



Module Word

Template Guide

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Introducion to Papirus

Papirus is a unique off-the-shelf software package providing comprehensive output management solutions for AS/400. Papirus offers on-line connectivity between AS/400 applications and MS-Office applications running under the Windows operating system on a personal computer. By integrating the organizational management and data processing capabilities of the AS/400 with the advanced graphic capabilities of the popular Microsoft Word processor, Papirus enables the organization to achieve a new level in documents quality.



Figure 1. Papirus output management

In addition to the improvements in printing capabilities, Papirus enables the routing of the reshaped documents to any of the PC network printers, sends them out by a fax or e-mail, and enables connectivity to other PC applications such as a computerized archive or the Internet.

A single Papirus server provides print management and formatting services for the entire organization. Alternatively, several Papirus servers can be used in parallel to increase the print throughput.

After definition of the formatting parameters for company documents, Papirus works behind the scenes and is transparent to the user.

The only variable elements are the company documents themselves, which are produced in a professional and attractive manner. This is done in the following way: an AS/400 application creates spool files, which are placed on the AS/400 output (print) queue. Papirus' AS/400 component captures these spools and attaches pre-defined formatting parameters (fonts, colors, tables, etc.) to create the final output documents. It then sends the spools with their formatting parameters from the AS/400 to Papirus' PC component. The PC component reformats the spool using MS-Word and sends the output document with its full graphic content to the desired output device.

Papirus can also convert spools into Excel spreadsheets. The Papirus Excel module is described in a separate user's manual.

Introduction to Template

Papirus Template module converts AS/400 spool files into formatted MS-Word documents. The creation of the Word documents is performed by integrating data from the spool into a Template document. The Template is a MS-Word document that includes settings such as page layout, fonts, AutoText entries, special formatting and styles. The Template determines the basic structure for the output document.

The conversion of spool files into Word documents is performed in eight steps:

- Step 1 : Displaying the spool file in order to plan the desired output document.
- Step 2 : Creating a Layout document that determins the spool's width and language code.
- Step 3 : Creating the Template document into which data from the spool is integrated.
- Step 4 : Assigning the layout and Template documents to the spool.
- Step 5 : Dividing the spool into logical areas and linking them to the Template.
- Step 6 : Replacing text from the spool with different text or objects.
- Step 7 : Assigning additional Template documents to the spool.
- Step 8 : Routing the spool to a desired output device.

Steps 6 is required only if the spool text needs to be replaced.

Step 7 is required only if the spool is very dynamic and has an undefined structure.

Each step is described in a separate chapter in this guide.

The work process is first described in a step-by-step summary at the beginning of each chapter, and then thoroughly explained throughout the chapter. The windows of the software are introduced in their order of appearance and illustrated by appropriate figures. The function keys and operation codes available in each window are described as well.

Step 1 - Displaying the spool file

The first step in turning an AS/400 spool into a MS-Word document is displaying the spool file. Being familiar with the structure of the spool file is required for the next steps.

Step-by-Step

- 1. Type PPS in the AS/400 command line prompt, and press Enter. Papirus' main menu appears.
- 2. Type 1 for Spool Process in the field 'Select' and press Enter.
- 3. Enter the name of an AS/400 user or output queue in which the spool file intended for formatting is stored.
- 4. Press F2 to confirm and open the list of spools, sorted by the selected user name or output queue.
- 5. Locate the desired spool in the list by pressing the **Page Down** and **PageUp** keys.
- 6. Type 5 next to the desired spool and press Enter.

Entering Papirus on the AS/400

Type **PPS** in the AS/400 command line prompt, and press **Enter**. The Papirus main menu appears.

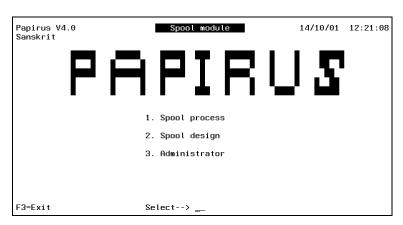


Figure 2. Papirus Main Menu

Type 1 for Spool Process in the field 'Select' and press **Enter**. The Spool Process window appears described below:

Spool Process Window

Purpose of the window

The Spool Process window directs Papirus to the AS/400 user or output queue in which the desired spool is stored.

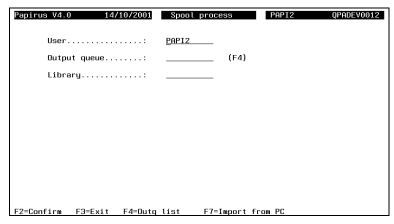


Figure 3. Spool Process Window

Function Keys

Function keys are located in the bottom of the window.

The following function keys are available:

- F2 Open a list of spools according to the defined criteria.
- F3 Exit window and return to Papirus' main menu.
- F4 Open a list of output queues. Active only when the cursor is located in the field 'Output queue'.
- F7 Import spool and formatting parameters from the PC (refer to Step 4 for further details).

Using the window

Direct Papirus to the AS/400 user or output queue in which the spool file intended for formatting is stored - $\,$

In order to enter a certain user, type the user name in the field 'User' (the default is the user's own name). Press **F2** to confirm and open the list of spools stored under this user, as described below.

In order to enter a certain output queue, type the output queue name in the field 'Output queue'. Press **F2** to confirm and open the list of spools stored under this output queue, as described below.

In order to select a desired output queue from a list, press F4 in the field 'Output queue'. The output queue list appears. Locate the desired queue by using the Page Up and Page Down keys. Type 1 next to it and press Enter to select it. Press F2 to confirm and open the list of spools stored under this output queue, as described below.

Note

The field 'Library' refers to the output queue listed above it. If this field remains blank, Papirus searches the output queue in the available libraries list.

Spool List Window

Purpose of the window

This window displays a list of spool files, sorted by the user name or output queue selected in the previous window. Two types of spool files may appear in the list: regular spools and highlighted spools. The highlight indicates that formatting parameters for this spool have already been defined. The formatting parameters for regular spools are yet to be defined.

1-Select 2-Ed	Spool it 5-Display 6		API2 -Expor	QPADEV t to PC	0012
Opt File	Job	Number	File Nbr	Spool Userdata	Pages
QSYSPPR	QPADEV0005	029409	1	MCT055P	2
QSYSPPR	QPADEV0005	029409	2	MCT055P	2
<pre>_ QSYSPPR</pre>	QPADEV0006	038383	1	hyeshuv	1
_ QSYSPRT	QPADEV0005	061317	1	LETTR4PRT	6
_ QPJOBLOG	QPADEV0010	066549	1	QPADEV0010	20
_ QPJOBLOG	QPADEV0004	066508	1	QPADEV0004	5
_ QPJOBLOG	QPADEV0004	066517	1	QPADEV0004	1
_ QPJOBLOG	QPADEV0009	066720	1	QPADEV0009	62
_ QSYSPPR	DSP16	002938	3	TURTLE1	1
_ QSYSPPR	DSP16	002938	4	moti	1
					lore
F3=Exit F12	=Cancel F17=	=Top F1	8=Bott	OM	

Figure 4. Spool List Window

This window enables:

Displaying the spool for initial planning purposes.

Modifying spool attributes.

Selecting a spool to be converted into a MS-Word document

Sending the spool by fax or e-mail using the Papirus built-in address book.

Sending a short text message to cellular phones (SMS).

Exporting spool and formatting parameters to the PC.

Function Keys

Function keys are located at the bottom of the window.

The following function keys are available from this window:

F3 - Exit and return to previous window.

F12 - Cancel and return to previous window.

F17 - View top of spool list.

F18 - View end of spool list.

Operation Codes

Several operation codes may be applied on each spool by typing their respective number in the field 'Opt' and pressing Enter:

- Send spool to MS-Word.
- 2 Change attributes of a spool file in the AS/400 system (CHGSPLFA).
- 5 Display spool on screen.
- 6 Merge several spools into one spool (that can be sent to Word).
- 7 Export spool and the formatting parameters to the PC (refer to Step 4).

Using the window

Locate the desired spool by scrolling through the list using the **Page Up** and **Page Down** keys. It is possible to jump to the top of the list by pressing **F17** or to the end by pressing **F18**.

Select the desired spool to display by typing 5 next to it, and press Enter.

The selected spool is displayed in the Display Spooled file window.

Display Spooled file Window

Purpose of the window

This window displays the spool file, allowing prior planning of the desired output document.

Papirus Template ______11

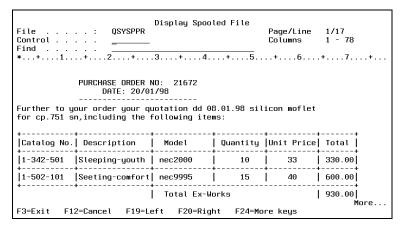


Figure 5. Display Spooled file Window

This is a standard AS/400 Display Spooled file window activated by the **dspsplf** command.

A ruler, indicating the column of each character in the spool, appears at the top of the window.

Function Keys

Function keys are located at the bottom of the window.

The following function keys are available from this window:

F3 - Exit and return to previous window.

F12 - Cancel and return to previous window.

F19 - Move left.

F20 - Move right.

Using the window

Use the ruler and the navigation keys to familiarize yourself with the spool file:

Determine what is the maximal width of the spool file.

Compare the structure of the different pages.

Decide which formatting to apply on each section of the spool.

Step 2 - Creating a layout document

The second step is creating a layout document (lydoc in short). The lydoc is a Word document serving as a baseline for the formatted output document. The lydoc is saved on the Papirus PC server, but provides two parameters regarding the spool file on the AS/400: its width and language code.

Once the layout document is complete, Papirus automatically reuses it to produce MS-Word documents.

Step-by-Step

- 1. Activate Microsoft Word on the Papirus PC server.
- 2. Open a new document.
- 3. Write the word "~line~" in the first line of the document.
- 4. Save the document in the library C:\Program Files\Papirus\forms, in DOT format, under the name lydoc###.
- 5. Close the document.

Creating the layout document

The layout document is created in MS-Word on the Papirus PC server.

Open a new document and write the word "~line~" in the first line of the document. This word will later be replaced by the spool text.

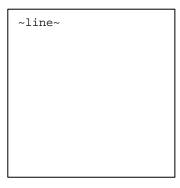


Figure 6. Layout document

Save the document in the forms directory on the Papirus PC server (default is: C:\Program Files\Papirus\Forms) in DOT format (document template).

The name of the document must consist of the word "Lydoc" followed by any three digits from 010 to 999. For example: Lydoc100.

Close the document and exit Microsoft Word.

Step 3 - Creating a Template document

The third step is creating a Template document. The Template is a Word document into which data from the spool file is integrated.

The Template determines the look of the output document: it includes document settings such as page layout, AutoText entries, fonts, special formatting and styles.

Each type of spool file intended to be printed by Papirus (invoice, packing list etc.) requires a separate Template document.

Once the Template document is complete, Papirus automatically reuses it to produce MS-Word documents.

Step by Step

- 1. Activate MS-Word on the Papirus PC server.
- 2. Open a new document.
- 3. Apply desired page layout and margins settings, according to the spool width.
- 4. Leave the first line of the document blank.
- 5. Enter the constant text, which does not change from one spool to another.
- 6. Enter variables with the sign '~' before and after, instead of actual spool data.
- 7. Add headers and footers, AutoText and other desired features supported by MS-Word (optional).
- 8. Save the document in DOT format in the library C:\Program Files\Papirus forms.
- 9. Print the document and close it.

Planning the Template document

The Template is a Word document into which data from the spool file is integrated. In order to plan the Template document, you must first analyze the structure of the spool file.

Examine the following example of a spool file:

Attn: Alain Schmidt, Mead Packaging Europe Al.Du Bourb 5 Maurepas Cedex 78312 France Tel: (331)305-7264 Fax: (331)306-7019 PURCHASE ORDER NO: 21672 **DATE:** 20/01/98 Further to your order your quotation dd 08.01.98 silicon moflet for cp.751 sn, including the following items: |Catalog No. | Description | Model | Quantity | Unit Price | Total | |1-342-501 |Sleeping-youth | nec2000 10 33 330.00 |1-502-101 |Seating-comfort | nec9995 | 15 | 600.00| | 157.00| Shipping |1087.00| Grand Total

Figure 7. Spool File

This spool includes constant text and variable data.

The words "Attn:", "Purchase order no:" and "Date:" for example are constant, whereas the name "Alain Schmidt", the number "21672" and date "20/01/98" are different in every spool.

The distinction between constants and variables in the spool is the key to creating Template documents. The constant text is written directly in the Template document in MS-Word, while the data is taken from the spool. Still, the Template determines the formatting of the data and its position on the page. This is achieved by placing variables in the Template document. The variables will later be replaced by the actual data from the spool, which inherits their formatting and their location on the page.

Creating the Template document

The Template document is created in MS-Word on the Papirus PC server.

Open a new document and apply the desired page layout and margin settings. If the spool is wide, consider using a landscape page setup.

Leave the first line of the document blank, then enter all the constant text, which does not change from one spool to another. You can place the text anywhere on the page and format it in any font, size or color. This text will appear in all output documents created by Papirus from this type of spool files.

Attn:

PURCHASE ORDER NO:
DATE:

Figure 8. Constant Text in the Template document

Add variables in all the desired positions on the page, instead of actual spool data. Every section of the spool, on which you would like to apply a different formatting, must be represented by a separate variable. Variables are strings of text with the sign '~' before and after. For example: ~name~. Almost every combination of letters and digits can be used as a variable, as long as it is written between two ~ signs and does not include blanks. Only the word ~line~ cannot be used as a variable because it is reserved for the Layout document.

Attn: ~name~
~address~

PURCHASE ORDER NO: ~orderno~
DATE: ~date~

Figure 9. Constant Text and variables in the Template document

It is highly recommended to write the variables in transparent tables, even for non-tabular data, because it keeps the resulting document in order.

If the spool data is suppose to be bold and underlined in the output document, for example, apply this desired formatting on the variable: <u>~name~</u>.

As you addg the variables into the Template document, make sure the entire variable (name and ~ signs) is written in the same font and size.

If a certain section of the spool is suppose to appear several times in the output document, place the corresponding variable in several locations in the Template.

Headers and footers, AutoText, WordArt, images and other features supported by MS-Word may also be added to the Template document (see examples in the following pages).

Creating a Template for tabular spool areas

Spool files often include tables, which have an unknown number of rows.

In order to create the Template for such a spool area, add a table with two rows: one with the headers and the other with variables for the data. If the spool table also includes a total, add a third row to your Template table.

Catalog No.	Description	Model	Quantity	Unit Price	Total
~catalno~	~desc~	~model~	~amnt~	~unitprice~	~total~
		Shipping			~ship~
		Grand To	tal		~gtotal~

Figure 10. Template for a tabular spool area

The one row of variables will be duplicated for each line of table data transferred from the spool.

