12

Printing & Mail Merge

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Ovation Pro uses Windows printer drivers to print documents exactly as they appear on the screen, at any resolution that your printer can deliver. To print a document, you must have a printer driver installed that is suitable for your printer. A wide range of printer drivers are supplied with your computer, and others are available separately from other suppliers.

The **Mail Merge** facility allows a document to be printed a number of times merging different data into each printout. Typically this feature could be used to print a standard letter to a number of different names and addresses.

The following Mail Merge examples show how fields can be used to generate special results.

1. Generating address labels: *multiple addresses on one page*
2. Adding sequential numbers to documents: *raffle tickets*
3. Adding random number to documents: *bingo tickets*
4. Creating new Mail Merge data from other fields
5. Generating Mail Merge data from other sources
6. Manipulating Mail Merge data (e.g. removing blank fields)

12.1 Printers & Printer Drivers

Ovation Pro can print on any printer, provided a suitable printer driver has been installed in the printer manager. It is essential that you choose the correct driver for your printer, otherwise it will at best produce a poor quality printout, or at worst deliver pure rubbish. Each printer driver has a default configuration, such as resolution and quality, and you may need to change this to produce the results you require.

Connection

You should configure the printer driver to use the correct port for your printer. Normally this will be the parallel interface, but you may also print to the serial port, to USB, to the network or to file.

Resolution

Most printer drivers support a range of print resolutions, so you must make a trade-off between print quality and speed. Higher resolutions give better print quality, but take longer to print.

Quality

You can configure most drivers to print in mono (black and white), grey scales or colour (if it is a colour printer). The quickest results will generally be obtained by printing in mono.

Page Size and Paper Size

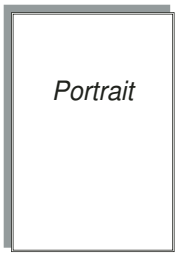
The *page size* is the size of the page set in ***Ovation Pro***. The *paper size* is the size of the paper that is fed into the printer.

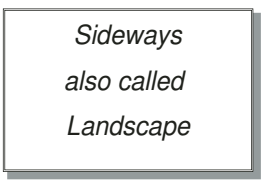
It is very important that printer driver is set up to have the same paper size as the paper being fed into the printer.

Usually the paper size should be set to the same page size used in ***Ovation Pro***, but in some cases they may be different. For example, you may wish to print an A5 page on A4 paper, or printing two A5 pages side-by-side on A4 paper.

Landscape Pages

Normally, ***Ovation Pro*** prints each page of the document upright on the paper. However, if the page was set to be **Sideways**, it is printed sideways on the paper i.e. the print option **Sideways** is automatically selected *(see 12.3)*.





Print Margins

Menu➪View➪Options➪Print margins
Ctrl+Shift+O

Most printers cannot print right up to the edges of the paper i.e. there is a margin around the paper on which the printer cannot print. You can view this margin by selecting the **Print margin** option on the **Options** dialogue box. The print margin is shown as a grey margin around the page *(fig. 7.5)*. The area inside the print margins is the printable area. If the page size is bigger than the paper size, the print margin will show the area that cannot be printed.

If any objects on the page extend into the print margin, they will not be printed. There are a number of solutions to this problem:

- Redesign the page so that all objects fit wholly within the printable area.
- If there is space at the opposite edge of the paper, shift the page across when printing. Options **X** and **Y** on the **Print** dialogue box allow you to do this *(see 12.3, Advanced Print setup options)*.
- Scale the page down when printing so that all objects fit in the printable area. Any easy way to do this is using the **Fit** option on the **Print** dialogue box *(see 12.3)*.

Print➪Print setup

Note that the print margin is read from the printer driver, so a printer driver must be loaded for it to be displayed.

Print Speed & Memory Requirements

The time taken to print a page depends upon the type of printer you are using and the complexity of the page. PostScript and other laser printers are usually the quickest printers. Inkjet and in particular dot-matrix printers tend to be the slowest.

