

# **■** Workflow

# **Documentation**

June 2023





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## **Chapter 1 General information**

#### 1.1 What is a workflow

A workflow is a process (alternatively a business transaction or, more generally, an operation or workflow) that is made up of individual activities that relate to parts of a business process or other organisational operations. A workflow describes the operational level in detail; ideally so precisely that the following activity is defined or determined by the outcome of the preceding activity. The individual activities are therefore interdependent. A workflow has a defined beginning, an organised sequence and a defined end. The workflow is the part of the process that can be implement with IT support.

A workflow includes all tasks that have to be fulfilled during modelling, specification, simulation as well as execution and control of the workflows.

## 1.2 Workflow goals

The introduction of a workflow generally pursues the following goals:

- the process quality is to be improved,
- the processes are to be standardised,
- processing times and thus costs are to be reduced,
- the availability of information is to be increased,
- · media discontinuities are to be avoided,
- the flexibility of the processes is to be increased,
- increasing the transparency of processes (status determination, documentation of decisions)

### 1.3 Procedure for implementing a business process

The following steps are necessary for the implementation of a business process:

- Business process is defined (e.g. "incoming invoice")
- Employees and departments are defined affected by this business process
- Tasks of each step in the business process are defined with the following information:
  - Employee or department
  - Information (invoice amount, invoice date, supplier, etc.) is defined (user-defined fields and input masks) or specified.
  - o If an escalation occurs, a further task is defined.
  - o If the task is rejected, another task is defined.

Once the business processes have been defined, a specification sheet can be drawn up for implementation.





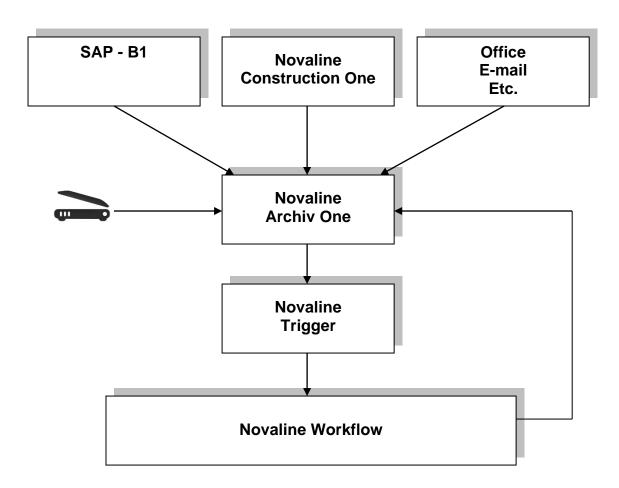
## 1.4 Structure of the Novaline Workflow

The Novaline Workflow can be divided into three major areas:

- The Workflow Planer (Planner),
- The Workflow Verwaltung (Management),
- The Workflow Client

The individual areas are described in more detail in this documentation.

## 1.5 Flow of the document



## 1.6 Software requirement

The following software is required for the use of the Novaline Workflow:

- Novaline Archiv One
- Novaline Trigger
- Novaline Workflow





# **Chapter 2 How to handle this documentation**

The symbol is for notes. Here you will find particularly important additional information - on the topic described.

Tips and tricks are marked with the symbol  $\frac{1}{2}$ . This information simplifies working with the programme.

In the appendix you will find the glossary. Technical terms are translated here. Within the documentation, the arrow in brackets  $(\rightarrow)$  refers to the glossary.

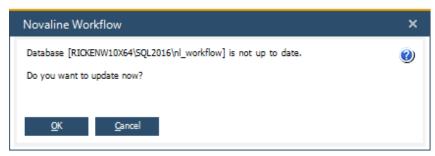




## **Chapter 3 Licensing of the Novaline Workflow**

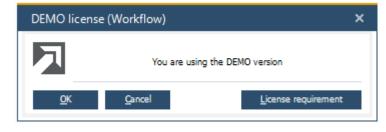
Start the Novaline Workflow of the programme group Novaline Software, Novaline Workflow; Workflow Verwaltung.

The Novaline Workflow starts. A message appears stating that the database is not up to date. Confirm the message with *OK*.



Then confirm the login dialogue with the username *Administrator*. The password remains blank.

In the DEMO license (Workflow) dialogue confirm the license requirement button. In the following dialogue select the button Open license file and read in your valid licence key. If you do not have a valid licence key, please request one from Novaline



Informationstechnologie GmbH by telephone on +49 (0)5971 868-0 or via mail at vertrieb@novaline.de.

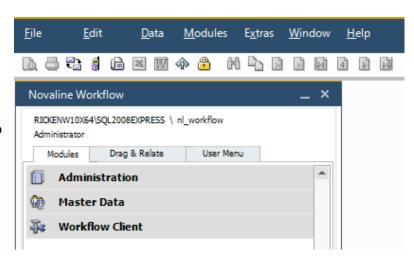
### **Chapter 4 Start Novaline Workflow for the first time**

Before you can work with the workflow, you must first make the basic settings.

# Start as a stand-alone application:

Select of the programme group Novaline Software, Novaline Workflow, Workflow Verwaltung.

Novaline Workflow is started and the workflow menu is displayed.







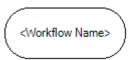
## **Chapter 5 Workflow elements**

A workflow consists of several workflow elements with the following meaning:

## **5.1 Start Point**

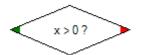
Each workflow starts with the element "Start Point".

The workflow name is specified in the "Start Point" element.



#### 5.2 Decision

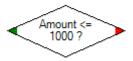
With the "Decision" element decisions can be made based on values entered in a user-defined field.



## Example:

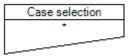
A user-defined field "Amount" has been created. The decision is:

Amount <= 1000,- € or amount > 1000,- €



### **5.3 Case selection**

With the element "Case selection" you can select the value from a user-defined combo box, which can be used to control the workflow



### Example:

In a user-defined field "Vehicle" as a combo box several vehicle registration numbers are stored for selection. In this example, the

Vehicle					
ST-HR 13	ST-HR 4010	ST-HR 7070	ST-HR 7779	others	

element "Case selection" refers to the field "Vehicle" and controls the further workflow depending on the selection of the vehicle registration number.





