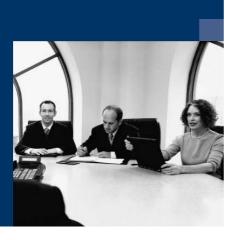
#### **PUBLIC**



How to Customize

Printing Templates with the

Print Layout Designer

## **Solutions from SAP**

# SAP Business One 2005 A SP01

June 2006





#### **Icons**

Icon	Meaning
Λ	Caution
	Example
$\wp$	Note
<b>②</b>	Recommendation
<b>31</b>	Syntax

### **Typographic Conventions**

Type Style	Description
Example text	Words or characters that appear on the screen. These include field names, screen titles, pushbuttons as well as menu names, paths and options.
	Cross-references to other documentation.
Example text	Emphasized words or phrases in body text, titles of graphics and tables.
EXAMPLE TEXT	Names of elements in the system. These include report names, program names, transaction codes, table names, and individual key words of a programming language, when surrounded by body text, for example, SELECT and INCLUDE.
Example text	Screen output. This includes file and directory names and their paths, messages, source code, names of variables and parameters as well as names of installation, upgrade and database tools.
EXAMPLE TEXT	Keys on the keyboard, for example, function keys (such as F2) or the ENTER key.
Example text	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<example text=""></example>	Variable user entry. Pointed brackets indicate that you replace these words and characters with appropriate entries.



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## **How to Customize Printing Templates with Print Layout Designer**

### Introduction

The Print Layout Designer tool allows you to modify and customize the SAP Business One default printing templates according to your requirements.

You can set one template as the default for all or some SAP Business One users, and link specific print templates to selected business partners.

## **Opening Print Layout Designer**

#### Use

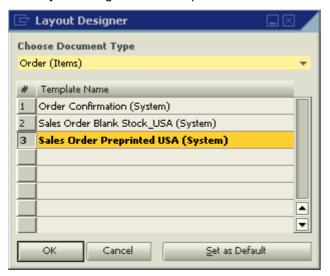
You can open a printing template for any document or report in SAP Business One.

To design a new layout for the document or report, make the required modifications in one of the system templates and save your changes under a new name.

### **Procedure**

To open Print Layout Designer:

- 1. Open the required document or report, for example, Sales Order.
- 2. Choose the icon on the tool bar, or select from the menu bar *Tools* → *Print Layout Designer*. The Layout Designer window opens:

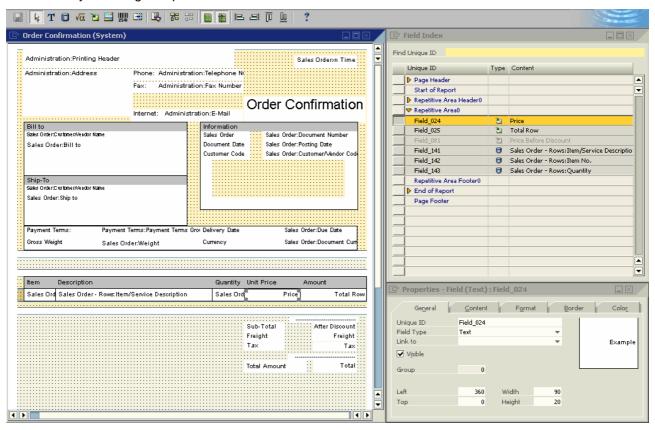


This window displays both the SAP Business One default print templates and the user-created

Select a template by clicking its name, and choose *OK*.



The Print Layout Designer opens:



You can now make changes in the layout.



## **Defining Document Properties**

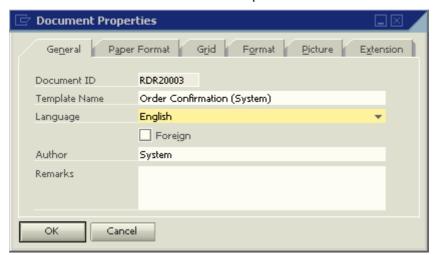
## Use

The Document Properties window contains general data regarding the current printing template.

#### **Procedure**

To define the document properties for your new template:

- 1. From the menu bar, select *Print Layout Designer* → *Display Document Properties*.
- 2. Choose the General tab and enter the required data:

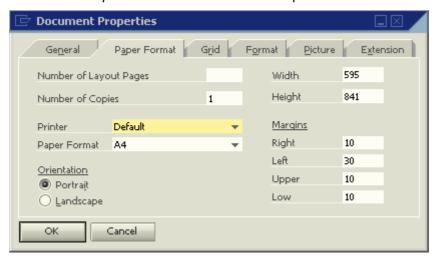


#### **Document Properties - General tab**

Field name	Description	
Document ID	Combines three elements:	
	Document type	
	For example, RDR stands for Sales Order.	
	2. Item type (2) or Service type (1)	
	Document number in the layout sequence	
	For example, 0001 represents the first layout for this document type.	
Template Name	The name of the print template.	
Language	The language in which the document was created.	
Foreign	Select this box to print the foreign name of the currency code ( <i>Administration</i> → Setup → Financials → Currencies → International Code) when printing a document for foreign business partners.	
Author	The user who created the template ( <i>System</i> refers to SAP Business One default templates).	
Remarks	Enter remarks, if required.	



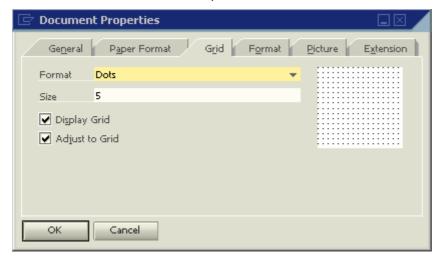
3. Choose the Paper Format tab and enter the required data:



#### **Document Properties - Paper Format tab**

Field name	Description	
Number of Layout Pages	To increase the page layout to more than one page, enter a number indicating the required number of pages.	
Number of Copies	Enter the default number of copies for print. The default (1) is defined in System Initialization $\rightarrow$ Print Preferences.	
Printer	Default refers to your default printer as defined in Windows. Choose another printer from the drop down list, if required.	
Paper Format	Set the paper format for printing this specific layout. Changing the paper format automatically changes the display on the screen.	
Width, Height	Manually set a specific paper format, which is not defined in the <i>Paper Format</i> drop-down list.	
Orientation	Portrait is selected as default. Selecting Landscape will extend the print layout, allowing more space for fields in the repetitive area.	
Margins	Add margins to the entire document. We recommend adding margins of 30 on the left, if you intend to file the document in a folder.	

4. Choose the *Grid* tab and enter required data:

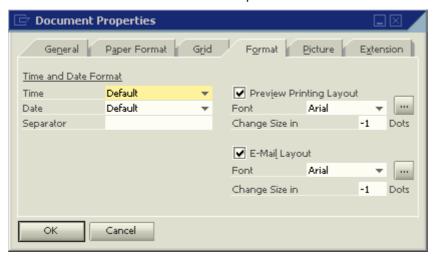




#### **Document Properties - Grid tab**

Field name	Description	
Format	Select the grid's line style. A preview of the selected style is displayed on the right.	
Size	Enter the size of the squares in the grid (in pixels).	
Display Grid	Select to display the grid in the layout.	
Adjust to Grid	Select to make the fields snap-to-grid.	

5. Choose the *Format* tab and enter the required data:

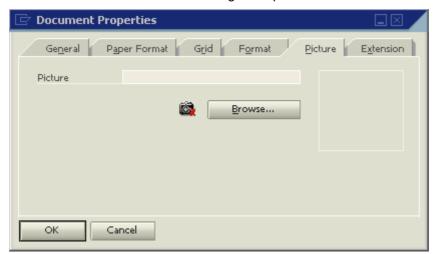


#### **Document Properties – Format tab**

Field name	Description	
Time and Date Format	Thee default values are determined by the selection in the Administration $\rightarrow$ System Initialization $\rightarrow$ General Settings $\rightarrow$ Display tab.	
Time	Set the time to 24H or 12H. A specific time format can be selected for each template.	
	Select Default to use the setting from General Settings.	
Date	Set the date format for the template.	
	Select Default to use the setting from General Settings.	
Separator	Select a date and time separator for the template. What's that?	
Preview Printing Layout	To define the layout of the <i>Print Preview</i> window, select this box and set a font style and size.	
	lacktriangle	
	If the actual printed document looks different than its preview, check if this box is selected and try again.	
E-Mail Layout	To define the E-Mail layout, select this box and set a font style and size.	
	$\triangle$	
	If the actual printed document looks different than the one sent via E-mail, check if this box is selected and try again.	



6. Choose the *Picture* tab to add a background picture to the document.



- Choose Browse and navigate to the required graphic file.
- To remove the selected picture, choose 🚉.



