How to Guide PUBLIC

SAP Business One 8.8, 8.81, 8.82, 9.0 and 9.1 Document Version: 1.0 – 2014-09-30

How to Create User-Defined Fields and Tables All Countries



Typographic Conventions

Type Style	Description
Example	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
Example	Emphasized words or expressions.
EXAMPLE	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
Example	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<example></example>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE	Keys on the keyboard, for example, F2 or ENTER.

Document History

Version	Date	Change
1.0	<yyyy-mm- DD></yyyy-mm- 	<change description=""></change>

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Creating User-Defined Fields and Tables

SAP Business One provides a comprehensive set of tables and fields in each of its modules. However, if your company requires additional tables and fields for its day-to-day work, SAP Business One enables you to create your own user-defined fields in existing system tables or your own user-defined tables.

User-defined fields, as described in *Managing User-Defined Fields*, enable you to add fields to existing tables to keep track of additional information. For example, you can add a field called *CarNumber* to the *Employee Master Data* table to keep track of the license plate number for each employee.

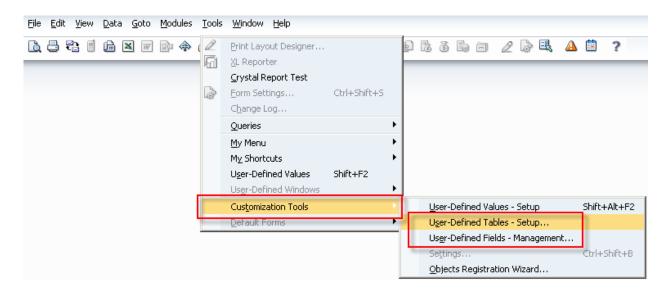
User-defined tables, as described in *Managing User-Defined Tables*, can be used in one of the following ways:

- To represent business objects, such as vehicle master data, or to group logical sets of user-defined fields
- To hold valid values for other user-defined fields. You can link user tables to user-defined fields, and require users to select from the values in the tables.

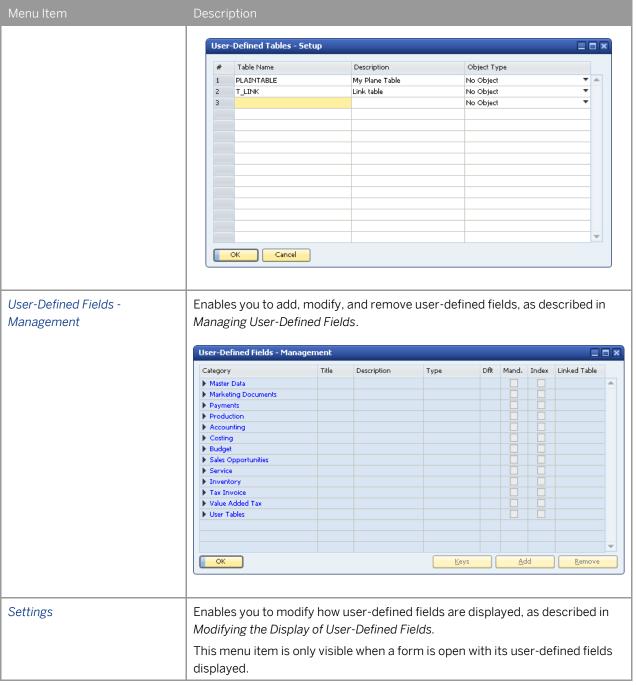
Menus

This section summarizes the menus for managing user-defined fields and user-defined tables.

Tools Menu



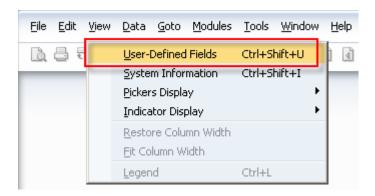
Menu Item	Description		
User-Defined Windows	Opens a submenu that provides links to the forms for entering data in user-defined tables, as described in <i>Entering Values in User-Defined Fields</i> . After opening a form, to define which fields are displayed in it, click in the toolbar.		
Customization Tools Submenu			
User-Defined Tables - Setup Enables you to add, modify, and remove user-defined tables, as descr Managing User-Defined Tables			

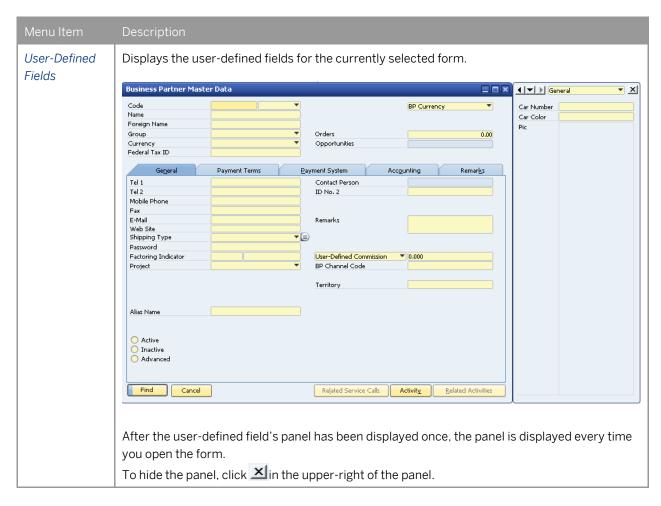




For information about the *User-Defined Values-Setup* submenu, see the how-to guide *How To Define and Use User-Defined Values* in the documentation area of SAP Business One Customer Portal at http://service.sap.com/smb/sbocustomer/documentation