#### 5.4 Action

Users or user groups with predefined tasks are stored in the "Action" element.

<Reviser> <Task>

@Holterhus

check incomina

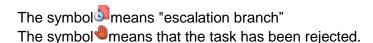
invoice completeness

### Example:

The "Action" is configured as follows:

The <Reviser> is the user "Holterhus" (a user group can be entered as the reviser).

The <Task> is "check incoming invoice completeness".



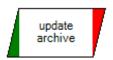
### 5.5 Macro

With the "Macro" element, macros that are programmed in C# or VB.Net can be executed.



#### Example:

The macro "update archive" updates e.g. the history of the document in the archive database.



#### 5.6 End Point

With the element "End Point", the workflow is terminated or delivered to other workflows.

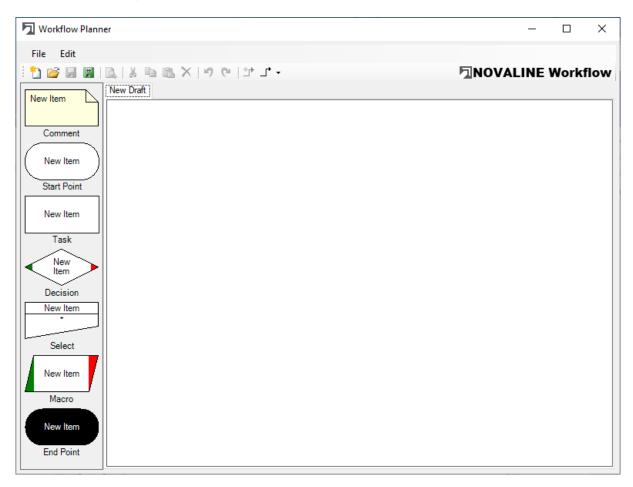






# **Chapter 6 Workflow Planer (Planner)**

Workflows can be planned and described with the Workflow Planer (Planner).



# 6.1 Symbols



= New Workflow Draft



= Open Workflow Draft



= Save Workflow Draft



= Save Workflow Draft as...



= Print Preview



= Undo



= Redo

**\*** 

= Create Connections

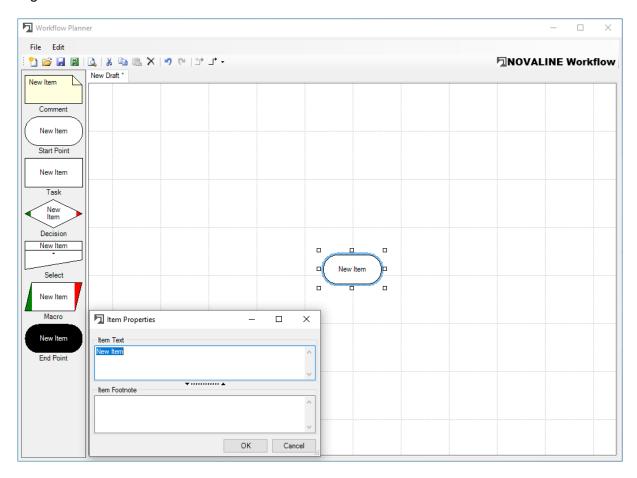
= Selection: Straight Connections or Bèzier Connections





## 6.2 Create a workflow design

First the "Start Point" of a workflow is selected and the name of the workflow is defined. Select the "Start Point" element and drag it into the right-hand window with the mouse button pressed. The "Start Point" element is positioned in the centre of the window. By double-clicking on the element, a window "Item Properties" appears in which texts e.g. can be entered.

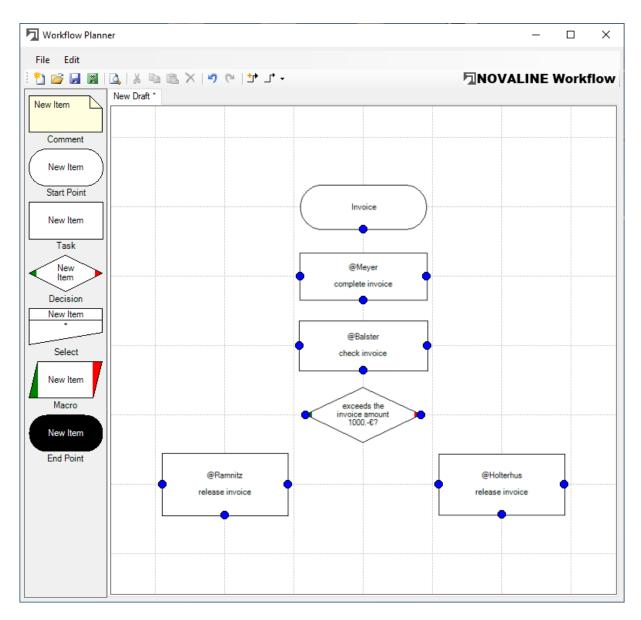


The required elements are positioned in the window and comments are added. After the elements have been positioned, the connection options are activated by clicking on the symbol \*\* Create connections). All starting points are displayed.





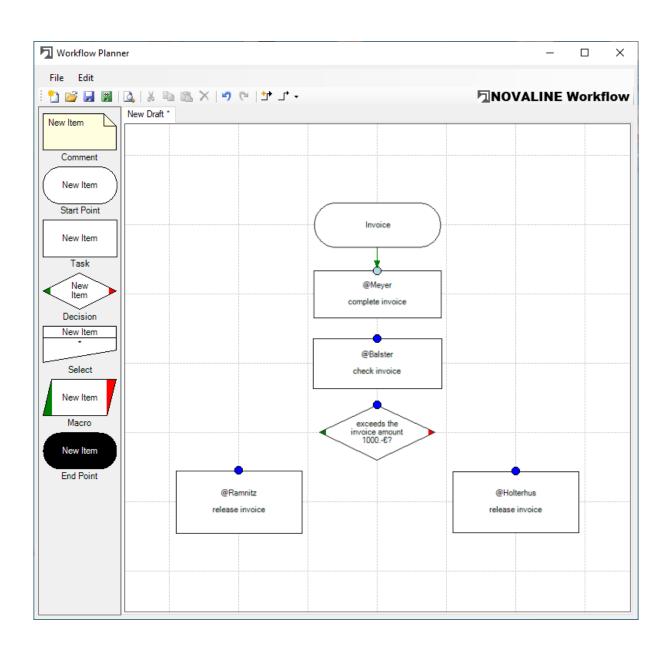
#### 6.2.1 Connect workflow elements



After clicking on a starting point all target points are displayed. With the left mouse button pressed, the crosshairs are dragged to a target point. As soon as the arrow changes from red to green, the mouse button can be released and the connection is displayed.