Note

The entire row is duplicated, even if just one column contains data. Don't place two variables in the same row, if one represents a single spool line and the other several spool lines.

Saving the Template document

Save the Template document in the forms directory on the Papirus PC server (default is: C:\Program Files\Papirus\Forms), in DOT format (document template). Any name up to 20 characters may be chosen.

Printing the Template document

Print the document. Make sure you can print it without any dialog box appearing (for example: a dialog box saying the margins are out of range). The printout will be useful later on.



Turtle Furniture Production, Buffalo, NY 14616

Tel: 718-6564444, #

Fax: 718-6563333

Attn: ~name~ ~address~

PURCHASE ORDER NO: ~orderno~

DATE: ~date~

~abovetable~

Catalog No.	Description	Model	Quantity	Unit Price	Total
~catalno~	~desc~	~model~	~amnt~	~unitprice ~	~total~
		Shipping			~ship~
		Grand Total	•		~gtotal~

~conditions~

Please confirm and advise shipping details

~signature~

Figure 11. Typical Template document



Turtle Furniture Production, Buffalo, NY 14616

T Tel: 718-6564444,

Æ

Fax: 718-6563333

Attn: Alain Schmidt Mead Packaging Europe Al.Du Bourb 5 Maurepas Cedex 78312 France

PURCHASE ORDER NO: 21672

DATE: 20/01/98

Further to your order your quotation dd 08.01.98 silicon moflet for cp.751 sn, including the following items:

Catalog No.	Description	Model	Quantity	Unit Price	Total
	Sleeping-youth	ALTERNATIVE STATES			330.00
1-502-101	Seating-comfort				600.00
		Shipping			157.00
		Grand Tota	al		1087.00

- 1. Delivery: by airfreight with Fritz companies
- 2. Original invoice must be attached to the airwaybil
- 3. Terms of payment: cash against document
- 4. Through: City Bank, NY branch

Please confirm and advise shipping details



Figure 12. Possible output document

Step 4 – Assigning Lydoc and Template to the spool

The fourth step is connecting the lydoc and Template document, created in the previous steps, to the spool file. This connection is called a design.

The design links every section of the spool to its corresponding variable in the Template. The design also routes the spool to a desired output device.

Once the design is complete, Papirus automatically reuses it to produce MS-Word documents.

Step-by-Step

- 1. Type **PPS** in the AS/400 command line prompt, and press **Enter**.
- 2. Type 2 for Spool Design in the field 'Select' and press Enter. The Design Table window appears.
- 3. Press **F6** to create a new design.
- 4. Fill in the name of the design in the field 'DesignID'. The design ID must be identical to the spool userdata.
- 5. Fill in a description for the design in the field 'Description'.
- 6. Press F4 in the field 'Layout document' to display a list of layout documents.
- 7. Press F8 to retrieve new lydocs from the Papirus PC server and F5 to refresh the list.
- 8. Type 1 next to the desired layout document and press Enter.
- 9. Fill in a description for the lydoc in the field 'Description'.
- 10. Fill in the language code of the spool in the field 'RTL Language'.
- 11. Fill in the width of the spool in the field 'Width'.
- 12. Press F2 to confirm.
- 13. Type 1 next to the desired layout document and press Enter.
- 14. Fill in all the additional design parameters (optional).
- 15. Assign a test spool to the design by pressing **F9** (optional).
- 16. Press F2 to update design definitions.
- 17. Locate the design in the Design table window.
- 18. Type 2 next to the design and press Enter.

- 19. Press F7 to assign a Template document to the design.
- 20. Delete the definition of the layout document by pressing 4 and Enter.
- 21. Press **F6** to define a new Template document.
- 22. Fill in the desired sequence number for the Template in the field 'Template seq.'.
- 23. Fill in a description for the Template in the field 'Description'.
- 24. Fill in the name of the Template document, without the DOT extension, in the field' Word document'.
- 25. Enter 'Y' in the field 'Package'.
- 26. Select the desired option in the field 'Merge next page mode'.
- 27. Select the desired option in the field 'Template usage mode'.
- 28. Press F2 to save the definition.
- 29. Press **F3** to return to the Design definition window.
- 30. Press **F2** to confirm.

Entering Papirus on the AS/400

Type **PPS** in the AS/400 command line prompt, and press **Enter**. The Papirus main menu appears.

Type **2** for Spool Design in the field 'Select' and press **Enter**. The Design Table window appears, as described below.

Design Table Window

Purpose of the window

This window enables management of all the designs that exist in the Papirus system. The first time the design table is accessed, it contains only the default and sample designs supplied with the system.

Note

The default designs are "empty" and do not contain any formatting attributes.

When they are selected, the Papirus output is identical to that of the original spool file.

The following operations may be performed from this window:

Create, update, copy and delete designs.

Load and save designs into/from AS/400 files.

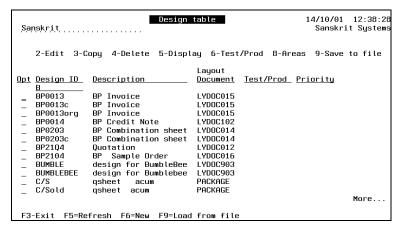


Figure 13. Design Table Window

Function Keys

Function keys are located in the bottom of the window.

The following function keys are available:

F3 - Exit window and return to previous window.

F5 - Refresh list.

F6 - Create a new design.

F9 - Load design from AS/400 file.

Fields

The following fields appear in the window:

Opt - Operation code to be applied on a design. This field is filled in by the user.

 $Design \ ID \qquad \qquad - \quad Name \ of \ the \ design, \ must \ be \ identical \ to \ the \ spool \ userdata.$

Description - Free text describing the design.

Layout document - Name of the Layout document assigned to the design.

Test/Prod - Status of the design: Test / Production.

Priority - Processing priority for the design in the data queue.

Operation Codes

Several operation codes may be applied on each design by typing their respective number in the field 'Opt' and pressing Enter:

- Edit design definitions.
- 3 Duplicate design.
- 4 Delete design. Press F2 in the dialog box that opens to confirm deleting.
- 5 Display design definitions.
- 8 Enter the Areas table allocated to the design.
- 9 Save the design into an AS/400 file.

Using the window

Press **F6** in order to create a new spool design. The Design Definition window appears, as described below.

Design Definition Window

The Design Definition window appears after pressing **F6** in the design table window. It is also accessed from the Design Table window by pressing **2** and **Enter** next to an existing design.

Purpose of the window

The following operations may be performed from this window:

Assigning a Layout document to the spool.

Assigning a Template document to the spool.

Routing the spool to a desired output device.

Assigning a test spool to the design.

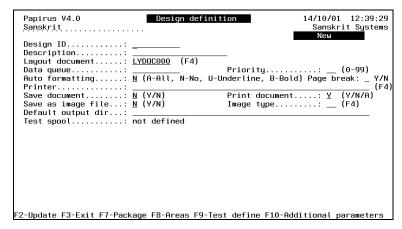


Figure 14. Design Definition Window

Function Keys

Function keys are located in the bottom of the window.

The following function keys are available in the window:

F2 - Save definitions and return to previous window.

F3 - Return to previous window without saving definitions.

F4 - Display a list of available Layout documents. Active only when the cursor is located in the field 'Layout document'.

F7 - Enter the Template table window.

F8 - Enter the Area Table window.

F9 - Assign a test spool to the design.

F10 - Display additional fields.

Fields

The following fields appear in the window and may be filled in:

Design ID Name of the design. This field is required.

Description Free text describing the design. This field is required.

Layout document Name of the Layout document assigned to the design. This field is required.

Data queue Name of the queue, through which to transfer data from the AS/400 to the

Papirus PC server.

Priority Spool priority in the data queue, which determines the order of processing by

tha DC

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the PC.

Auto formatting Whether to reproduce formatting attributes set on the AS/400.

Page break Whether to preserve the current page breaks of the spool.

Printer Name of the printer with which to print the output document.

Save document Whether to automatically save the output document in DOC format.

Print document Whether to automatically print the output document.

Save as image file Whether to automatically save the output document in a graphic format.

Image type Desired graphic format for the output document.

Default output dir Desired path on the PC in which to save output documents.

Test spool Spool sample used to test the design.

Additional Fields (appear after pressing F10)

Delete spool file Whether to delete the spool file from the AS/400 out queue after printing.

Change spool file Whether to change spool attributes in the AS/400 out queue after printing.

Document password Desired password for email attachments sent by Papirus.

Translation table Whether to replace a character from the spool file with a different character.

Using the window

Fill in the new design name in the field 'DesignID'. The design ID must be identical to the spool userdata (the spool userdata is one of the fields characterizing the spool on the AS/400 computer, usually the name of the program that the spool has created).

Fill in a description for the design in the field 'Description'. This description can help you identify the design in the design table.

Locate the cursor in the field 'Layout document' and press **F4** to open the Layout Document Table. The layout document defines the language code and the width of the spool.

The Layout Document Table window

Purpose of the window

This window is used to assign a layout document to the design.

```
Layout document table
                                              14/10/01 12:51:15
Sanskrit
1-Select
                                               Sanskrit Systems
                2-Edit 5-Display
   Layout
   <u>Document</u> <u>Description</u>
                                                        Rtl Width
   LYDOC001
             80 CHAR English (Portrait)
                                                              81
   LYDOC002 132 CHAR English (Landscape)
                                                             132
   LYDOC003 198 CHAR English (Landscape)
                                                             198
   LYDOC004 80 characters
                                                              80
   LYDOC005 132 CHAR (Landscape)
                                                             132
   LYDOC006 HEBREW 198
                                                             198
   LYDOC007 ENG 80
                                                              81
   LYDOC008 A4 page
                                                              80
   LYDOC009 198 CHAR LTR Heb/Eng (Landscape)
                                                             198
   LYDOC013 200 characters (landscape)
                                                             200
   LYDOC014 170 characters
                                                             170
                                                          More..
  F3=Exit F5=Refrsh F8=Retrieve from PC
```

Figure 15. Layout Document Table Window

Each name appearing in this table represents a corresponding layout document by the same name. The real layout documents are saved in the folder C:\Program Files\Papirus\Forms on the Papirus PC server.

Function Keys

Function keys are located in the bottom of the window.

The following function keys are available from the window:

- F3 Exit window and return to previous window.
- F5 Refresh list.
- F8 Retrieve new layout documents from the Papirus PC server.

Operation Codes

Several operation codes may be applied on each layout document by typing their respective number in the field 'Opt' and pressing Enter:

- 1 Select a layout document to be assigned to the design.
- 2 Edit Layout Document Parameters.
- 5 Display Layout Document Parameters.

Using the window

Press **F8** to retrieve the names of any new layout documents from the Papirus PC server. Only documents with the name 'lydoc###' from the folder C:\Program Files\Papirus\Forms, are retrieved.

Note

In order to perform this operation, the Papirus PC server must be running.

Wait for the completion of the operation, then press **F5** to refresh the list.

Locate the layout document created in step 2, type 1 next to it and press **Enter** to select it. You may also select a layout document from the default set (lydoc001- lydoc010). A default lydoc should be selected according to the spool width and language.

If it is a new layout document, the Layout document parameters window appears.

The Layout document window

The Layout document window appears after selecting a new layout document from the Layout document table window. It is also accessed from the Layout document table window by pressing 2 and **Enter** next to an existing layout document.

Purpose of the window

This window is used to define the spool width and language code.

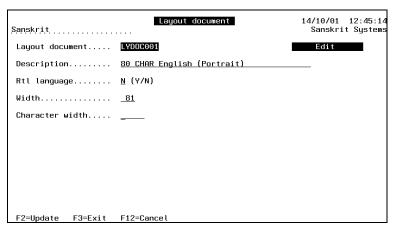


Figure 16. Layout Document Parameters Window

Function Keys

Function keys are located in the bottom of the window.

The following function keys are available in the window:

F2 – Update and exit window.

F3/F12 – Exit and return to previous window without saving.

Fields

The following fields are available from the Layout Document window:

Layout document Name of the layout document, automatically filled in by the system.

Description Free text describing the layout document.

Rtl Language Spool language code.

Width Number of characters in one line of the spool file.

Character width Estimated width in twips of one character in the output document.

Using the window

Fill in a description for the lydoc in the field 'Description'. This description can help you identify the lydoc in the lydoc table.

Fill in the language code of the spool in the field 'RTL Language'. Enter Y for a Right to left language, or N for a Left to right language.

Fill in the width of the spool in the field 'Width'. The width is represented by the maximal number of characters in one line of the spool, and can be determined in the Display spooled file window (refer to Step 1).

Leave the field 'Character width' blank. The character width is the estimated width in twips of one character in the output document. This field is meaningless to a Template based design and can remain blank.

Press **F2** to save the changes and return to the Layout document table.

Locate the layout document you have just defined, type 1 next to it, and press **Enter** to select it and return to the Design definition window.

Continue using the Design definition window

The rest of the fields in the window are optional. If they remain blank, the default settings are used.

Fill in the name of the desired data queue, through which to transfer spool data from the AS/400 to the PC, in the field 'Data queue'. This field should be used only when the Papirus software is running on

several PC servers in parallel, each monitoring a different queue. Default option is to automatically send the spool data to a dataq called PAPI1.

Fill in the desired design priority in the field 'Priority'. Designs with the highest priority (priority 0) are processed first by the Papirus PC server. Designs of the same priority are processed according to their arrival order to the data queue.

Enter N in the field 'Auto Formatting' in order to ignore the formatting attributes set on the AS/400. Only when using ruler based designs, Papirus can re-produce Bold and Underline formatting, set on the AS/400 by repeated printing on the same line (also known as printing by ASA code). Default option is N

Choose whether to preserve the current page breaks of the spool in the field 'Page Break'. Enter Y to preserve the current page breaks of the spool. Enter N to ignore page breaks in the spool file. Default option is Y.

Locate the cursor in the field 'Printer' in order to route the output document to one desired printer. Press **F4** to display a list of available printers. Only printers, which have been previously defined on the Papirus PC server, appear in the list (refer to Papirus Word User's Guide for further details). Locate the desired printer in the list, type **1** next to it and press **Enter**. If the output document is suppose to be printed by several different printers, leave this field blank and refer Step 8 for further details.

Choose whether to automatically save the output document in DOC format in the field 'Save document'. Enter Y to save the output document. The file name will be assigned automatically with a serial number. Enter N not to save the output document. Default option is N.

Choose whether to automatically print the output document in the field 'Print document'. Enter Y to automatically print the output document. Enter N not to print the output document. Default option is Y.

Choose whether to automatically save the output document in a graphic format in the field 'Save as image file'. Enter Y to automatically save the output document in a graphic format (the format is determined in the next field). Enter N not to save the output document in a graphic format. Default option is N.

