text when copying contacts
- Save column settings in search lists
- Project document printing and mailing triggers save question and on save scripts
- Correction measurement sheet save
- Several smaller correction at the import module
- Correction cutting optimization (line overflow, abort recalculation with incomplete data)
- Correction when sending html document with serial letter mailing
- Correction reminder date calculation
- Refresh sepa record when saving receipts
- Typdate doublets does not produce errors
- Optimization converting and combining of large projects

### 11.3.2 Extensions 2017-2018

**New user rights**

New user right 311300 - Production - Show production status in project  
 New user right 311310 - Production - Change production status in project  
 New user right 350520 - Projects - activate/deactivate SP2  
 New user right 650000 - Production planning - Module access  
 New user right 650100 - Production planning - Create working station  
 New user right 650200 - Production planning - Modify working station  
 New user right 650300 - Production planning - Delete working station  
 New user right 651100 - Production planning - Modify working plan

### New placeholders

{CustomerContactPerson} / {KdAnsprechpartner} - Contact person in the contact  
 {ItemPlainRTFText} / {PosEinfacherRTFText} - Project item RTF text without formatting  
 {ItemUnitAmount} / {PosEinheitsMenge} - Project item amount in item unit (e.g. 60 [m], for project item with quantity 10, size 600)  
 {ItemUnit2Amount} / {PosEinheitsMenge2} - Project item amount in the smaller item unit (e.g. 6000 [cm], for project item with quantity 10, size 600)

### New part list functions

WebControl(Name, Control, Title, Description, Image, Tooltip, HTMLTemplate)  
 Checklist variable "Context" contains the values "B2B", "B2C" oder "INFO" depending on the web context

### New Script events

AfterOpenAddress, AfterChangeAddress and BeforeSaveAddress - Contact addresses open, change, save  
 AfterPrintReport (all lists) - this group of scripts is executed after printing reports (except combined reports).  
 Project BeforeCombine - before combining projects, can abort the action if necessary

### New modules

Module	Description	Documentation
PPS	Production planning system	on request

### Bigger functional extensions

Funktion	Dokumentation
Capacity planning - Resource planning	<b>Capacity planning (Section 5.1)</b>
Accounting debit export	<b>Program settings - Financial account report (Section</b>

	<b>8.6.18)</b>
Storage of printer settings in text templates	<b>Text templates administration (Section 8.1.1)</b>
Placeholder - Userfield	<b>Text templates administration - Project templates (Section 8.1.2)</b>
Possibility to extend the create project item menu in projects	<b>Program settings - Projects and reminders (Section 8.6.11)</b>

### Several smaller extensions

- Detail view save question on main program closing
- Project.individual\_text\_6 to 10 can be used as additional changeable fields on project templates
- New address field "unit"
- New purchase order item field purchasing\_delivery\_status
- Capacity planning: Print and Excel-Export
- Automatic item picture zoom
- Automatic print of financial accounting reports after DATEV exports (projects / debtors)
- Add column PP/unit in item stockview
- Check contribution margin when creating and calculating project items
- Add item weight to the project item sidebar
- Setup Letter or A4 at measurement sheets for web printing
- Combine projects - Show popup if the project addresses are different, storage of last settings
- Show partlist warnings and errors in an info bar, if the cursor is inside an appropriate project item
- When printing a pdf project document report, create file name from document name and number
- TTextControl text styles modifiable
- Print preview for project document reports
- Use project account number for boni accounts at FAS export
- Tasks full screen view, extended task filter, finalize tasks with ctrl + double click
- Open help file location depending on the active window (Key: F1)

## 11.4 Annual update 2018-2019

### 11.4.1 Bugfixes 2018-2019

The following bugfixes and system optimizations were made:

- Bugfix/Rounding error at filters in receipt entry module
- Bugfix search for commission in project lists
- Bugfix/Workaround Entering big segments of multi items (20+ pages) caused errors
- Improvement of the storage of task list settings
- Searching for articles in purchase orders is restricted to the supplier that is linked to the purchase order document
- Expansion of the function to duplicate articles to also duplicate data from multiple suppliers, user fields, article pictures and file attachments
- Correction contact search from project detail to only show contacts of type customer

- Correction article search from project detail to only show not blocked articles
- Storage of presettings of the article stock list
- Correction of the projects stock movement list / stock adjustments
- Bugfix: Version update was not executed when the version could not be loaded (e.g. because of timeout)
- Web: Calculation of the items RTF text in external function
- Extended dataset for Printing of a selection from an inventory document (e.g. marked lines)
- Exceptions of the standard handler in scheduler scripts will not be shown in popups anymore, but as list entries in the scheduler errors
- Web: In B2B projects also locally entered items will be calculated with B2B surcharges
- After an update all scripts will be compiled to load new commands and detect complications
- The tooltip of the project times in the calendar view was enriched for additional showing the break
- B2B: Enhancement of the settings page to view the standard address of the customer
- Improvement of the document build-up (Picture scripts, shortened resolving of items placeholders)
- Correction collected print report, copying of the source dataset for each report call
- Bugfix picture scripts
- Bugfix taking over account number from payments to the project and converse
- Bugfix initial import of Text\_templates
- Sending emails to multiple recipients (email addresses separated by ",")
- complete recalculation of the stock balances after manual stock bookings
- Enhancement of the error message for not found part list articles
- Correction for opening contacts in TAPI
- WEB: Price fields (Projects net/gross) are not transferred anymore while saving, wrong project prices could be caused
- Collected payments will not be open grouped anymore
- Resetting the partial payment invoices history when manually converting a partial payment invoice

## 11.4.2 Extensions 2018-2019

### New and changed user rights

100010 - Contacts - Open

200010 - Articles - Open

200162 - Articles - Correct stock bookings

300010 - Sales - View quotations

310010 - Production - View order confirmation

320010 - Logistics - View delivery notes

330010 - Invoicing - View invoices and credit notes

350530 - Projects - Change list price

350050 - Projects - Change document name

400010 - Purchasing - Purchase order open

1000500 - System functions - View Changelog

1000510 - System functions - Configure Changelog

### New Placeholders

Picture-script placeholder

### New part list functions

CalcColumnNotNull on measurment sheets - As for columnnotnull the line-section will be faded out when a column is empty or "0". calccolumnnotnull is checked after complete evaluation of the placeholders within the line-section, whereas this is checked before for columnnotnull (this is faster)

TRIM(text) - Removes space characters from the start and the end of a text.

### New Script events and APIs

Project list - BeforeSendMail - Before sending an email from the projects and purchase orders detail and list view (Button "send PDF")

Project list - AfterSendMail - After sending an email from the projects and purchase orders detail and list view (Button "send PDF")

Items - AfterChange - After each change of a project item

API-Function GetProjectPDF - for printig a project into a PDF file

### New Modules

Module	Description	Documentation
Project and item entry with Barcodescanner	Using barcode scanners, projects and orders can be created and items added	On request
Changelog	Recording of selected data changes	<b>Changelog (Section 8.6.23)</b>

### Bigger functional extensions

Function	Documentation
Part list warnings on project documents	<b>Create a new project (Section 4.3.3.1)</b>
Price history	<b>Price history (Section 4.2.2.14)</b>
Default settings in part lists / configurators	<b>Part list default settings (Section 4.1.2.11)</b>
Buttons on Main modules lists	<b>Administration of list views (Section 3.5)</b>

### Bigger functional extensions in the web modules

Function	Documentation
View Partlist.sWarning	<b>Sales rep access (Section 10.4)</b>

Mailing from B2B	<b>Dealer ordering system (Section 10.5)</b>
Custompages	<b>Dealer ordering system (Section 10.5)</b>
Contactlist Notes	<b>Sales rep access (Section 10.4)</b>
PDF print	<b>Sales rep access (Section 10.4) and Dealer ordering system (Section 10.5)</b>

### Several smaller extensions

- Send PDFs from purchase orders
- Mail editor for SMTP-Emails
- Storage of the multiple sorting of list views
- Free entering or overwriting of the cash discount in the receipt entry module
- New program setting for configuration of saving a project when it's printed
- Manually defining the colouring of calendar entries per user/team
- Storage of the list price on project level
- New index column in inventory documents for continuous numeration of the articles in the list
- Viewing list prices in item property grid & price calculation after change (user right 350530)
- Adaption of projects standard financial account (taking over from collected payments)
- Rounding prices in automatic price changes of articles
- Horizontal gross price calculation - Selection in the program settings, whether the total VAT and gross price is calculated for each item (standard) or first all net prices are summed and afterwards VAT and gross price are calculated from the net sum.
- Stock booking of an article with time, presetted on 12 o'clock noon instead of midnight
- Manual stock booking can subsequently be changed
- Expansion of the storage of part list pictures in the web with additional file formats (all popular image formats instead of only .png)
- Opening the readonly view of a locked dataset can be interrupted
- Rounding B2B net prices for items calculation (gross prices already were rounded -> Cent aberration)
- Web: Login Checkbox "Customerview" for fading out all prices
- Web: Expansion of the article search for additional parameters
- Web: Open part lists when item is copied
- Web: new Webcontrol for part lists: Button
- Part list presettings for web part lists
- New filter in the contact list view to search for contacts with assigned special price template
- Update TXControl V25,
- Update SEPA 3.0.10.11 with updated test procedures for accountnumbers and bank codes according to the official documentation of the German Central Bank
- Selection of a module per user that should be opened first when the program ist started

## 11.5 Annual update 2019-2020

### 11.5.1 Bugfixes 2019-2020

The following bug fixes and system optimizations were among others carried out:

- Debugging bills of material frmt when displaying fractions



- IBAN input check in contacts for all countries, no longer just DE
- Debugging drag and drop of Outlook mails (creating the temporary folder)
- Improvement of IBAN input in contacts
- Measurement sheet command 'PrintVar' corrected, partial resolution of the variables prevented
- Measurement sheet command 'PrintTotalSum' corrected if variable not found
- SQL error loading the filter no longer leads to new / deleted filters
- Measurement sheet command 'InsertRow' - row height corrected
- Bugfix Deletion of a character at the cursor position after position update in the project document
- Measurement sheet command PrinVar corrected (brackets were not resolved correctly)
- Correction of position selection (e.g. for deletion) in the text documents
- Correction of placeholders GE\_IBAN and GE\_BIC
- Update of project sums after reordering positions
- Correction of measurement sheet for placeholder PrintTotalSum
- Speed optimization capacity planning
- Bugfix B2B logo scaling
- Revision of Sepa module
- Bugfix with the setting "save automatically before printing": If it cannot be saved, printing is canceled
- Bugfix measurement sheet <Repeat Count = "X"> ... <Line> ... </Line> ... </Repeat>
- Correction measurement sheet placeholder Weeknum
- Bugfix: Switching over with archiving from project detail view not possible
- Correction of collective payment - distribution of the payment amount, tool tips
- Correction of file attachment folder in purchase orders (previously pointed to project folder)
- Correction EK in order picking
- Correction in parts lists, reset the last warning
- Corrections to various lists (some column values are sorted incorrectly and belong to other rows)
- Corrections to the contacts CRM document search
- Correction of rounding errors in batch payments
- Speed optimization article statistics
- In Excel export of lists, numbers are passed as Excel numbers (no longer as text)
- Bugfix memory leak
- Corrections to the contacts mail display
- Correction error message when changing from purchase order (51) to purchase order invoice (52)
- Correction of the exception: "Object reference not set to an instance of an object" in onActivate Projects Detail
- Correction of special prices from quantity X now includes the value X.
- Better PPS item sorting by date fields
- Bugfixing multipositions Entering parts lists without a checklist
- Debug preview image scripts

## 11.5.2 Extensions 2019-2020

### New and changed user rights

101220 Contacts - View XML document import

101230 Contacts - Modification of XML document import

350120 Projects - save project as file attachment

352000 Projects - View field info

1001400 System functions - configuration logistics GLS

## New placeholders

New placeholder type RTF-script for output of RTF texts (formatted texts), that were build by scripts

ItemStockPostingButton - current positions stock posting, colored by booking status, changeable with double click

CustomerB2BAddress - Customer B2B address (of the dealer's end customer)

Placeholder for the separate presentation of labor costs on invoices to private persons for the deduction of craftsman services in the tax return.