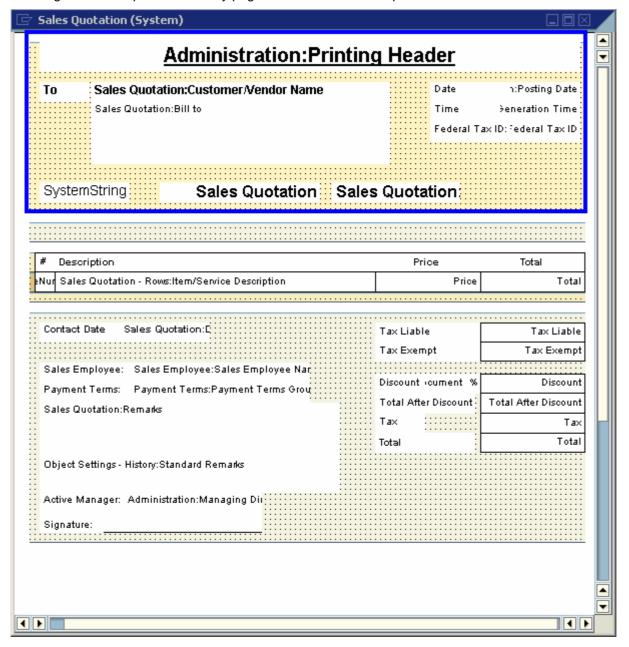
## The Structure of a Print Template

SAP Business One print templates contain several areas.

## Page Header

The page header area contains the document and report header fields, including business partner, date, and document name.

The Page Header is printed on every page of the document or report.

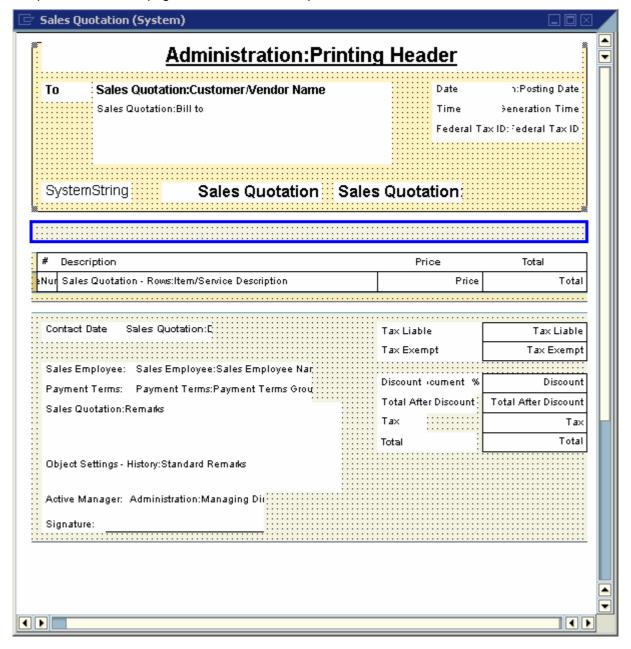




### **Start of Report**

The start of report area is located directly above the table titles.

It is printed on the first page of the document or report.

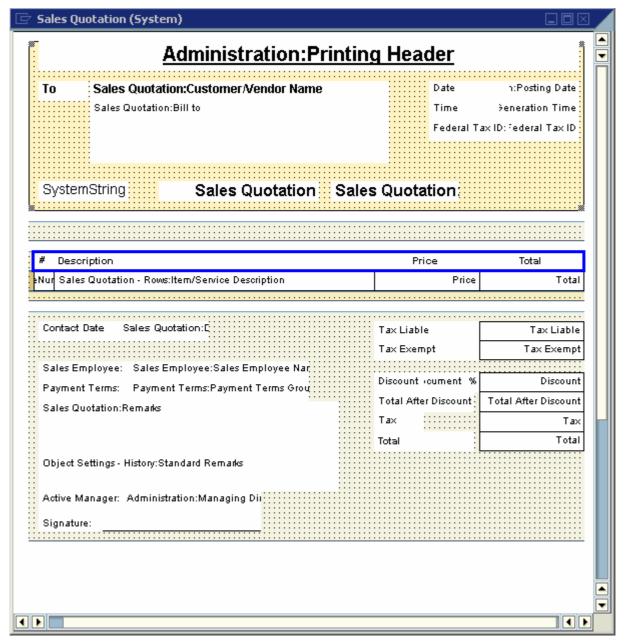




### **Repetitive Area Header**

The repetitive area header contains the table titles and the sub-total titles.

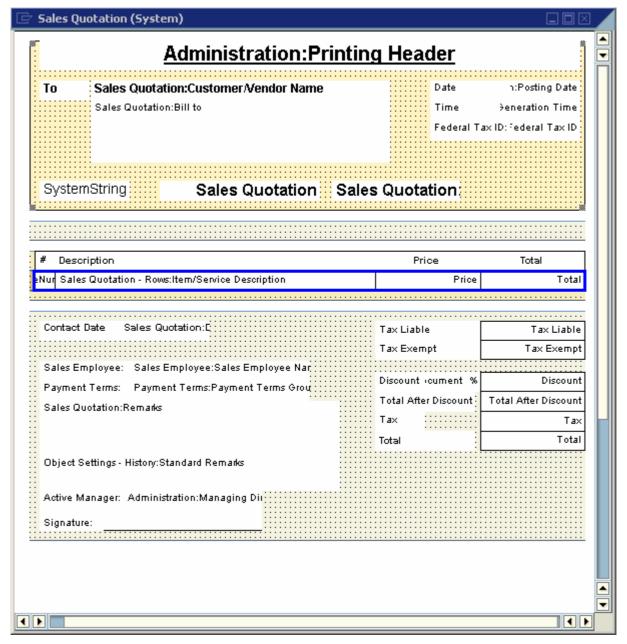
It is printed on every page of the document or report.





### **Repetitive Area**

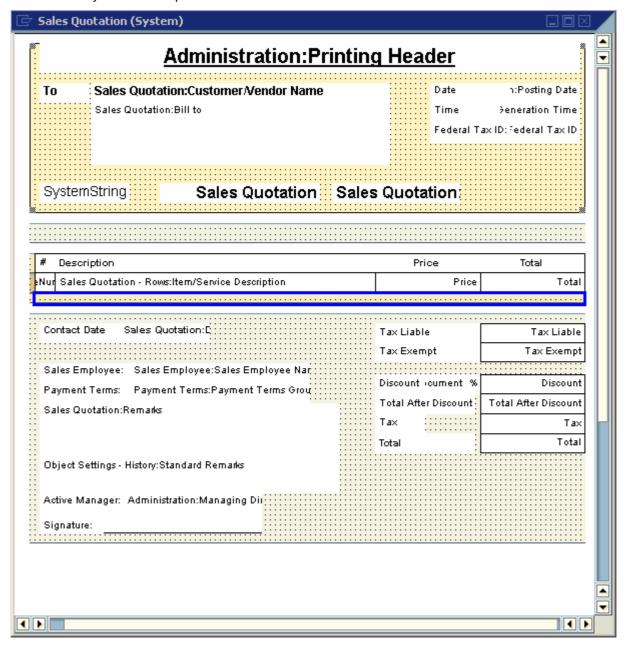
The repetitive area duplicates itself according to the number of rows in the table.





## **Repetitive Area Footer**

In the repetitive area footer you can add summaries to the table using formula fields and also sub-totals. It is located directly under the repetitive area.

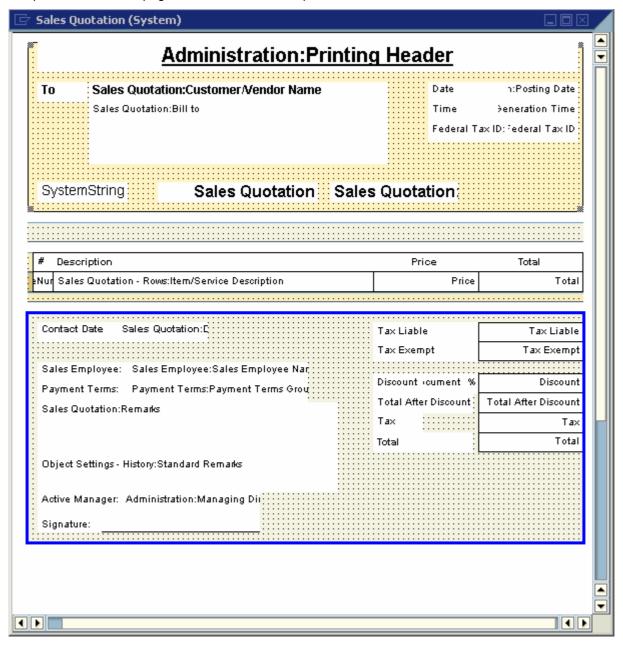




## **End of Report**

The end of report area contains the totals, remarks and other general document data.

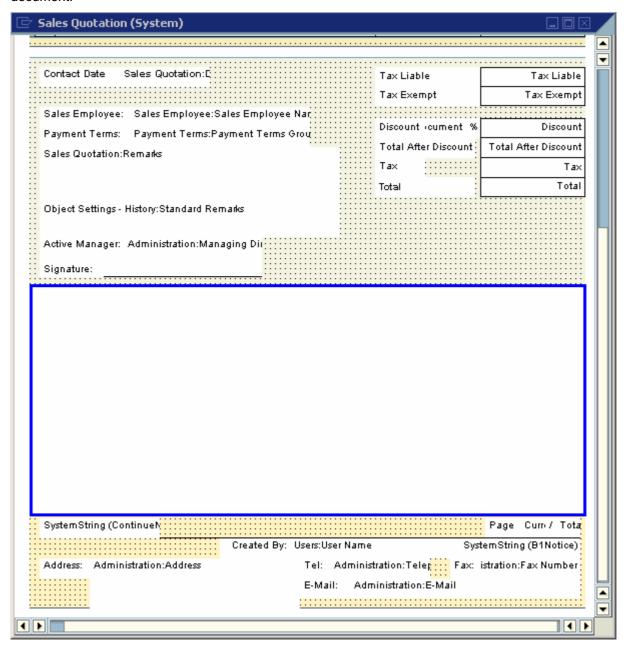
It is printed on the last page of the document or report.