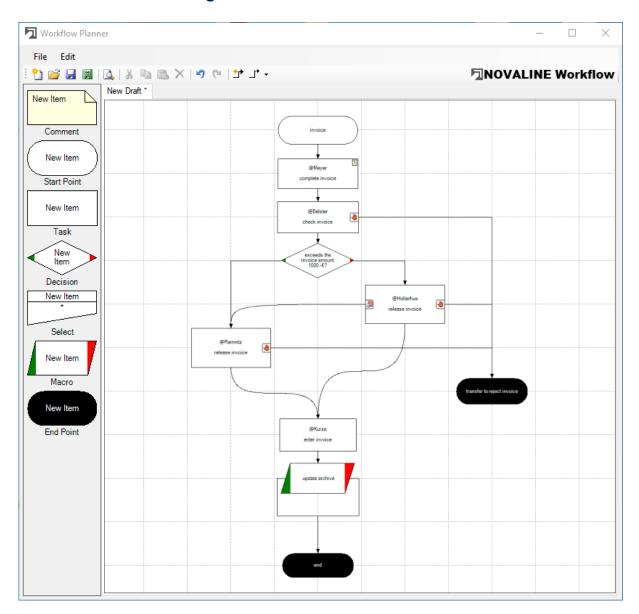
# **NOVALINE**







# 6.2.2 Print workflow design

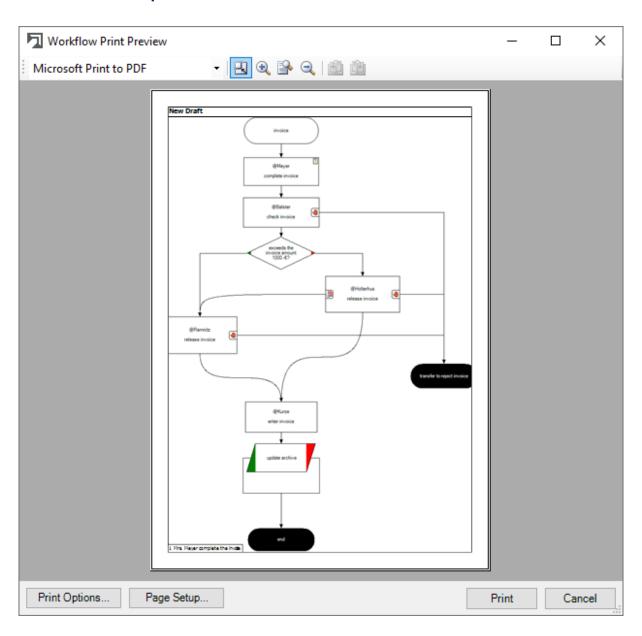


After completing the design can be printed by clicking on the icon. Depending on the setting a second page with the comments on the individual elements can be printed.





# 6.2.2.1 Print preview

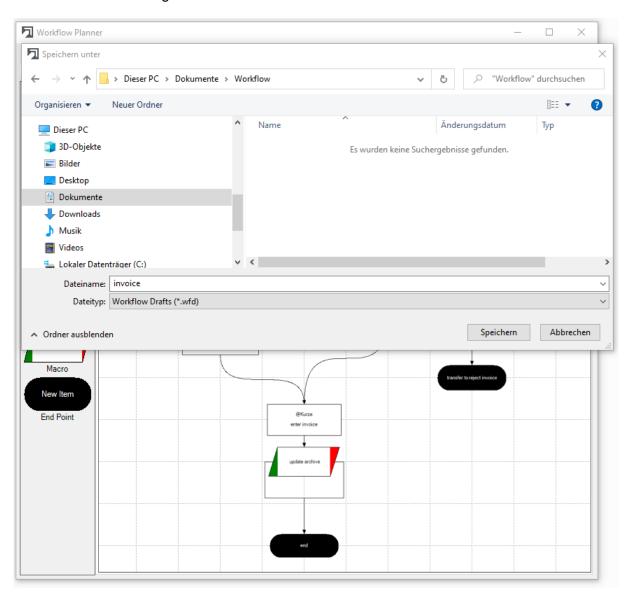






# 6.2.3 Save workflow design

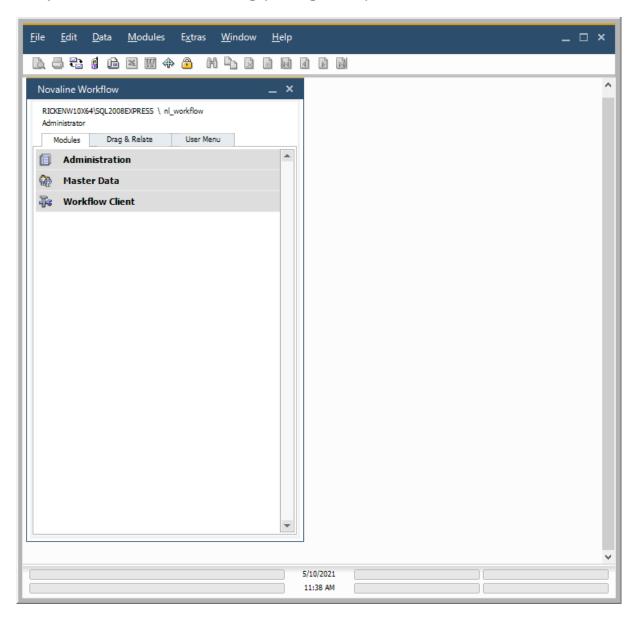
After pressing the button , the "Save Workflow Draft as" window appears, where you can save the workflow design.