View Menu





Managing User-Defined Fields

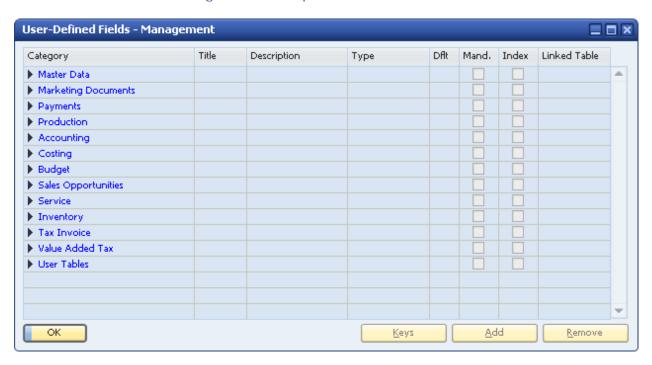
This section describes how to add and remove user-defined fields, and how to display and enter data into these fields.

Creating User-Defined Fields

When creating user-defined fields, you specify a field name and the type of data to be contained in the field. You can also specify the valid values for the field.

Procedure

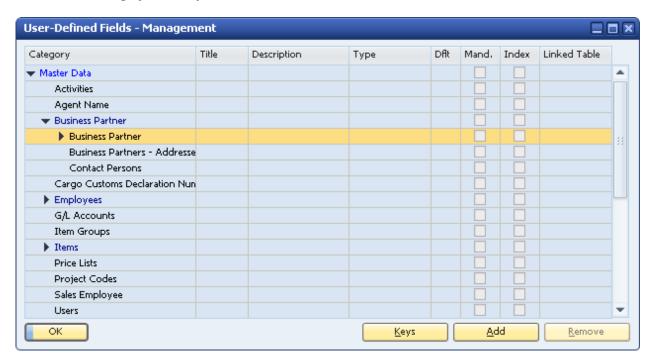
In the menu bar, choose Tools → Customization Tools → User-Defined Fields - Management.
 The User-Defined Fields - Management window opens:



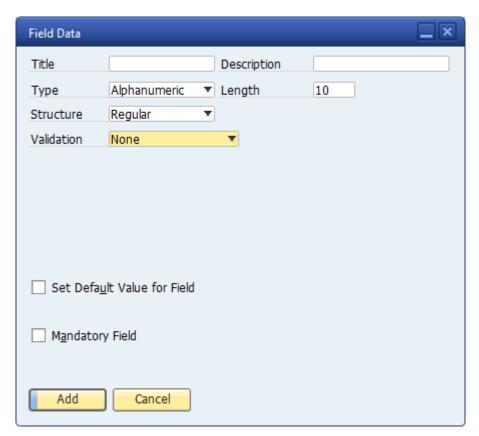
The window displays a hierarchy of categories (form types) to which you can add user-defined fields. Some categories affect a single form (such as *Business Partners* under *Master Data*), while others affect multiple forms (*Title* and *Rows* under *Marketing Documents*).

To view all available form types, click (Expand).

2. Select the category to which you want to add a field, and choose the *Add* button.



The Field Data window appears.



- 3. Specify the name and type of field by entering the following fields in the *Field Data* form:
 - o **Title**: The field name.

The *Title* value cannot contain spaces or special characters. A field is added to the database with the prefix U_ followed by the field name specified here. The full name, with the prefix, is displayed in the query generator when you view a table's list of fields.

- o **Description:** The field display name.
- o **Length:** The size of the field.

If the field type is *Alphanumeric*, the length is the maximum number of characters.