#### **Blank Area**

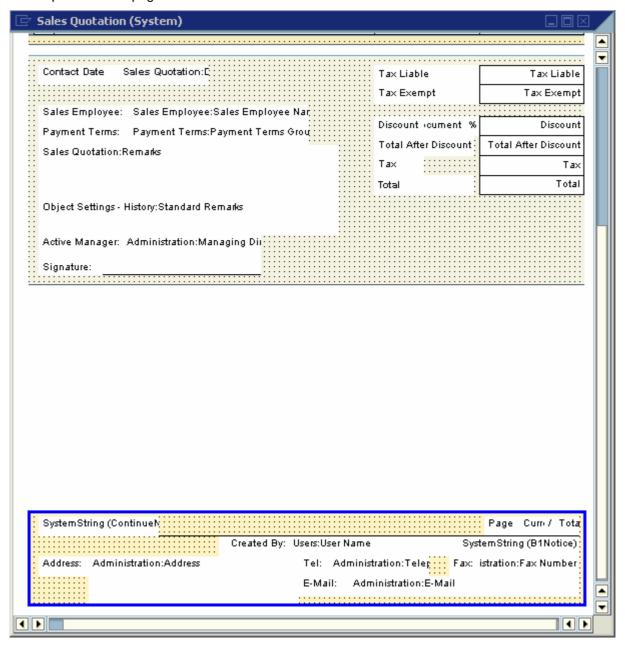
The blank area enables the repetitive area to expand according to the number of table rows in the printed document.





## **Page Footer**

The page footer area is always printed at the end of the page and normally contains company details. This is printed on all pages of the document.





### **Field Index**

When you open the print template, you see the Field Index window on the right of the screen. This window displays all the fields in the template, including hidden fields.

- Clicking a field or area highlights it in yellow.
- Hidden fields are displayed in a light grey color.



#### **Field Index**

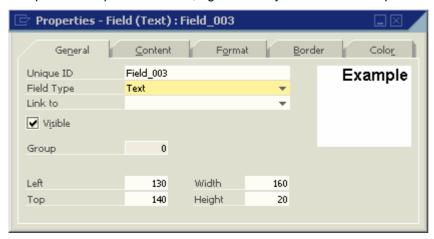
Field name	Description	
Unique ID	An external unique identifier of each field generated upon field creation. You can update this field manually.	
	We recommend that you give significant names to the fields. This will allow you to better identify them when, for example, you create formulas.	
Type	Displays an icon matching the field's type and Source Type (Free Text, Database, Formula, System Variable, Picture, Bar Code, and External Data).	
Content	Displays the field content. In the case of a formula, the entire formula is shown.	
Find Unique ID	Fields are divided into areas. Under each area, the fields are sorted according to their <i>Unique ID</i> . You can search for a field by its <i>Unique ID</i> . If the field is found, it is highlighted in yellow and simultaneously selected in the template and in the <i>Properties</i> window. You cannot perform sorting in the <i>Field Index</i> .	



## **Defining Area and Field Properties**

The Properties window relates to both area and field properties. It opens automatically when a print template is opened, and remains open unless you close it.

To open the Properties window, right-click anywhere on the template and select Display Properties.



When you create a new field, the *Properties* window automatically displays the properties of the new field. Click any area or field to display its properties. Clicking on another field will change the contents of the Properties window. The title of the Properties window displays the name of the selected field or area.

If you select multiple areas or fields, the title of the Properties window becomes Properties- Multiple Areas or Properties- Multiple Fields.

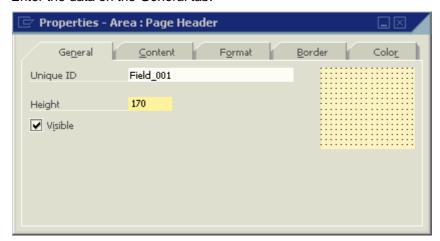
You can modify both field and area information in the *Properties* window. If you select several fields for modification, the system disables the *Unique ID* field on the *General* tab. As a result, some of the individual field or area information may be disabled, depending on the common characteristics of the selections.



## **Defining Area Properties**

To modify an entire area:

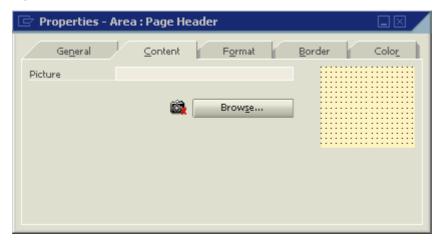
- 1. Click anywhere on the area (where there are no fields). The system displays information relevant to the selected area in the *Properties* window.
- 2. Enter the data on the General tab.



#### **Properties Window – General tab**

Field name	Description
Unique ID	A unique identifier generated automatically on creation of a new area; can be manually updated by the user.
	Creating two areas with the same unique ID will generate a corresponding error message:  Unique ID "Field_101" is already used. Please select another Unique ID.  message:
Height	The area height in pixels.
Visible	Select to make the area visible on the screen.

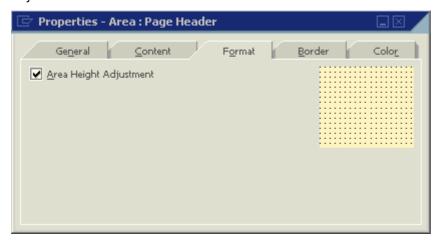
3. To add a picture to the area, on the Content tab, choose Browse and navigate to the required graphic file.



The Print Layout Designer supports the file formats: jpg, gif and bmp.



4. To activate automatic height adjustment of the area, on the Format tab, select Area Height Adjustment:



The height of an area is adjusted automatically if the fields:

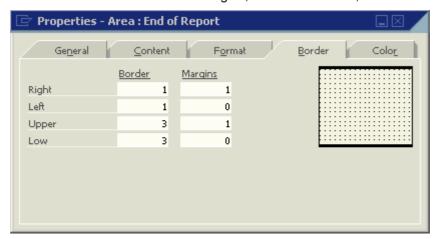
- o At the top or bottom are blank
- o Are linked to themselves
- Do not contain values.
- 5. To align the End of Report area to the end of the last page, on the Format tab select Align to Bottom:



This is available in the End of Report area only and should not be used together with the Area Height Adjustment option.



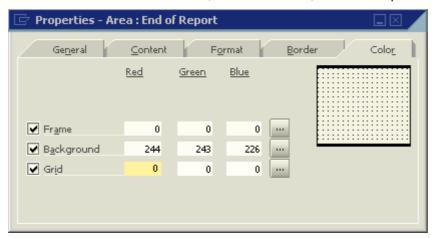
6. To format the area borders and margins, on the Border tab, enter the required data.



#### Properties Window - Border tab

Field name	Description	
Border, Margins	To define a border around the area, or margins for the area, enter numbers in the <i>Right</i> , <i>Left</i> , <i>Upper</i> and <i>Low</i> fields. The numbers set the thickness of the border in pixels.	

7. To determine the color of the area, on the *Color* tab, enter the required data:



You can apply color separately to the Frame, Background and Grid.



## **Creating Multiple Repetitive Areas**

#### Use

Additional repetitive areas can be created in all the print templates.



Print a separate table of item images in addition to the standard item table in sales or purchasing documents.

In the USA it is mandatory to print invoice details in two locations in the layout of checks for payment. The multiple repetitive areas option enables you to print this type of layout.

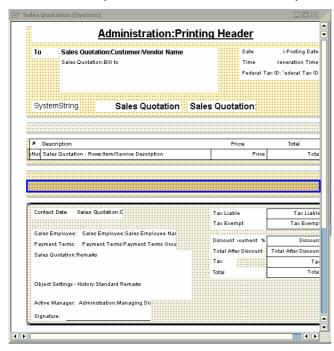
You can print two different item tables in the same document and determine, using a formula type field, which items will appear in each table. For example, print a table of regular items, including the Quantity column, along with a table of labor items, with an extra description and no quantity.

#### **Procedure**

To create a new repetitive area:

1. Open a print template and select on the tool bar.

A new Repetitive Area is added to the template:



2. Create fields in the new area.



You can add as many repetitive areas as required.

To sort a repetitive area, click the area, and in the menu bar, choose *Print Layout Designer* → Repetitive Area  $\rightarrow$  Sort.



## **Creating New Fields**

#### Use

You can create four different field types using Print Layout Designer: text, picture, barcode and external data. Each field can obtain its value from several sources. The type of field and source can be changed after the field has been created.

#### **Procedure**

To create a new field:

1. Choose one of the following toolbar icons:

#### **Field Icons**

Icon	Description of Field Type	Default Source Type
T	Text	Free Text
O	Text	Database
√a	Text	Formula
*	Text	System Variable
	Picture	File
  2541	Barcode	Free Text
	External Data	Procedure Name

After you have chosen the required field type, the system displays the cursor's icon accordingly.



If you choose to create a text field with database as its default source, the cursor is displayed

2. Place the cursor on the required location, press and drag the frame to extend the field.



The minimum size of a field is 10x10 pixels.