# **Chapter 7 Workflow Verwaltung (Management)**



The Novaline Workflow Verwaltung (Management) consists of the menu items

- Administration
- Master Data
- Workflow Client

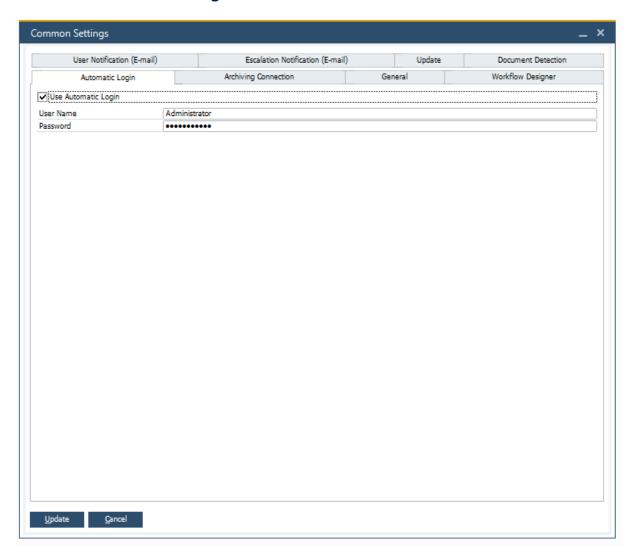




## 7.1 Administration

# 7.1.1 Common Settings

## 7.1.1.1 Automatic Login

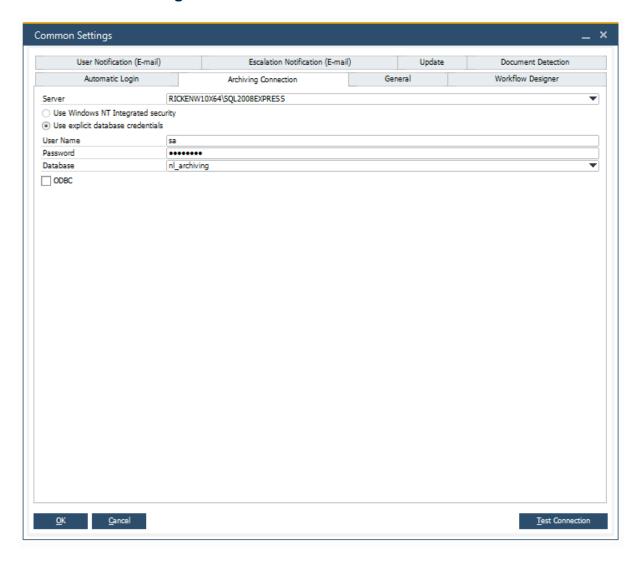


The automatic login makes it easier to work with the workflow. You can avoid being asked to identify yourself every time you start the workflow. You can store your username and password here and activate the checkbox for automatic login Use Automatic Login





## 7.1.1.2 Archiving Connection



Novaline Archiving is the base for the Novaline Workflow. Consequently, a connection to the archiving database must be established.

Select your SQL server or the valid instance of the SQL server from the combo box "Server".

Click on the arrow . If no server is displayed, it can be entered manually. Next select the login type.

For the login type "Use explicit database credentials" enter the user for the SQL server in the "User Name" field and the corresponding password in the "Password" field.

Use the combo box "Database" to select the archiving database.

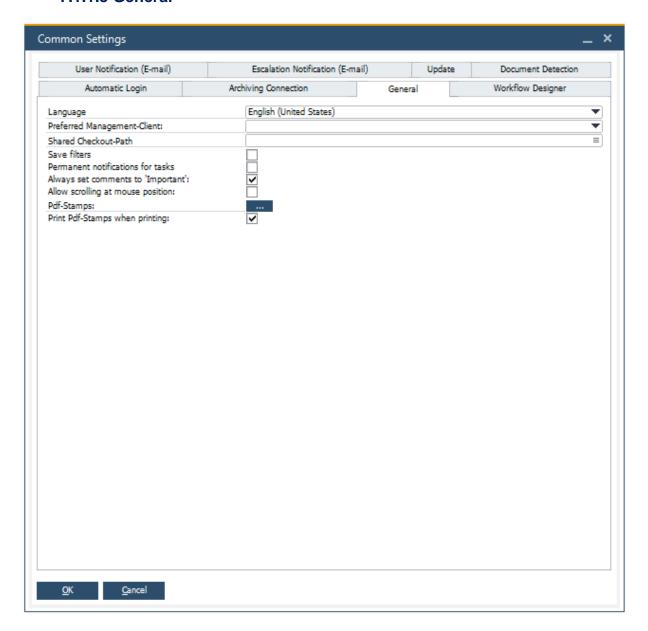
You can test the entries by using the button

Test Connection





### **7.1.1.3 General**

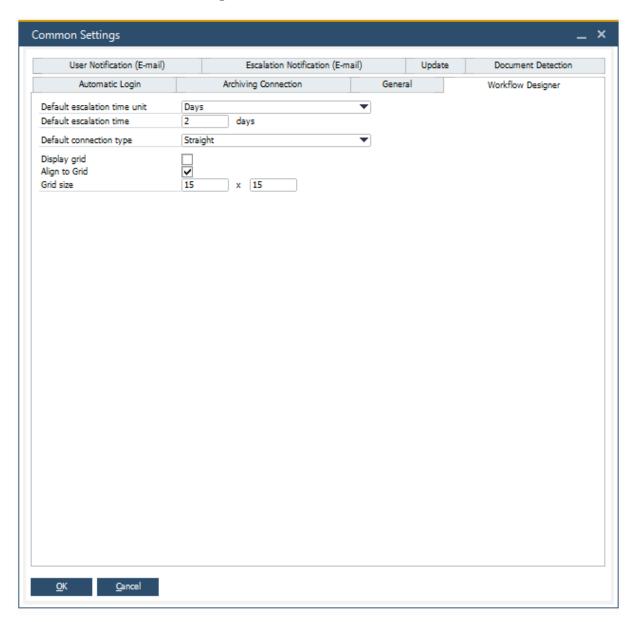


Select the language in which you want to work via the combo box . As soon as you restart the programme or change the user, the programme automatically switches to the language you have selected.