Locate the cursor in the field 'Image type' and press **F4** to display a list of available graphic formats. Select the desired graphic format for the output document by typing 1 next to it and pressing **Enter**.

Note

It is possible to save output documents in graphic formats only if Papirus' Image module has been purchased.

Enter the full path of the desired PC folder, in which to save output documents, in the field 'Default output dir'. The desired path, whether local or network, must first be recognized by Windows on the Papirus PC server. Default path is C:\Program Files\Papirus\Output on the Papirus PC server.

Press **F10** to display additional fields.

Choose whether to delete the spool from the AS/400 output queue in the field 'Delete spool file'. Enter Y to delete the spool file from the output queue after printing. Enter N to keep the spool file in the output queue after printing. Enter S to keep the spool file in the output queue only if its status was set to *SAVE. Default option is N.

Choose whether to change spool attributes in the AS/400 output queue in the field 'Change spool file'. Enter H to hold the spool in the output queue after printing. Enter F to set the spool's Formtype to "*PAPIRUS" after printing. Enter N not to change spool attributes in the outq. Default option is N.

Fill in the desired password for email attachments in the field 'Password'. By default, all email attachments sent by Papirus are Read-Only documents. In order to modify the attachment, a password must be entered in MS-Word. Default password for all email attachments sent by Papirus is "777". Enter a * sign to send email attachments unprotected.

Note

It is possible to send spool files as email attachments only if Papirus' Email module has been purchased.

Choose whether to replace a character from the spool file with a different desired character in the field 'Translation Table'. Enter the original character in the field "From:" and the desired character below it in the field "To:".

Assign a test spool to the design, as described below:

Test spool

Each design can be assigned a test spool, on which formatting definitions are applied.

The test spool provides two advantages: 1) Immediate feedback on design results: When a test spool is defined, it is possible to automatically activate Microsoft Word Viewer on the Papirus PC server, displaying the output Word document. 2) Detection of wrong parameters entered during the process of linking Template variables to spool data (refer to step 5 for further details).

Assigning a test spool to the design

Press **F9** from the Design definition window to open the Select test Spool window.

Direct Papirus to the AS/400 user or output queue in which the desired spool file is stored and press **F2** to confirm.

Locate the desired spool by scrolling through the list using the **Page Up** and **Page Down** keys. It is possible to jump to the top of the list by pressing **F17** and to the bottom by pressing **F18**.

Select the desired spool by typing 1 next to it, and press Enter.

Note that the status of the field 'Test spool' in the design definition window is now "defined".

Continue using the Design definition window

Press F2 to save the new design definitions and return to the Design Table window.

Locate the design in the Design Table Window, type 2 next to it and press **Enter** to reopen the design definition window.

Press **F7** to assign the Template document, created in step 3, to the design. The Template table window appears, as described below.

The Template table window

Purpose of the window

This window is used to assign Template documents to the design.

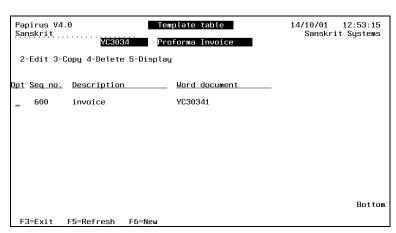


Figure 17. Template Table Window

Function Keys

Function keys appear in the bottom of the screen.

The following function keys are available from the window:

F3 - Return to previous window.

F5 - Refresh list

F6 - Assign a new Template document to the design.

Fields

The following fields appear in the window:

Opt. Operation code to be applied on a Template document.

Template seq. Number of the Template document in the package ranging from 001 to 999.

Description Free text describing the Template document.

Word document Name of the Template document.

Operation Codes

Several operation codes may be applied on each Template document by typing their respective number in the field 'Opt' and pressing Enter:

2 – Open the Template definitions for editing.

3 – Duplicate Template definitions.

4 – Delete Temp late definitions. Press F2 in the dialog box that opens to confirm deleting.

5 – Display Template definitions.

Using the window

When you first enter this window, only the layout document appears in the table. Delete it by typing 4 in the Opt. field and pressing **Enter**.

Press **F6** in order to assign a new Template document to the design. The Template definition window appears, as described bellow:

The Template definition window

Purpose of the window

This window is used to define the manner of applying the Template document on the spool file.

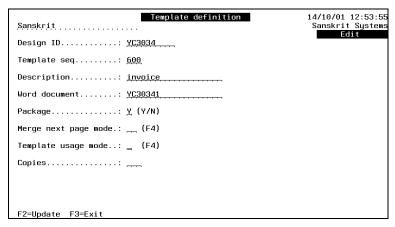


Figure 18. Template Definition Window

Function Keys

Function keys are located in the bottom of the window.

The following function keys are available in the window:

F2 – Update and exit window.

F3 – Exit and return to previous window without saving.

Fields

The following fields appear in the window:

Design ID Name of the design, automatically filled in by the system.

Template seq. Number of the template document in the package ranging from 001 to 999.

Description Free text describing the Template document.

Word document Name of the Template document.

Package Whether to always use this Template in the creation of the output document.

Merge next page mode Manner of merging the pages of the output document.

Template usage mode Manner of applying the Template document on the spool pages.

Copies Not in use.

Using the window

Fill in the Template sequence number in the field 'Template seq'. The sequence number determines the order in which the Templates are used during the creation of the output document. At this step the design is based only on one Template document, therefore simply enter any 3 digits number (refer to step 7 for further details).

Fill in a short description of the Template document in the field 'Description'. This description can help you identify the Template in the Template table.

Fill in the name of the Template, without the DOT extension, in the field 'Word document'.

Select whether to use the Template during the creation of the output document in the field 'Package'. Enter 'Y' to use the Template. Enter 'N' to ignore the Template (refer to step 7 for further details).

Locate the cursor in the field 'Merge next page mode' in order to select the manner of merging the pages of the output document. Press **F4** to display a list of available merging modes.

Select option '00' to merge with a page break between. In this mode each page of the output document stands by itself.

Select option '01' to merge without any spacing. In this mode the pages of the output document are combined without any spaces.

Select option '02' to merge with one separating line. In this mode the page breaks of the output document are replaced with one separating line. Default option is 00.

The three merging modes are illustrated in the following figure:

With a page break between

Turtle Furniture Production Order no. 193776			
Item	Qty	Unit Price	
Sleeping-youth	10	33	
Sleeping-comfort	15	40	

Turtle Fu	urniture	Production
Item	Qty	Unit Price
Sleeping-king	5	50
Sleeping-queen	5	45
	-	5

Item	Qty	Unit Price
Sleeping-baby	5	30

With no spacing

Turtle Furniture Production			
<u>Order</u>	no. 1937	<u>76</u>	
Item	Qty	Unit Price	
Sleeping-youth	10	33	
Sleeping-comfort	15	40	
Item	Qty	Unit Price	
Sleeping-king	5	50	
Sleeping-queen	5	45	
Item	Qty	Unit Price	
Sleeping-baby	5	30	
Please refer to our order number in all the shipping documents and invoice			

With one spacing line

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Turtle Furniture Production Order no. 193776				
Item	Qty	Unit Price		
Sleeping-youth	10	33		
Sleeping-comfort	15	40		
Item	Qty	Unit Price		
Sleeping-king	5	50		
Sleeping-queen	5	45		
Item	Qty	Unit Price		
Sleeping-baby	5	30		
Please refer to our or shipping documents				

Tioure	10	Merge next nage mode

Locate the cursor in the field 'Template usage mode' in order to select the manner of applying the Template document on the spool. Press **F4** to display a list of available usage modes.

Select option '0' to reuse the Template for each of the spool pages. In this mode Papirus integrates every spool page into a separate Template page. This mode was designed for spool files in which all pages have the same format.

This usage mode is illustrated in the following figure:

Spool file Template document Output document

Invoice no	. 57576	5
Item	Qty	Unit Price
Sleeping-youth	10	33
Seating-comfort	15	40
Total	[· · · · ·	930

Turtle Furniture Production		
Invoice no. ~no~		
Item	Qty	Unit Price
~item~	~qty~	~price~
Total	~total~	

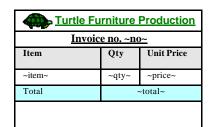
Turtle Furniture Production			
<u>Invoice no. 575765</u>			
Item	Qty	Unit Price	
Sleeping-youth	10	33	
Seating-comfort	15	40	
Total	930		

Invoice no	. 57576 	5
Item	Qty	Unit Price
Sleeping-king	10	50
Sleeping-queen	10	45
Total	اِ	950

Turtle Furniture Production			
Invoice no. ~no~			
Item	Qty	Unit Price	
~item~	~qty~	~price~	
Total		~total~	

~ E7E7			
<u>Invoice no. 575765</u>			
Qty	Unit Price		
10	50		
10	45		
950			
	10		

Invoice no. 575765		
Item	Qty	Unit
		Price
Sleeping-baby	10	50
Seating-deluxe	10	100
Total	1	.500

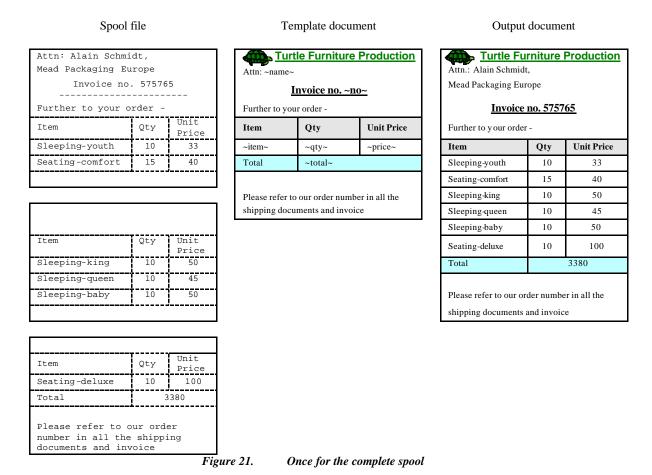


Turtle Furniture Production			
<u>Invoice no. 575765</u>			
Item	Qty	Unit Price	
Sleeping-baby	10	50	
Seating-deluxe	10	100	
Total	1500		

Figure 20. Reuse for each of spool pages

Select option '1' to use the Template once for the complete spool. In this mode Papirus integrates all the spool pages into one Template page. This mode was designed for spool files in which every page continues the previous page.

This usage mode is illustrated in the following figure:



Select option '2' not to use the template at all. In this mode Papirus does not use the Template to create the output document until instructed otherwise. This usage mode was designed for dynamic spool files, which their format is different in every version of the spool (refer to step 7 for further details). Select option '3' to use the Template as is. In this mode Papirus uses the Template to create the output document, but does not integrate spool data into it. This usage mode was designed for Templates containing only constant text, which suppose to be added to the output document in a fixed position. For example: a Template containing constant general terms, which should be added as a prefix at the end of the output document.

Default option is '0'.

Press F2 to save the Template definitions and return to the Template table window.

Press **F3** to return to the Design Definition window.

Continue using the Design definition window

Press F2 to update the design definitions.

Saving/Loading designs from PC file

This option enables to export Papirus designs to PC files for backup purposes or for transferring designs between AS/400 systems. The files are created on the Papirus PC server in the remote directory (default is C:\Program Files\Papirus\Remote) in PPW format. This file format includes a spool sample and its design definitions.

Exporting spool and design to a PPW file

Activate Papirus' PC component (refer to Papirus Word User's Guide for further details).

Enter the Spool List window (refer to Step 1) and locate the desired spool in the list.

Type 7 next to it and press **Enter** to save the design into a PPW file.

The 'Export to PC' window appears. Fill in the desired file name, without the ppw extension, in the field 'PC file name'.

Press **F2** to execute.

Note

The PPW file may be sent by email to be examined by Sanskrit's Technical Support Team.

It is recommended to compress the file in Winzip before sending, in order to protect it.

Loading spool and design from a PPW file

Activate Papirus' PC component (refer to Papirus Word User's Guide for further details). Save the file in the remote directory on the Papirus PC server (default is C:\Program Files\Papirus\Remote).

Enter the Spool process window (refer Step 1) and press F7 to load a design from a ppw file.

The 'Import from PC' window appears.

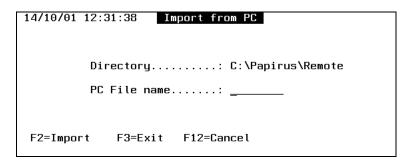


Figure 22. Import from PC window

Fill in the file name, without the ppw extension, in the field 'PC file name'.

Press **F2** to execute.

Saving/Loading designs from AS/400 files

This option enables to export Papirus designs to AS/400 files for backup purposes or for copying designs from one AS/400 computer to another.

Saving a design to an AS/400 file

Enter the Design table window and locate the desired design in the list.

Type 9 next to it and press **Enter** to save the design into a file.

The 'Save to file' window appears. Fill in the desired file name in the field 'file name' and the desired library in the field 'library'.

Press **F2** to execute.

Loading a design from an AS/400 file

Enter the Design table window and press F9 to load a design from a file.

The 'Load from file' window appears.

Load from file
Load design from file :
File name
Library
F2=Load F3=Exit F12=Cancel

Figure 23. Load from file window

Fill in the file name in the field 'file name' and the library name in the field 'library'.

Press F2 to execute.

Protecting the design

All designs in the Design table are in either Test mode or Production mode. Designs in Test mode can be changed or deleted. Designs in Production mode are Read-Only designs that cannot be changed or deleted.

By default all designs are created in Test mode.

It is possible to protect a certain design by changing its mode to Production. While in Production mode, the design cannot be changed or deleted, even if the respective operation code is typed.

Changing Design status

Enter the Design table window and locate the desired design in the list.

If the field 'Test/Prod' is blank, the design is in Test mode and can be edited.

If the word "Production" appears in the field 'Test/Prod', the design is in Production mode and cannot be edited.

In order to change a design's mode, type 6 next to the desired design and press **Enter**.

Step 5 - linking variables to spool data

The fifth step is linking variables in the Template to data from the spool, so the data will replace the variables and appear in the output document. The linking of variables to data is part of the spool design. In order to link variables to data, the spool must be logically divided into separate areas. Then each area is linked to the corresponding variable in the Template document. Spool areas are linked to Template variables through a ruler.