The minimum size restriction applies only when creating a new field. Once a field has been created, you can decrease or increase the field size using the 4 gray squares on each corner of the field:



Place the cursor over a selected corner, drag to expand or shrink the field as needed.



We recommend that you choose the toolbar icon after you have finished creating the field.

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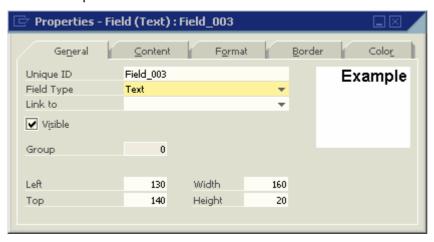
## **Defining General Field Properties**

### Use

After you have created a new field you need to modify its properties to meet your requirements. Once the field has been created the Properties window displays information about the new field.

#### **Procedure**

Make the required entries on the General tab.



#### **Properties Window - General tab**

Field name	Description
Unique ID	A unique identifier of each field; behaves in the same way as the <i>Unique ID</i> of an area.
Field Type	There are four field types: Text, Picture, Bar Code and External Data. The default value of the field is determined by the icon you selected when the field was created
	You can change the field type at any time.
Link to	Creates a link between several fields, to determine if the system collectively displays or hides them. If a field is blank or hidden, its linked fields are not printed either.
	To create the link, choose the <i>Unique ID</i> of the field to which you want to link the selected field.
	If the field <i>Total Liable</i> in the document is set to zero there is no need to print the <i>Tax</i> , <i>Discount</i> , and <i>Total</i> fields. It is possible to link these fields to the field <i>Total Liable</i> by selecting its unique ID in the field <i>Link to</i> , found in each one of their Properties windows. This will then hide the fields when <i>Total Liable</i> is zero.
	If a linked field is not yet calculated, the field is ignored.



Visible	Select/Deselect to print/not print the field.
	Fields used as conditions are usually hidden.
Group	The number of the group to which the field is linked.
	In a template with no sub-sorts or sub-totals, all the fields are linked to group 0. For further explanations on groups, see the <i>Defining Sorts</i> section below.
	The location and size of the field in the template.
Left, Top, Width,	Left and Top define location; Width and Height define size.
Height	Enter different values to change the field's size and location, if needed.



Hidden fields are not displayed in the Print Layout Designer window and appear in light grey in the Field Index window. However, you can display them on the screen for editing by selecting from the menu bar Print Layout Designer → Display Hidden Fields.

## **Defining Source Type**

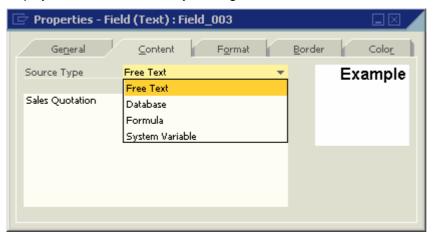
#### Use

The Source Type field defines the data source of the field.

The available source types for text type fields are:

- Free Text
- Database
- Formula
- System Variable

The system automatically displays a default source type according to the type of field you selected when the field was created. Change the source type by selecting another source type, and then exiting the properties display for the selected field by clicking another field or area.





## **Procedure – Defining Free Text as Source Type**

To choose free text as the source type:

- 1. Choose *Properties Field → Content* tab.
- 2. Select Free Text in the Source Type field.

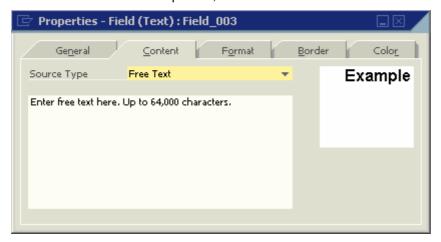


Use a free text source type for printing fixed remarks, notes, instructions or comments.

3. Enter the required text.



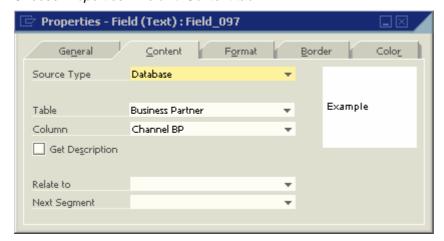
You can enter text up to 64,000 characters.



## **Procedure – Defining Database as Source Type**

To choose Database as the source type:

1. Choose *Properties - Field → Content* tab.



2. Select Database in the Source Type field and make the required entries in the Content tab.



Use a database source type to print information from a selected table and column.

The system creates Database source type fields automatically in every system template.

You can create as many database fields as you require in your own print templates.



### Properties- General tab, Database fields

Field name	Description
Table	Select the table from which to retrieve the information printed in this field.
Column	Select the field you want to print in the document.  If you want to print the customer's channel business partner in a print template for invoices you should select <i>Business Partner</i> in the <i>Table</i> field and <i>Channel BP</i> in the <i>Column</i> field.
Get Description	Select to print the field's description rather than its code.  If you select Business Partner in the Table field and BP Type in the Column field, SAP Business One will print the code values: C, S or L. When the box is selected the actual names of these code letters are printed: Customer, Supplier or Lead.
Relate to	This option is relevant for special scenarios only and requires knowledge of SQL.  This field is used for retrieving data related to key records found in tables other than the table linked as default to the current print template.  A key record is a field used as a primary key in a certain table. This key record functions
	as the identifier of the record, and, therefore, it is required to retrieve any additional data related to it.  If you need to print the name of a certain bank, which is not linked to the table used in the current print template, you must first create a <i>Text</i> field of <i>Database</i> source type using the required table and select a key record, such as <i>Bank Code</i> .
	Then, you need to create an additional <i>Text</i> field of <i>Database</i> source type. Select the table again, select the required column (such as <i>Bank Name</i> ), and enter the unique ID of the field with the key record in the <i>Relate to</i> field.  There might be two or more key records in the same table. In such a case, these two key records are both required for retrieving the data.
	Identical bank codes are used in many countries. If you need to print the name of a specific bank, you need to link it to a relevant country, in addition to its relevant bank code.  You are currently working on a print template for <i>Incoming Payments</i> . However, you need to retrieve data (such as the business partner's bank name) linked to the key record <i>Bank Code</i> from the <i>Bill of Exchange for Payment</i> table, rather than from the <i>Incoming Payments</i> table.
	In the Relate to field, select the unique ID of the field containing the required key record. In this example, this is a Text field of Database

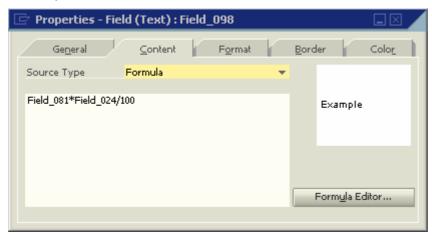


	source type containing <i>Bill of Exchange for Payment</i> in the <i>Table</i> field and <i>BP Bank Country</i> in the <i>Column</i> field. The drop-down list contains the unique IDs of all the fields that are situated in the same area as the current field.
	This link makes the system retrieve the Bank Code linked to the BP Bank Country field found in the Bill of Exchange for Payment table.
Next Segment	Use this field when a validation of two or more key records is required, for example, the field <i>BP Bank Country</i> and the field <i>BP Bank Code</i> .
	To make this double validation, select the unique ID of the next key record field in this field.
	The field with this unique ID is used as the secondary validation key record.

## **Procedure – Defining Formula as Source Type**

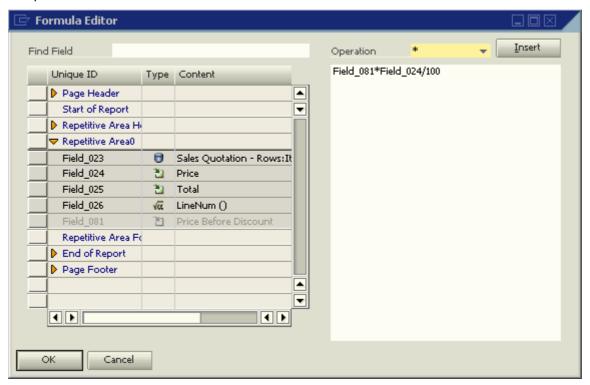
- 1. Choose Properties Field, Content tab.
- 2. Select Formula in the Source Type field and make the required entries.

A formula source type field allows you to display the results of certain calculations, either built manually or with the Formula Editor.





3. To open the formula editor window choose Formula Editor.



4. To find the required field by its unique ID, enter the ID in Find Field.

The matching field is highlighted in yellow.



Fields from different areas can be selected as long as they are already calculated and located in an area above the calculation field.

- 5. To add a field to the formula in the formula area on the right side of the window, do one of the following:
  - Double-click the selected field.
  - Enter the unique ID into the formula area.



If you enter a non-valid unique ID, or modify the unique ID of a field used in a formula, the system generates a warning message.

- 6. To add numbers to the formula, enter them directly into the formula area.
- 7. To add operations to the formula, select the required operation from the *Operation* field and choose Insert.