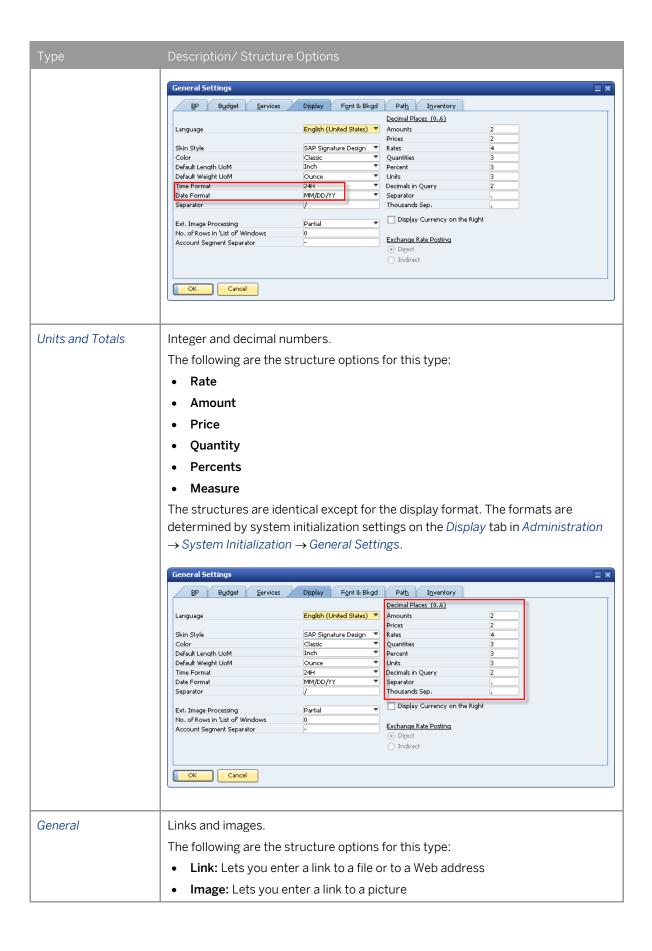
If the field is *Numeric*, the length is one more than the maximum number of digits. For example, specify **11** to allow up to 10 digits to be entered.

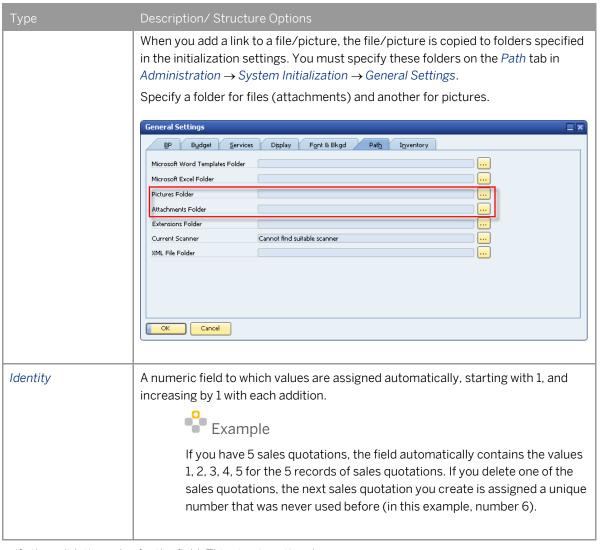
o **Type and Structure:** Describes the type of data to be contained in the field.

The type and structure determines the type of data that can be entered into each field, and how it is displayed. For more information about how different types of fields are displayed to the user, see *Entering Values in User-Defined Fields*.

The following table describes the *Type* field options, and the *Structure* field options for each type:

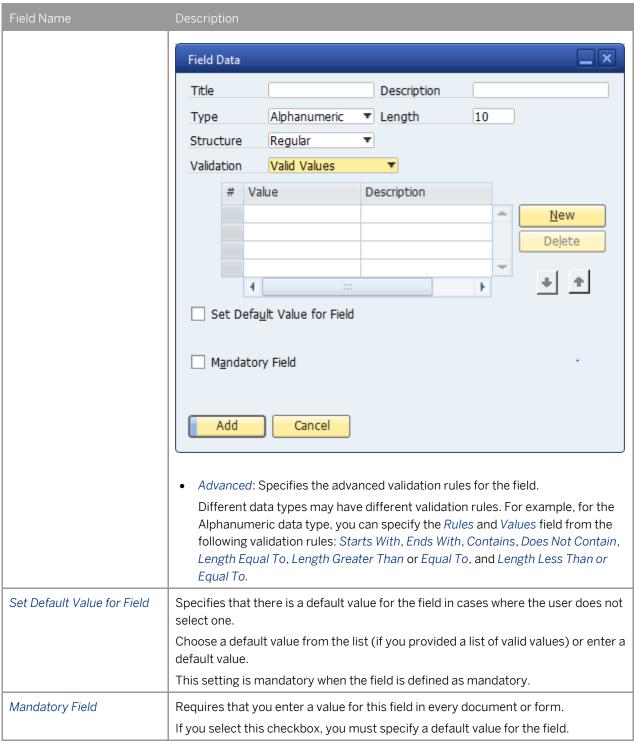
Туре	Description/ Structure Options
Alphanumeric	A series of characters.
	The following are the structure options for this type:
	Regular: Lets you enter up to 254 characters.
	Address: For future use.
	Telephone No.: If automatic dialing is set up, lets you dial the number by clicking it.
	Text: Lets you enter:
	o 2 GB of text in header fields
	o 255 KB of text in row fields
Numeric	Integers up to 10 digits long.
	There are no structure options for this type.
Date/Time	Date or time.
	The following are the structure options for this type:
	Date: Lets you enter a date.
	Time: Lets you enter a time.
	The display format for dates and time is determined by system initialization settings, located in Administration \rightarrow System Initialization \rightarrow General Settings \rightarrow Display tab.