- NetLabor- All net values of the positions that are identified as labor costs / work performance are summarized.
- GrossLabor - All gross values of the positions that are identified as labor costs / work performance are summarized.
- NetMaterial - All net values of the positions that are identified as material costs are summarized.
- GrossMaterial - All gross values of the positions that are identified as material costs are summarized.

See Identification of labor and material costs in the **program settings (Section 8.6.8)** and in the **article details (Section 4.2.2.4)**.

## New part lists functions

Conf\_Help(string sHelp\_Url)

Extensions of the Conf commands (Conf, Conf\_Checkbox, Conf\_Integer, Conf\_Number, Conf\_Dropdown, Conf\_Combobox, Conf\_Text, Conf\_Title, Conf\_Section) with the optional parameter Help\_Url.

When pressing function key F1 in the part list the stored web URL will be opened.

Checking several VarNotNull variables separated by semicolons in measurement sheets

Measurement sheet command '<ProveArea VarNotNull="...">'

Measurement sheet command 'distinct' ignores upper case lower case

## New script events and APIs

Module Others, Script AfterOpen – The script will be executed for all windows when opening.

Module Web, Skript B2BResetPassword – Script for implementation of the password reset button on the B2B Login webpage

Module Texttemplates, Skript GetWatermark – The script is called when printing or file saving a project document and inserts a background image into the document.

## New Modules

Module	Beschreibung	Documentation
--------	--------------	---------------

Logistics	Connection to delivery services for the calculation of delivery costs and for electronic transmission and tracking of delivery data	<b>Logistics (Section 8.6.17)</b>
Calendar synchronisation	Synchronisation of the ingenious calendar with Microsoft Exchange	<b>Calendar synchronization (Section 8.6.24)</b>
Generic order import	Import of customers order data for automatic project creation	<b>XML document import settings (Section 4.1.2.12.2)</b>

## Bigger functional extensions

Function	Documentation
Supplier information in the contact details	<b>Supplier information (Section 4.1.2.7)</b>
Global company holidays	<b>Company holidays (Section 8.6.7)</b>
Creation of an order filling purchase order out of an order / contract	<b>Commission order (Section 4.3.3.3)</b>
Automatic watermark on project documents	<b>Watermark (Section 4.3.3.4)</b>

## Bigger functional extensions in the web modules

Function	Documentation
Multi items in the WEB module for the sales rep access	<b>Sales rep access (Section 10.4)</b>
Multi items in the B2B module for the dealer access	<b>Dealer ordering system (Section 10.5)</b>
Single view, label print and quick login in the PPS	<b>Workstation configuration (Section 5.2.2) / Paperless production Webpages (Section 10.6)</b>
Logistics in the PPS	On request

## Several smaller extensions

- Changes to the archiving when advancing projects to query the archiving flag in an advancing script
- Print report printer dialog without selection dialog
- Inventory documents also contain the fields required to overwrite the individual article texts
- Report supplier sales
- Projects mailing CC and BCC to multiple email addresses
- Recalculate projects according to positions
- Save and restore the cursor position after position RTFText update in the project document
- Global setting Handling BOM variable.m -> Globals.bVarM\_WoJumM (with / without multiplication with jum.m)

- Send Outlook Mails immediately
- Connection to SEPA print report
- Global switch -> Load file attachments without checking the ID\_Guid\_Mapping table (speed) -> Globals.bFileAttachementWoOldGuidMap
- Date settings for batch payments are saved within the session
- Shortcut to open batch payments: Ctrl + Z
- Shortcut to start printing from the preview window of the measurement sheets: Ctrl + P
- Revision Sepa
- ABC customer analysis + sales statistics: pushbutton added, restrict selection of representatives to active ones
- Capacity planning, disposition view: sorting table enables, push button added
- Enter position number for multi items
- Entry of the posting amount as a placeholder in orders (ItemStockPostingButton)
- Warehouse monitor in the project detail: Saving the settings (column visibility, width and order), alignment when printing generally portrait
- Extension of variant template: checkbox Show all variables (for pre-setting invisible variables)
- Preview window measurement sheet: Mail button
- Mailing reminders
- New accounting export placeholder for document commission
- Category field for documents and notes
- Project Detail Ribbon Button - save project as PDF file attachment
- Show article statistics as CRM report at the customer
- Projects placeholder field info (user right 352000)
- Program settings - SMTP Testmail button
- Save before printing in program settings (without, demand, automatically)
- Sepa export - discount always dependent on checkbox and not on date
- Locking the F3 key for inserting text in locked documents
- Final costing items
- Relative contribution margin added to project sidebar
- Capacity planning / user qualification
- Documents and notes subject with no character restrictions
- Show multi item window in the middle of the screen
- Program settings option: insert free text (F3) in locked templates
- Form objects "Edit special price" published -> manipulated by script
- Global switch Globals.bUsePurchaseOrderProposalInSalesDocuments
- History link order <-> purchase order
- Extension of parts list logic [['= \_help\_url' | '= help url {var}' | 'Conf\_Help ("...")']]
- Automatic sorting of PPS data records on the 1st web call
- Change of the partlists error message if an article was not found, output of the initial formula
- Scripts Button - Recompile partlists
- CRM information without receipts overview -> more detailed under supplier information
- Display of filter scripts in the times scheduler view
- Edit text template table column width by numerical input
- Import / export of text templates folders

## Several smaller extensions in the web modules

- Color B2B positions yellow when sorting positions
- B2B address as a supervisor
  - Separate B2B logins can be stored for each additional address in the contacts. It can be determined whether the user can place orders and / or is a supervisor.

- Supervisor can get additional rights. For example, see all project documents of the customer contact, instead of only his own or may edit the settings. The exact form depends on the web templates.
- Reset B2B password
- Save B2B login in the project
- Additional article fields for the barcode scanner
- Only for output on the scanner: warehouse management, unit, order proposal (pieces, X, Y Z), open order quantity, open reservations, warehouse, date of the last inventory
- Output on the scanner + Can be overwritten when scanning: minimum stock, delivery time, individual text 1 - 5
- Barcode scanner cancel button
- PPS - Memo function for documenting the scans built in
- WEB - input field for note titles
- B2B - Additional parameter deep link for direct linking of an anchor on the start page after login
- PPS extension (show user fields in table)
- PPS values can be overwritten manually
- PPS - user assignment (from capacity planning settings)
- PPS - Alert message
- PPS - column placeholder eval (...) with parts list calculation
- PPS - automatic refresh of the daily schedule display
- Execution of the client startup script in the web printing process
- Delete the PPS button wagon assignment
- Boolean field to exclude orders from the PPS (despite the set date and storage reservation / booking, no creation of PPS data records)
- PPS - Alert message per workstation
- Use PPS setting partlist header
- Multiple areas selection in PPS detail

## 11.6 Half year update 2020

### 11.6.1 VAT reduction 2020

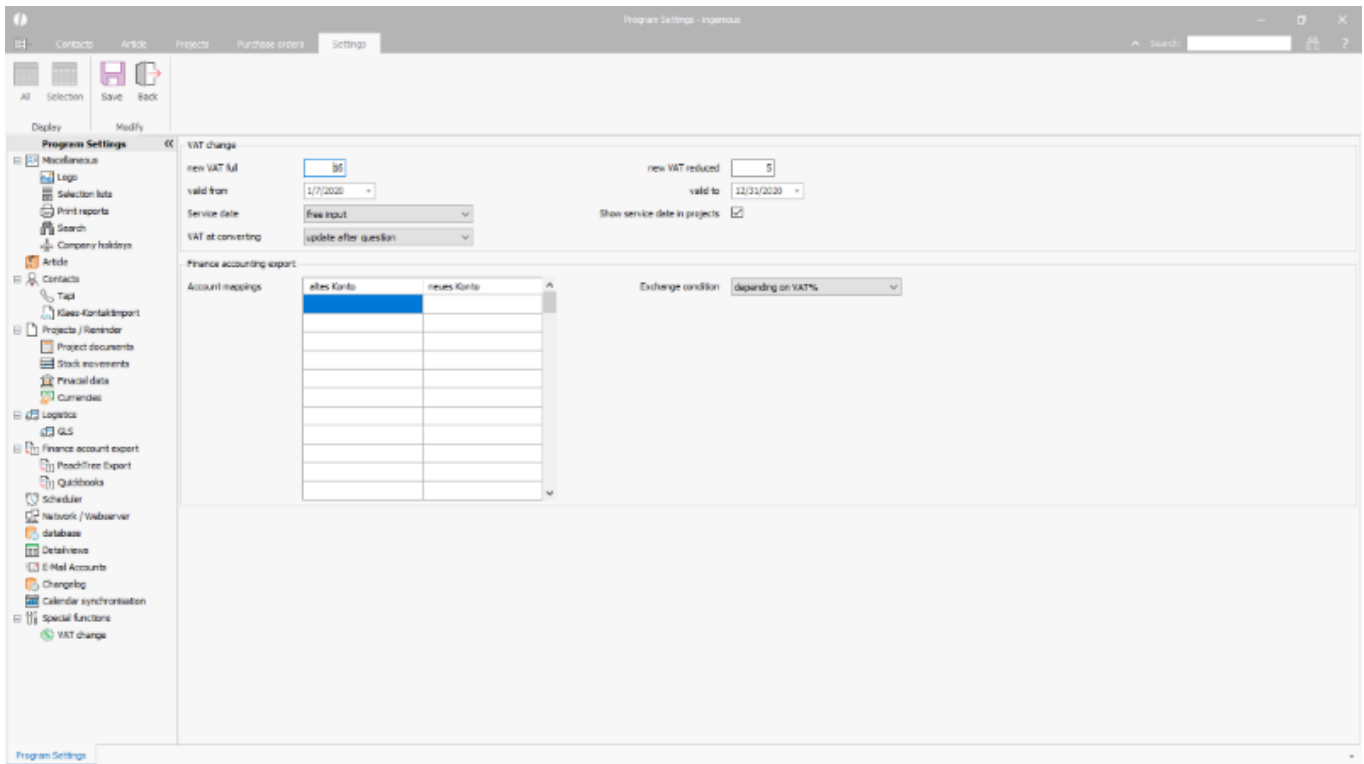
The Federal Government of Germany has decided on a package of measures that includes a temporary reduction of the VAT from 19% to 16%.