Step-by-Step

- 1. Type **PPS** in the AS/400 command line prompt, and press **Enter**.
- 2. Type 2 for Spool Design in the field 'Select' and press Enter.
- 3. Locate the relevant design in the list.
- 4. Type 8 next to it and press Enter. The Area Table window appears.
- 5. Press **F6** to define a new area.
- 6. Fill in a description for the area in the field 'Description' (optional).
- 7. Fill in a unique start indicator, whether text or wild-card signs, in the field 'Text'.
- 8. Fill in the position of the start indicator in the field 'Col'.
- 9. Locate the cursor in the field 'Length' and press Enter.
- 10. Fill in the offset downward from the start indicator to the data in the field 'Rows offest'.
- 11. Select the suitable search option for this start indicator in the field 'Search option'.
- 12. Fill in the number of data lines in the area in the field 'Lines'. Type 0 if the number is unknown.
- 13. Fill in the position of the data in the field 'Col'.
- 14. Fill in the maximal width of the data in the field 'Width'.
- 15. Fill in a unique end indicator, whether text or wild-card signs, in the field 'Text" *.
- 16. Fill in the position of the end indicator in the field 'Col' *.
- 17. Locate the cursor in the field 'Length' and press **Enter** *.
- 18. Fill in the offset downward from the end indicator to the data in the field 'Rows offest' *.
- 19. Press **F2** to save the area definition.

^{*} For dynamic areas only.

Dividing the spool into areas

The spool must be logically divided into separate areas.

The division of the spool into areas is performed on one spool sample, but should apply to all spool files of the same type.

Examine this example of a spool file:

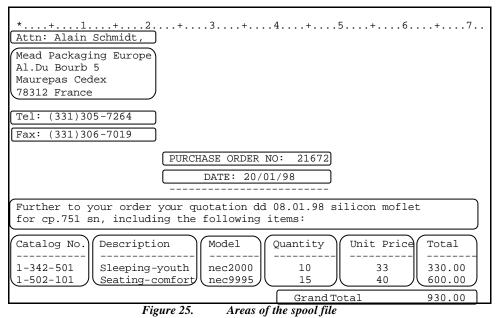
```
*...+....5...+....6...+....7..
Attn: Alain Schmidt,
Mead Packaging Europe
Al.Du Bourb 5
Maurepas Cedex
78312 France
Tel: (331)305-7264
Fax: (331)306-7019
           PURCHASE ORDER NO: 21672
             DATE: 20/01/98
Further to your order your quotation dd 08.01.98 silicon moflet
for cp.751 sn, including the following items:
                          Model
                                               Unit Price Total
Catalog No. Description
                                    Ouantity
           -----
                                              -----
1-342-501 Sleeping-youth nec2000
1-502-101 Seating-comfort nec9995
                                                  33
                                                          330.00
                                        10
                                       15
                                                  40
                                                          600.00
                                       Grand Total
                                                          930.00
```

Figure 24. Spool file

This spool can be logically divided into 14 separate areas, in the following way:

- 1. Name
- 2. Address
- 3. Telephone number
- 4. Fax number
- 5. Purchase order number
- 6. Date
- 7. Remarks above the table
- 8. Catalog no. (in the table)
- 9. Description (in the table)
- 10. Model (in the table)
- 11. Quantity (in the table)
- 12. Unit price (in the table)
- 13. Total (in the table)
- 14. Grand total

The following figure illustrates the separate areas of the spool file:



Note

Each spool can be divided up to 150 different areas.

There are two types of areas in the spool:

- 1. Areas with a constant number of lines, for example: the purchase order number. The purchase order number is always composed of one line. These areas are called **Constant areas.**
- 2. Areas with a dynamic number of lines, for example: the catalog numbers in the table. The number of lines in this column changes according to the number of items ordered by the customer. These areas are called **Dynamic areas**.

Both types of areas can include constant text or variable data.

In the purchase order number area, for example, the words "Purchase order no:" are constant, whereas the number "21672" is variable.

In the catalog number area, for example, the header "Catalo No." is constant, whereas the numbers "1-342-501" and "1-502-101" are variable.

The constant text was already written directly in the Template document, so there is no need to transfer it from the spool. Only the data should be transferred from the spool. The constant text is merely used as a reference point to locate the data in the spool.

This constant text is called an **Indicator** because it indicates the location of the data in the spool.

Indicators must meet four requirements:

- 1. They must contain constant text.
- 2. They must appear in all versions of the spool
- 3. They must appear in the same position on the spool
- 4. They must be located in a fixed distance from the data.

There are two types of indicators: **Start indicator** that indicates the beginning of the data and **End indicator** that indicates the ending of the data.

When an indicator is found by Papirus, its respective data is integrated into the Template document. If an indicator is found several times, its respective data is integrated into the Template at the same number of times.

All areas (indicators and data) must be defined in the design.

Constant areas are defined by a start indicator and by their constant number of lines. The start indicator indicates the beginning of the area. The number of lines represents the length of the area.

The purchase order number, "21672", is part of a constant area. It is defined by the start indicator "PURCHASE ORDER NO" and by the fact it includes one line.

Dynamic areas are defined by a start indicator and by an end indicator. The start indicator indicates the beginning of the area, and the end indicator indicates the end of the area.

The catalog numbers, "1-342-501" and "1-502-101", are a dynamic area. They are defined by the start indicator "Catalog No." and by the end indicator "Grand Total".

In order to define the areas in the design, enter Papirus on the AS/400.

Entering Papirus on the AS/400

Type **PPS** in the AS/400 command line prompt, and press **Enter**. The Papirus main menu appears.

Type **2** for Spool Design in the field 'Select' and press **Enter**. The Design Table window appears (refer to Step 4).

Locate the relevant design in the list, type **8** next to it and press **Enter** to open the Area Table window, as described below.

Area Table Window

The window is accessed by typing 8 next to a design in the Design Table and pressing **Enter**, or by pressing **F8** from the Design definition window.

Purpose of the window

This window is used to define new areas in the spool and to edit already existing areas. The window is also used to assign rulers to areas.

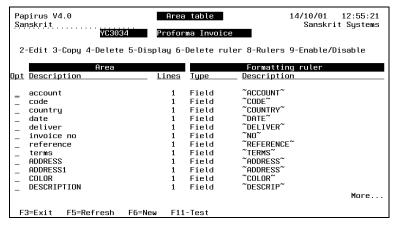


Figure 26. Area Table Window

The left side of the Area table describes an area of the spool. The right side describes the ruler linking the area to a Template variable. The window is empty the first time it is entered, because no areas or rulers have been defined.

Function Keys

Function keys are located in the bottom of the window.

The following function keys are available:

F3 - Exit and return to previous window.

F5 - Refresh list.

F6 - Define a new area.

F11 - Activate Microsoft Word Viewer on the Papirus PC server, displaying the output Word document.

Fields

The following fields appear in the window:

Opt Operation code to be applied on an area. This field is filled in by the user.

Area Description Free text describing the area.

Area Lines Number of lines in the area.

Ruler Type Type of the ruler assigned to the area.

Ruler Description Free text describing the ruler.

Operation Codes

Several operation codes may be applied on each spool area by typing their respective number in the field 'Opt' and pressing Enter:

- 2 Edit area definitions.
- 3 Duplicate area to create a new area.
- 4 Delete area. Press F2 in the dialog box that opens to confirm deleting.
- 5 Display area definitions.
- 6 Delete the ruler assigned to the area (does not delete the area itself).
- 8 Create new ruler or edit an existing ruler.
- 9 Enable / Disable ruler.

Using the Table Area window

Press **F6** in the Table Area window in order to define a new area. The Area definition window appears, as described below:

Area Definition Window

The window is accessed by pressing **F6** in the Area table window to define a new area, or by typing **2** next to an existing area in the Area Table and pressing **Enter**.

Purpose of the window

This window is used to define spool areas, which will later be linked to variables in the Template document.

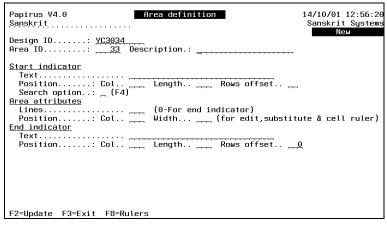


Figure 27. Area Definition window

This window is divided into 3 parts: 'Start Indicator', 'Area Attributes' and 'End Indicator'.

The 'Start Indicator' part refers to the constant text indicating the beginning of the data.

The 'Area Attributes' part refers to the data itself.

The 'End indicator' part refers to the constant text indicating the end of the data. This part is used only when defining dynamic areas.

Function Keys

Function keys are located in the bottom of the window.

The following function keys are available:

F2 - Save definition and return to previous window.

F3 - Return to previous window without saving.

F8 - Assign a ruler to the area.

Fields

The following fields appear in the window and may be filled in:

Design ID Name of the design, automatically filled in by the system.

Area ID Serial number of the area, automatically assigned by the system.

Description Free text describing the area.

Start indicator Constant text indicating the beginning of the data.

Area attributes Parameters describing the data to be integrated into the Template document.

End indicator Constant text indicating the end of the data, for dynamic areas only.

Using the window

Defining constant areas

The process of defining constant areas is demonstrated on the Purchase order no. area, of the spool sample appearing in the beginning of this step. The process must be repeated for every constant area in the spool.

Fill in a short description of the area in the field 'Description'. This description can help you identify the area in the area table. If this field remains blank, Papirus automatically enters the text of the start indicator as the description.

Start Indicator

Fill in the text of the start indicator in the field 'Text'. Make sure the text you enter is identical to text appearing on the spool, in both content and form. The indicator is automatically searched in the test spool (refer to Step 4). If it is not found, a warning is displayed

In the example the words "PURCHASE ORDER NO:" are entered.

Fill in the position of the start indicator in the spool file. The position is the column number of the first letter of the chosen text.

In the example the column number of the start indicator is the column of the letter 'P', which is 14.

Note

The column number can be read from the ruler at the top of the display spooled file window.

We recommend opening two AS/400 sessions in parallel:

The first session for viewing the spool file and determining the position of the areas.

The second session for defining the areas in the Area table window.

Locate the cursor in the field 'Length' and press **Enter**. Papirus automatically calculates the number of characters in the start indicator. In order to include blanks in the start indicator, manually increase its length.

In the example the calculated length is the number of letters in the words "PURCHASE ORDER NO:", which is 18.

Fill in the number of separating lines between the start indicator and data in the field 'Rows Offset'. In the example the start indicator and the data are located in the same line, so the rows offset is 0.

Note

The rows offset is always calculated from the start indicator downward.

Ignore the field 'Search option' at this early stage (this option is describes later on in the chapter).

Area Attributes

Fill in the number of data lines in the field 'Lines'.

In the example the number "21672" includes only one line.

Fill in the position of the data in the field 'Col'. The position is the column number of the first character of the data.

In the example the column number of the data is the column of the digit'2', which is 34.

Fill in the maximal width of the data in the field 'Width'.

In the example the purchase order no. is five digits long. However, a purchase order number is an ascending serial number and might be longer someday.

This one area definition must apply to all future purchase orders, so the longest possible number ought to be entered. Assume the longest possible number is 10 digits long.

End Indicator

This part of the window is ignored when defining constant areas.

The following figure illustrates the Area definition window for the Purchase Order no. area:

	Area (definiti	lon
Design ID: PURCHA	SE		
Area ID 1	Descrip	otion.:	Purchase Order no
Start indicator			
Text	PURCHAS	SE ORDER	NO:
Position: Col	14	Length	n 18 Rows offset 0
Search option.: N	(F4)	_	
Area attributes	_		
Lines	1	(0-For	end indicator)
Position: Col	34	- Width	10
End indicator			
Text			
Position: Col		Length	Rows offset

Figure 28. Purchase Order no. - Area Definition window

Press **F2** to save the area definition.

Defining dynamic areas

The process of defining dynamic areas is demonstrated on the Catalog no. area, appearing in the spool sample in the beginning of the chapter. The process must be repeated for every dynamic area in the spool.

Fill in a short description of the area in the field 'Description'. This description can help you identify the area in the area table. If this field remains blank, Papirus automatically enters the text of the start indicator as the description.

Start Indicator

Fill in the text of the start indicator in the field 'Text'. Make sure the text you enter is identical to text appearing on the spool in both content and form. The indicator is automatically searched in the test spool (refer to Step 4). If it is not found, a warning is displayed In the example the words "Catalog No." are entered.

Fill in the position of the start indicator in the spool file. The position is the column number of the first letter of the chosen text.

In the example the column number of the start indicator is the column of the letter 'C' which is 2.

Note

The column number can be read from the ruler at the top of the display spooled file window.

We recommend opening two AS/400 sessions in parallel:

The first session for viewing the spool file and determining the position of the areas.

The second session for defining the areas in the Area table window.

Locate the cursor in the field 'Length' and press **Enter**. Papirus automatically calculates the number of characters in the start indicator. In order to include blanks in the start indicator, manually increase its length.

In the example the calculated length is the number of letters in the words "Catalog No." which is 11.

Fill in the number of separating lines between the start indicator and data in the field 'Rows Offset'. In the example the start indicator is located two lines above the data, so the rows offset is 2.

Note

The rows offset is always calculated from the start indicator downward.

Ignore the field 'Search option' at this early stage (this option is described later on in the chapter).

Area Attributes

Fill in 0 in the field 'Lines' to represent an unknown number of lines in the area.

In the example the number of lines is unknown, so 0 is entered.

Fill in the position of the data in the field 'Col'. The position is the column number of the first character of the data.

In the example the column number of the data is the column of the digit'1', which is 1.

Fill in the maximal width of the data in the field 'Width'.

In the example the catalog numbers are 9 digits long, so their maximal width is 9.

End Indicator

Fill in the text of the end indicator in the field 'Text'. Make sure the text you enter is identical to text appearing on the spool in both content and form. The indicator is automatically searched in the test spool (refer to Step 4). If it is not found, a warning is displayed

In the example the words "Grand Total" are entered.

Fill in the position of the end indicator in the spool file. The position is the column number of the first letter of the chosen text.

In the example the column number of the end indicator is the column of the letter 'G', which is 44.

Locate the cursor in the field 'Length' and press **Enter**. Papirus automatically calculates the number of characters in the end indicator. In order to include blanks in the end indicator, manually increase its length.

In the example the calculated length is the number of letters in the words "Grand Total" which is 11.

Fill in the number of separating lines between the end indicator and data in the field 'Rows Offset'. The offset calculated by Papirus is always directed downward. In order to direct the offset upward, a negative offset must be entered.

In the example the end indicator is located one line below the data, so the rows offset is 1-.

Note

Only one negative offset is allowed. When entering the negative offset, type the number before the minus sign.

The following figure illustrates the Area definition window for the Catalog no area:

```
Area definition
Design ID....:
                 PURCHASE
                         Description.:
                                       Catalog no
Start indicator
                         Catalog No
   Text.....
                   Col
                            2
                                 Length
                         (F4)
   Search option.:
    attributes
                            0
                                 (0-For end indicator)
                   Col
                            2
                                 Width
                         Grand Total
   Text.....
   Position...:
                           44
                                 Length
                                                 Rows offset
                   Col
```

Figure 29. Catalog numbers - Area Definition window

Press **F2** to save the area definition.