## 7.1.1.4 Workflow Designer



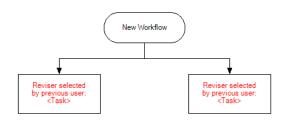
On the "Workflow designer" tab pre settings can be made for later use. Use the combo box "Default escalation time unit" to select "Days" or "Hours and minutes". If you select "Days", you can specify the number of days until escalation in the "Default escalation time" field. These specifications can be taken over or changed later in the designer.

Use the combo box "Default connection type" to select the optical connection between two points in the designer.

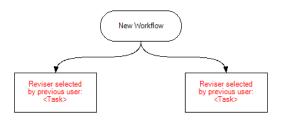


# **NOVALINE**

Connection type "Straight"



Connection type: "Bézier"



A grid can be displayed for the designer. Select the option "Display grid". The minimum grid size is 10x10.

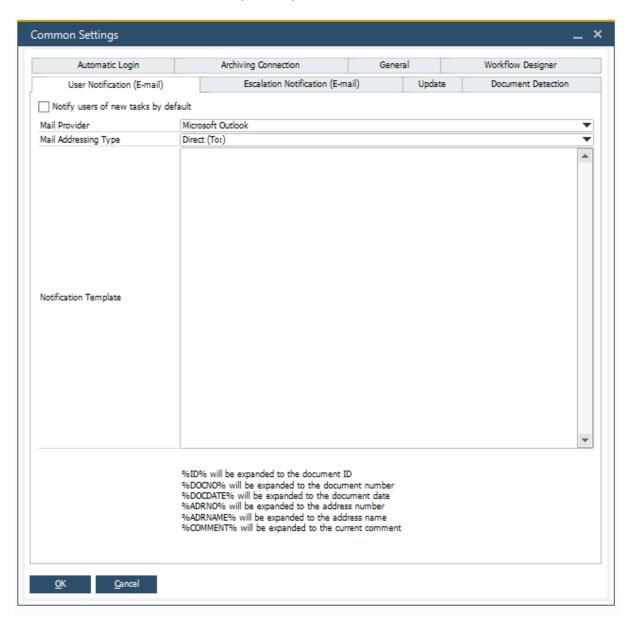
To align individual elements in the designer to the previously selected grid, select the option "Align to grid".

The grid size can be defined in the "Grid size" fields.





## 7.1.1.5 User Notification (E-mail)



Workflow tasks are automatically forwarded to the users specified in the designer. If the users are also to be informed automatically by e-mail about a new task, this can be defined on the tab "User Notification (E-mail)".

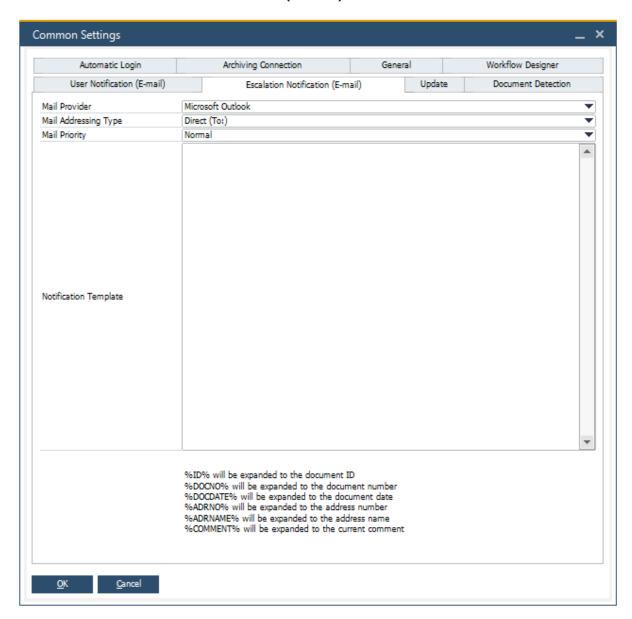
The "Mail Provider" can be selected between "Microsoft Outlook" or "Tobit David".

The "Mail Adressing Type" can be selected between "Direct (To:)", "Carbon Copy (Cc:)" and "Blind Carbon Copy (Bcc:)".





## 7.1.1.6 Escalation Notification (E-mail)



When an escalation occurs, the person handling the escalation can also be informed automatically by e-mail.

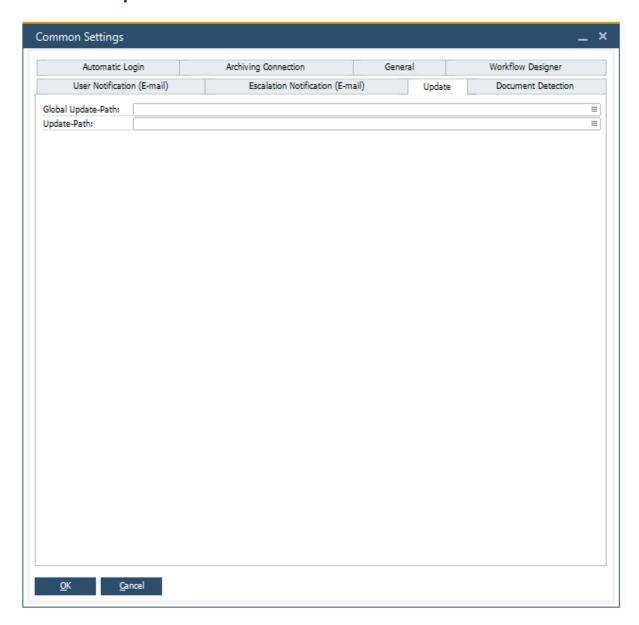
The "Mail Provider" can be selected between "Microsoft Outlook" or "Tobit David" The "Mail Adressing Type" can be selected between "Direct (To:)", "Carbon Copy (Cc:)" and "Blind Carbon Copy (Bcc:)".

The "Mail Priority" can be selected between "High", "Normal" and "Low".





## 7.1.1.7 Update



If an update path is entered, a check is made for a new version in the selected directory before each programme start and an update is offered if necessary. If no path is entered, no check would be made before the programme is started.