### Formula Editor – Operations

Operation	Description
Arithmetic Operations	• %  This operation is an operator rather than a percent calculation. It displays the remainder of a division of 2 numbers, for example, 10 % 3 results in 1, since 10/3 = 3+ a remainder of 1.
	<ul><li>*     Multiplication</li><li>+     Addition</li></ul>
	<ul><li>Subtraction</li><li>/</li><li>Division.</li></ul>
	If the two variables you use are of integer type (natural numbers), the result is also an integer number. For example, dividing 10 by 3 results in 3.  On the other hand, a division of a float type number (decimal fraction) by any
	other number results in a float type number as well, for example, dividing 10.00 by 3 results in 3.33.  • Abs (Number)
	Displays the absolute value of a number.  • Avg (,)
	Displays the average of a list of numbers.
	<ul> <li>DecimalLeft (Number)</li> <li>Displays the integer part of a numeric value up to its decimal point. For example, for a field containing the value 241.32, this operation results in the integer number 241.</li> </ul>
	DecimalRight (Number)  Displays the decimal fraction of a numeric value. For example, for a field containing the value 241.32, this operation results in the decimal fraction .32.
	Pow (Base as Number, Exponent as Number)  Displays a number raised by a power.
	<ul> <li>Round (Number, Decimals as Number)</li> <li>This operation rounds a numeric value according to the number of characters selected in Field 2. For example, a field contains the value 524.18. Selecting in Field 2 a text field containing the number '1' results in 524.2.</li> </ul>



#### String Operations

#### Amount (Money)

Extracts only the number out of a field containing a value comprised of a number and a currency symbol. For example, selecting this operation for the field Amount Due containing the value €154, prints 154.

This operation is mainly required in cases where a number is needed for calculation between fields.

Concat (, ...)

Concatenates strings. For example, "A" Concat "B" results in "AB".

Currency (Money)

Extracts only the currency symbol out of a field containing a value with a currency symbol. For example, selecting this operation for the field Amount Due containing the value \$154, prints \$.

Length (Text as String)

Displays the number of characters in the selected field (a space is regarded as a character). For example, using this operation on a Remarks field that contains a value with 100 characters, results in the value 100 being printedt.

Sentence (Text as String, SentenceIndex as Number)

Cuts an entire sentence from the selected field (up to the next Enter mark). In Field 2 select a number to indicate the required sentence number to cut.

Substring (Text as String, SubStringLength as Number)

Cuts a selected number of characters from the right of a selected field (a Text field containing a number should be linked). For example, selecting Substring (Unique ID, 3) using the unique ID of a field containing the string BOSTON will print TON.

Substring (Text as String, SubStringStartIndex as Number)

Cuts a selected number of characters from the left of a selected field.

#### Date **Operations**

Day (Date as String)

Returns the day part of a date.

Month (Date as String)

Returns the month part of a date.

MonthName (Month as Number)

Returns the name of the month.

Year (Date as String)

Returns the year part of a date.



## Condition In order to use condition operations: Operations The condition must be IF, and must consist of 2 fields. The calculation field displaying the result must be located in an area below its calculated fields. To use conditions on fields, follow these steps: 1. Create a Text field of Formula source type for displaying the result. The result will be 1 if the condition is met and NULL if the condition is not met. 2. In the Formula field choose Formula Editor. 3. Select the fields for the condition by searching for them in the Field Index or typing them manually. 4. In the Operation field, select the condition to apply to the selected fields (Equal !=, Less than <, Greater than > and so on.). You can also select hidden fields. The main use of conditions involves the Relate to option. If the condition is not met and the field is NULL, then none of the fields linked to it are printed. Cast ToNumber (String) **Operations** Explicit cast from string to number. ToString (Number) Explicit cast from number to string. Other • ColAvg(UniqueID as String) Specific A calculation of the average value of numbers in a selected column, for example, Operations average price. This formula field can be created below the repetitive area. ColSum(UniqueID as String) A calculation of the total values in a selected column, for example, total quantity. This formula field can be created below the repetitive area. . CopyNumber() Enables the user to manage the number of printed copies. CurrentPage() The number of the page in the document printout. Date() The printing date. GroupLineNum() The row number in the group for which a sub-sort or subtotal is calculated. When creating this type of field in the repetitive area footer, for a group on which a sort is performed, the field will display the total number of rows in each subtotal. LineNum() The successive number of the row in the repetitive area.

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A calculation of the average value of numbers in a selected column in every

PageAvg(UniqueID as String)



printed page.

PageSum(UniqueID as String)

A calculation of the total pages in the document.

ReportAvg(UniqueID as String)

A calculation of the average value of numbers in a selected column for the entire report.

ReportSum(UniqueID as String)

A summary of the values in a selected column for the entire report.

SortFieldName(SortNumber as Number)

The name of the sort field selected in the template, for example, Item Group.

SortValue()

The content of the sort field selected in the template. for example, the item group

SystemString(B1Notice)

Select this operation to print the message: Printed by SAP Business One.

SystemString(ContinueNextPageNotice)

Select this operation to print the relevant message on each page, except for the last one.

SystemString(ContinueNotice)

Select this operation to print this message on each page.

Time()

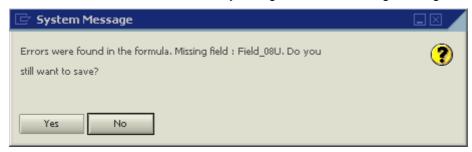
The printing time.

TotalPages()

The total number of printed pages.

8. After completing the formula choose *Update*.

The system generates a message to inform you that the formula has been successfully created. If there are errors in the formula the system generates a warning message, such as:





You can define a calculative ratio between fields using a formula field. In such a case, the formula field displaying the result must be located in an area below its calculated fields.



## Procedure – Defining System Variable as Source Type

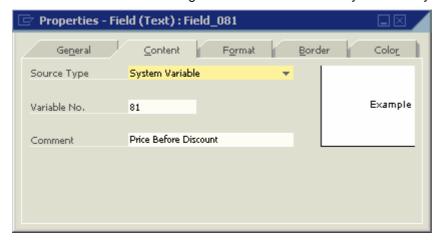
A System Variable field contains a link to an actual variable found in SAP Business One.

To choose a system variable as the source type:

Select System Variable in the Source Type field and make the required entries.



We recommend reading SAP Note 723783 before you define system variable fields.



#### Properties - Content tab, System Variable fields

Field name	Description
Variable No.	Enter the variable number.
	Variables are unique to the specific document you are designing. To place a text field of System Variable source type, you need to know the variable number.
	To display the variable number in SAP Business One:
	<ol> <li>From the menu bar choose View → System Information.</li> </ol>
	2. Place the cursor on the field.
	The system displays the field details on the status bar (located at the bottom left part of the screen).
	The variable number assigned to the field is displayed as Variable = <number></number>
Comment	Enter a description of the variable. This text will not be printed.



Examples for using variable fields:

- Data calculated during the printing process or in the actual document, for example, the field Total Before Discount in sales and purchasing documents.
- Fields appearing as columns in a table, but which are not printed, for example, the fields Credit (SC), Debit (SC) and Balance (SC) in the General Ledger report.

For a list of additional variables available for printing in the General Ledger report, see SAP Note 867048.



### Procedure – Defining Picture Fields as Source Type

Picture fields enable you to print the company logo on documents, as well as pictures of items, and even images of company employees.

The source types available for picture type fields include:

File (default)

Use File source type to print a fixed image, such as the company logo, on the document.

Database

Use Database source type to print pictures saved in your database tables. For example, you can print a catalog of items along with their pictures.

To associate a picture with an item, from the Main Menu choose *Inventory* → *Item Master Data* → Details tab.

Bar Code

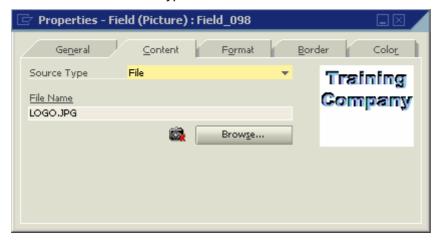
The Content tab of a Bar Code type field is identical to the Content tab of a Text field. The source types available for Bar Code fields include the values Free Text, Database, Formula and System Variable. Free Text is the default source type.

**External Data** 

You can use this type of field to print secured images, such as official stamps, which you are not legally permitted to save on your computer as regular pictures, but as \*.dll files. The source types available for External Data fields include the values Procedure Name, Database, Formula and System Variable.

To select a file source type to print a fixed image:

- 1. Choose Properties Field  $\rightarrow$  Content tab.
- 2. Select File in the Source Type field.



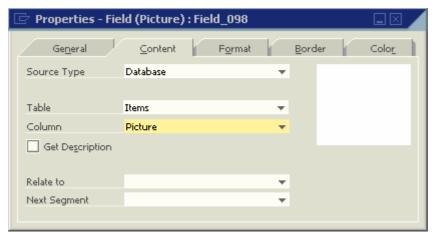
3. Choose *Browse* and select the required picture file.

The Browse button opens the picture folder as defined in Administration → System Initialization → General Settings  $\rightarrow$  Path tab  $\rightarrow$  Picture Folder.



To select a database source type to print a fixed image:

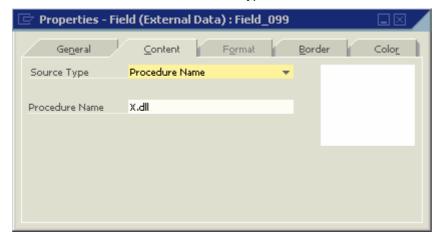
- 1. Choose *Properties Field*  $\rightarrow$  *Content* tab.
- 2. Select Database in the Source Type field:



- 3. Select the required database table in the *Table* field.
- 4. Select the required field in the *Column* field.