Wild-card indicators

As was previously mentioned, only when Papirus finds the start indicator of an area, its respective data is integrated into the Template document. In order to be found, indicators must contain constant text.

Certain spool files include only data, so constant text indicators are not available.

In these cases, it is possible to use indicators that have a constant structure, instead of constant text.

This type of indicators can be composed from Papirus' wild-card signs:

- # Represents any numeric character (0-9).
- @ Represents any alphabetic character (A-Z, a-z).
- Represents any non-blank character.
- Represents any character, including blank.

These wild-card signs can be mixed and matched to compose indicators, as demonstrated in the following examples.

Example no.1 - Date

Most spool files include their production date. This date changes on a daily basis.

The date "20/01/98", appearing in the spool sample in the beginning of the chapter, cannot be used as an indicator because it is valid only for spool files produced on this day.

However, the structure of the date remains constant: it consists of six digits separated by two slashes.

This structure, represented by ##/##, can be used as a valid indicator for all date fields.

Example no. 2 – Model

Every item in a table of items has a different model.

The string "nec2000", appearing in the spool sample in the beginning of the chapter, cannot be used as an indicator because it is valid for only one specific item.

However, the structure of the model remains constant: it consists of three letters and four digits.

This structure, represented by @@@####, can be used as a valid indicator for all items.

Example no. 3 – Item description

Every item in a table of items has a different description.

The string "Seating-comfort", appearing in the spool sample in the beginning of the chapter, cannot be used as an indicator because it is valid for only one specific item.

The structure of the item description is not constant. It may consist of letters, numbers, signs (slash, hyphen, apostrophe) and also blanks. However, there are two constant parameters in the item description: its maximal width is 15 characters and its first character is never blank.

This structure, represented by ¬~~~~~, can be used as a valid indicator for all items.

Note

Wild-cards indicators must meet the other requirements of regular indicators:

They must appear in all versions of the spool

They must appear in the same position on the spool

They must be located in a fixed distance from the data.

Defining areas with wild-card indicators

The process of defining areas based on wild-cards indicators is similar to the process of defining regular areas. The only difference is that wild-cards are written in the field 'Text' in the Area definition window, instead of actual letters and numbers.

The area of the purchase order number "21672", appearing in the spool sample in the beginning of the chapter, can be defined by the wild-card indicator #####. This indicator represents any five digits.

The following figure illustrates the Area definition window for this Purchase order number:

	Area d	definiti	on			
Design ID: PURCHA			_	_		
Area ID 1	Descrip	tion.:	Purchase	Order	no no	
Start indicator						
Text	#####					
Position: Col	34	Length	5	Rows	offset	0
Search option.: N	(F4)	_		-		·
Area attributes	_					
Lines	1	(0-For	end indi	cator)		
Position: Col	34	Width	10	_		
End indicator						
Text						
Position: Col		Length		Rows	offset	
		_		_		

Figure 30. Purchase Order no. - Area Definition window

Defining dynamic areas without end indicators

General explanation

The main difference between text indicators and wild-cards indicators is their number of appearances in the spool. Text indicators are unique and usually appear only once in each page. Wild-card indicators are more common and can appear several times.

When an indicator is found by Papirus, its respective data is integrated into the Template document. If an indicator is found several times, the data is integrated into the Template at the same number of times.

This fact becomes useful when having to define dynamic areas, without an end indicator available.

In these cases, define a constant area of one line, which is based on a wild-card indicator. The wild-card indicator will be found several times. As a result, the constant area will be duplicated and data from several lines will be integrated into the Template.

Defining dynamic areas without end indicators

The process of defining dynamic areas without end indicators is similar to the process of defining constant areas. The only difference is that a wild-cards indicator is used as a start indicator. Wild-cards are written in the field 'Text' in the Area definition window, instead of actual letters and numbers. The area of the catalog numbers "1-342-501" and "1-502-101", appearing in the spool sample in the beginning of the chapter, can be defined by the wild-card indicator #-###-###. This indicator represents the structure of all catalog numbers.

The following figure illustrates the Area definition window for the Catalog numbers:

	Area definit	ion	
Design ID: PURCHAS Area ID: 2		Catalog no.	
Start indicator Text	#-###-###		_
Position: Col	2 Length	n <u>9</u> Rows offset	0
Search option.: N	(F4)		
Area attributes			
Lines	1 (0-For	end indicator)	
Position: Col	2 Width	9	
End indicator			
Text			
Position: Col	Lengtl	n Rows offset	
			·

Figure 31. Catalog numbers - Area Definition window

Note

Wild-card indicators are designed to capture a wide range of areas. They might capture areas you didn't intend to include. Make sure your indicator is unique and captures the desired area only.

Ignoring indicators

By default, Papirus searches a start indicator throughout the entire spool. When the indicator is found, its respective data is integrated into the Template document. If the indicator is found several times, its respective data is integrated into the Template document several times.

In some cases, the data should appear in the output document only once, even if its indicator appears several times in the spool file.

This can be achieved by instructing Papirus' searching mechanism to include only the desired indicators.

Using Papirus' searching mechanism

Enter the Area definition window of the relevant area.

Locate the cursor in the field 'Search option' and press **F4**. The Search options window appears, allowing you to control Papirus' searching mechanism for the specific start indicator.

Select Search Option 'I' in order to include all indicators, ignoring page breaks in the spool.

The following figure illustrates the result of search option 'I' for the indicator ##, which represents the quantity:

Spool File

Spoor		
Invoice no.	. 19377	6
Item	Qty	Unit Price
Sleeping-youth	10	33
Seating-comfort	15	40

Template document

Turtle Fu	rniture	Production
Invoice no	. ~invoi	ceno~
Item	Qty	Unit Price
~item~	~qty~	~price~

Output document

4-4	irniture e no. 1937	Production
Item	Qty	Unit Price
Sleeping-youth	10	33
Sleeping-comfort	15	40
Sleeping-king	10	30
Seating-deluxe	15	20

Invoice no	. 19377	6
Item	Qty	Unit Price
Sleeping-king	10	30
Seating-deluxe	15	20
Shipping		150
Total		1680

Order number: 656567 Payment Terms: 30 days Through: City Bank, NY branch

Turtle Fu Invoice no		
Item	Qty	Unit Price
~item~	~qty~	~price~
Shipping		~shipping~
Total		~total~

Figure 32. Search option I

Order number: ~orderno~

Payment Terms: ~terms~

Through: ~bank~

Turtle Fu	rniture	Production
Invoice no	. ~invoic	eno~
Item	Qty	Unit Price
Shipping		150
Total		1680

Order number: 656567 Payment Terms: 30 days Through: City Bank, NY branch

Select Search Option 'N' (default) in order to include all indicators, separated by page breaks.

The following figure illustrates the result of search option 'N' for the indicator ##, which represents the quantity:

Spool File Invoice no. 193776 Unit Item Qty Price 33 Sleeping-youth Seating-comfort

Turtle Furniture Production Invoice no. ~invoiceno~ Item Qty Unit Price	Templa	te docu i	ment
Item Qty Unit Price	Turtle Fu	rniture	<u>Production</u>
	Invoice no	o. ~invoi	ceno~
aitema anticea	Item	Qty	Unit Price
-item-	~item~	~qty~	~price~

Invoice no. 1	
Item Qt	
	y Unit Price
Sleeping-youth 10	0 33
Sleeping-comfort 1:	5 40

Invoice no	. 19377	6
Item	Qty	Unit Price
Sleeping-king	10	30
Seating-deluxe	15	20
Shipping		150
Total		1680
Order number: 656		

Payment Terms: 30 days
Through: City Bank, NY branch

	J. ~III¥UK	eno~
Item	Qty	Unit Price
~item~	~qty~	~price~
Shipping		~shipping
Total		~total~
Order number: ~or Payment Terms: ~t Through: ~bank~		

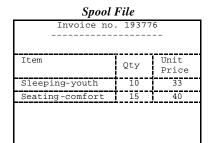
Figure 33. Search option N

Invoice no. ~invoiceno~		
Item	Qty	Unit Price
Sleeping-king	10	30
Seating-deluxe	15	20
Shipping		150
Total		1680

Payment Terms: 30 days
Through: City Bank, NY branch

Select Search Option 'P' in order to include only the first indicator in each page of the spool.

The following figure illustrates the result of search option 'P' for the indicator ##, which represents the quantity:



Template document			
Turtle Furniture Production			
Invoice no. ~invoiceno~			
Item	Qty	Unit Price	
~item~	~qty~	~price~	

Output document			
Turtle Furniture Production			
<u>Invoice no. 193776</u>			
Item	Qty	Unit Price	
Sleeping-youth	10	33	

- '	10000	,
Invoice no	. 193//	ь
Item	Qty	Unit
		Price
Sleeping-king	10	30
Seating-deluxe	15	20
Shipping		150
Total		1680
Order number: 656	567	
Payment Terms: 30	days	
Through: City Ban	k, NY l	oranch

Turtle Furniture Production

Invoice no. ~invoiceno~

Item Qty Unit Price

Sleeping-king 10 30

Shipping 150

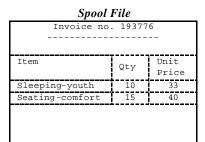
Total 1680

Order number: 656567
Payment Terms: 30 days
Through: City Bank, NY branch

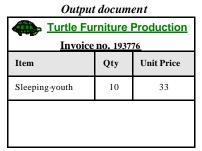
Figure 34. Search option P

Select Search Option 'Y' in order to include only the first indicator in the entire spool.

The following figure illustrates the result of search option 'Y' for the indicator ##, which represents the quantity:







Invoice no	. 19377	6
Item	Qty	Unit Price
Sleeping-king Seating-deluxe	10 15	30 20
Shipping Total		150 750
Order number: 656 Payment Terms: 30 Through: City Ban	days	oranch

Invoice	Invoice no. ~invoiceno~		
Item	Qty	Unit Price	
~item~	~qty~	~price~	
Shipping		~shipping~	
Total		~total~	

Figure 35. Search option Y

Invoice no. ~invoiceno~		
Item	Qty	Unit Price
Shipping		150
Total		1680
Order number: 6565 Payment Terms: 30		

Linking areas to variables

Each defined area must be linked to the corresponding variable in the Template document, so spool data will appear in the output document, instead of variables.

Areas are linked to variables through **rulers**. The ruler determines the name of the Template variable into which the data from the area is integrated. Every area of the spool must be assigned to a separate ruler.

The following figure contains the header of a spool file:

```
*...+...1...+...2...+...3...+...4...+...5...+...6...+...7..

Attn: Alain Schmidt,
Mead Packaging Europe
Al.Du Bourb 5
Maurepas Cedex
78312 France
------
Tel: (331)305-7264
Fax: (331)306-7019

PURCHASE ORDER NO: 21672
DATE: 20/01/98
```

Figure 36. Spool File - Header

The Template document for this spool might look like this:

Figure 37. Template document - Header

The purchase order number, "21672", is suppose to be integrated into the variable ~ordno~ in the Template document. In order to do so, a ruler must be assigned to the area.

Defining a new ruler – Step-by-Step

- 1. Type PPS in the AS/400 command line prompt, and press Enter.
- 2. Type 2 for Spool Design in the field 'Select' and press Enter.
- 3. Locate the desired design in the list.
- 4. Type 8 next to it and press Enter. The Area Table window appears.

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- 5. Locate the desired area in the list.
- 6. Type 8 next to it and press Enter. The Ruler type window appears.
- 7. Type 1 next to 'Field' and press **Enter**. The Field ruler window appears.
- 8. Fill in a description for the ruler in the field 'Description' (optional).
- 9. Fill in the name of the variable from the Template, without the ~ signs, in the field 'Field'.
- 10. Type the string {=} in the field 'Formatting string'.
- 11. Enter 'N' in the field 'Text is an object name'.
- 12. Enter 'N' in the field 'Clear spool area'.
- 13. Press **F2** to save the ruler definition.

Defining rulers

Enter the Area Table window and locate the desired area.

Type 8 next to the area and press Enter.

Since a ruler was yet to be defined, the Ruler type window appears, allowing you to select the desired type for the ruler.

Select the **Field ruler** by typing **1** next to it and pressing **Enter**. When creating Template based designs, only Field rulers are being used. Other types of rulers are being used in ruler-based designs. The Field ruler window appears as described bellow:

Field ruler window

The window is accessed by typing 8 next to an area in the Area table window and pressing **Enter**, or by pressing **F8** in the Area definition window.

Purpose of the window

This window links the spool area to the corresponding variable in the Template document.

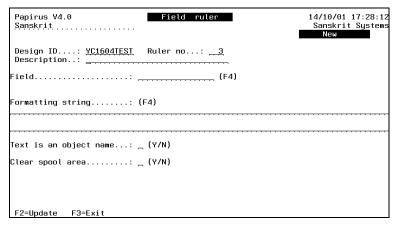


Figure 38. Field ruler window

Function Keys

Function keys are located in the bottom of the window.

The following functions keys are available:

F2 - Save definition and return to previous window.

F3 - Return to previous window without saving.

Fields

The following fields appear in the window:

Design ID Name of the design, automatically filled in by the system.

Ruler no. Serial number of the ruler, automatically assigned by the system.

Field Name of the variable in the Template.

Formatting string Manner of integrating spool data into the Template document.

Using the window

Fill in a short description of the ruler in the field 'Description'. This description can help you identify the ruler in the Area table. If this field remains blank, Papirus automatically enters the variable name as the description.

Fill in the name of the corresponding variable from the Template, without the ~ signs, in the field 'Field'. Upper or lower case letters are not important, but make you sure the name you enter is identical to name of the variable in the Template document.

In the example the variable name "ORDNO" is entered.

At this early stage, simply enter the string {=} in the field 'Formatting String'. This string instructs Papirus to integrate the data into the Template as it is, without conversions. (for further details refer to Step 6).

Enter 'N' in the field 'Text is an object name'.

Enter 'N' in the field 'Clear spool area'.

The following figure illustrates the Field ruler window for the purchase order number:

```
Field ruler
Design ID....:
              PURCHASE
                               Ruler no...: 1
Description..:
             ~ORDNO~
                        ORDNO
Field....:
Formatting string....:
                        (F4)
\{=\}
Text is an object name...:
                          Ν
                               (Y/N)
Clear spool area...:
                               (Y/N)
```

Figure 39. ~ordno~ – Field ruler window

Press F2 to save the ruler definition.