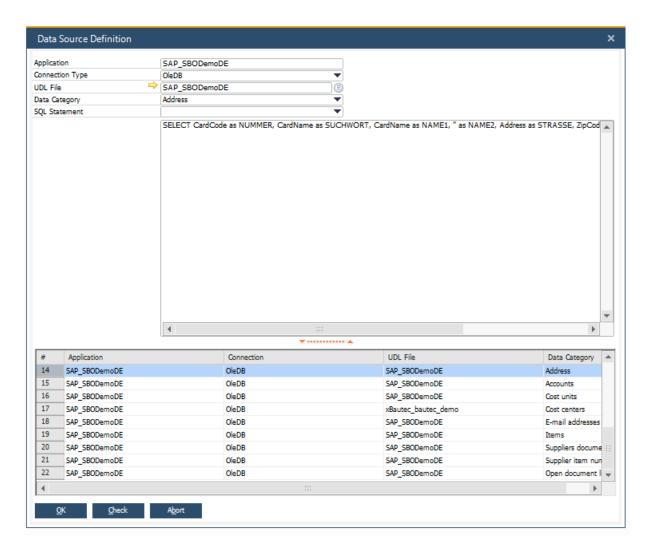
The field "Update Path" should contain the path to the update path and can be used by selecting the "Workflow.vrs" in the update path.

This field is saved locally and checked for a valid update path before saving.





#### 7.1.2 Data Source Definition



Before you can use the Novaline Workflow, a connection to the SAP Business One® database must be established. This allows you to access the entire address and article master. The archived documents are then filed directly to the address.

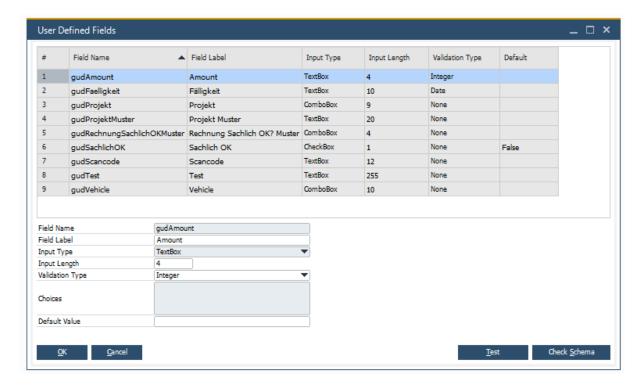
Select the command *Data Source Definition* of the menu *Modules, Administration*. The *Data Source Definition* dialogue opens.

A separate data source definition must be created per data category (Address) and per client.





### 7.1.3 User Defined Fields



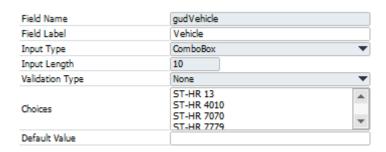
For the "User-defined fields" you can choose between "Label", "TextBox", "ComboBox" and "CheckBox".

For the input type" TextBox" the following can additionally be selected in the combo box "Validation Type":

- "None"
- "Date"
- "Integer"
- "Decimal number"

With the input type "ComboBox" several selection texts can be entered in the field "Selection values".

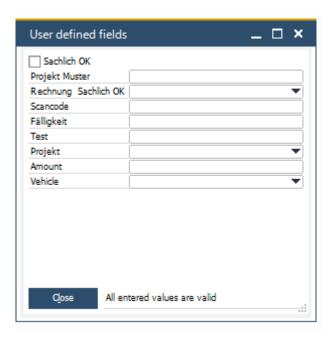
Example:





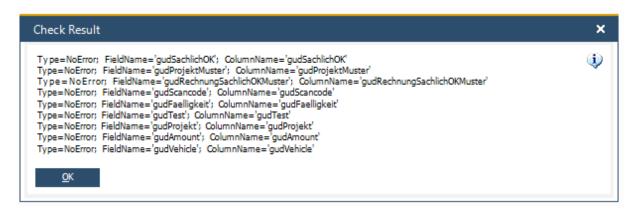
# **NOVALINE**

All user-defined fields can be tested by pressing the button window appears:



The scheme of the individual user-defined fields can be tested by pressing the button

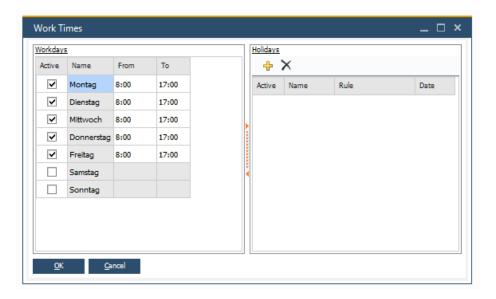
. The following window appears:







## 7.1.4 Working time

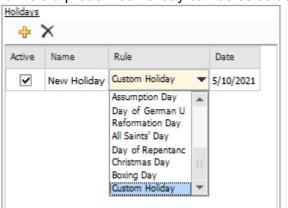


Under the item "Workdays" the day of the week and the regular working time (from - to) can be entered. This setting applies to all users and is required for the calculation of escalation.

Under the item "Holidays", both statutory and user-defined public holidays can be entered.

Press the to create a new entry.

After activating the "Active" field a predefined holiday can be selected in the "Rule" column.



After selecting a public holiday the date is automatically calculated and displayed as far as possible.



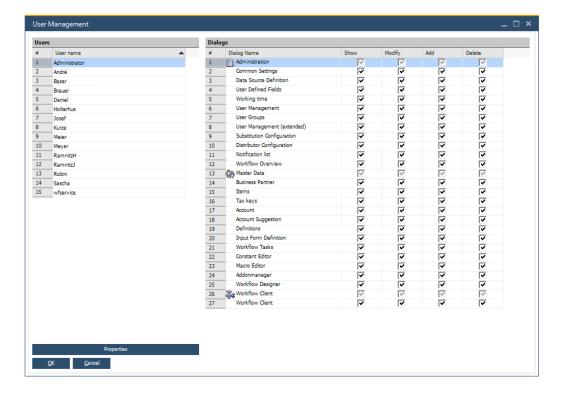




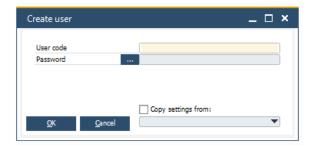
## 7.1.5 User Management

All users of the Novaline Workflow are stored in the user management. During the initial installation the user "Administrator" with all rights is already automatically created. Start the user management of the *Administration* menu.