4. Specify the validation rules for the field. This step is optional.

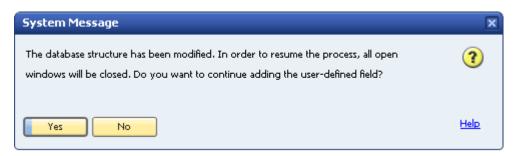
Field Name	Description
Validation	 Specify the following validation options: None Linked to Entities: enables you to link to a user-defined table (UDT) or a user-
	defined object (UDO). o Set Linked Table checkbox: specifies that the valid values for this field are the keys (values for the Code field) in a specific user-defined table. For
	more information, see <i>Linking a User Table to a User-Defined Field</i> . o <i>Link to UDO</i> checkbox: you can link a UDO form of both Matrix style and Header Lines style. For more information, see <i>Linking a User-Defined Field to a User-Defined Object (UDO)</i> .
	Valid Values: Specifies that there is a predefined list of valid values for this field. For this field, you must pick from a dropdown list of valid values. To enter a valid value, choose the New button and enter a value and a description.



5. Choose the Add button.

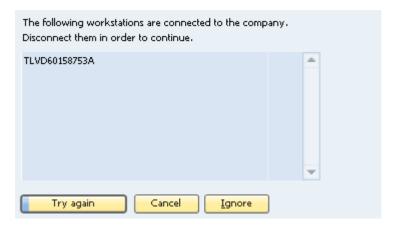
i _{Note}

The following message is displayed:



To add the field, click the Yes button.

If another user is logged on to the same company, the system displays the following message, listing the machine from which the user is logged on:



Choose one of the following buttons:

Option	Description
Try again	Checks again for other logged-on users and if there are none, saves the field.
Cancel	Cancels the save operation and returns to the <i>User-Defined Fields – Management</i> window.
Ignore	Saves the field and displays the following: System Message You are about to update user fields, however there are some other connections to the company. This might cause data integrity problems if other connections update the company database before restart. Are you sure? Yes No Help

Option	Description		
To add the new field (or update the existing field), choose the Yes button.			
	This action refreshes the database tables connected to this field. If you are currently working with one of these tables, the information on the form being processed is lost.		

Result

The following occurs when you add a user-defined field:

- Information about the new field (such as its name, its size, and the table to which it was added) is stored in the CUFD table (user field definition table).
- The field is added to the relevant table. The prefix **U**_ is added to the name of the field in the database table, indicating that it is a user-defined field.



- o If you add a user-defined field called *Driver* to the business partners category table, the field *U_Driver* is added to the OCRD table.
- o If you add a user-defined field to a sales or purchasing header, all header tables of sales and purchasing documents are updated. All tables that start with 'O' (OINV, ODLN, OPCH, and so on), have the prefix **U**_ added to the name of the field in the database table.
- If you enter valid values, they are added to the UFD1 table.

Linking a User Table to a User-Defined Field

Instead of defining valid values for a field within the field definition, you can specify that the valid values are contained in a user-defined table.

This can be helpful if you have several fields in different tables with the same valid values, or when you want to update the valid values dynamically.



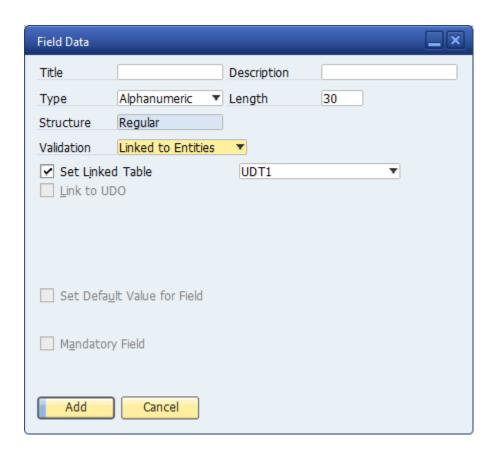
You can link a field to a user-defined table only.

Prerequisite

- You are adding a user-defined field, as described in *Creating User-Defined Fields*, and you have opened the *Field Data* window to define the new field.
- The field type is Alphanumeric and its structure is Regular.
- The Link to UDO, Set Default Value for Field, and Mandatory Field checkboxes are not selected.

Procedure

- 1. In the Field Data window, in the Validation field, select Linked to Entities.
- 2. Select the Set Linked Table checkbox.

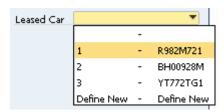


A new field is displayed to the right.

- 3. In the new field to the right, select the user table that contains the valid values for the current field.
- 4. Fill out the rest of the form, and choose the *Add* button.

Result

When the field is displayed on the user interface, a dropdown list appears when you edit the field. The *Code* and *Name* fields are displayed, and the value of the field is the *Code* value of the selected item.