Summary: Linking variables to spool data

- 1. Type **PPS** in the AS/400 command line prompt, and press **Enter**.
- 2. Type 2 for Spool Design in the field 'Select' and press Enter.
- 3. Locate the relevant spool design in the list.
- 4. Type **8** next to it and press **Enter** to open the Area Table window.
- 5. Press **F6** to define a new area.
- 6. Fill in a description for the area in the field 'Description' (optional).
- 7. Fill in a unique start indicator, whether text or wild-card signs, in the field 'Text'.
- 8. Fill in the position of the start indicator in the field 'Col'.
- 9. Locate the cursor in the field 'Length' and press Enter.
- 10. Fill in the offset downward from the start indicator to the data in the field 'Rows offset'.
- 11. Select the suitable search option for this start indicator in the field 'Search option'.
- 12. Fill in the number of lines of the data in the field 'Lines'. Type 0 if the number is unknown.
- 13. Fill in the position of the data in the field 'Col'.
- 14. Fill in the maximal width of the data in the field 'Width'.
- 15. Fill in a unique end indicator, whether text or wild-card signs, in the field 'Text" *.
- 16. Fill in the position of the end indicator in the field 'Col' *.
- 17. Locate the cursor in the field 'Length' and press **Enter** *.
- 18. Fill in the offset downward from the end indicator to the data in the field 'Rows offset' *.
- 19. Press **F8** to assign a new ruler to the area. The Ruler type window appears.
- 20. Type 1 next to 'Field' and press Enter. The Field ruler window appears.
- 21. Fill in a description for the ruler in the field 'Description' (optional).
- 22. Fill in the name of the variable from the Template, without the ~ signs, in the field 'Field'.
- 23. Type in the string {=} in the field 'Formatting string'.
- 24. Enter 'N' in the field 'Text is an object name'.
- 25. Enter 'N' in the field 'Clear spool area'.

- 26. Press **F2** to save the ruler definition.
- 27. Press **F2** to save the area definition.
- * For dynamic areas only.

Step 6 - Replacing spool text

The sixth step is replacing text from the spool with different text or objects. The new text and objects can be constant or change according to the spool text.

In order to replace spool text, the relevant area must be defined. Then a ruler is assigned to the area.

The ruler determines which text or object will replace the original spool text.

Replacing spool text with constant text

The original text of the spool can be replaced by other predetermined constant text.

The area containing the original text is defined. Then a field ruler, containing the new desired text, is assigned to the area.

Step by Step

- 1. Type **PPS** in the AS/400 command line prompt and press **Enter**.
- 2. Type 2 for Spool Design in the field 'Select' and press Enter.
- 3. Locate the relevant spool design in the list.
- 4. Type 8 next to it and press Enter. The Area Table window appears.
- 5. <u>Define the area to be replaced</u>.
- 6. Assign a Field ruler to this area.
- 7. Fill in a description for the ruler in the field 'Description' (optional).
- 8. Fill in the name of the variable from the Template, without the ~ signs, in the field 'Field'.
- 9. Enter the desired text in the field 'Formatting string'.
- 10. Enter 'N' in the field 'Text is an object name'.
- 11. Enter 'N' in the field 'Clear spool area'.
- 12. Press **F2** to save the ruler definition.

Examine the following spool and Template example:

```
*...+...1...+...2...+...3...+...4...+...5...+...6...+...7..

Please confirm and advise shipping details

Dani Sharon
Purchasing Department
Turtle Furniture Production

Printing date: 31/12/01
```

Figure 40. Spool file – Signature

```
Please confirm and advise shipping details

~name~
~depname~ Department
Turtle Furniture Production

Printing date: ~date~
```

Figure 41. Template – Signature

The word "Purchasing" from the spool should be replaced by the word "Marketing" to create the string "Marketing Department". This can be achieved by inserting the word "Marketing" into the variable ~depname~ in the Template document.

In order to do so, define the area containing the word "Purchasing". The process of defining areas was described in the previous step.

	Area	definiti	on			
Design ID: PURCHA	SE					
Area ID 2	Descri	ption.:	Purchase			
Start indicator						
Text	Purcha	sing				
Position: Col	48	Length	10	Rows	offset	0
Search option.: N	(F4)			_		
Area attributes	_					
Lines	1	(0-For	end indi	cator)		
Position: Col	48	Width	10	_		
End indicator				_		
Text						
Position: Col		Length		Rows	offset	
				_		

Figure 42. Purchasing - Area Definition window

Then assign a field ruler to this area. The process of defining rulers was described in the previous step as well. Further details are given here:

Using the Field ruler window

Fill in a short description of the ruler in the field 'Description'. This description can help you identify the ruler in the Area table. If this field remains blank, Papirus automatically enters the variable name as the description.

Fill in the name of the variable in the Template, without the ~ signs, in the field 'Field'. Upper or lower case letters are not important, but make you sure the name you enter is identical to the name of the variable in the Template document.

In this example the variable "DEPNAME" is entered.

Enter the desired text in the field 'Formatting String'. This text will appear in the output document, instead of the original spool text.

In this example the word "Marketing" is entered.

Type 'N' in the field 'Text is an object name'.

Type 'N' in the field 'Clear spool area'.

```
Field
                                ruler
             PURCHASE
                                Ruler no...: 1
Design ID...:
Description..: ~depname~
                         DEPNAME
                                                (F4)
Field....:
Formatting string....:
                         (F4)
Marketing
Text is an object name...:
                           N
                                (Y/N)
Clear spool area....:
                                (Y/N)
```

Figure 43. ~depname~ - Field ruler window

Press **F2** to save the ruler definition.

The signature part of the output document is illustrated in the following figure:

```
Please confirm and advise shipping details

Dani Sharon
Marketing Department
Turtle Furniture Production

Printing date: 31/12/01
```

Figure 44. Output document - Marketing Department

Replacing spool text with filtered text

The original text of the spool can be replaced by a filtered version of this text.

The area containing the original text is defined. Then a field ruler, containing a **formatting string**, is assigned to the area.

Step by Step

- 1. Type **PPS** in the AS/400 command line prompt and press **Enter**.
- 2. Type 2 for Spool Design in the field 'Select' and press Enter.
- 3. <u>Locate the relevant spool design in the list.</u>
- 4. Type 8 next to it and press Enter to open the Area Table window.
- 5. Define the area to be replaced.
- 6. Assign a Field ruler to this area.
- 7. Fill in a description for the ruler in the field 'Description' (optional).
- 8. Fill in the name of the variable from the Template, without the ~ signs, in the field 'Field'.
- 9. Enter the desired formatting string in the field 'Formatting string', or press **F4** to select the formatting string from a list.
- 10. Enter 'N' in the field 'Text is an object name'.
- 11. Enter 'N' in the field 'Clear spool area'.
- 12. Press **F2** to save the ruler definition.

Formatting strings

The original text from the spool can be filtered to create new strings of text. Papirus' filters are called Formatting Strings. Various formatting strings are available, each applying a different filter, for example: Rearranging the order of the characters, Mixing spool text with new constant characters, Encoding spool text into barcodes, Translating lower case letters into upper case letters and vice versa etc.

Formatting strings are constructed from characters appearing between brackets { }, for example: {abcde}. These characters are replaced by the spool text in the following manner - an "a" character within {} is replaced by the first character from the defined area. A "b" within {} is replaced by the second character from the defined area and so on up to "z" and subsequently from A to Z.

Regular characters, not appearing between brackets, remain constant and are not replaced by spool text.

The following figure contains the signature of a spool file:

```
*...+...1...+...2...+...3...+...4...+...5...+...6...+...7..

Please confirm and advise shipping details

Dani Sharon
Purchasing Department
Turtle Furniture Production

Printing date: 31/12/01
```

Figure 45. Spool file – Signature

The signature part of the Template document for the spool might look like this:

```
Please confirm and advise shipping details

-name-
-depname- Department
Turtle Furniture Production

Printing date: ~date~
```

Figure 46. Template – Signature

Assume that the date "31/12/01" in format DD/MM/YY should be replaced by the date "12/31/01" in format MM/DD/YY.

Figure 47. Translation of the date into letters

This can be achieved by using the formatting string $\{de\}/\{ab\}/\{gh\}$ and inserting the filtered date into the variable \sim date \sim in the Template document.

In order to do so, define the area containing the date. The process of defining areas was described in the previous step.

	Area definition
Design ID: PURCHA Area ID: 2	SE Description.: Printing date
Start indicator Text	Printing date
Position: Col Search option.: N	1 Length 13 Rows offset 0 (F4)
Area attributes Lines	
End indicator Text	
Position: Col	Length Rows offset

Figure 48. Printing date - Area Definition window

Then assign a field ruler to this area. The process of defining rulers was described in the previous step as well. Further details are given here:

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Using the Field ruler window

Fill in a short description of the ruler in the field 'Description'. This description can help you identify the ruler in the Area table. If this field remains blank, Papirus automatically enters the variable name as the description.

Fill in the name of the variable from the Template, without the ~ signs, in the field 'Field'. Upper or lower case letters are not important, but make you sure the name you enter is identical to name of the variable in the Template document.

In this example the name "date" is entered.

Enter the desired formatting string in the field 'Formatting String', or press **F4** to open a list of predefined formatting strings. Select the desired formatting string by typing **1** next to it and pressing **Enter**.

In this example the formatting string $\{de\}/\{ab\}/\{gh\}$ is entered.

Type 'N' in the field 'Text is an object name'.

Type 'N' in the field 'Clear spool area'.

```
      Field ruler

      Design ID...:
      PURCHASE ruler no...:
      1

      Description..:
      ~date~

      Field......:
      DATE ruler no...:
      (F4)

      Formatting string.....:
      (F4)

      {de}/{ab}/{gh}
      (F4)

      Text is an object name...:
      N (Y/N)

      Clear spool area....:
      N (Y/N)
```

~date~ - Field ruler window

Press **F2** to save the ruler definition.

The signature part of the output document is illustrated in the following figure:

Figure 49.

```
Please confirm and advise shipping details

Dani Sharon
Marketing Department
Turtle Furniture Production

Printing date: 12/31/01
```

Figure 50. Output document - Printing date

Replacing spool text with constant objects

The original text of the spool can be replaced by objects of various formats (BMP, JPG, GIF, DOC, XLS and many more).

First, the desired object is created in a suitable program on the PC and saved in the folder C:\Program Files\ Papirus\ Forms. Then the area containing the original text is defined. Finally, a field ruler, containing the name of the desired object, is assigned to the area.

Step by Step

- 1. Type **PPS** in the AS/400 command line prompt, and press **Enter**.
- 2. Type 2 for Spool Design and press Enter.
- 3. Locate the relevant spool design in the list.
- 4. Type 8 next to it and press Enter to open the Area Table window.
- 5. <u>Define the area to be replaced</u>.
- 6. Assign a Field ruler to this area.
- 7. Fill in a description for the ruler in the field 'Description' (optional).
- 8. Fill in the name of the variable from the Template, without the ~ signs, in the field 'Field'.
- 9. Enter the name of the desired object, including the extension, in the field 'Formatting string'.
- 10. Enter 'Y' in the field 'Text is an object name'.
- 11. Enter 'N' in the field 'Clear spool area'.
- 12. Press **F2** to save the ruler definition.

The following figure contains the signature of a spool file:

```
*...+...1...+...2...+...3...+...4...+...5...+...6...+...7..

Please confirm and advise shipping details

Dani Sharon
Purchasing Department
Turtle Furniture Production

Printing date: 31/12/01
```

Figure 51. Spool file – Signature

The signature part of the Template document for the spool might look like this:

Please confirm and advise shipping details

~signature~

Printing date: ~date~

Figure 52. Template – Signature

Assume that the signature should be replaced by an actual picture of this person. This can be achieved by inserting the object 'Danisharon.bmp' into the variable ~signature~ in the Template document.



Figure 53. Danisharon.bmp

In order to do so, define the area containing the name "Dani Sharon". The process of defining areas was described in the previous step.

	Area	definition	
Design ID: PURCHA Area ID: 2		ption.: Signature	
Start indicator Text	Dani S	Sharon	
Position: Col	48	Length 11 Rows offset ()
Search option.: N	(F4)		
Area attributes	=		
Lines	1	(0-For end indicator)	
Position: Col	48	Width 11	
End indicator			
Text			
Position: Col		Length Rows offset	

Figure 54. Signature - Area Definition window

Then assign a field ruler to this area. The process of defining rulers was described in the previous step as well. Further details are given here:

Using the Field ruler window

Fill in a short description of the ruler in the field 'Description'. This description can help you identify the ruler in the Area table. If this field remains blank, Papirus automatically enters the variable name as the description.

Enter the name of the variable from the Template, without the ~ signs, in the field 'Field'. Upper or lower case letters are not important, but make you sure the name you enter is identical to the name of the variable in the Template document.

In this example the name "signature" is entered.

Fill in the name of the desired object, including the extension, in the field 'Formatting String'. In this example the name "danisharon.bmp" is entered.

Type 'Y' in the field 'Text is an object name' to indicate that the text represents an object.

If the value 'N' is entered into this field, Papirus will simply enter the word "Danisharon.bmp" into the Template document.

Type 'N' in the field 'Clear spool area'.

```
Field
                                ruler
             PURCHASE
                                Ruler no...: 1
Design ID...:
Description..: ~signature~
                         SIGNATURE
                                                (F4)
Field....:
Formatting string....:
                         (F4)
Danisharon.bmp
Text is an object name...:
                                (Y/N)
Clear spool area....:
                                (Y/N)
```

Figure 55. ~signature~ – Field ruler window

Press **F2** to save the ruler and return to the Area table window.

The signature part of the output document is illustrated in following figure:



Figure 56. Output document – Dani Sharon

Papirus Template _______70

Replacing spool text with various objects

The original text of the spool can be replaced by several PC objects of various formats (BMP, JPG, GIF, DOC, XLS and many more).

First, the desired objects are created in a suitable program on the PC and saved in the folder C:\Program Files\ Papirus\ Forms. Then the area containing the original text is defined. Finally, a field ruler, containing the names of the desired objects, is assigned to the area.

Step by Step

- 1. Type **PPS** in the AS/400 command line prompt, and press **Enter**.
- 2. Type 2 for Spool Design and press Enter.
- 3. Locate the relevant spool design in the list.
- 4. Type 8 next to it and press Enter to open the Area Table window.
- 5. Define the area to be replaced.
- 6. Assign a Field ruler to this area.
- 7. Fill in a description for the ruler in the field 'Description' (optional).
- 8. Fill in the name of the variable from the Template, without the ~ signs, in the field 'Field'.
- 9. Enter a formatting string, representing the names of all desired objects (including the extension), in the field 'Formatting string'.
- 10. Enter 'Y' in the field 'Text is an object name'.
- 11. Enter 'N' in the field 'Clear spool area'.
- 12. Press **F2** to save the ruler definition.