To select an external data source type to print a fixed image:

- 1. Choose Properties Field  $\rightarrow$  Content tab.
- Select Procedure Name in the Source Type field:



3. Enter the name of the required \*.dll file in the *Procedure Name* field.



The \*.dll file must be located in the extensions folder defined in  $Administration \rightarrow System$ Initialization  $\rightarrow$  General Settings  $\rightarrow$  Path tab  $\rightarrow$  Extensions Folder.

- To define a dependency between a hidden field in the template and the extension's printing, do the following:
  - a. In the Source Type field, select Database.
  - b. In the *Table* field, select the required table.
  - c. In the Column field, select the field on which the extension's printing depends.

A dependency could be, for example, when an extension is printed only if its linked field contains a certain number, date or string.



# **Defining Field Text Format**

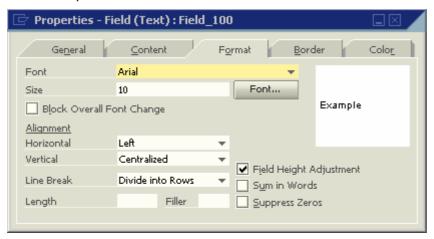
### Use

Use the Format tab to customize the appearance of the text in the field.

### **Procedure**

To format the text in the field:

1. Choose Properties - Field  $\rightarrow$  Format tab.



2. Enter the data as described in the following table.

### Properties - Format tab

Field name	Description
Font, Size	Select an appropriate font.
	Enter the size manually in the Size field.
	Choose <i>Font</i> to open a corresponding window where you can also change the font type, style, size and color.
Block Overall Font Change	Select to keep the font defined for the field, even when changing the font from $Print$ Layout Designer $\rightarrow$ Display Document Properties $\rightarrow$ Format tab $\rightarrow$ Preview Printing Layout and $E$ -Mail Layout fields.
Horizontal	Select the required horizontal alignment method.
Vertical	Select the required vertical alignment method.



Line Break	Select a line-breaking method for fields containing long texts. For example, define how to break a long text typed in the field <i>Remarks</i> in a document, using one of the following methods:
	Allow Overflow
	Choose to print the text even if it crosses the frame's border.
	Adjust to Cell
	Choose to cut the text when it reaches the frame's border. The remaining text will not be printed beyond the border.
	Divide into Rows
	Choose to continue the text in the next row when the text reaches the frame's border. To enable this option it is recommended to maintain spaces between words.
	To divide into rows according to the original text, press <i>Enter</i> on the keyboard each time you want to order the system to move on to a new row.
Length	Set a fixed number of characters to be printed in selected fields.
	For example, print only the first 5 digits of an item number:
	Original Item Number: 5822107, Printed Item Number: 58221.
Filler	Define a symbol for filling up remaining spaces when the field contains fewer characters than defined in the <i>Length</i> field.
	For example, if an item number is less than 5 characters long, the filler * is printed instead of the cut characters.
	Original Item Number: 582, Printed Item Number: 582**
Field Height Adjustment	Select to automatically adjust the field height to the text it contains.
Sum in Words	If the field displays a number, you can select this box to print the number in words. For example, the amount \$25 will be printed as Twenty-Five Dollars.
Suppress Zeros	If the field displays a number, select this box to remove decimal zeros. For example, 233.00 will be printed as 233.



# **Defining Field Border**

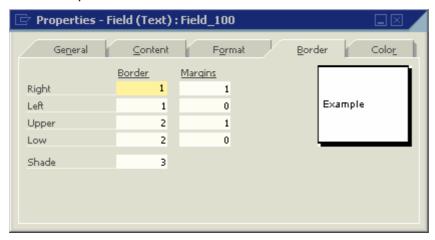
## Use

Use the Border tab to customize the appearance of the field border.

## **Procedure**

To format the field border:

1. Choose *Properties - Field*  $\rightarrow$  *Border* tab.



2. Enter the data as described in the following table.

### Properties - Border tab

Field name	Description
Border	Draws a border around the field.
	Enter numbers (pixels) in the <i>Right, Left, Upper</i> and <i>Low</i> fields to set the thickness of the frame.
Margins	Enter numbers (pixels) in the <i>Right, Left, Upper</i> and <i>Low</i> fields to set the location of the content inside the frame.
Shade	Enter a number to set the degree of shading.



# **Defining Field Color**

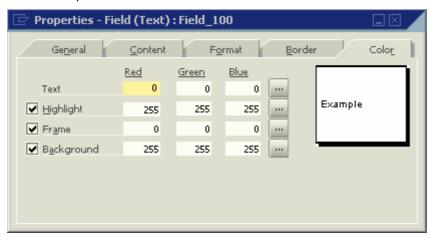
## Use

Use the Color tab to set the print color for the text, background, highlighted text, and frame.

### **Procedure**

To set field color:

1. Choose *Properties - Field*  $\rightarrow$  *Color* tab.



- 2. Choose to open the *Color* window.
- 3. Choose required colors.



To define the highlighted text, frame or background color as transparent, select the box next to the field name.



# **Field Dependencies**

#### Use

### **Dependency Types**

There are two types of field dependencies:

Formula Dependency

This dependency occurs when you create a field with Formula source type. This field may use other fields as operands. The calculated field becomes dependant on its operand fields. If you delete other fields, the dependent field becomes invalid and the document cannot be printed.

Link Dependency

This dependency is created by the Link to option (in the General tab of the Properties window). The field becomes visually dependent on the field to which it is linked. The link affects only the visibility of the dependent field: its visibility depends on the visibility or value of the other field. If you delete the field on which it depends, the document will still print.

The Relate to and Next Segment options also create a link dependency. A field may also be recursively dependent on another field. For example, Field A depends on Field B, and Field B depends on Field C. This makes Field A also (recursively) dependent on Field C.

# Displaying and Hiding Dependant Fields

### Use

You can display and hide dependent fields using commands from the menu bar or from the toolbar. Displaying dependencies highlights both visible and hidden fields in both Print Layout Designer and the Field Index windows:

# **Procedure – Displaying Dependent Fields**

This command is enabled when a field or several fields in the layout are activated.

To display dependant fields:

- 1. Select the field whose dependent fields you want to display.
- 2. Choose from the toolbar.

The status bar displays one of the following messages depending on whether or not the system found dependent fields:

1 No dependent fields found. 1 (1 visible, 0 hidden) fields found.

# **Procedure – Hiding Dependent Fields**

This command is enabled only when dependencies are shown.

To hide dependent fields:

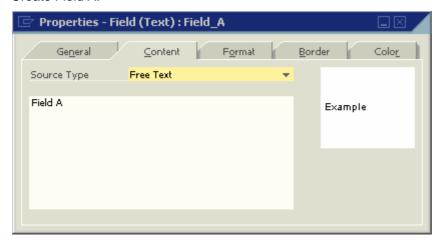
- 1. Select the field whose dependent fields you want to hide.
- 2. Choose From the toolbar.



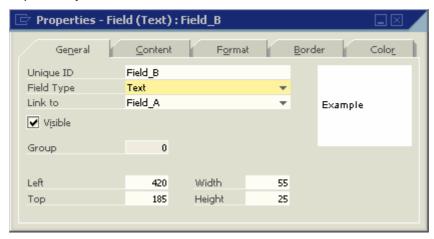
### **Example**

If field A is not visible, then field B should not be visible either. Therefore, a link should be created between A and B.

1. Create Field A:



2. Create Field B and link Field A to Field B so that Field B is dependent on Field A. This is a link dependency.



3. To display the fields that are dependent on Field A, select Field A and choose 🔠.

The system displays Field A with a green background color in Print Layout Designer, while Field B (the link-dependent field) is displayed with a white background color and a green border:





Field Index Field A Find Unique ID Type | Content Unique ID Field 048 T Total After Discount • 🖯 Object Settings - History:Standard Remarks 🔻 Field\_049 Field\_050 Discount Field\_051 Total Field\_052 Tax Field\_053 🎦 🔝 Tax Exempt Field\_054 🚵 🔝 Tax Liable Field 055 为 Total After Discount Sales Quotation: Remarks Field\_056 8 Sales Quotation: Tax Rate Field\_057 Field\_058 Sales Quotation: Discount % for Document Field\_059 Sales Quotation: Due Date Field\_060 Administration: Managing Director Field\_061 Θ Sales Quotation:Document Total  $\mathbf{T}$ Total LC Field\_062 T Field A Field\_A Field B • Field\_B Page Footer ₹

The dependency is highlighted in the same way in the Field Index window:

The system colors the *Type* column according to the dependency type.

Formula Dependancy

When dependency is shown, a legend also appears at the bottom of this window, displaying a rectangle for each color.

The legend disappears when dependent fields are hidden.

The system displays Formula dependent fields with a light green background color and a green border. In a recursive dependency, if at least one of the dependencies along the chain is a Formula Dependency, then the dependent fields are marked as Formula Dependent.

Link Dependency

- 4. To show dependencies of another field, select the field and choose again.
- 5. Choose to hide the dependency.

Selected Field

This icon is active only when dependencies are shown. The command de-highlights Field A and both fields revert to their original properties.



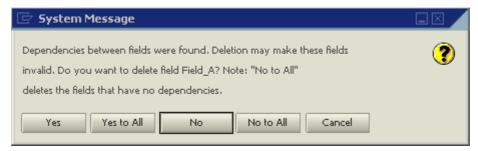
# **Deleting Fields**

## Use

When you attempt to delete a field or fields on which other fields depend, the system issues a warning message, asking you if you want to proceed with the deletion.