Linking a User-Defined Field to a User-Defined Object (UDO)

You can link a user-defined field to a UDO of both Matrix style and Header Lines style. This can be helpful if you have UDOs related to a standard system form (non-user form).

i Note

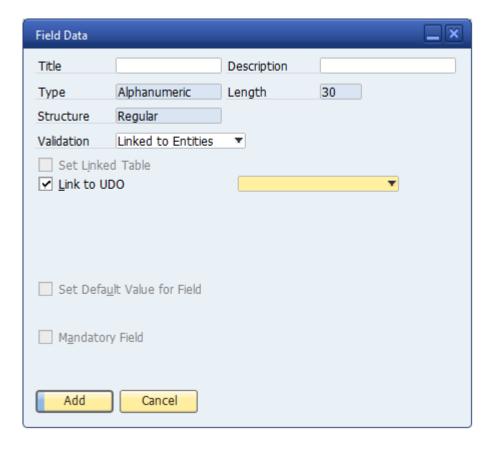
You can link a UDO to a system form only.

Prerequisite

- You are adding a user-defined field, as described in *Creating User-Defined Fields*, and you have opened the *Field Data* window to define the new field.
- The Set Linked Table, Set Default Value for Field, and Mandatory Field checkboxes are not selected.

Procedure

- 1. In the Field Data window, in the Validation field, select Linked to Entities.
- 2. Select the Link to UDO checkbox.

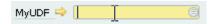


A new field is displayed to the right.

- 3. In the new field to the right, select the UDO that you want to link to.
- 4. Fill out the rest of the form, and choose the *Add* button.

Result

When the field is displayed on the user interface, a choose-from-list and a link button appear when you edit the field. To select a record, click the choose-from-list button; and to open the selected UDO form, click the link button.



Creating Table Keys

You can set a user-defined field (or several fields together) as a key in the database table to make the field (or set of fields) unique and prevent duplicates.

Procedure

- 1. In the menu bar, choose $Tools \rightarrow Customization Tools \rightarrow User-Defined Fields Management.$
- 2. Select the table for which you would like to define a key, and choose the *Keys* button. The *User Tables Keys Setup* window appears.



- 3. To create a new key for the table, choose the *New* button. The system creates a key with the name IX_0. In the *Key Name* field, you can change this default name. You can create as many keys as you need by choosing *New*. You can also browse between the different keys by selecting them from the dropdown list.
- 4. In the table, select the user-defined fields you want to include in the selected key.
 - 1 Note

You can define more than one user-defined field in one key.

- 5. Select the *Unique* checkbox.
 - If the key is made up of one field, values entered for that field must be unique. If the key is made up of more than one field, the set of values for these fields must be unique.
- 6. Choose the *Update* button, and then the *OK* button.

Updating User-Defined Fields

To update a user-defined field, do the following:

- Open the User-Defined Fields Management form by choosing Tools → Customization Tools → User-Defined Fields - Management.
- 2. Select a field by clicking it.
- 3. Choose the *Update* button.

The Field Data window appears. You can update the field settings except for Title, Type, and Structure.

Removing User-Defined Fields



🔔 Caution

This action is irreversible and deletes all values saved in this field in all its related objects. A query with a removed user-defined field displays an error when you run it.



Recommendation

Before you remove a user-defined field, back up the database.

To remove a user-defined field, do the following:

- Open the User-Defined Fields Management form by choosing Tools → Customization Tools → User-Defined Fields - Management.
- 2. Select a field by clicking it.
- 3. Choose the Remove button.

Displaying User-Defined Fields

After creating user-defined fields, you can display them while working in the relevant forms.

For example, if you added the field Car Number to the Business Partner category, you can display the field in the Business Partner Master Data form.

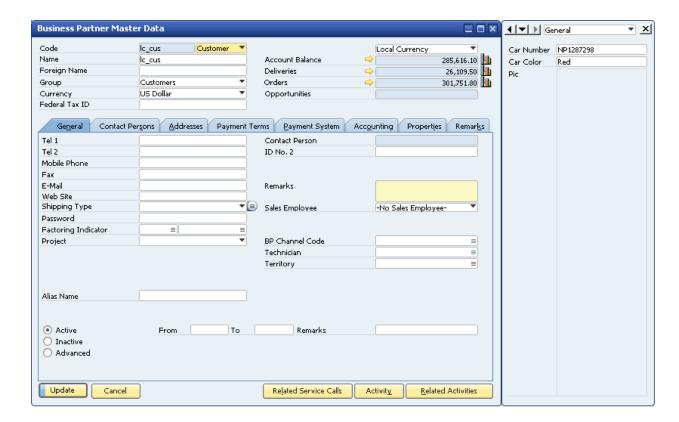
Displaying Header User-Defined Fields

Header user-defined fields are displayed in a panel on the side of the main form.

Procedure

- 1. Open a form with header user-defined fields, for example, Business Partner Master Data.
- 2. In the menu bar, choose $View \rightarrow User$ -Defined Fields.

The system displays the user-defined fields in a panel next to the form.



The panel displays all the header user-defined fields for the current form that are set as visible. For more information about showing/hiding fields, see *Modifying the Display of User-Defined Fields*.

To close the panel, click



You can place the header user-defined fields into the SAP Business One system form or the user-defined forms using drag and drop.

- In the menu bar, choose Tools → Edit Form UI.
 The system form changes to UI edit mode.
- 2. Drag and drop the header user-defined field to the system form.
- 3. Right-click any blank area of the system form and choose Save.
- 4. Close the form.
- 5. Open the system form again. The header user-defined field appears in the form.