In the following dialogue *User Management, the* users and the respective authorisations are stored.



Select the Add button and the Create user dialogue appears.

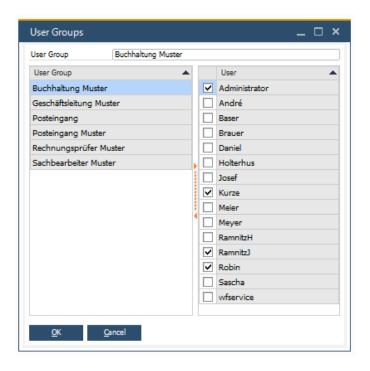






Workflow. If you want to take over the authorisations of a previous user, activate the checkbox *Copy settings from* and select the desired user name from the list.

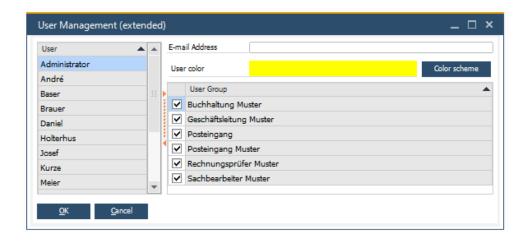
## 7.1.6 User Groups



In the workflow tasks can be forwarded to individual users or user groups. To forward tasks to a user group it must be created.

Select the *Add* button from the toolbar to create a new user group.

## 7.1.7 User Management (extended)

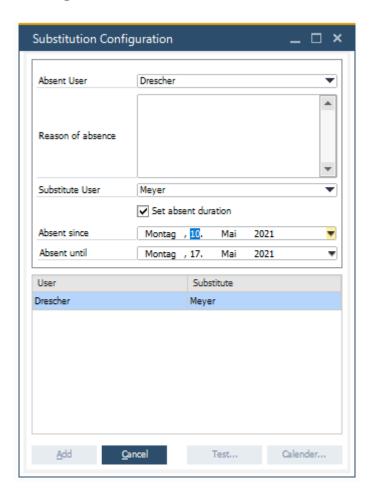






In the "User Management (extended)" an e-mail address can be stored for each user.

# 7.1.8 Substitution Configuration

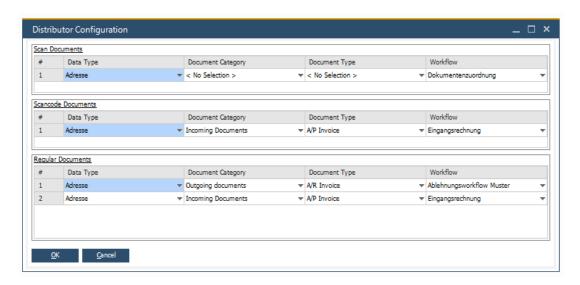


If individual users are absent (holiday, sick, etc.), a substitute and optionally a substitute duration can be entered in the "Substitution Configuration" window. This ensures that e.g. tasks that are in the hands of a user who is not present continue to be processed.

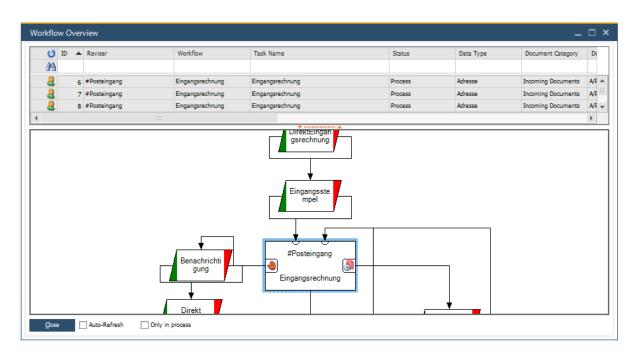




# 7.1.9 Distributor Configuration



### 7.2.0 Workflow Overview



All processes are displayed in the workflow overview.

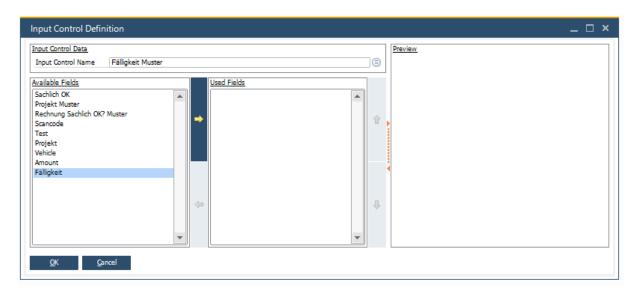




#### 7.2 Master Data

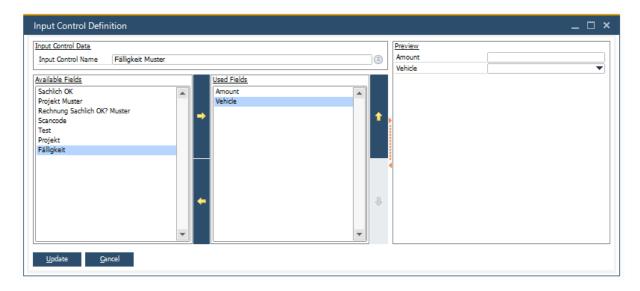
## 7.2.1 Input Control Definition

The input control definition refers to the user-defined fields.



Each mask is given a unique name, which is entered in the "Input Control Name" field. The user-defined fields are displayed under the item "Available Fields".

By pressing the button , the mask is displayed in the "Preview" area.



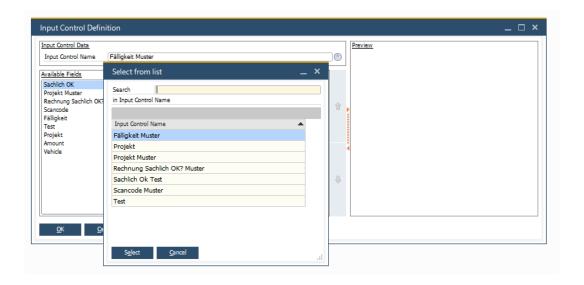
The buttons and can be used to change the order (move down or up) of the fields. The available fields can be used in several masks.