The aim is to revive the economy, which has been weakened by the corona-related restrictions.

From July 1st, 2020 and limited until December 31st, 2020 the regular VAT rate will decrease from 19% to 16% and the reduced tax rate from 7% to 5%.

A separate process was created in the ingenious software to map the temporary VAT reduction.

In the program settings / special functions / VAT change, the new VAT rates with their validity can be stored.



All new project documents created in the validity period are automatically calculated with the associated tax rates.

In addition, it can be configured what should happen to existing projects when they are switched to the next status.

The following parameters can be set:

Service date	<p>The application of the VAT rate is based on the service date, i.e. when the service was provided or completed.</p> <p>This is not always the date of invoicing.</p> <p>The new service date field is used to calculate the VAT.</p> <p>This can be freely entered or pre-assigned according to the processes in the company.</p> <p>Possible options:</p> <table border="1"> <tr> <td>Empty</td> <td>If no service date is configured, the "printed on" date is used to determine the correct VAT rate.</td> </tr> <tr> <td>Free input</td> <td>The service date is entered manually by the user when the document is created or converted.</td> </tr> <tr> <td>Convert to invoice</td> <td>The service date is set with the date of converting the document to an invoice.</td> </tr> <tr> <td>Convert to delivery note</td> <td>The service date is set with the date of converting the document to a delivery note.</td> </tr> <tr> <td>Bind to project</td> <td>Instead of a separate service date, an existing date value from the project fields</td> </tr> </table>	Empty	If no service date is configured, the "printed on" date is used to determine the correct VAT rate.	Free input	The service date is entered manually by the user when the document is created or converted.	Convert to invoice	The service date is set with the date of converting the document to an invoice.	Convert to delivery note	The service date is set with the date of converting the document to a delivery note.	Bind to project	Instead of a separate service date, an existing date value from the project fields
Empty	If no service date is configured, the "printed on" date is used to determine the correct VAT rate.										
Free input	The service date is entered manually by the user when the document is created or converted.										
Convert to invoice	The service date is set with the date of converting the document to an invoice.										
Convert to delivery note	The service date is set with the date of converting the document to a delivery note.										
Bind to project	Instead of a separate service date, an existing date value from the project fields										

	field is used (e.g. the date of delivery). The project field is selected using a separate drop-down menu.
Show service dates in projects	For the options of the service date "Free input", "Convert to invoice" and "Convert to delivery note", you can determine whether the service date should be displayed separately in the project.
Bind service date to field	To determine the valid VAT rate, one of the 17 available project date fields can also be used, e.g. the date of delivery, if this is used in the company create process.
VAT at converting	When converting a project document, the VAT can either: <ul style="list-style-type: none"> <li>- remain unchanged (= no change - manually in the project): The user then independently checks whether the tax rate is still valid and changes it manually if necessary.</li> <li>- be updated after question: If the VAT rate of the original project differs from the currently valid VAT rate, the user is informed. With confirmation he can recalculate the project.</li> <li>- be updated automatically: If the VAT rate of the original project differs from the currently valid VAT rate, it is updated automatically and the project is recalculated.</li> </ul>

## Use cases

### An order created before the VAT reduction is delivered and billed after the VAT reduction

An order created in June was charged with 19% VAT, the service date has not yet been set.

Orderconfirmation Q2020050075 - ingenious

Customer No. 10000  
Project VAT reduction  
Quote No.

Your Contact Anton Admin  
Email: anton@ingenious.de  
Phone: 0123456789  
Fax: 0123456780  
Date: 6/27/2020

Orderconfirmation Q2020050075

Subject:

Dear Mr. Doe

thanks for your order. we confirm as following:

PosNr.	Art. Nr.	Description	Unit	Quantity	SP EUR	Rebate 10%	GP EUR
001		Example article with regular VAT rate	PC	1	100.00	19	100.00

Payment terms:  
Within 7 days with 2.00% discount or within 14 days in total.

Total net	100.00
VAT 19 %	on 100.00 EUR
VAT 7 %	on 0.00 EUR
Gross total	119.00

created: 1/7/2020 4:21:00 PM - admin  
Modified: 1/7/2020 4:45:57 PM - admin

Projects [05 / 340] | Orderconfirmation Q2020010076

The invoice will be issued with delivery on July 1st, 2020.

With the appropriate configuration, the project is automatically recalculated with the reduced VAT rate.

The screenshot displays the 'ingenious' software interface for creating an invoice. The main window title is 'Invoice IV202007/0022 - ingenious'. The interface is divided into several sections:

- Top Menu and Toolbar:** Includes 'Contacts', 'Articles', 'Projects', and 'Purchase orders' tabs. The toolbar contains icons for 'New', 'Convert', 'Save', 'Back', 'Change log', 'History', 'Create Task', 'Add items', 'Delete items', 'Modify items', 'Rearrange items', 'Recalculate item', 'Project item receipt assignment', 'Update document', 'Create PDF attachment', 'New', 'Save as', 'Print', 'Send as PDF', 'Open', and 'Document'.
- Left Sidebar (Projects detail view):** Lists 'Miscellaneous', 'Payments', 'Times', 'Price info', 'Documents and Notes', 'own fields', and 'File attachments'.
- Main Content Area:**
  - Company info: 'Sample Company - Sample street 1245 - 12345 Sample town', 'John Doe', '127 Anywhere Street', '12345 Anytown'.
  - Delivery address: 'John Doe', '125 Anywhere Street', '12345 Anytown'.
  - Invoice number: 'Invoice IV202007/0022'.
  - Subject: 'Dear Mr. Doe'.
  - Dear Mr. Doe
  - We invoice the following items and services:
  - Table of items:

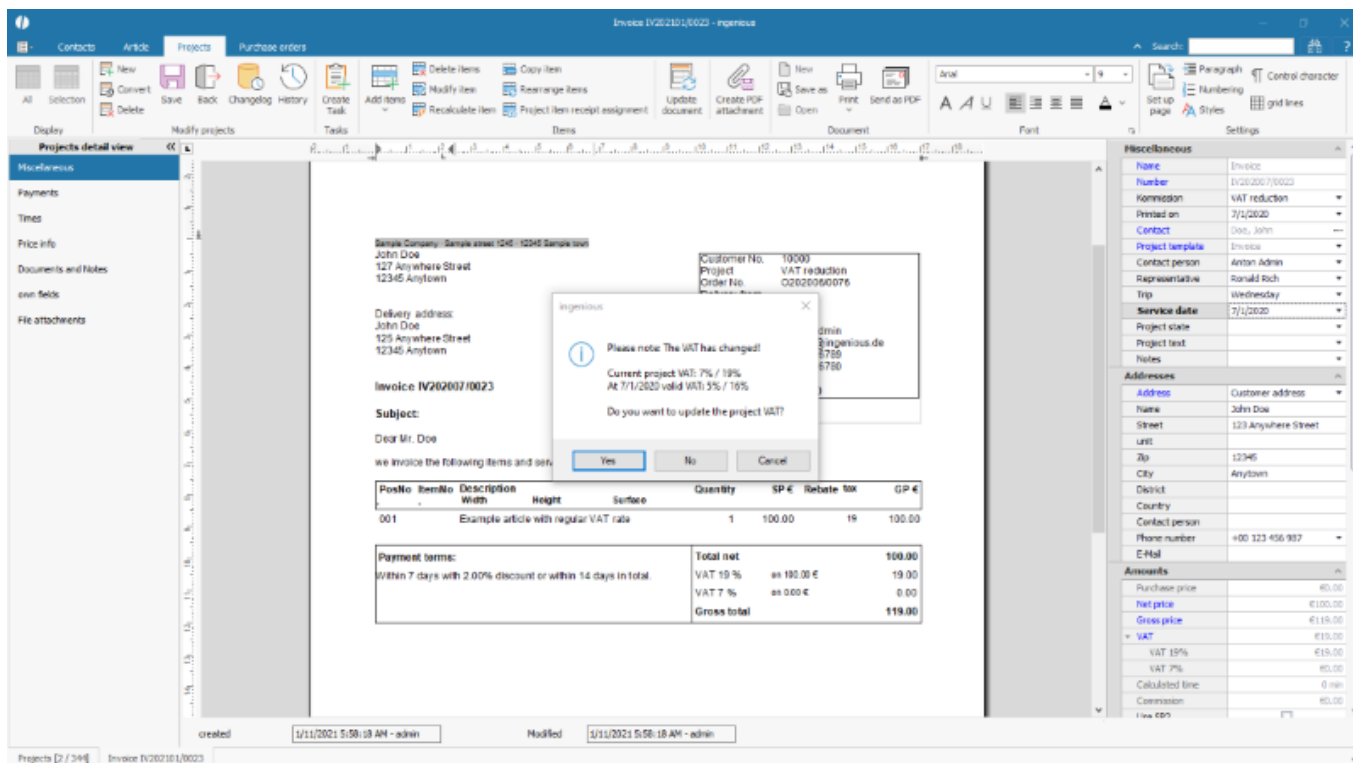
PosNo	ItemNo	Description	Height	Surface	Quantity	SP €	Rate tax	GP €
001		Example article with regular VAT rate			1	100.00	16	100.00
  - Payment terms: 'Within 7 days with 2.00% discount or within 14 days in total.'
  - Summary table:

<b>Total net</b>		<b>100.00</b>
VAT 16 %	as 160.00 €	16.00
VAT 5 %	as 0.00 €	0.00
<b>Gross total</b>		<b>116.00</b>
  - Customer info box: 'Customer No. 10000', 'Project VAT reduction', 'Order No. 02020050076', 'Delivery from Your subject', 'Your contact Anton Admin', 'Email: ronaldr@ingenious.de', 'Phone: 0123456789', 'Fax: 0123456780', 'Date: 7/1/2020'.
- Right Sidebar:**
  - Miscellaneous:** Fields for Name, Number (IV202007/0022), Commission (VAT reduction), Printed on (7/1/2020), Contact (Doe, John), Project template (Invoice), Contact person (Anton Admin), Representative (Ronald Rich), Trip (Wednesday), Service date (7/1/2020), Project state, Project last, Notes.
  - Addresses:** Address (Customer address), Name (John Doe), Street (123 Anywhere Street), Unit, Zip (12345), City (Anytown), District, Country, Contact person, Phone number (+00 123 456 987), E-Mail.
  - Amounts:** Purchase price (80.00), Net price (€100.00), Gross price (€116.00), VAT (€16.00), VAT 16% (€16.00), VAT 5% (€0.00), Calculated line (0 min), Commission (€0.00), Line cost.
- Bottom Status Bar:** Shows 'created' and 'modified' timestamps: '1/11/2021 5:55:07 AM - admin'.