Modifying the Display of User-Defined Fields

You can modify the way user-defined fields are displayed. For example, you can choose which fields are to be displayed and in what order.

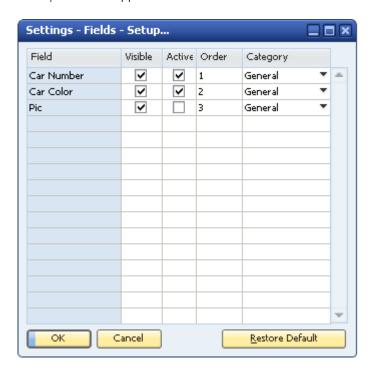
User-defined field settings are saved separately for each user and for each form.

Prerequisite

A form is open with the user-defined fields panel displayed. For more information, see *Displaying Header User-Defined Fields*.

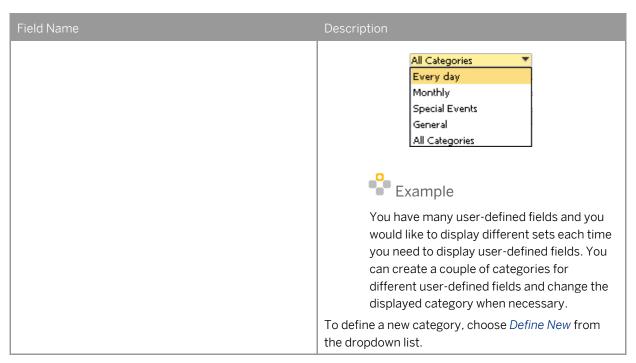
Procedure

1. In the menu bar, choose $Tools \rightarrow Customization \ Tools \rightarrow Settings$. The Settings - Fields - Setup... window appears:



2. Configure the settings for each field.

Field Name	Description
Field	The display name of the field.
Visible	Specifies whether the field is to be displayed or hidden.
Active	Specifies whether a user can edit the field.
Order	Specifies the display order of the fields. The number must be an integer. The field with the lowest number is displayed first; the one with the highest number is displayed last.
Category	Assigns the field to a category. You can filter the user-defined fields so only fields in a specific category are displayed using the dropdown list at the top of the user-defined fields panel:



3. Choose the OK button.

Displaying Row User-Defined Fields

Row user-defined fields automatically appear in their relevant form tables, just like system fields, and are managed in the same way. You can make user-defined fields visible and active using the *Form Settings* window. Click in the toolbar, and select the *Table Format* tab.



By default, each new row user-defined field appears at the end of the list of fields and is set to be visible and active.

Entering Values in User-Defined Fields

The following section explains how to enter values for different types of user-defined fields:

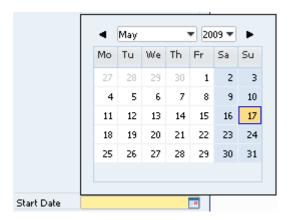
• Standard Field (alphanumeric and numeric, with no valid values): Select the field and enter a value manually.



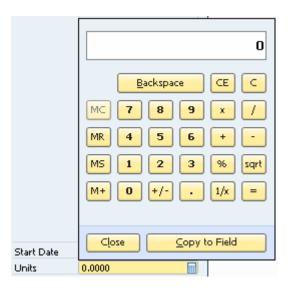
• Field with Valid Values/Linked to a User-Defined Table: Select the field to open a dropdown list, and select a value.



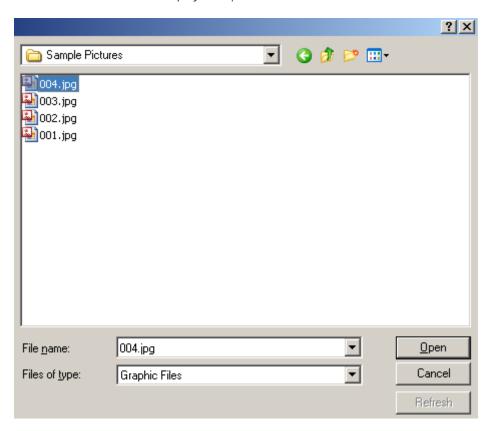
• Date Field: Select the field to display $\boxed{}$, and then click the icon to display a date picker.



• Units and Totals: Select the field to display 📓, and then click the icon to display a calculator.



• Image Field: Double-click the field to display the *Open* window.



The default picture folder opens. Select a file, from this or another folder, and choose the *Open* button.

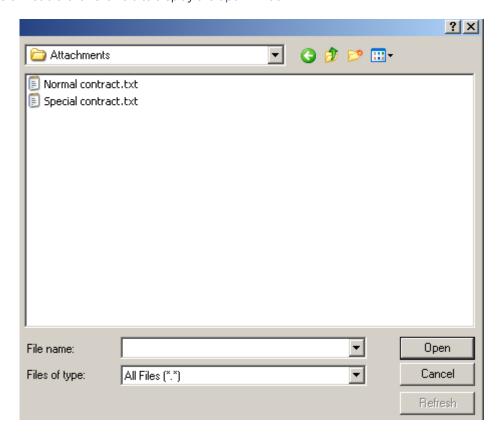
i Note

The default picture folder is the folder defined in *Picture Folder* on the *Path* tab in *Administration* \rightarrow *System Initialization* \rightarrow *General Settings*. If you select a picture from a different folder, the picture is copied to the picture folder.