### **Example**

- 1. You have four text fields, A, B, C and D. Field B is dependent on Field A and Field D is dependent on Field C; therefore, Fields A and C have dependencies.
- 2. Select the four fields and press Delete.
- 3. The following warning message appears:



4. Choose the relevant option as described in the following table:

### **Options for Deleting Fields**

Option	Action
Yes	Deletes the first field with dependencies (Field A).
	The warning message reappears before the second field with dependencies (Field B) can be deleted.
Yes to All	Deletes all fields with dependencies (Field A and C) and without dependencies (Field B and Field D)
No	Default. Cancels the Delete operation for the first selected field with dependencies. (Field A). The window then reappears to issue the same warning message for the next field with dependencies (Field C).
No to All	Cancels the Delete operation for all fields with dependencies (Field A and Field C) but deletes the fields without dependencies (Field B and Field D).
Cancel	Cancels the entire Delete operation for all fields.



# **Defining Sorts**

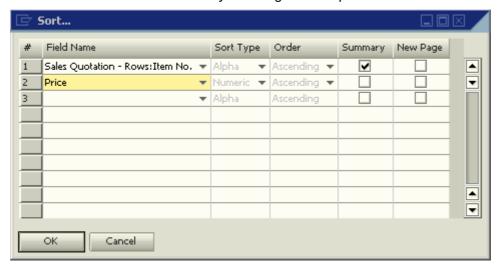
## Use

You can sort the printed table according to the data found in each repetitive area (including hidden fields).

### **Procedure**

To sort a certain table in a repetitive area:

- 1. Click the selected area.
- 2. From the menu bar choose *Print Layout Designer*  $\rightarrow$  *Repetitive Area*  $\rightarrow$  *Sort.*



3. Make selections as described in the following table:

#### Sort

Option	Action
Field Name	Select the sort field. The first field you select is the primary sort; the second field is the secondary sort, and so on.
Sort Type	Choose Alpha, Numeric, Currency or Date.
Order	Choose Ascending or Descending.
Summary	Choose to perform a summary for this sort. Selecting this box does not perform the actual summary, but indicates to the system to search for a sub-sort or a subtotal.
New Page	Select to move on to a new page after a summary or sort takes place.



# **Performing Sub-sorts and Subtotals**

## Use

You must create sorts in order to perform sub-sorts or subtotals. For example, sort the Items table in a sales quotation by the Item Number field and display a relevant title each time the item number changes. This is a sub-sort.

In addition, perform a sub-total displaying the cumulative quantity of each item. This can be used in documents containing multiple rows of the same item, displayed with a different description in each row.

### **Procedure**

After defining the sort, perform the following steps

- 1. From the menu bar choose *Print Layout Designer* → *Group*.
- Select a group number.
- 3. Select 1 for a sub-sort or sub-total for the primary sort, select 2 for the secondary sort and so on.

Each group is linked to its relevant row number in the Sort window described above. Thus, every field created in a certain group relates only to its group's corresponding row in the Sort window.

The Repetitive Area Header titles are now hidden as well as any field created in the Repetitive Area Footer. The reason is that these two areas are linked to groups. Each one of the groups has two areas of its own.

- 4. To define the sub-sort, do the following:
  - a. In the Repetitive Area Header assign a title for the required sort.
  - b. Create a new Formula field
  - c. Choose the Formula Editor button and select the operand SortValue() in the Operation field. This action will print the Items table divided into separate titles each time the Item number changes.
- 5. To define sub-totals do the following:
  - a. In the Repetitive Area Footer create a Formula field.
  - b. Choose the Formula Editor pushbutton and select the operand ColSum(UniqueID as String) in the Operation field (for the Quantity field from the rows in the Sales Quotation).

The field within the brackets defines the column for which a total will be calculated. You can also calculate totals for the Price and Total columns.

6. To save the changes choose on the toolbar.



# **Setting a Default Print Template**

### Use

For each new company, SAP Business One creates default print templates for each document and report type (according to the localization).

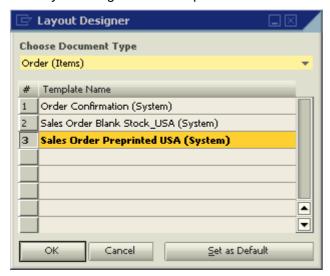
After creating your own user-defined templates, you can set them as default, so that each document is printed using the customized template.

#### **Procedure**

To set a print template as default:

- 1. Open the required document or report.
- 2. Choose If from the toolbar.

The Layout Designer window opens:



The document name displayed in bold letters is the current default print template.

In the above example, the template Sales Order Preprinted USA (System) is set as the default template for the document type Order (Items).

3. To set a different template as default, click the required document name once, and choose Set as Default.



The Default Template window appears:



- 4. Select one of the following:
  - o Set as Default for All Users

This option sets the selected template as default for all SAP Business One users.

 Set as Default for Current User This option sets the selected template as default only for the SAP Business One user who is currently logged on.

5. Choose *OK* to apply the selection.



Only a superuser can set a template as default for all users.



# **Setting a Default Print Template for Business Partners**

### Use

SAP Business One enables you to set specific print templates as default for selected business partners.

For example, you can set separate print templates in different languages for business partners according to their local language.



You can set default print templates for the following documents: sales & purchasing (Invoice, Delivery, and so on), payments (Incoming Payments, Outgoing Payments, and so on), Checks for Payment and Sales Opportunity.

## **Procedure**

To set a default print template for business partners:

1. Open a document and select a business partner.



An invoice in Italian would be appropriate for customers who speak Italian, for example, from Italy, Switzerland and New York.

2. Choose If from the toolbar.

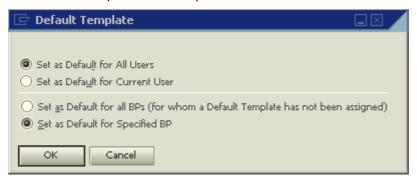
The Layout Designer window opens:



- 3. Click the required print template.
- 4. Choose Set as Default.



The Default Template window opens:



- 5. Select one of the following:
- Set as Default for All BPs (for whom a Default Template has not been assigned)

Choose this option to set the selected print template as default for all the business partners for whom no default template has been assigned yet.

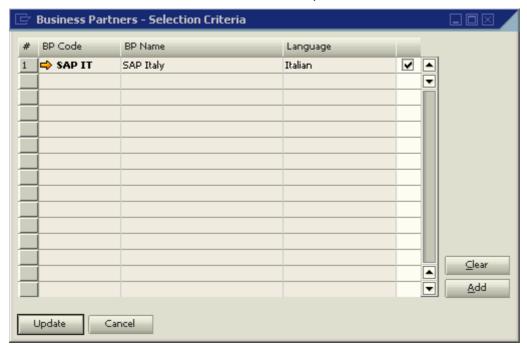
In the example described for Italian speaking customers, you should not select this option since you do not wish to print all your invoices in Italian.

Set as Default for Specified BP

Choose this option to set the selected print template as default for the business partner specified in the document.

6. Choose OK.

The Business Partner - Selection Criteria window opens:



The system displays the business partner specified in the document in this window.

7. To set the selected print template as default for this business partner, select the box next to the Language column and choose Update.



# **Setting a Print Template as Default for Several Business Partners**

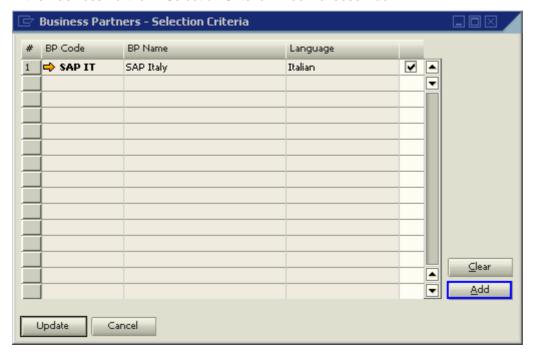
You can set a print template as default for several business partners using the Business Partner – Selection

## **Example**

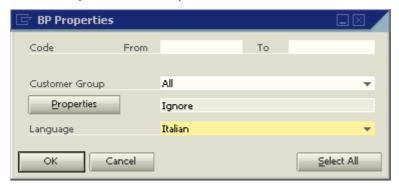
In this example you have several business partners who speak Italian and you decide to set a print template in Italian as default for all of them.

### **Procedure**

1. In the Business Partner - Selection Criteria window choose Add:



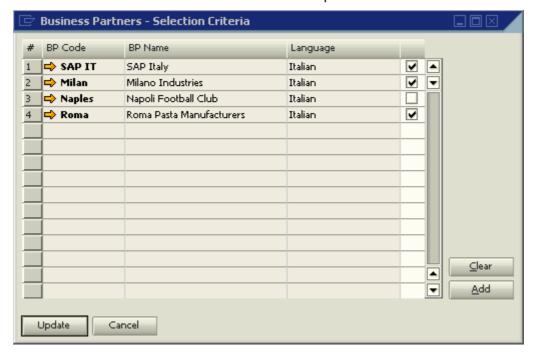
The BP Properties window opens:



- 2. Use the BP Properties window to select additional business partners according to their codes, groups, properties and language.
- 3. Choose OK.