Or the user determines whether the project should be recalculated.

The VAT rates saved in the original project and the VAT rates that differ on the service date are displayed.





### An order is created before the VAT reduction with a known service date after the VAT reduction

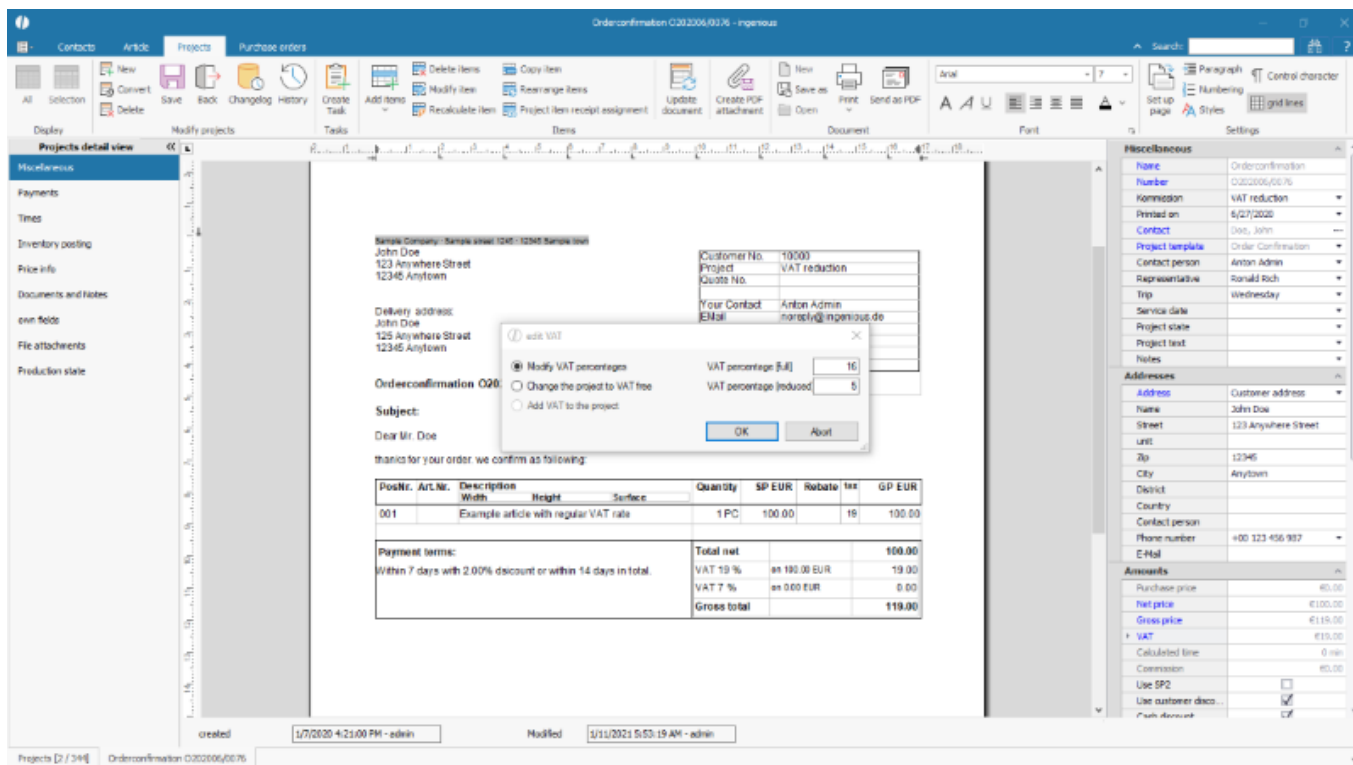
If it is already clear on the day the order is received that the service date falls within the period of the VAT rate reduction, the order with the reduced VAT rate can be created before the actual VAT reduction (a service date must be configured.)

After the service date has been set, the valid VAT rates are loaded into the project, if configured.

### Manual VAT adjustment in the project

If it is configured that the VAT should be adjusted manually in the project, the VAT rates can also be loaded and edited if necessary by double-clicking on the blue field label "VAT".

Order documents can also be updated and sent to customer again.



## Special processes

### Combine projects

Some special processes cannot be taken into account by the program.

For example, it is not possible to mix old and new VAT rates on one document.

This means that projects that are billed collectively using the "combine projects" function must first be sorted to the service date (or period) and must be billed separately.

### Partial and final invoices

Partial invoices can be agreed for long-term projects in order to spread the payments over the entire service period.

The partial invoices can then show different VAT rates or the VAT rate can differ when the project is completed.

The final date of the complete service is decisive for determining the correct VAT rate.

In the standard final invoice in the ingenious software the total net amount is reduced by the net discount and the applicable VAT is added to the remaining amount.

For a correct representation of the mixed VAT rates an individual project template has to be created, as described in the chapter **Final invoice (Section 4.3.1.4)**.

### Individual processes

Invoices can also be created automatically using individual scripts. These scripts may need to be adapted to use the correct VAT rates.

In this case, please get in touch with your contact person of the Ingenious team.

## Financial export

In the various financial exports for transferring sales to an accounting program such as DATEV, the gross amounts of the invoices will be exported to the corresponding sales accounts.

The VAT rate is configured in the accounting programs for the respective sales account so that the correct net amount is automatically posted.

As a rule, the accountancies have created new separate sales accounts to differentiate between gross bookings with 19% or 16% VAT in the accounting programs.

This is to be configured in the ingenious program settings as follows from the first export with separate sales (usually after the export of sales from June 2020):

In the tab "Special functions / VAT change" in the table "Account mappings" for "old account" the account for booking the sales with 19% VAT is entered.

The account for the 16% sales must be entered as the "New account".

The same procedure is used if sales are posted with the reduced VAT rate.

In the case of differentiated accounts, e.g. separated by customer type and / or type of goods, the old (19%) and the new (16%) must be compared for each permitted account.

The screenshot displays the 'Program Settings - ingenious' window. The 'VAT change' section is active, showing the following configuration:

- new VAT full: 16
- new VAT reduced: 5
- valid from: 1/7/2020
- valid to: 12/31/2020
- Service date: free input
- Show service date in projects:
- VAT at converting: update after question

The 'Finance accounting export' section includes a table for 'Account mappings':

altes Konto	neues Konto
4400	4401
4300	4301

The 'Exchange condition' is set to 'depending on VAT%'. The left sidebar shows the navigation menu with 'Special functions / VAT change' selected.

**Please clarify with your accountancy individually how the issue will be handled there and coordinate any individual adjustments with us before the first invoice with the reduced VAT rate is exported.**

## 11.7 Annual update 2020-2021

### 11.7.1 Bugfixes 2020-2021

The following bug fixes and system optimizations were among others carried out:

- Lock TXcontrol input for finalized projects
- Load PPS items to the scanned daily schedule
- Capacity planning expand and collapse information
- Article statistics Correction of article search (matchcode with [])
- GLS interface (empty country code, items without weight, correction of pricing)
- GLS interface: sender address, allow self-signed certificates
- Item detail navigation bar crashes
- Improvement of the PPS sorting
- Optimization of capacity planning (memory overflow with large databases)
- GLS interface: Field length limitation in SOAP interface
- Line selection in the project time list causes a crash if the auto filter line is accidentally selected
- Correction of FIBU export of credit notes for differential exports (sums \* -1)
- Remove special characters in the project XML import
- GLS interface (address lines, filtering of surcharge items, texts on buttons, security queries delete / cancel, new parcel creation after cancellation, country assignment)
- Print measurement sheets on the web (B2B) in color
- GLS UI adjustment, new calculation of automatic packages
- Sidebar refresh after entering multi-position
- Workaround for opening the search instance
- Folders for file attachments now open the folder for the current selection instead of the standard folder of the data record
- XML project import: Change the import sequence so that item prices are imported at the end and are not recalculated
- Grid print preview changed to non-modal
- Program settings: always show the financial data tab regardless of module rights
- Adoption of the preset report printer even when opening the print settings before printing
- Display of the placeholder ItemLUSP for negative sales prices
- Remove special price type "Supplier"
- Speed optimization at program start
- Use of user fields in the sidebar in purchase orders
- Deactivation of events when executing OnSave scripts (all modules), otherwise field changes could trigger events again
- Active invoice filters in the project list now also show collective invoices
- Correction of SEPA texts
- Handling of OutofMemory exception when generating part list images on the web
- Correction of purchase price calculation in warehouse bookings for partial deliveries of purchase orders
- Rounding of stock entries to avoid comma errors
- Rounding of entered payment amount to 2 digits
- Treat empty fields as numbers or dates in PPS sorting if necessary
- The item price is rounded to 2 digits after entering a unit price
- Bugfix article statistics for articles with brackets in the matchcode and display of the unit set in the article

instead of standard pieces/m/sqm/ccm

- Bugfix SEPA text update after project changes
- Bugfix Error at '\\' in the checklist
- Bugfix incorrect display of the page break placeholder after refresh
- Article statistics available independently of the module
- Update report types selection when changing module
- Error in contacts CRM information with data older than 20 years
- Adding up the project times in projects takes breaks into account; display formattings
- Load the part list version only when opening the version management, unloading when closing the article (otherwise this can cause a memory overflow)
- Correction price per PP in inventory detail view
- Corrections Article statistics (translations were missing, period specified in header was wrong)
- Copying of inventory documents corrected, option "Only articles not yet included"
- Saving of B2B Settings web page
- Input check empty serial numbers
- Correction Behaviour of blue labels for unlocking input fields by double click (Until now the clipboard was overwritten with the label text)

## 11.7.2 Extensions 2020-2021

### New and changed user rights

101760 - Contacts - Reassign linked emails

350550 - Projects - View commissions

851000 - Project time recording - Viewing of file attachments

851100 - Project time recording - Modification of file attachments

880000 - Rental Products - Module Access

### New placeholders

InAddrContactPerson - contact person for the invoice

DelAddrContactPerson - contact person for the object address

PrintRental\_Description - Description of Rental article with the following parameters in the formatting text: "Article matchcode"; "Description text"; "Line break", e.g. Video1; borrowed videos; CR