To replace the image, hold down the CTRL key and double-click the image.

To remove the image, hold down the ALT key and double-click the image.

• Link Field: Double-click the field to display the *Open* window.



The default attachments folder opens. Select a file, from this or another folder, and choose the *Open* button. To link to a Web site, type a URL in the *File name* field and choose the *Open* button.

i Note

The default attachments folder is the folder defined in *Attachments* on the *Path* tab in *Administration* \rightarrow *System Initialization* \rightarrow *General Settings*. If you select a file from a different folder, the file is copied to the attachments folder.

Once a file or Web site is linked to the field, a hand cursor is displayed when you hover over it.



To open the linked file or Web site, double-click the link.

To replace the link, hold down the CTRL key and double-click the link.

To remove the link, hold down the $\boxed{\mathtt{ALT}}$ key and double-click the link.

Managing User-Defined Tables

SAP Business One lets you create your own database tables, enabling you to:

- Manage sets of custom data, for example, a fleet of cars or a list of available meals. Every user-defined table automatically contains the following fields: *Code* (the key) and *Name*. You can add user-defined fields to the table to maintain additional business information.
- Maintain valid values for a user-defined field located in either a system table or a user-defined table. For more information, see *Linking a User Table to a User-Defined Field*

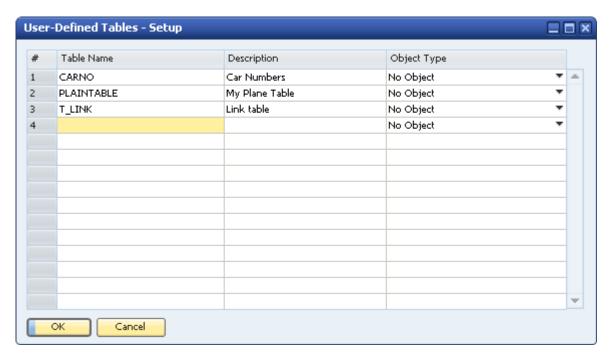
Creating User Tables

To create a table, you specify just a name and description for the table. Two fields, *Code* and *Name*, are automatically created in the table.

You can add user-defined fields as you would for system tables.

Procedure

1. In the menu bar, choose $Tools \rightarrow Customization Tools \rightarrow User-Defined Tables - Setup.$

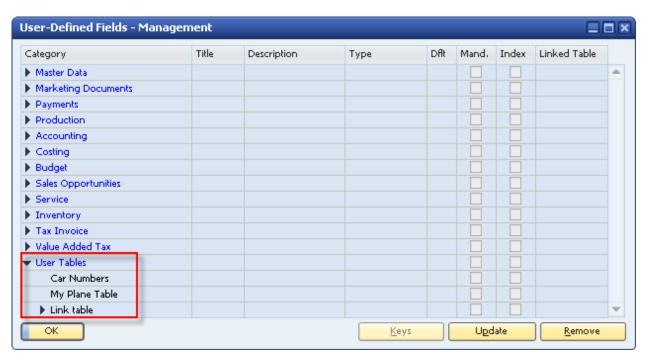


2. Enter information about the new table in a new row.

Field Name	Description	
Table Name	The table name.	
Description	A description for the table.	
Object Type	The type of table. Set to No Object.	
	Note This column is relevant for working with user	
	This column is relevant for working with user- defined objects (UDO). For more information, see the UDO section of the SDK Help Center, located on the SAP Community Network at	
	https://www.sdn.sap.com/irj/sdn/businessone.	
	You cannot update the <i>Object Type</i> field after adding a table.	

3. Choose the OK button.

The user-defined table appears under the User Tables category in the User-Defined Fields – Management window.



A user-defined window for entering data is automatically created for the table. For more information, see *Entering Values in User-Defined Tables*.

i Note

As with modifying user-defined fields, all users should be logged off before you add a user-defined table. For information on possible messages when adding a table, see the last step in *Creating User-Defined Fields*.

Result

The following occurs when you add a user-defined table:

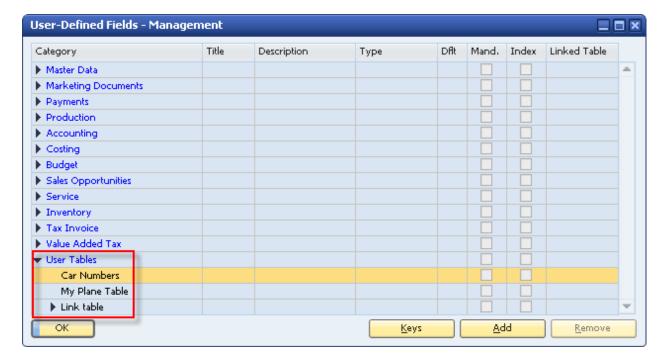
- Information about the new table is stored in the OUTB table (User Tables).
- The prefix @ is added to the name of the table in the database table, indicating that it is a user-defined table.
- You can use this table in queries.
- If this table is linked to a user-defined field, then in the *Query Generator*, the user-defined field appears in bold in this table, indicating it is related to another table. You can drag this user-defined field to use the user-defined table for the query.