Saved masks can be retrieved from a list using the button 

.

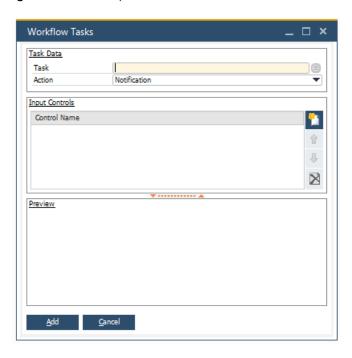


# **NOVALINE**



### 7.2.2 Workflow Tasks

Tasks consisting of predefined masks can be created in the workflow. Each task can be assigned an action ("Notification", "Finished" or "Finished / Rejected").



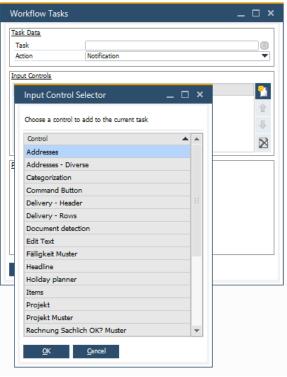
In the field "Task" the task gets a name.

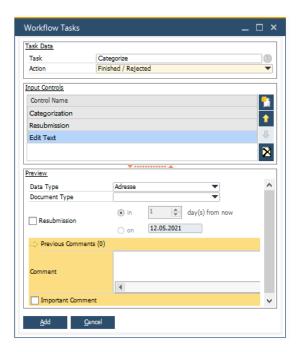
The action for the task is selected in the "Action" selection field.



# **NOVALINE**

Pressing the button displays the available masks.





After selecting the input controls, it is accepted by pressing the "OK" button and if there are several input controls, the order in which they are later processed can be determined buttons.

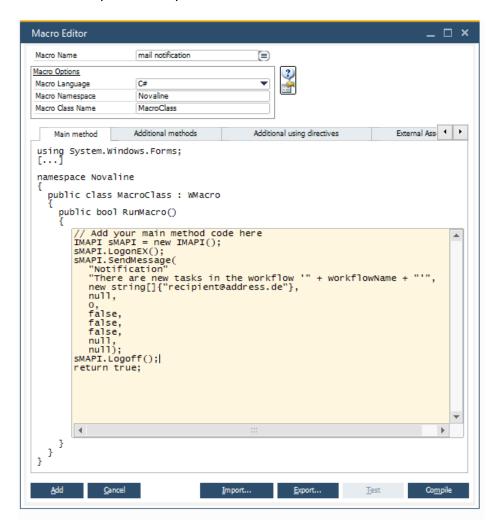
If available, a input control option is displayed for each input control.

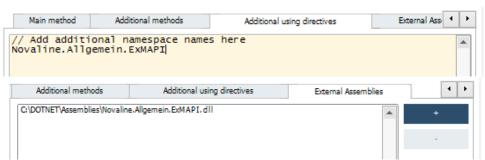




#### 7.2.3 Macro Editor

The programming language "C#" (CSharp) and "VB" (Visual Basic) can be used in the macro editor. Here is an example of a simple mail notification to additional users:

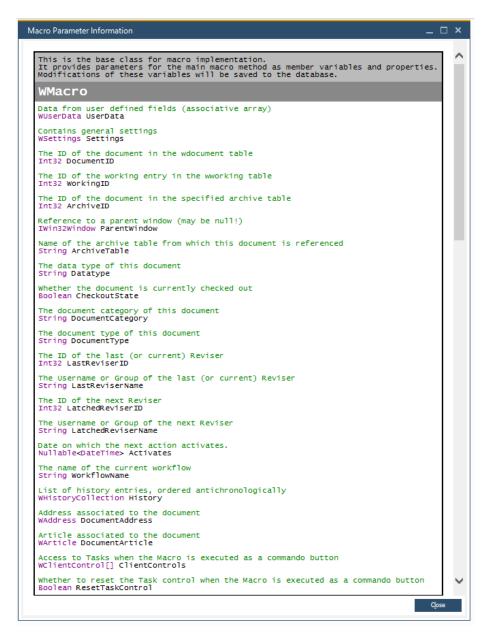






# **NOVALINE**

Various parameters are available in the macro editor. By pressing the buttons if, these are displayed in a window.





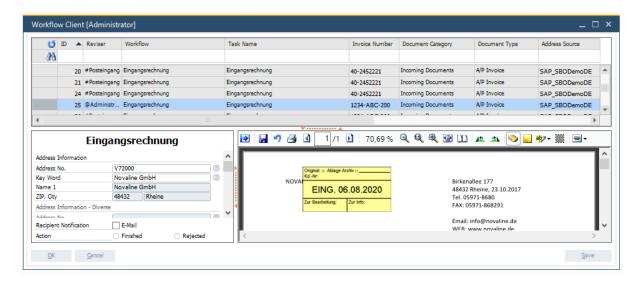
In order to use macros in the workflow, the macro must be compiled using the "Compile" button and then saved using the "Refresh" button.

If external assemblies are used, it must be ensured that all clients can access these assemblies via the specified path.





## **Chapter 8 Workflow Client**



The workflow client can be accessed via the menu item "Workflow Client" in the administration as well as via the stand-alone client. In the workflow client the active user can process all tasks assigned to him/her. The view contains the following elements:

- Task overview: The task overview gives an overview of all tasks that have been assigned to the current user or a user group. By selecting a task, this task is displayed and locked for other users. In addition, the task overview can be filtered via the context menu.
- Task mask: In the task mask the task is displayed, which the user can edit.
- Document preview: If available, the document preview shows the document belonging to the current task.

After processing a task, the user has the following options to choose from.

- Update: The changes are saved and checked. If the check is successful, the current task is completed and passed on to the next step in the workflow.
- Save: The changes are saved but not checked or completed.
- Cancel: Discards all changes.

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