PrintRental\_Quantity - Current customer inventory of rental articles with the following parameters in the formatting text: "Article matchcode"; "Line break", for example: Video1; CR

ItemStockPostingQtyButton - current position stock booking in pieces, colored according to booking status, can be changed by double-clicking

ItemUnitPP - Unit purchase price

CustomerItemNo - different customer position number

Page\_NetTotal - Net total of the positions on the current page

Page\_GrossTotal - Total of the positions of the current page

Page\_SalesTaxTotal - Amount of VAT for the items on the current page (1st + 2nd)

Page\_1stSalesTaxTotal - 1st VAT rate for the items on the current page as an amount

Page\_2ndSalesTaxTotal - 2nd VAT rate for the items on the current page as an amount

Page\_PPTotal - Purchase price amount of the items on the current page

Page\_PPGrossFullTotal - Gross purchase price amount of the items on the current page

PageSum\_NetTotal - Net total of the positions up to the current page

PageSum\_GrossTotal - Total of the positions up to the current page

PageSum\_SalesTaxTotal - Amount of VAT for the items up to the current page (1st + 2nd)

PageSum\_1stSalesTaxTotal - 1st VAT rate for the items up to the current page as an amount

PageSum\_2ndSalesTaxTotal - 2nd VAT rate for the items up to the current page as an amount

PageSum\_PPTotal - Purchase price amount of the items up to the current page

PageSum\_PPGrossFullTotal - Gross purchase price amount of the items up to the current page

PrefPage\_NetTotal - Net total of the positions on the previous page

PrefPage\_GrossTotal - Total of the positions of the previous page

PrefPage\_SalesTaxTotal - Amount of VAT for the items on the previous page (1st + 2nd)

PrefPage\_1stSalesTaxTotal - 1st VAT rate for the items on the previous page as an amount

PrefPage\_2ndSalesTaxTotal - 2nd VAT rate for the items on the previous page as an amount

PrefPage\_PPTotal - Purchase price amount of the items on the previous page

PrefPage\_PPGrossFullTotal - Gross purchase price amount of the items on the previous page

PrefPageSum\_NetTotal - Net total of the positions up to the previous page

PrefPageSum\_GrossTotal - Total of the positions up to the previous page

PrefPageSum\_SalesTaxTotal - Amount of VAT for the items up to the previous page (1st + 2nd)

PrefPageSum\_1stSalesTaxTotal - 1st VAT rate for the items up to the previous page as an amount

PrefPageSum\_2ndSalesTaxTotal - 2nd VAT rate for the items up to the previous page as an amount

PrefPageSum\_PPTotal - Purchase price amount of the items up to the previous page

PrefPageSum\_PPGrossFullTotal - Gross purchase price amount of the items up to the previous page

## New part list functions

None

## New script events and APIs

Miscellaneous – WebStart() - Primarily for setting global variables in B2B/WEB

Projects – ValidatePPSItem(...) - More precise checking when creating PPS entries when saving projects

## New modules

Module	Description	Documentation
--------	-------------	---------------

Multi-currency capability	Creation of project documents in different currencies	<b>Currencies (Section 8.6.16)</b>
Multilingual articles	Storage of additional article texts in other languages for use in project documents and in the web modules	<b>Multilingual article texts (Section 4.2.2.3)</b>
Rental item administration	Management of rental and return of reusable pallets	<b>Rental product administration (Section 7.3.1)</b>
Quickbooks Import	Import interface for Quickbooks (used in the USA)	on demand
Data reorganization	Optimization of the database size by collective archiving and deletion of data records	

## Bigger functional extensions

Function	Documentation
User photo / Avatar	<b>The user administration (Section 8.5.1)</b>
Translation of part lists, free texts and selection lists	<b>Localization (Section 8.4.1)</b>
Page totals / carryover on project documents	<b>Project templates (Section 8.1.2)</b>
Handling of the temporary VAT reduction (in Germany)	<b>VAT reduction 2020 (Section 11.6.1)</b>
Gross representation in final invoices / mixed VAT 19% / 16% (temporary VAT reduction in Germany)	<b>Final invoice (Section 4.3.1.4)</b>
Dutch language selection for the program interface	<b>Login (Section 2.3), Miscellaneous user details (Section 8.5.2)</b>
Import interface for windows construction software KLAES	<b>Klaes contact import (Section 8.6.10)</b>
Interface for Microsoft AX2020	on demand

## Bigger functional extensions in the web modules

Function	Documentation
B2B Word-Export	<b>Dealer ordering system (Section 10.5)</b>
PPS Dashboard	without

## Various minor extensions / adjustments

- Total project price entry with discount (depending on the program setting)
- Larger selection of report modules

- Standard font, standard font size
- Access methods for manipulating the special prices via script during price calculation
- Image file attachment preview no longer in the list as a thumbnail (slowly), but only as a larger image below the list when clicking on a line
- Clearer icons for distributing a combined payment
- FIBU-Export Format IBM DF2
- Global setting to use tabs for RTF texts from the template
- Creation of a new project for the Sage 50 accounting 2020 (Peachtree) interface
- The "pagebreak" property of the lines in measurement sheets is adopted when positions are inserted
- Quantities can be inverted in the project warehouse view (for mapping production orders)
- Formatting of date placeholders
- Dimensions can be entered in mm (part lists, price information, multiposition, projects sidebar)
- Storage consumption can be displayed negatively in the article storage module
- Stock booking and reservation can be activated by script in other project types than just orders
- Program setting, multi-position tab order changeable from only dimensions to all columns
- Volume article (3-dimensional input)
- Storage of the % value of special prices in positions
- Include VAT reduction in IBM export
- PPS positions search by part lists position name (dropdown - penultimate column in the service positions)
- Input of text control tabs, to be opened via context menu (right click)
- Item group formatting for total lines
- Article stock monitor added additional columns for project dates, saving & restoring the column selection
- Commission added at item level in PropertyGrid (can be overwritten)
- Purchase order sidebar - General - Confirmed Delivery Date (Date 2)
- Article stock monitor additional filtering by booking type
- Item sidebar of sales documents expanded to include actualstock, reserved stock and free stock (for items with activated automatic stockkeeping) (user right 200.150)
- Inventory document extended by columns for product, goods- and segment groups as well as locked articles
- Display of the multi-supplier table even with only one supplier instead of the individual fields for order parameters (can be switched on via the global flag Globals.bAlwaysUseMultiSupplierTable)
- Hide popups when the scheduler is running
- Document templates: Remove ReDo and UnDo
- Additional language setting possible (module rights required)
- Export localization: selection of "all internal texts"
- Open contact address directly after duplicating
- Reservation and storage booking possible in 2 consecutive project states
- Office 365 Outlook web connection
- Copy commissions in project times management
- Bind projects stock booking to execution date
- API command for creating a project time record
- Moving the reminder configuration in the program settings to another tab
- Setting Network Protocol

## Various smaller extensions in the web modules

- Script execution via button / Javascript in the B2B
- New script WebStart for setting global parameters on the web
- Use part list input templates from contacts in web multi-items
- Scheduler can now be configured as a web print server
- B2B button for deleting an offer from the detailed view
- B2B totals lines
- Addition of B2B flag and B2B gross price to the web model for items



## 11.8 Annual update 2021-2022

### 11.8.1 Bugfixes 2021-2022

The following bug fixes and system optimizations were among others carried out:

- Correction of behavior of blue labels for unlocking input fields by double-clicking (previously the clipboard was overwritten with the label text)
- Correction of "price per" for purchase price in the inventory detailed view
- Bugfix Klaes interface
- VAT when grouping projects - if different then standard value + notification message, if the same then the value will be adopted
- Double use of semicolons in the name / as a separator in the PPS
- new capacity planning without groups caused exception
- Object width of the "customer number" text box in the contact details reduced
- Outlook Appointment connection - restriction of appointment transfer (+- 180 days)
- Forced color printing of measurement sheets expanded. Is now to be stored in the measurement sheet (PrintInfo.ShowColor)
- Project times scheduler view uses the local PC's time zone instead of WestEuro
- Contact details - e-mail list: Sorting by import corrected
- Lock Copy & Paste in finalized projects
- Handling Multi-supplier
- Measurement line of order items from the item field "order item measurement line" instead of the standard (sales) measurement line
- IBAN entry optimized
- Improvement in the save question and in syntax error messages in picture scripts
- Correction edit variants dropdown values "supplier", "VAT", "trip"
- Measurement line from multiple suppliers
- Correction of input validation IBAN field
- Cutting optimization converting cm to mm to inch
- Picture script command DrawItemImage
- Prevent the inclusion of post costing items in orders (when copying and pasting from orders)
- Bugfix collapse of the lower information area in the contacts detail view (1st page)
- Allow price rounding after item price update to 0.01 instead of 1.00
- price change function - rounding corrected
- Corrections to DataSets (Data optimization, trip planning)
- Resetting the item discount field only after changing measurements or sales price
- Edit wrong item selection for variants
- Price adjustment from multiple suppliers purchase price
- Printing with list selection limited to 1000 lines
- Price calculation pending payments in the contacts CRM view
- Do not attach a print report to file attachments if printing is cancelled
- Contact documents - Restriction of the subject to 80 characters removed
- Corrected initial creation of the program settings for displaying the list boxes in the detail views
- Tapi box icon borders
- Web print requests are no longer transferred via the userfield table, but via the ValueStack table (significantly lower CPU load in the server)
- Corrected internal functions for shrinking the database and rebuilding the index

- When recalculating order items, keep the measurement attributes (prevents order-filling data from being deleted)
- Print preview position CenterScreen
- Rounding of stock levels after postings to avoid orders for stock levels that are actually Null
- Incorrect user rights check when deleting an order from the order list
- Resetting the saved list heights in the detail views when the visibility settings are changed
- Save variables for BOM articles even with negative quantities
- Correction of price calculation for fixed sales prices
- Correction of the price display for multiple suppliers
- Bugfix for capacity planning / disposition line active line

## 11.8.2 Extensions 2021-2022

### New and changed user rights

- 300600 - Projects - View complaints
- 300700 - Projects - New complaints creation
- 300800 - Projects - Modification of complaints
- 300900 - Projects - Delete complaints
- 301000 - Projects - Complaints finalisation
- 301100 - Projects - Undo complaint finalisation
- 310600 - Projects - View redemptions
- 310700 - Projects - New redemptions creation
- 310800 - Projects - Modification of redemptions
- 310900 - Projects - Delete redemptions
- 311000 - Projects - Redemptions finalisation
- 311010 - Projects - Undo redemption finalisation
- 320600 - Projects - View redemption notes
- 320700 - Projects - New redemption notes creation
- 320800 - Projects - Modification of redemption notes
- 320900 - Projects - Delete redemption notes
- 321000 - Projects - Redemption notes finalisation
- 321100 - Projects - Undo redemption note finalisation
- 800400 - Tasks - Show all tasks
- 870100 - Webinterface - WEB Login
- 870200 - Webinterface - BCS Login
- 870300 - Webinterface - PPS Login