The following figure contains the signatures of several spool files:

```
*...+...1...+...2...+...3...+...4...+...5...+...6...+...7..

Please confirm and advise shipping details

Dani Sharon
Purchasing Department
Turtle Furniture Production
```

```
*...+...1...+...2...+...3...+...4...+...5...+...6...+...7..

Please confirm and advise shipping details

Sarah Brightman
Purchasing Department
Turtle Furniture Production
```

```
*...+...1...+...2...+...3...+...4...+...5...+...6...+...7..

Please confirm and advise shipping details

Mark Smith
Purchasing Department
Turtle Furniture Production
```

Figure 57. Spool files – Signatures

The signature part of the Template document for these spools may look like this:

Please confirm and advise shipping details

~name~
Purchase Department
Turtle Furniture Production

Figure 58. Template – Signature

Assume that a graphic signature should replace the name appearing on the spool. The signatures must be replaced dynamically to match the name appearing on the spool

This can be achieved by inserting different objects into the variable ~name~ in the Template document. Different objects can be inserted into one variable by using a formatting string, representing the names of all objects. Formatting strings include a constant number of characters, therefore the names of all objects must consist of a constant number of characters as well. In this example, the names consist of the first four letters in their respective holder's name. The suitable formatting string is {abcd}.gif



In order to replace the names, define the area containing their first four characters. The area must be defined by a general indicator, which is valid for all names. The process of defining areas was described in the previous step.

_
_

Figure 60. Signatures - Area Definition window

Then assign a field ruler to this area. The process of defining rulers was described in the previous step as well. Further details are given here:

Using the Field ruler window

Fill in a short description of the ruler in the field 'Description'. This description can help you identify the ruler in the Area table. If this field remains blank, Papirus automatically enters the variable name as the description.

Enter the name of the variable from the Template, without the \sim signs, in the field 'Field'. Upper or lower case letters are not important, but make you sure the name you enter is identical to name of the variable in the Template document.

In the example the variable "name" is entered.

Enter a formatting string, representing the names of all objects, in the field 'Formatting String'. In the example the formatting string is {abcd}.gif is entered.

Type 'Y' in the field 'Text is an object name' to indicate that the text represents an object. If the value 'N' is entered into this field, Papirus will simply enter the word "{abcd}.gif" to the Template document.

Type 'N' in the field 'Clear spool area'.

		Field	ruler	
Design ID: Description:			Ruler no: 1	<u> </u>
Field	:	NAME		(F4)
Formatting string: {abcd}.gif		(F4)		
Text is an object name: Clear spool area:				

Figure 61. ~name~ - Field ruler window

Press **F2** to save the ruler definition.

The signature part of the output documents is illustrated in the following figure:

Please confirm and advise shipping details

Purchase Department
Turtle Furniture Production

Please confirm and advise shipping details

Purchase Department
Turtle Furniture Production

Please confirm and advise shipping details

Turtle Furniture Production

Figure 62. Output documents – signatures

Step 7 - Using several Templates

The seventh step is assigning several Template documents to the same spool. Spool files can be very complex, which makes it impossible to create only one Template for them. Even simple spool files sometimes require several Templates because every page in the output document should to have a different appearance.

In these cases, several different Templates can be assigned to the same spool and produce one output document. The different Templates can all be included, or replaced dynamically to match the current version of the spool. All Template documents assigned to the same spool are called a Package.

Merging several Template documents

General Explanation

Several different Templates can be merged to produce one output document. This can be achieved in a two steps process-

- 1) Creating the Template documents in MS-Word.
- 2) Assigning the Templates to the spool.

The merger of the Templates is performed automatically.

The following figure illustrates the package for a complex spool, which always includes a cover page, an invoice and a packing list. Each page has a different format and requires a separate Template document.

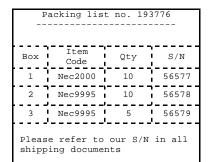
Spool file

Attn: Alain Schmidt, Mead Packaging Europe Al.Du Bourb 5 Maurepas Cedex 78312 France

Dear customer, Further to your order dated July $14^{\rm th}$, we are proud to present the following invoice and packing list.

Sincerely, Turtle Furniture Production

Invoice no. 193776 Item Qty Unit Price Sleeping-youth 10 33 Seating-comfort 15 40 Shipping 157 Total 1087 Order number: 656567 Payment Terms: 30 days Through: City Bank, NY branch



Template document

Turtle Furniture Production

Attn: ~name~ ~company~

~street~

Item

~item~

Total

Shipping

Order number: ~orderno~

Payment Terms: ~terms~

Through: ~bank~

~city~ ~country~

Dear customer.

Further to your order dated ~date~, we are proud to present the following invoice and packing list.

Sincerely, Turtle Furniture Production

Cover.dot

Turtle Furniture Production
Invoice no. ~invoiceno~

Qty

~qty~

Unit Price

~price~

~shipping~

~total~

Output document

Turtle Furniture Production

Attn: Alain Schmidt, Mead Packaging Europe

Al.Du Bourb 5 Maurepas Cedex 78312 France

Dear customer,

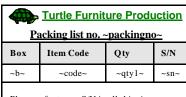
Further to your order dated July 14th, we are proud to present the following invoice and packing list.

Sincerely, Turtle Furniture Production

Turtle Furniture Production Invoice no. 193776 Item Qty Unit Price Sleeping-youth 10 33 Sleeping-comfort 15 40 Shipping 157 Total 1087

Order number: 656567 Payment Terms: 30 days Through: City Bank, NY branch

Invoice.dot



Please refer to our S/N in all shipping documents

Turtle Furniture Production Packing list no. 193776				
Box	Item Code	Qty	S/N	
1	Nec2000	10	56577	
2	Nec9995	10	56578	
3	Nec9995	5	56579	
		·		

Please refer to our S/N in all shipping documents

Packing.dot

Figure 63. Package

Merging several Template documents - Step by Step

- 1. Type PPS in the AS/400 command line prompt, and press Enter.
- 2. Type 2 for Spool Design and press Enter. The Design Table window appears.
- 3. Locate the desired design in the design table.
- 4. Type 2 next to the design and press Enter.
- 5. Press **F7** to assign the Template documents to the design.
- 6. Press **F6** to define a new Template document.
- 7. For each Template, fill in the desired sequence number in the field 'Template seq.'.
- 8. For each Template, fill in a description in the field 'Description'.

9. For each Template, fill in the name of the document, without the DOT extension, in the field' Word document'.

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- 10. For each Template, enter 'Y' in the field 'Package'.
- 11. For each Template, select the desired option in the field 'Merge next page mode'.
- 12. For each Template, select the desired option in the field 'Template usage mode'.
- 13. For each Template, press **F2** to save the definition.
- 14. Press **F3** to return to the Design definition window.
- 15. Press **F2** to confirm.

First, create all desired Template documents in MS-Word. The process of creating Template documents was described in Step 3.

NOTE

Do not to place the same variable in two different Templates, unless you want the spool data to appear in both pages of the output document.

Assign the Templates to the spool. The process of assigning Templates to spools was described in Step 4. Further details are given here:

Using the Template table window

For each Template, fill in the Template sequence number in the field 'Template seq'. The sequence number determines the order, in which the Templates are used to produce the output document. The Template with the lowest sequence number is used to produce the first page of the output document. The Template with a higher sequence number is used to produce the second page of the output document and so on. It doesn't matter which sequence numbers are entered, as long as they consist of 3 digits and represent the correct order. It is recommended to assign the number 500 to the most frequently used Template and assign other sequence numbers in relation to it.

In the example the Template 'cover.dot' is assigned the sequence number 400, the Template 'invoice.dot' is assigned the sequence number 500 and the Template 'packing.dot' is assigned the sequence number 600.

For each Template, fill in a short description of the Template document in the field 'Description'. This description can help you identify the Template in the Template table.

For each Template, fill in the name of the document, without the DOT extension, in the field 'Word document'.

In the example, the names "cover", "invoice" and "packing" are entered.

For each Template, enter 'Y' in the field 'Package' to always include it in the creation of the output document.

For each Template, locate the cursor in the field 'Merge next page mode' in order to select the manner of merging the pages of the output document. Press **F4** to display a list of available merging modes. Select option '00' (default) to merge with a page break between. In this mode each page of the output document stands by itself.

Select option '01' to merge without any spacing. In this mode the pages of the output document are combined without any spaces.

Select option '02' to merge with one separating line. In this mode the page breaks of the output document are replaced with one separating line.

In the example, merge next page mode 00 (default) is selected for all Templates.

For each Template, locate the cursor in the field 'Template usage mode' in order to select the manner of applying the Template document on the spool. Press **F4** to display a list of available usage modes. Select option '0' (default) to reuse the Template for each of the spool pages. In this mode Papirus integrates every spool page into a separate Template page. This mode was designed for spool files in which all pages have the same format.

Select option '1' to use the Template once for the complete spool. In this mode Papirus integrates all the spool pages into one Template page. This mode was designed for spool files in which every page continues the previous page.

Don't select option '2' at this stage.

Select option '3' to use the Template as is. In this mode Papirus uses the Template to create the output document, but does not integrate spool data into it. This usage mode was designed for Templates containing only constant text, which suppose to be added to the output document in a fixed position. In the example, usage mode 0 (default) is selected for all Templates.

The following figure represents the Template definition windows:

	Template definition
Design ID	400 Cover Page Cover Y (Y/N) (F4)

	Cover.dot
	Template definition
Design ID:	INV567X
Template seq:	500
Description:	Invoice
Word document:	Invoice
Package:	Y (Y/N)
Merge next page mode.:	(F4)
Template usage mode:	(F4)
Copies:	

Template definition Design ID....: INV567X Template seq...: 600 Description...: Packing list Word document...: Packing Package...: Y (Y/N) Merge next page mode.: (F4) Template usage mode.: (F4) Copies...:

Packing.dot
Figure 64. Template definitions

For each Template, press F2 to save the definition.

Press F3 to return to the Design definition window.

Press **F2** to confirm.

Replacing Template documents

General Explanation

Several different Templates can be assigned to one spool and be replaced dynamically to match the current version of the spool. This can be achieved in a four steps process-

- 1) Creating the Template documents in MS-Word.
- 2) Assigning the Templates to the spool.
- 3) Defining an area that indicates the need to replace Templates.
- 4) Assigning a Field ruler, containing the name of the desired Template, to the area.

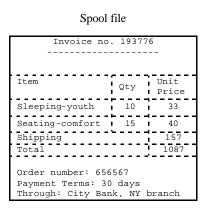
The replacement of the Templates is performed automatically.

Replacing Template documents - Step by Step

- 1. Type **PPS** in the AS/400 command line prompt, and press **Enter**.
- 2. Type 2 for Spool Design and press Enter. The Design Table window appears.
- 3. Locate the desired design in the design table.
- 4. Type 2 next to it and press Enter.
- 5. Press **F7** to assign the Template document to the design.
- 6. Press **F6** to define a new Template document.
- 7. For each Template, fill in the desired sequence number in the field 'Template seq.'.
- 8. For each Template, fill in a description in the field 'Description'.
- 9. For each Template, fill in the name of the document, without the DOT extension, in the field' Word document'.
- 10. For the Template always included, enter 'Y' in the field 'Package'.
- 11. For the Template included only in certain cases, enter 'N' in the field 'Package'.
- 12. For each Template, select the desired option in the field 'Merge next page mode'.
- 13. For the Template always included, select the desired option in the field 'Template usage mode'.
- 14. For the Template included only in certain cases, select option '2' in the field 'Template usage mode'.
- 15. For each Template, press **F2** to save the definition.
- 16. Press **F3** to return to the Design definition window.
- 17. Press **F8** to open the Area table window.
- 18. Define a new area that indicates the need to replace Templates.
- 19. Assign a Field ruler to this area.
- 20. Fill in a description for the ruler in the field 'Description' (optional).
- 21. Enter Papirus' control variable '\$TMPL DOCNAME' in the field 'Field'.
- 22. Enter the name of the desired Template (including the DOT extension) in the field 'Formatting string'.
- 23. Enter 'Y' in the field 'Text is an object name'.

- 24. Enter 'N' in the field 'Clear spool area'.
- 25. Press **F2** to save the ruler definition.
- 26. Press F2 to save the area definition.
- 27. Press **F3** to return to the Design definition window.
- 28. Press F2 to confirm.

The following figure illustrates the package for a complex spool, which always includes an invoice, but sometimes includes a packing list as well. Each page has a different format and requires a separate Template document.





Invoice.dot

Template document



Packing list no. 193776				
Box	Item Code	Qty	S/N	
1	Nec2000	10	56577	
2	Nec9995	10	56578	
3	Nec9995	5	56579	
Please refer to our S/N in all shipping documents				

Turtle Furniture Production Packing list no. ~packingno~				
Box	Item Code	Qty	S/N	
~b~	~code~	~qty1~	~sn~	
Please r docume	efer to our S/N innts	all shipping		



Packing.dot

Figure 65. Package

Replacing Template documents

First, create all desired Template documents in MS-Word. The process of creating Template documents was described in Step 3.

NOTE

Do not to place the same variable in two different Templates, unless you want the spool data to appear in both pages of the output document.

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Assign the Templates to the spool. The process of assigning Templates to spools was described in Step 4. Further details are given here:

Using the Template table window

For each Template, fill in the Template sequence number in the field 'Template seq'. The sequence number determines the order, in which the Templates are used to produce the output document. The Template with the lowest sequence number is used to produce the first page of the output document. The Template with a higher sequence number is used to produce the second page of the output document and so on. It doesn't matter which sequence numbers are entered, as long as they consist of 3 digits and represent the correct order. It is recommended to assign the number 500 to the most frequently used Template and assign other sequence numbers in relation to it.

In the example the Template 'invoice.dot' is assigned the sequence number 500 and the Template 'packing.dot' is assigned the sequence number 600.

For each Template, fill in a short description of the Template document in the field 'Description'. This description can help you identify the Template in the Template table.

For each Template, fill in the name of the document, without the DOT extension, in the field 'Word document'.

In the example, the names "invoice" and "packing" are entered.

For each Template, enter 'Y' in the field 'Package' if it should always be included in the creation of the output document. Enter 'N' if it should be included only in certain cases.

In the example, 'Y' is entered for the invoice.dot Template and 'N' is entered for the packing.dot Template.

For each Template, locate the cursor in the field 'Merge next page mode' in order to select the manner of merging the pages of the output document. Press **F4** to display a list of available merging modes. Select option '00' (default) to merge with a page break between. In this mode each page of the output document stands by itself.

Select option '01' to merge without any spacing. In this mode the pages of the output document are combined without any spaces.

Select option '02' to merge with one separating line. In this mode the page breaks of the output document are replaced with one separating line.

In the example, merge next page mode 00 (default) is selected for both Templates.

For each Template, locate the cursor in the field 'Template usage mode' in order to select the manner of applying the Template document on the spool. Press **F4** to display a list of available usage modes. For Templates that should always be included in the creation of the output document:

Select option '0' (default) to reuse the Template for each of the spool pages. In this mode Papirus integrates every spool page into a separate Template page. This mode was designed for spool files in which all pages have the same format.