Adding Fields to User-Defined Tables

Create additional fields in a user table if the two default fields, *Code* and *Name*, are not sufficient for your business needs.

The process of adding fields to a user-defined table is the same as for adding fields to a system table, as described in *Creating User-Defined Fields*.

In the *User-Defined Fields - Management* window, user-defined tables are displayed in *User Tables* at the bottom of the list of categories. Click to display the available user-defined tables.

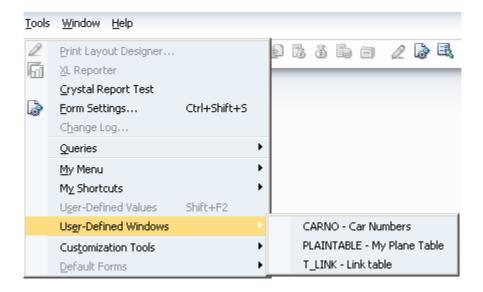


Entering Values in User-Defined Tables

After creating user-defined tables, you can enter data into them.

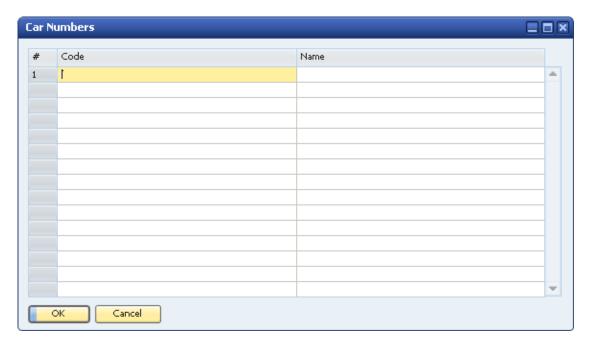
Procedure

From the menu bar, choose Tools → User-Defined Windows.
 A submenu opens displaying a list of user-defined tables.



 $2. \quad \text{Select a table. A window for the selected table is displayed.} \\$

For example, the window below is for a table that holds car license numbers:



3. To enter a value, select a cell and enter the value.

i Note

Both the Code and Name values must be unique.

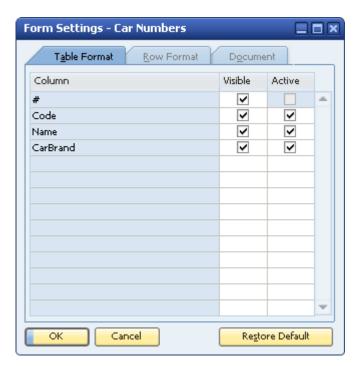
4. Choose the *OK* button.

Showing and Hiding Fields

By default, all user-defined fields are set to *Visible* when you open the window for the user-defined table. You can choose to display a subset of the table's fields.

Procedure

- In the menu bar, choose Tools →User-Defined Windows, and then choose a specific table from the submenu.
 A window for the selected table is displayed.
- 2. Click in the toolbar.



- 3. On the *Table Format* tab, define which fields are to be visible and active.
- 4. Choose the OK button.

Removing User-Defined Tables

This section describes how to remove a user-defined table, including all its data.



Caution

This action deletes all the values saved in the table and is irreversible.



Recommendation

Before you remove a user-defined table, back up the database.

Procedure

- 1. From the menu bar, choose $Tools \rightarrow Customization Tools \rightarrow User-Defined Tables Setup.$
- 2. Right-click the row to be removed, and choose Remove.
 - 1 Note

Alternatively, select the Description column of the user-defined table you want to remove, and in the menu bar choose $Data \rightarrow Remove$.

The table is removed from the list of user-defined tables.

3. Choose *Update*, and then Yes or Yes to All in the dialog box.

Copying Fields/Tables to a New Company

You can copy user-defined fields and tables from one company database to a new company database that you create.

Procedure

- 1. Connect to the company in which the user-defined fields and tables the ones to be copied to the new company are defined.
- 2. In the menu bar, choose Administration \rightarrow Choose Company.
- 3. In the *Choose Company* window, choose the *New* button.

The *Site User* window appears:



4. Enter the *Site User ID* and the *Site Password*, and then choose the *OK* button. The *Create New Company* window appears.



- 5. Select the Copy User-Defined Fields and Tables checkbox.
- 6. Specify the remaining information, and then choose the *OK* button.

Authorizations

For information about the authorizations required for *User-Defined Fields - Management*, see the online help for SAP Business One and the document *How to Define Authorizations* in the documentation area of SAP Business One Customer Portal at http://service.sap.com/smb/sbocustomer/documentation.



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Material Number

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