### New placeholders

Item\_Complaint\_Reason - Reason for the complaint

Item\_Complaint\_Description - Description of the complaint

Item\_Complaint\_Analysis - Analysis of the complaint

Item\_Complaint\_Analysis\_Description - Analysis description of the complaint

Item\_Complaint\_Causer - Causer of the complaint

Item\_Complaint\_Solution - Solution of the complaint

Item\_Complaint\_Responsible\_Intern - internal person responsible for this complaint

Item\_Complaint\_Responsible\_Extern - external person responsible for this complaint

ItemIndex - Item position index (counter for price positions - does not count texts / headings / sums)

ItemCalculatedNet - Calculated Sales Price

ItemRebateSP% - Discount % for Item rebate or customer special price % if customer special price is stored in % (value from customer special prices)

ItemRebateSP%% - Discount % for Item rebate or customer special price % if customer special price is stored in % (value from customer special prices; with extra percentage sign)

ItemCountryOfOrigin - Country of origin of the item position

ItemCustomTariffNumber - Custom tariff number of the item position

Complaint\_Reason - Reason for the complaint

Complaint\_Description - Description of the complaint

Complaint\_Analysis - Analysis of the complaint

Complaint\_Analysis\_Description - Analysis description of the complaint

Complaint\_Causer - Causer of the complaint

Complaint\_Solution - Solution of the complaint

Complaint\_Responsible\_Intern - internal person responsible for this complaint

Complaint\_Responsible\_Extern - external person responsible for this complaint

AdvancePayment\_Amount - Amount of the payment made in advance

AdvancePayment\_Date - Date of the payment made in advance

AdvancePayment\_RestAmount - Remaining amount after the payment made in advance

## New partlist functions

New partlist commands SetVisible and GetVisible to show and hide checklist entries

Measurement sheet placeholder {repeatcount}, shows a counter in copy blocks

New variable for BOM items .matchcode

asin(x) – returns the angle whose sine is the specified number

acos(x) – returns the angle whose cosine is the given number

## New script events and APIs

New script event BeforeSavePPSItem – the script can be used to manipulate PPS data records when they are created

(usually when saving a booked order) and thus to save additional data for later display.

## New modules

Module	Description	Documentation
Complaint module	Functions for mapping complaints in the project workflow	<b>Complaint process (Section 4.3.3.5)</b>
Tour planning	Module for planning delivery tours	<b>The trip planning module (Section 7.6.1), Trip configuration (Section 7.6.2), Vehicle management (Section 7.6.3), Resources (Section 7.6.4)</b>
Interfaces to Map&Guide Desktop & Remote	Transfer of delivery tours to Map&Guide for fine optimization	in progress
Ingenious Restarter	Restart tool for unattended clients (scheduler, web print client)	<b>Ingenious Restarter (Section 9.2)</b>

## Bigger functional extensions

Function	Dokumentation
Categories for notes, documents and file attachments	E.g. Contacts: <b>Document and notes of contact (Section 4.1.2.8), Contacts file attachments (Section 4.1.2.10)</b>
Show linked file attachments	E.g. Contacts: <b>Contacts file attachments (Section 4.1.2.10)</b>
Print / send project documents and attach them as files at the same time	<b>Miscellaneous project details (Section 4.3.2.2), Projects (Section 8.6.11)</b>
Detailed project views depending on the project type	<b>Detail views (Section 8.6.22)</b>
Display print reports depending on the project document type	<b>Print reports (Section 8.6.5)</b>
Definition of project documents for reservation and inventory booking, automatic inventory booking	<b>Stock movements (Section 8.6.14)</b>
Additional options for sidebars: Sidebars for project positions, script conditions, block assignment for user fields, positioning of the sidebar blocks	<b>Selection lists (Section 8.6.4)</b>
Attach print reports as file attachments at the same time as printing	<b>Print reports (Section 8.6.5)</b>
Minimum price calculation for items	<b>Prices (Section 4.2.2.12)</b>
Exclusion of individual articles from the special price calculation	<b>Prices (Section 4.2.2.12), Special prices (Section 4.1.2.5)</b>

New placeholder type for free texts	Project templates (Section 8.1.2)
-------------------------------------	-----------------------------------

## Various minor extensions / adjustments

- Setting the network protocol
- Copy project times commission
- Bind projects stock booking to execution date
- Warning and cancellation when booking items, that are not in stock, can be set differently - depending on whether reservation or stock booking
- Copy items for partial invoices
- Export multiple project documents as PDF at once
- ABC analysis and sales list: show negative sales, even if zero sales is hidden + take into account previous year's sales in the filter
- Global flag for overwriting the standard rounding in measurement sheets `Globals.iMeasurementRounding` (default: 2)
- Rounding for cutting optimization (3 digits for inches)
- Improvement of the color scheme when entering partlists
- PPS Standard Projects - Display print reports as PDF
- Contact matchcode in BOM calculation
- PPS stations sort index field for sorting the stations in the project detail view
- When saving contacts, check whether the B2B login is already being used in another contact or address
- PPS list; new button for creating daily plans after setting up a station (otherwise the PPS data will be generated successively when projects are saved)
- Additional article fields for custom tariff number and country of origin
- Optimization of adding multiple items to a project at once
- Hide articles with only zero values in article statistics
- Display of open amounts and overpayments in the receipts of the receipt entry module
- Transfer the prices of order-filled articles from the purchase order to the (sales) order confirmation
- Easier entry of the IBAN in the contact

## Various minor extensions in the web modules

- Archive B2B/WEB offers
- B2B price calculation based on the list price
- multilingual partlists in the WEB
- Splitting of web user rights from 870000 to 870100 (WEB), 870200 (BCS), 870200 (PPS)
- Check whether login is still valid when calling up most websites in PPS / WEB / B2B. Log out automatically if user rights have been withdrawn in the meantime.

## 11.9 Annual update 2022-2023

### 11.9.1 Bugfixes 2022-2023

The following bug fixes and system optimizations were among others carried out:

- Correction to the evaluation of the checkbox "in Pl." in article statistics
- Restore autologin function in web
- Setting the cursor position after position creation
- Set the cursor position after copy & paste a position
- ClearDS in the PrintReport before the AfterPrint script
- Correction when copying & pasting items with a VAT rate that contains a comma
- Calculation PP with waste in parts lists only if length != stock length
- Trip planning - edit variants
- Correction of the order of fields in datasets
- Edit display correction for price changes via variants
- Status 52 projects are posted to stock with the current date if the posting date is missing
- Correction regarding deletion of print variables when saving reserved projects
- Trip planning: display of user fields in the list view
- When automatically setting the reserved or stocked checkbox, remove the other status
- Incorrect position sequence when copying and pasting multiple positions
- Consistent calculation of item discount field after price changes
- Displaying the one-piece IBAN field in the contact if the country is not D/DE
- Locking sidebar fields for completed / read-only projects
- Revision changed font size for parts list dropdowns
- Automatic creation of the item group "Materialsurcharge"
- The item stock monitor crashes after showing the auto filter line
- Correction of the button positions in the mailing form
- Localization of projects avoid history entries
- Correction of the sum calculation when switching to a complaint
- When editing variants, only load data records that are displayed (limited to 5000 contacts/items or 1000 projects)
- Exclude surcharge items from measurement sheets (line supplies)
- Load addresses when convert projects so that address placeholders can be resolved in the new document
- Allow update of Guid fields in B2B/WEB
- Part list function COLWIDTH functional
- Correction projects warning message when stock is below
- Error correction when opening the multi-position for simple articles (new column width settings from parts lists could not be loaded)
- Contacts CRM information for purchase orders only displayed status 50 purchase orders, expanded to 50 & 52
- Rename the order filling settings in the project
- If the PPS close popup is triggered when saving a project, a possible simultaneous closing of the project is aborted
- When recalculating items, the part list version is only updated if the new version does not have a syntax error
- Bugfix article statistics (special characters in article matchcode)
- Correction TAPI button create note
- Error messages in the AfterPayment script now cancel the creation of a new payment
- Correction of rounding errors with placeholder PosEHPBrutto (position unit price)
- Unlimited image script caching (previously only 100 image scripts, slow reloading when using more scripts)
- Optimization of the translation of parts list texts, all translations are only loaded once when starting the part list, no longer individually for each text
- Multi-position columns now show the input title instead of the variable name

## 11.9.2 Extensions 2022-2023

## New and changed user rights

101800 - Contacts - View OpenTrans export settings

101810 - Contacts - Modify OpenTrans export settings

101820 - Contacts - View OpenTrans import settings

101830 - Contacts - Modify OpenTrans import settings

311320 - Produktion - Modify partially or fully produced project items (when using the PPS)

950000 - Trip planning - Module Access

950100 - Trip planning- Configure vehicles and trips

950200 - Trip planning- modify, sort, import and export project list

## New placeholders

OrderNumber – Dokumentennummer einer Bestellung (Status 51) ausgegeben in einem Wareneingangsdokument (Status 52)

PrjSurcharge% - Percentage surcharge at project level

Surcharge% - Percentage surcharge for an item position

Surcharge – Surcharge for an item position

SurchargeGroup – Surcharge group for an item position

## New partlist functions

Command in c# part list	Command in compatibility part list (Measurement)	Function
SetForeColorText Ex.: SetForeColorText(„x“, „blue“)	FORECOLOR2 Bsp.: ? x;FORECOLOR2=blue	Sets the font color of the right column of the field in the configurator Ex.: sets the font color of the right column for x to blue
SetBackColorText SetBackColorText(„y“, „yellow“)	BACKCOLOR2 Bsp.: ? y;BACKCOLOR2=yellow	Sets the background color of the right column of the field in the configurator Ex.: sets the background color of the right column for y to yellow
SetFontSize(...) Ex.: SetFontSize(12)	_FONTSIZE Bsp.: =_FONTSIZE=12	Sets the font size in the configurator Ex.: sets the font size to 12 pt
SetRowHeight(...) Ex.: SetRowHeight(30)	_ROWHEIGHT Bsp.: =_ROWHEIGHT=30	Sets the line height in the configurator e.g. sets the line height to 30 pt
ItemNo	?ItemNo	Predefined variable for the configurator, with which the value is written directly into the corresponding item field Project_item.number

CustomerItemNo	?CustomerItemNo	Predefined variable for the configurator, with which the value is written directly into the corresponding item field Project_item.customer_project_item_number
ItemProjectNo	?ItemProjectNo	Predefined variable for the configurator, with which the value is written directly into the corresponding item field Project_item.subsidiary_project_number
bLoadItemText	n.v.	Additional parameter of a variable of the BOM Item method to load the ASCII text into this variable.Label (equivalent to * in the label column in compatibility mode)

Extension of the image script command DrawString: style = wrap - creates a line break for texts on overflow

## New script events and APIs

GetReportAsImage - API that allows reports of type XtraReport to be output as an image

OpenTransOrderImportBeforeSave – script is executed after the OpenTrans order import and just before saving the project to the database.