Select option '1' to use the Template once for the complete spool. In this mode Papirus integrates all the spool pages into one Template page. This mode was designed for spool files in which every page continues the previous page.

Select option '3' to use the Template as is. In this mode Papirus uses the Template to create the output document, but does not integrate spool data into it. This usage mode was designed for Templates containing only constant text, which suppose to be added to the output document in a fixed position.

For Templates that should be included only in certain cases:

Select option '2' not to use the template at all. In this mode Papirus does not use the Template to create the output document until instructed otherwise.

In the example, usage mode 0 (default) is selected for the Templates invoice.dot and usage mode 2 is selected for the Template packing.dot.

The following figure represents the Template definition windows:

	Template definition
Design ID: Template seq: Description: Word document: Package: Merge next page mode:	Invoice Invoice Y (Y/N) (F4)
Template usage mode: Copies:	(F4)

Invoice.dot Template definition Design ID....: INV567X 600 Template seq....: Packing list Description....: Word document....: Packing N Package....: (Y/N)Merge next page mode.: (F4) 2 Template usage mode..: (F4) Copies....:

Packing.dot

Figure 66. Template definitions

For each Template, press **F2** to save the definition.

Press **F3** to return to the Design definition window.

Press **F8** to open the Area table window.

Define a new area that indicates the need to replace Templates.

In the example, every area from the packing list can be defined. In this case, the area of the title "Packing list no." is the defined area. The process of defining areas was described in step 5.

```
Area definition
Design ID....:
                  INVOICE
                    16
                          Description.:
                                         Packing List
Start indicator
   Text.....
                          Packing list no.
                            35
   Position....:
                    Col
                                  Length
                                             16
                                                   Rows
                                                        offset
                                                                  0
   Search option.:
                     Ν
    attributes
Area
                                  (0-For end indicator)
                            35
                                  Width
   Position....:
                    Col
                                             16
End indicator
   Text....
   Position...:
                    Col
                                  Length
                                                   Rows offset
```

Figure 67. Packing list - Area Definition window

Assign a Field ruler to this area. The process of defining rulers was described in step 5. Further details are given here:

Using the Field ruler window

Fill in a short description of the ruler in the field 'Description'. This description can help you identify the ruler in the Area table. If this field remains blank, Papirus automatically enters the variable name as the description.

Locate the cursor in the field 'Field' and press **F4** to open a list of Papirus' control variables. Locate the control variable '\$TMPL_DOCNAME' by pressing the **Page Down** key and select it by typing **1** next to it and pressing **Enter**. This control variable instructs Papirus to replace the Template document.

Fill in the name of the desired Template document, including the DOT extension, in the field 'Formatting String'.

In the example the name "packing.dot" is entered.

Type 'Y' in the field 'Text is an object name' to indicate that the text represents an object.

Type 'N' in the field 'Clear spool area'.

		Field	ruler		
Design ID: Description:		ME	Ruler no:	16	_ _
Field		\$TMPL_I	OOCNAME		(F4)
Formatting string: Packing.dot		(F4)			
Text is an object					

Figure 68. Replace Template – Field ruler window

Press **F2** to save the ruler definition.

Press **F2** to save the area definition.

Press ${\bf F3}$ to return to the Design definition window.

Press F2 to confirm.

Step 8 – Routing spools to desired output devices

Unlike the first seven steps, which determine the appearance of the output document, the last step controls its distribution. The output document created by Papirus can be distributed through several output devices. The destinations can remain constant or change according to the text of the spool. The routing of the spool to the desired output devices is part of the design. It is performed with Papirus' control variables.

Papirus' control variables

There are two types of variables in the Papirus system:

- 1) Template variables, which are defined by the user. These variables contain spool data that will appear in the output document (Template variables were introduced in Step 3).
- 2) Control variables, which are part of the standard system. The control variables determine the destination for the output document (printer, email, fax, internet, cellular phones etc.). Control variables are constructed of a '\$' sign followed by several characters, for example: \$EMAILTO. The data placed in the control variable is the name of the desired output device. The name may be constant or change according to the text of the spool. In both cases this data will not appear in the output document itself.

Once the control variables are added to the design, Papirus automatically routes the output document to the chosen destination.

Papirus' control variables are listed in the following table:

Control Variable	Description
\$AUTHOR	Name of the author in the document's properties in MS-Word
\$COLATE	Print copies in collection order
\$COPIES	Number of copies to print
\$DOCNAME	Name of the document in Windows printing queue
\$DONTPRINT	Cancel document printing
\$DONTSEND	Cancel document transmission by email or fax
\$EMAILCC	Email CC destination address, list with ";" separator is accepted
\$EMAILDOCN	Email attachment name
\$EMAILFORMAT	$Email\ attachment\ format\ (D-doc,\ H-html,\ T-txt,\ G-gif,\ J-jpg,\ P-pdf)$
\$EMAILFROM	Email sender address*
\$EMAILFROMNAME	Email sender name*
\$EMAILP ROF	Email sender exchange profile

Control Variable	Description
\$EMAILTEXT	Email message text
\$EMAILTO	Email TO destination address, list with ";" separator is accepted
\$FAXNUMBER	Fax destination number, list with ";" separator is accepted
\$FILENAME	Name of the output document in DOC format
\$HTMLNAME	Name of the output document in HTML format
\$IGNORE	Omit current item from package
\$IMGCOLOR	Type of output document in graphic format, b/w or color**
\$IMGNAME	Name of the output document in graphic format**
\$IMGRES	Resolution of the output document in graphic format**
\$IMGSCALE	Scale factor of the output document in graphic format**
\$IMGTYPE	Format of the output document in graphic format**
\$MACRO	Run MS-Word macro
\$MACRO_DOTFILE	Location of MS-Word macro to run
\$MERGECHECK	Merge check
\$OUTPATH	Desired path on the PC to save the output document
\$PAGESKIP	Skip current page
\$PASSWORD	Email attachment protection password (by default the password is 777).
\$PATH	Search path for PC objects inserted to the output document
\$PDFNAME	Name of the output document in PDF format
\$PRINTAFTER	Print DOC after main print
\$PRINTBEFORE	Print DOC before main print
\$PRINTER	Name of desired printer to print the output document
\$REMARK	Remark appearing in Papirus' AS/400 events log
\$RUN	Activate AS/400 command
\$SMS_MSG	SMS message text
\$SMS_MSG1	Different SMS text to each number
\$SMS_NUMBER	SMS destination number
\$SUBJECT	Fax and email subject
\$TEXTNAME	Name of the output document in TXT format
\$TITLE	Title of the document in the document's properties in MS-Word
\$TEST	Display the output document in MS Word Viewer on the Papirus PC server
\$TMPL_DOCNAME	Name of the Template document to assign to the spool
\$TMPL_PAGEMODE	Merge next page mode for the Template document
\$TMPL_PAGESKIP	Omit spool page from the output document

Control Variable	Description
\$TMPL_PAGEUSE	Include current page in the output document, omit others

- * Papirus can send emails through MS-Outlook or directly through SMTP protocol. Certain options are available only under SMTP configuration. Refer to Papirus' Email module user's guide for further details.
- ** The output document can be saved in various formats. Certain options are available only when the output document is saved in a graphic format (JPG, TIFF, GIF, BMP etc.).

Note

Several control variables can be used in parallel in order to send one output document to various destinations.

Sending documents to constant destinations

Step by Step

- 1. Type **PPS** in the AS/400 command line prompt and press **Enter**.
- 2. Type 2 for Spool Design in the field 'Select' and press Enter.
- 3. Locate the relevant spool design in the list.
- 4. Type 8 next to it and press Enter. The Area Table window appears.
- 5. <u>Define the area indicating the need to send the spool to the desired destination.</u>
- 6. Assign a Field ruler to this area.
- 7. Fill in a description for the ruler in the field 'Description' (optional).
- 8. Locate the cursor in the field 'Field' and press F4 to open a list of Papirus' control variables.
- 9. Select the desired control variable by typing 1 next to it and pressing Enter.
- 10. Enter the name of the output device in the field 'Formatting string'.
- 11. Enter 'N' in the field 'Text is an object name'.
- 12. Enter 'N' in the field 'Clear spool area'.
- 13. Press **F2** to save the ruler definition.

Assume that a copy from all output documents ought to be sent to one constant destination. In order to do this, define an area indicating the need to send the spool to the desired destination. Then assign field ruler, containing a control variable and the name of the output device.

The following figure contains the header of a spool file:

Figure 69. Spool file – Header

Assume that the output document from this spool should always be sent by email to the email address: service@papirus400.com. This can be achieved by inserting this email address into the control variable \$EMAILTO.

In order to do so, define a new area that indicates the need to send the spool by email.

In the example, every area from the spool can be defined. In this case, the area of the word "Attn:" is the defined area. The process of defining areas was described in step 5.

	Area definition	
Design ID: PURCHAS Area ID: 2		
Start indicator Text	Attn:	
Position: Col Search option: Y		_
Area attributes Lines	1 (0-For end indicator)	
Position: Col End indicator Text	1	
Position: Col	Length Rows offset	_

Figure 70. Attn - Area Definition window

Then assign a field ruler to this area. The process of defining rulers was described in the Step 5 as well. Further details are given here:

Using the Field ruler window

Fill in a short description of the ruler in the field 'Description'. This description can help you identify the ruler in the Area table. If this field remains blank, Papirus automatically enters the control variable name as the description.

Locate the cursor in the field 'Field' and press **F4** to open a list of available control variables. Select the desired control variable by typing **1** next to it and pressing **Enter**.

In the example the control variable "\$EMAILTO" is selected.

Enter the name of the desired output device in the field 'Formatting String'.

In the example the email address "service@papirus40.com" is entered.

Type 'N' in the field 'Text is an object name'.

Type 'N' in the field 'Clear spool area'.

```
        Field ruler

        Design ID...:
        PURCHASE
        Ruler no...:
        1

        Description..:
        $EMAILTO
        (F4)

        Field......:
        $EMAILTO
        (F4)

        Formatting string.....:
        (F4)

        service@papirus400.com
        (F4)

        Text is an object name...:
        N
        (Y/N)

        Clear spool area.....:
        N
        (Y/N)
```

Figure 71. \$EMAILTO – Field ruler window

Press **F2** to save the ruler definition.

Sending documents to destinations from the spool

Step by Step

- 1. Type **PPS** in the AS/400 command line prompt, and press **Enter**.
- 2. Type 2 for Spool Design and press Enter.
- 3. Locate the relevant spool design in the list.
- 4. Type 8 next to it and press Enter. The Area Table window appears.

- 5. <u>Define the area containing the name of the destination.</u>
- 6. Assign a Field ruler to this area.
- 7. Fill in a description for the ruler in the field 'Description' (optional).
- 8. Locate the cursor in the field 'Field' and press F4 to open a list of Papirus' control variables.
- 9. Select the desired control variable by typing 1 next to it and pressing **Enter**.
- 10. Enter a formatting string, representing the names of all output devices, in the field 'Formatting string'.
- 11. Enter 'N' in the field 'Text is an object name'.
- 12. Enter 'N' in the field 'Clear spool area'.
- 13. Press **F2** to save the ruler definition.

The name of the desired output device can be taken directly from the text of the current spool. In order to do this, the area containing the name of the output device must be defined. Then, a field ruler containing a control variable and a formatting string must be assigned to that area.

The following figure contains the header of a spool file:

Figure 72. Spool file – Header

Assume that the output document from this spool should be sent by email to the email address appearing on the spool. This can be achieved by inserting the email address into the control variable \$EMAILTO.

In order to do so, define the area of the email address. The process of defining areas was described in Step 5.

	Area d	efiniti	.on			
Design ID: PURCHANA Area ID 2		ion.:	Email ad	dress		
Start indicator Text	Email:					
Position: Col	1	Length	6	Rows	offset	0
Search option.: Y	(F4)					
Area attributes						
Lines	1	(0-For	end indi	cator)		
Position: Col	8	Width	30			
End indicator				_		
Text						
Position: Col		Length		Rows	offset	

Figure 73. Email address - Area Definition window

Then assign a field ruler to this area. The process of defining rulers was described in the Step 5 as well. Further details are given here:

Using the Field ruler window

Fill in a short description of the ruler in the field 'Description'. This description can help you identify the ruler in the Area table. If this field remains blank, Papirus automatically enters the control variable name as the description.

Locate the cursor in the field 'Field' and press **F4** to open a list of available control variables. Select the desired control variable by typing **1** next to it and pressing **Enter**.

In the example the control variable "\$EMAILTO" is selected.

Enter a formatting string, representing the names of all output devices, in the field 'Formatting String'. In the example the formatting string "{abcde...}" for general translation is entered.

Type 'N' in the field 'Text is an object name'.

Type 'N' in the field 'Clear spool area'.

		Field	ruler	
Design ID: Description:			Ruler no: 1	_
Field	:	\$EMAIL	то	(F4)
Formatting stri {abcde}	ng:	(F4)		
Text is an obje Clear spool are				

Figure 74. \$EMAILTO – Field ruler window

Press **F2** to save the ruler definition.

Glossary of terms

The following terms were introduced in the guide:

Α

Area - Section of a spool, containing data and indicators.

C

Constant area - Area containing a constant number of lines.

Control variable - String of text written after a "\$" sign. Control variables determine the

destination for the output document.

D

Data queue - A queue through which data is transferred from the AS/400 to the PC.

Design - Links the spool to the corresponding Template document and routs it to the

desired output device.

DesignID - Name of the design, must be identical to the spool userdata.

Dynamic area - Area containing an unknown number of lines.

Ε

End indicator - Indicates the ending of an area.

H

Formatting string - String of text written between brackets {}. Formatting strings apply

different filters on the spool text.

I

Indicator - Indicates the location of data in the spool.

L

Layout document - Word document defining the spool width and language code.

P

Package - All Template documents assigned to the same spool.

PC server - Personal computer on which the Papirus software is installed.

PPW file - PC file format that includes a spool sample and its design definitions. Used

to transfer spool files and designs between AS/400 systems.

Ruler - Links areas from the spool to the corresponding variables in the Template

document.

S

Spool - Print output of the AS/400 computer.

Start indicator - Indicates the beginning of an area.

T

Template document — Word document into which data from the spool file is integrated.

U

Output document - Formatted Word document created by Papirus from the AS/400 spool file.

Userdata - One of the fields characterizing the spool on the AS/400 computer (usually

the name of the program that the spool has created).

٧

Variable - String of text written in the Template document with the sign "~" before

and after. Variables are replaced by data from the spool.

W

Wild card signs - Signs representing different characters that can be used to compose

indicators:

- Represents any numeric character.

@ - Represents any alphabetic character.

- Represents any non-blank character.

~ - Represents any characters, including blank.

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