The Business Partners - Selection Criteria window opens:



Select the boxes of all the Italian speaking business partners for whom you would like to set an invoice in Italian as the default print template.



To define a language for a business partner, choose *Business Partners* → *Business Partner* Master Data  $\rightarrow$  General tab  $\rightarrow$  Language.

5. Choose *Update* to confirm, or *Clear* to reset your selection.



## **Tips and Tricks**

## **Backing-Up Print Templates**

Save your print template under a new name each time you modify it. This helps in keeping backups of the user-defined templates, and allows you to return to a previous template in case the new one does not meet your requirements.



After you have made a change in a print template and saved it under a new name, you can set the new template as default, print the document and see if the modifications are as required.

## **Deleting Templates**

You can delete the backup templates at any stage.

To delete a template:

- 1. Open the required print template.
- 2. From the menu bar choose *Print Layout Designer* → *Delete Layout*.

# Printing the Ship To Address, Bill To fields

To display the fields Ship To or Bill To address in the print layout of a document, use the default values from the Business Partners table or from the document table (for example, Delivery).



When issuing the document, remember to select the Ship To address you want to print.

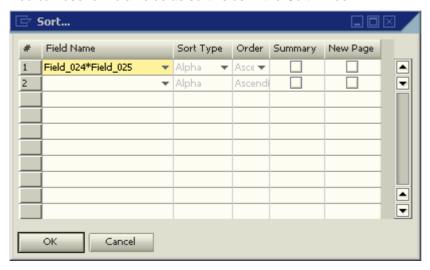
Do not use values from the Business Partners - Addresses table (CRD1). Connecting fields from this table will cause document printing to fail.

If you connect any field from a sub-table (for example, CRD1, 2 or 3) to a print layout, the document printing will fail.



## **Using Formula Fields as Sort Fields**

You can use formula fields as sort fields in the Sort window.

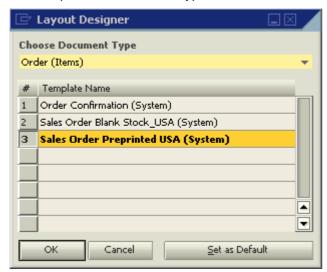


To use a formula field as a sort field:

- 1. Open the drop-down list in Field Name.
- 2. Select the required Formula field.

## **Multiple Predefined Print Templates (System)**

Some reports and document types have several SAP Business One default (System) templates.



The number of these predefined templates varies according to the document/report type and your localization.



## Saving a Layout as an Image

You can save documents and reports as graphic files (\*.jpg).

To save a document as a graphic file:

- 1. Display the required document, for example, a sales order.
- 2. From the menu bar choose File  $\rightarrow$  Print Preview. The system displays a preview of the printed document.
- 3. From the menu bar choose  $Goto \rightarrow Save$  as Image.





The system saves the file in the *Picture* folder defined in *Administration*  $\rightarrow$  *System Initialization*  $\rightarrow$  General Settings  $\rightarrow$  Path tab.

# **Cumulative Summary Field**

You can create a field for a cumulative summary of a selected field.

### **Example**

To create a cumulative quantity per row:

- 1. Create a new Formula field in the Repetitive Area.
- 2. Apply the operand ColSum(var) to the selected field.



## Increasing the Number of Printed Rows on each Page

To increase the number of printed rows:

- 1. From the Main Menu choose Administration → System Initialization → Print Preferences → General  $tab \rightarrow Max$ . Rows per Page.
- 2. From the Main Menu choose Administration → System Initialization → Print Preferences → General  $tab \rightarrow Print with Vertical Compression.$

All the rows in the document will be compressed according to this definition.

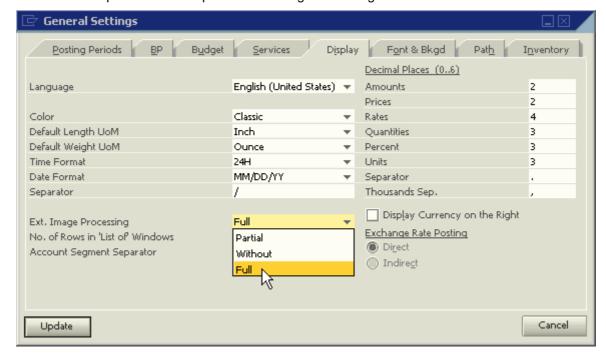
- 3. To extend the blank area, reduce the area above it.
- 4. To reduce the repetitive area, reduce the fonts, the fields (including hidden ones), and the entire area.

## **Printing Pictures in their Original Size**

To print pictures in their original size:

1. From the Main Menu choose Administration → System Initialization → General Settings → Display tab → Ext. Image Processing.

The Ext. Image Processing field sets the print style of your logo and pictures. The field is relevant when attached pictures are not printed according to their original size.



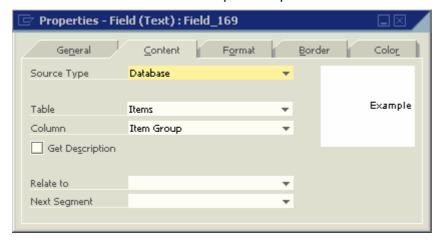
Select Full from the drop down list to enable a print style that sharpens the picture's printout and reduces the printout of a text-containing logo.



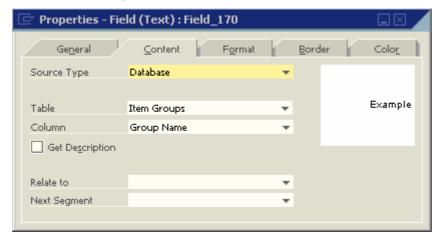
## **Printing the Manufacturer or Group Name**

To print the manufacturer or the Item Group name of an item or business partner:

- 1. Add a new hidden database field in the Repetitive Area.
- 2. In the Table field of the Properties window, select Items or Business Partner.
- 3. In the Column field select Item Group or Group Code.



Add another database field in the same area. You can now select the item or business partner group in Table; and Group Name in Column.



#### **Picture Formats**

You can use the following graphic formats:

- \*.bmp
- \*.gif
- \*.jpg.

The files must not be compressed.



## **Error Messages**

## "File name missing in data field"

The system displays this error message when you attempt to save a print template that contains a Database field with no values in the Table and Column fields.

#### File name missing in data field [Message 101-10]

The system highlights the relevant field in both the template and the Field Index window to indicate where the problem is.

You can remove or update the field.

### "Printing Error"

When the system generates error messages related to fields in the layout, the unique ID numbers of the field(s) causing the error are displayed as part of the message:

Printing Error: Field does not exist (RPT -6717) (Field: Field\_309)

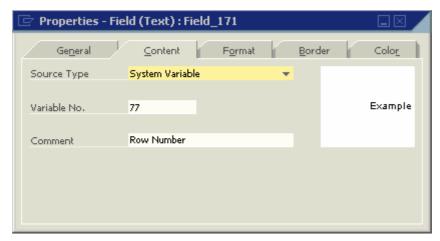


## **Maintaining the Original Display Order**

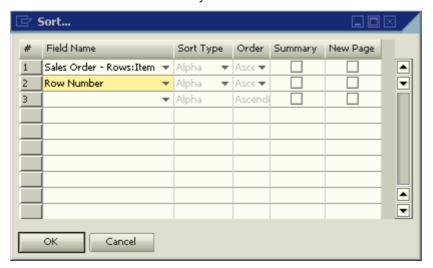
After creating subtotals and sub-sorts, you can determine that the items inside each sub-sort appear in their original order, as displayed in the document.

To maintain the original display order:

Create a hidden system variable field in the repetitive area containing the Row Number field from the document:



Define this field as the secondary sort in the Sort window:





## **Printing Using the Format "Page X of Y"**

To print page numbers in reports and documents in a "Page X of Y" format:

- 1. Create two formula fields using the following operands:
  - o CurrentPage()
  - o TotalPages()
- 2. Create two text fields containing the texts:
  - o Page
  - Of 0

## **Printing Query Parameters in User Reports**

You can create user reports for your user-defined queries.

If a query involves conditions, these will be printed in the report header.



A query retrieves all the business partners with a positive account balance and uses the condition "Balance > 0.00".

When you create a user report for this query, the condition you use in the query is printed in the report header.



# **Printing Additional Barcode Types**

### Use

With SAP Business One you can print the most widely used barcode types: EAN 13 and Code 39. In addition, you can print other barcode types by following the procedure below.

## **Prerequisites**

You have saved the required barcode font on your computer.



Barcode fonts can be obtained via the Internet.

### **Procedure**

- 1. To install the barcode font in the Microsoft Windows font library, from the Windows taskbar choose Start  $\rightarrow$  Control Panel  $\rightarrow$  Fonts.
- 2. From the menu bar choose File  $\rightarrow$  Install New Font..
- 3. Navigate to the required font and choose OK.
- 4. In SAP Business One, open the required print layout in Print Layout Designer, create a new field, and define it as Free Text or Database.
- 5. In the *Properties* window of the new field, choose the *Format* tab.
- 6. In the Font field, select the barcode font from the drop-down list.

### Result

When the document is printed, the content of the new field is printed as a barcode.



To also view the barcode when print previewing the layout and sending it via mail, make sure that the boxes Preview Printing Layout and E-Mail Layout are deselected in Document  $Properties \rightarrow Format$  tab.



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