OpenTransBeforeExport – Script is executed for each XML node during export. This makes it possible to overwrite individual export values.

## New modules

Module	Description	Documentation
OpenTrans Auftrags-Import (Modul-Lizenz erforderlich)	Import of order data in XML format according to OpenTrans specification	<b>Settings openTrans order import (Section 4.1.2.12.3)</b>
OpenTrans Bestellungen-Export (Modul-Lizenz erforderlich)	Export of purchase order data in XML format according to OpenTrans specification	<b>Settings openTRANS purchase order export (Section 4.1.2.12.1)</b>
Reklamationsprozess im Web (Modul-Lizenz erforderlich)	Creation of complaints and service requests from an order via the WEB or B2B	<b>Sales rep access (Section 10.4), Dealer ordering system (Section 10.5)</b>

## Bigger functional extensions

Function	Documentation
Write back purchase prices from type 52 receipts to type 51 purchase orders	<b>Purchase orders with partial delivery (Section 4.4.3.1)</b>
Inflation surcharges	<b>Surcharges (Section 4.3.3.6)</b>
Evaluate formulas in the parts list input field	<b>Configurator checklist (Section</b>



	<b>4.2.3.2)</b>
Extension of the Send-Mail window for selecting the file attachments linked to the project and attaching multiple files to the mail.	<b>Create a new project (Section 4.3.3.1)</b>
additional address types (additional addresses)	<b>Additional addresses and trips (Section 4.1.2.3)</b>
Combine several orders into one receipt document	<b>Combine purchase orders (Section 4.4.1.3)</b>

## Various extensions / adjustments

- New columns purchase price and PP waste in the price info and project price info
- New item field Part list name
- Display ASCII text in Rearrange items window
- Additional columns in the stock monitor: Calculated purchase price and In Part list
- Adjustment of collective payment (discount handling), Globals.Globals.bCalcOpenPayments\_FullyPaid -> calculation of open amounts can be changed
- "Fix special prices" position checkbox: if the price changes, the % discount is retained and the list price is adjusted accordingly
- In the project history, the direct predecessor and successor are marked with small arrows
- Script columns in item stock monitor + save column settings
- Extension of reminder fee calculation settings
- Automatically remove invoices that are collected by direct debit from the dunning run
- Line and cell formatting via script in the tour list
- Adding modification and creation dates in the text templates module
- Button to copy the IBAN of a contact record
- Trip planning settings for deleting tours after a certain number of days
- Projects stock list new column free stock
- Refresh status icons in Trip planning
- Public holidays are also included when checking non-working days (capacity planning).
- Tour planning: setting the start time of the delivery for Map & Guide internet and desktop, importing the delivery time: display in the project
- Easier selection of user fields on project templates
- Storage of part list variables with a negative number of part list items
- Perform order picking for a supplier in the inventory posting view of projects
- TAPI phone number list extended by additional addresses
- Remember the zoom of a project preview for each user
- Update Sepa plugin
- The image script placeholder can now include scaling formatting (10%), allowing larger images to be displayed in projects with higher image quality

## Various extensions in the web modules

- Define PPS stations as child stations and link them to other stations (no own data)
- PPS view in the project now also available as a list view
- Identifying PPS items using part list name parts (\*box\*)
- Display of print reports in the PPS (projects print reports)

- Viewing print reports in PPS (PPS print reports)
- Checking user rights on the WEB (open/edit contacts, open/edit projects)
- Projects that have already been worked on must be booked or reserved when saving (program settings PPS)
- Display of PPS memo columns and saving of PPS list changes in the projects PPS view
- When editing parts lists that have already been produced, ask whether new PPS data records should be completed (program setting + selection window)
- PPS cutting optimization over several days
- Print combined print reports in PPS

## 11.10 Annual update 2023-2024

### 11.10.1 Bugfixes 2023 - 2024

The following bug fixes and system optimizations were carried out, among others:

- Extension of the error output if email sending failed
- Correction of special price calculation for commodity groups/product groups
- Hide customer item number column for simple items in multi-position
- "Send as PDF" of credit notes -> email address from billing address
- Translate multiposition column headers
- Hide incorrect dropdown box text templates
- Wildcard formatting swapped comma and dot
- Localization Exception Window
- If a position is marked as finalcosting, but the display of finalcosting items is deactivated, then the position is now hidden
- Correction display of user number in the info/splash screen
- User rights for openTrans orders corrected and expanded
- Speed optimization inflation surcharges
- Access to print reports uniformly via key instead of internal ID, prevents inconsistencies when changing the key
- Display of the BOM header position number in the cutting optimization
- Output of further error messages during Sepa export
- Hide openTrans fields in the project sidebar if the document was not created through import
- Optimization of PPS system when saving orders
- Autocomplete turned off in the report editor
- IP detection on cloud computers (scheduler)
- Show user printer icon in the print menu
- Flaw in print menu/custom printer
- Translation of texts in image scripts when printing from the web
- only show active tours in the contact
- Changing from a script in readonly mode to another script did not reload the new script
- For manual inventory changes in the project, intercept positions with quantity 0 (percentage distribution not possible)
- Optimization of parts list calculation in the WEB
- Blocking of text fields revised
- No more project document updates when a BOM is opened and closed with Cancel
- Transfer of purchase price per and sales price per when recalculating positions
- Mark dropshipping orders as such when creating them
- Fixed "sliding" icons in contact list navigation bar (contact type).
- Price fixation in the event of parts list errors
- Include negative payments in Sepa export

- Speed optimization Schedulerview
- Multiposition last column was defective if customer pos column was present
- Restructuring the project document when inserting the surcharge if you are not in the first project tab
- Automatically trim spaces from PPS column name
- Bug fix when loading manually overwritten PPS values

## 11.10.2 Extensions 2023-2024

### New and changed user rights

353000 - Contacts - View openTRANS export dates

353100 - Contacts - trigger openTRANS export of the order confirmation

353200 - Contacts - trigger openTRANS export of the delivery note

### New BOM features

DrawImage(string matchcode, string name, int x1, int y1, int? x2, int? y2, bool relative)

New parameter matchcode.

This allows BOM images from other items to be displayed in image scripts.

### New script events and APIs

General - ClientClose

Projects - OpenTransOrderResponseBeforeExport

Projects - OpenTransDispatchNotificationBeforeExport

### Bigger functional extensions

Function	Documentation
Expansion of creation of commissions	<b>Commission management (Section 7.4.1)</b>
Database update question on client startup	<b>Server database (Section 2.2)</b>
Article / Source code - additional button with which you can expand and collapse the code	<b>Sourcecode View (Section 4.2.3.5)</b>
Collective conversion of individual projects	<b>Convert an existing project (Section 4.3.3.2)</b>
openTRANS DispatchNotification (delivery note)	<b>Settings openTrans order import</b>

	<b>(Section 4.1.2.12.3)</b>
Documents and Notes - simple note, title = 1st line of text	e.g. <b>Document and notes of contact (Section 4.1.2.8)</b>
Barcode placeholders on project templates	<b>Project templates (Section 8.1.2)</b>

## Various extensions / adjustments

- Customer PosNo added to the multiposition
- Scaling of image placeholders (e.g. "50%" in the formatting field)
- Storage of linked data records for SEPA collective bookings
- Include date field in project filter bar
- Customization TAPI Info Box, buttons with text
- Concurrency error message for deleted sub-records
- Using the user's printer, if available
- Switching multiple positions at the same time (Standard, Multi, Optional, Alternative) -> "Edit positions" button in RibbonBar
- Save column settings for documents and notes
- Options to copy old BOM version to clipboard
- Contacts dropdown Contact status
- Project default setting "switch only" to exclude project types from manual creation
- SMTP sending with default credentials if user and password are empty
- Price information (item/project) added column for item number
- OpenTrans fields for filename
- Globals switches Globals.bSuppressStockDateCheck and Globals.bSuppressOrderFillingDateCheck
- Shortkey to the save button of the main modules
- Save and restore zoom level of article measurements and service positions per user
- Collective forwarding of individual projects
- Dropship: Transfer of the delivery address from the order to the purchase order when forwarded
- Contacts status added to contacts list and navbar as a filter
- Extension of two image script functions (matchcode of another article, file name of an image)
- Read-only parts lists access to locked projects
- Collect the lot sum for the project
- Added date selection to heading of the printout of tour planning list
- Global switch Globals.bEnterCustPosNolnMultiPos to enable customer position number entry in the multi-pos window, even for simple items (no configurator).
- Disable order picking at the project level
- Saving the time zone in PZP calendar for the user
- Program setting Sepa booking date = export date (previously the booking date was the discount date or the creation date)
- Save the Sepa export file in the log table so that you can check it again later if necessary
- Accept the PP2 as PP in purchase orders (Global switch: Globals.bPP\_Listprice\_InPurchaseOrders)
- Free texts in the header & footer of the project templates

## Various extensions in the Web/PPS modules

- Display carts in the projects PPS list
- B2B/WEB - Calling scripts in custom pages
- B2B - Search for items outside of a project and create an offer with item selection

- PDF report for project selection on the WEB (instead of just 1 project so far)
- Adding your own PPS graphs in the project is possible via script
- Display package information in the projects PPS list

## Plugin Updates

The current release contains important updates to the included plugin for word processing.

## 12 Legal details

### 12.1 Imprint

#### Imprint

Ingenious Software GmbH  
Melscher Straße 1  
04299 Leipzig  
Germany

Phone +49 (0) 341 / 22 621-0  
Fax +49 (0) 341 / 22 621-20

Mail: [info@ingenious.de](mailto:info@ingenious.de)  
Web: [www.ingenious.de](http://www.ingenious.de)

Authorized Managing Director:  
Stephanie Schmidt

Registration Court: Amtsgericht Leipzig  
Registration Number: HRB 33063  
VAT-ident. number (according to § 27 a Umsatzsteuergesetz): DE309278869

## 13 Index

**Accessories, 130-132**

**Accounting export manager, 301-302**

**Add a new contact, 86-88**

**Additional addresses and trips, 47-50**

**Administrative teams, 337-339**

**Administration of item folders, 177-179**

**Administration of list views, 8-19**

**Article export, 111-112**

**Article import, 103-111**

**Article parameter, 126-129**

**Article texts, 122-124**

**Articles Excel export, 119-121**

**Assign rights, 432-433**

**Bugfixes 2015-2016, 575**

**Bugfixes 2016-2017, 577-578**

**Bugfixes 2017-2018, 581**

**Bugfixes 2018-2019, 583-584**

**Bugfixes 2019-2020, 586-587**

**Bugfixes 2020-2021, 598-599**

**Bugfixes 2021-2022, 603-604**

**Bugfixes 2022-2023, 607-608**

**Bugfixes 2023 - 2024, 612-613**

**Calculate prices automatically, 145-150**

**Calendar synchronization, 502-509**

**Calendar view, 341-344**

**Capacity planning, 286-291**

**Cart management, 295-297**

**Change password, 429-431**

**Changelog, 499-502**

**Client and single place installation, 1**

**Combine projects, 181-183**

**Combine purchase orders, 261-263**

**Combined payments, 189-191**

**Commission detail view, 335-337**

**Commission management, 334-335 , 359-362**

**Commission order, 238-241**

**Company holidays, 457-458**

**Complaint process, 242-248**

**Configurator checklist, 151-153**

**Contact folders, 23-24**

**Contacts, 460-463**

**Contacts detail view**

Additional addresses and trips, 47-50

Contacts file attachments, 62-63

CRM information, 55-57

Document and notes of contact, 58-62

Financial data and classification, 50-53

General contact data, 45-47

Own fields of contact, 62

Part list default settings, 63-65

Show projects, 84-85

Show purchasing orders, 85-86

Special prices, 53-55

Supplier information, 57-58

The contacts detail view, 44-45

Web settings, 82-84

**Contacts Excel export, 42-43**

**Contacts file attachments, 62-63**

**Contacts list view**

Contact folders, 23-24

Contacts Excel export, 42-43

Modify contacts variants, 24-27

Printing contacts lists, 36-42

Reassign contact data, 30-32



Serial letter assistant, 32-36  
Special price templates, 27-30  
The contacts list view, 22-23

**Convert an existing project, 236-238**

**Copy an existing article, 176-177**

**Create a group, 426-429**

**Create a new article, 174-176**

**Create a new project, 229-236**

**Create a user, 424-426**

**Create variants, 96-101**

**CRM information, 55-57**

**Currencies, 478-483**

**Daily schedule, 297-300**

**Data import, 408-413**

**Data import**

Data import, 408-413

**Data optimization, 509-511**

**Database, 496-498**

**Dealer ordering system, 556-567**

**Detail views, 498-499**

**Disable user, 431-432**

**Document and notes of contact, 58-62**

**Document templates, 399-401**

**Documents and notes of purchase orders, 275-277**

**Documents and notes of the articles, 132-134**

**Documents and Notes of the projects, 223-226**

**Dunning run, 191-195**

**Duplicate an existing contact, 88-89**

**Execute price changes, 94-95**

**Extensions 2015- 2016, 575-577**

**Extensions 2016-2017, 578-581**

**Extensions 2017-2018, 581-583**

**Extensions 2018-2019, 584-586**

**Extensions 2019-2020, 587-591**

**Extensions 2020-2021, 599-603**

**Extensions 2021-2022, 604-607**

**Extensions 2022-2023, 608-612**

**Extensions 2023-2024, 613-615**

**Fibu data manager**

Accounting export manager, 301-302

**File attachments of articles, 135-136**

**File attachments of purchase orders, 278-279**

**File attachments of the projects, 227-228**

**File attachments of the receipts, 314-315**

**Final invoice, 185-189**

**Finance account report, 484-487**

**Financial data, 476-478**

**Financial data and classification, 50-53**

**Free texts, 401-404**

**General contact data, 45-47**

**General installation and configuration, 519-527**

**Imprint, 616**

**Ingenious Restarter, 517-518**

**Inventory document, 347-351**

**Inventory management list view, 346-347**

**Inventory posting, 220-222**

**Inventory postings with barcodescanner, 569-574**

**Item pictures, 129-130**

**Items, 458-460**

**Klaes contact import, 463-465**

**Legal details**

Imprint, 616

**Local database, 2**

**Localization, 414-417**

**Localization**

Localization, 414-417

**Login, 3-4**

**Login**

Local database, 2

Login, 3-4

Server database, 2-3

**Logistics, 483-484**

**Logo, 437-440**

**Main menu and working area, 5-6**

**Measurement, 153-156**

**Measurement sheets, 165-168**

**Miscellaneous program settings, 434-437**

**Miscellaneous project details, 203-214**

**Miscellaneous purchase order information, 269-275**

**Miscellaneous receipt data, 310-312**

**Miscellaneous user details, 419-420**

**Modify contacts variants, 24-27**

**Modify variants, 101-103**

**Multilingual article texts, 124-126**

**Network and WebServer, 489-496**

**Online price info, 541-542**

**Order parameters, 138-141**

**Own fields of articles, 134-135**

**Own fields of contact, 62**

**own fields of purchase orders, 277-278**

**own fields of the receipts, 313-314**

**own project fields, 226-227**

**Paperless production Webpages, 567-569**

**Part list default settings, 63-65**

**Partial invoice, 183-185**

**Payments detail view, 328-331**

**Payments excel export, 327-328**

**Payments list print, 322-326**

**Payments list view, 321-322**

**Price history, 150-151**

**Price info, 91-93**

**Price info in the project, 222-223**

**Prices, 141-145**

**Print report designer, 517**

**Print reports, 450-456**

**Printing article lists, 112-115**

**Printing contacts lists, 36-42**

**Printing project lists, 195-200**

**Printing purchase orders lists, 263-266**

**Product configurators in the web, 527-541**

**Product statistic, 115-119**

**Production planning list view, 291-292**

**Production state, 228-229**

**Program settings**

Calendar synchronization, 502-509

Changelog, 499-502

Company holidays, 457-458

Contacts, 460-463

Currencies, 478-483

Data optimization, 509-511

Database, 496-498

Detail views, 498-499

Finance account report, 484-487

Financial data, 476-478

Items, 458-460

Klaes contact import, 463-465

Logistics, 483-484

Logo, 437-440

Miscellaneous program settings, 434-437

Network and WebServer, 489-496

Print reports, 450-456

Project documents, 469-473

Projects, 465-469

Reminders, 473-474

Scheduler configuration, 487-489

Search, 456-457

Selection lists, 440-450

Stock movements, 474-476

The program settings, 433-434

**Project documents, 469-473**

**Project payments, 214-218**

**Project templates, 383-399**

**Project time entry detail view, 339-341**

**Projects, 465-469**

**Projects Excel export, 200-202**

**PTV Map&Guide internet interface, 375-379**

**Purchase order assistant, 256-261**

**Purchase orders detail view, 268-269**

**Purchase orders detail view**

Documents and notes of purchase orders, 275-277

File attachments of purchase orders, 278-279

Miscellaneous purchase order information, 269-275

own fields of purchase orders, 277-278

Purchase orders detail view, 268-269

**Purchase orders Excel export, 267-268**

**Purchase orders list view, 255-256**

**Purchase orders list view**

Combine purchase orders, 261-263  
Printing purchase orders lists, 263-266  
Purchase order assistant, 256-261  
Purchase orders Excel export, 267-268  
Purchase orders list view, 255-256

**Purchase orders with partial delivery, 279-285**

**Quick search, 7**

**Reassign contact data, 30-32**

**Receipt assignment, 315-316**

**Receipt entry detail view, 309-310**

**Receipt entry detail view**

File attachments of the receipts, 314-315  
Miscellaneous receipt data, 310-312  
own fields of the receipts, 313-314  
Receipt assignment, 315-316  
Receipt entry detail view, 309-310  
Receipt entry payments, 312-313

**Receipt entry Excel export, 307-309**

**Receipt entry list printing, 303-307**

**Receipt entry list view, 302-303**

**Receipt entry list view**

Receipt entry Excel export, 307-309  
Receipt entry list printing, 303-307  
Receipt entry list view, 302-303

**Receipt entry payments, 312-313**

**Reminders, 473-474**

**Rental product administration, 351-358**

**Report rights, 422-423**

**Reset rights, 432**

**Resources, 374-375**

**Sales rep access, 542-556**

**Scheduler, 362-367**

**Scheduler configuration, 487-489**

**Scripts, 404-408**

**Scripts**

Scripts, 404-408

**Search, 456-457**

**Selection lists, 440-450**

**Serial letter assistant, 32-36**

**Server, 1**

**Server database, 2-3**

**Service items, 156-158**

**Settings openTrans order import, 75-82**

**Settings openTRANS purchase order export, 65-68**

**Show projects, 84-85**

**Show purchasing orders, 85-86**

**Sourcecode View, 158-164**

**Special price templates, 27-30**

**Special prices, 53-55**

**Stock monitor, 136-138**

**Stock movements, 474-476**

**Stored picture scripts, 168-172**

**Stored pictures, 172-174**

**Supplier information, 57-58**

**Surcharges, 248-255**

**System requirements**

Client and single place installation, 1

Server, 1

**Task management, 344-346**

**Text templates administration, 380-383**

## **Text templates administration**

- Document templates, 399-401
- Free texts, 401-404
- Project templates, 383-399
- Text templates administration, 380-383

**The articles detail view, 121-122**

**The articles list view, 89-91**

**The contacts detail view, 44-45**

**The contacts list view, 22-23**

**The data reorganization, 511-516**

**The detail views, 19-21**

**The list views, 7-8**

**The module windows, 6-7**

**The part lists, 151**

**The program settings, 433-434**

**The project detail view, 202-203**

**The projects list view, 179-181**

**The SEPA export, 316-321**

**The trip planning module, 368-369**

**The user administration, 417-419**

## **Time management**

- Administrate teams, 337-339
- Calendar view, 341-344
- Commission detail view, 335-337
- Commission management, 334-335
- Project time entry detail view, 339-341
- Task management, 344-346
- Time management list view, 332-334

**Time management list view, 332-334**



**Times, 218-220**

**Trip configuration, 369-371**

**Type attributes, 164-165**

**User administration**

Miscellaneous user details, 419-420

Report rights, 422-423

The user administration, 417-419

User rights, 420-422

**User administration how to**

Assign rights, 432-433

Change password, 429-431

Create a group, 426-429

Create a user, 424-426

Disable user, 431-432

Reset rights, 432

**User interface**

Administration of list views, 8-19

Main menu and working area, 5-6

Quick search, 7

The detail views, 19-21

The list views, 7-8

The module windows, 6-7

**User rights, 420-422**

**VAT reduction 2020, 591-598**

**Vehicle management, 371-374**

**Watermark, 241-242**

**Web settings, 82-84**

**Workstation configuration, 293-295**

**XML document import settings, 68-75**