You can normally speed up printing in a number of ways:

- Reduce the print resolution. You could use a lower resolution for draft printouts, then switch to the highest resolution for the final copy.
- Reduce the print quality. If you are only printing in black and white, ensure that your printer driver is configured to mono (dot-matrix and inkjet printers only).
- Free more memory before printing.

If required, you can make extra memory available in the following ways:

- Quit any other unneeded applications before printing.

12.2 Basic Printing

Menu⇨File⇨Print… **Ctrl+P**

To print a document, first ensure that the correct printer driver has been loaded and configured.

Now choose **File⇨Print** to open the **Print** dialogue box *(fig. 12.1)* which provides all the basic print options.

Printer

This shows you the name of the printer that will be used and allows you to change it from a menu of available printers.

Print Setup

If you click on **Print setup**, the dialogue box expands to display the advanced print setup options *(see 12.3, fig 12.8)*.

Copies

Copies is the number of copies of each page that you want to print. For a multi-page document, each page in turn is printed the specified number of times i.e. in the order 1,1,1, 2,2,2, 3,3,3 etc.

You may use the **Collate** option if you want pages to be sorted into order automatically i.e. in the order 1,2,3, 1,2,3, 1,2,3 etc.

Some printers, such as PostScript and other laser printers, retain a copy of the printed image in their memory, so printing multiple copies of the same page takes only slightly longer than printing one copy.

Format

Choose the format of the printed pages from the **Print format** menu *(fig. 12.2)*.

Normal

Normal is the default format, and prints pages in the order they appear in the document. Each page is printed upright at 100% scale, and centred on the paper. However, you may change the scaling, orientation etc. using the advanced print options *(see 12.3)*.

> Because printer drivers or printer hardware will occasionally crash your computer it is good practice to save your document before trying to print it.

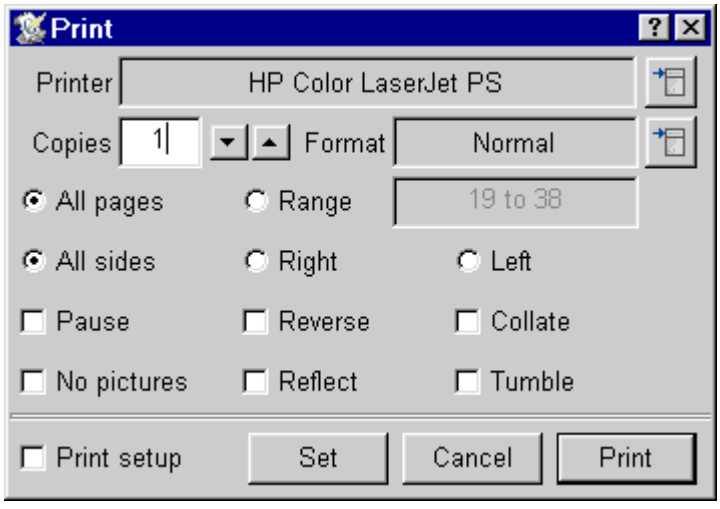


*Fig. 12.1 - Basic options on the **Print** dialogue box*

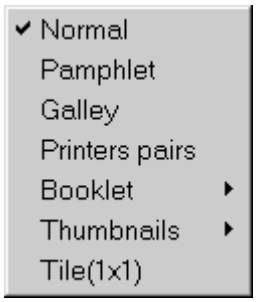


*Fig. 12.2 - The **Print format** menu.*

Pamphlet

Pamphlet prints 2 pages side-by-side on each sheet of paper *(fig. 12.3)*. The pages are printed in such an order that when folded they create a pamphlet with correctly ordered pages *(fig. 12.4)*. Typically this option is used to produce small A5 booklets printed sideways on A4 paper, although other sizes may be used too.

By default each page is printed sideways at 71% scale, and the pair of pages are centred on the paper. These settings are suitable for printing an A4 document on A4 paper, producing an A5 pamphlet. However, you may change the scaling, orientation etc. using advanced print options *(see 12.3)*. For example if your document is A5, the scaling should be set to 100%.

Your document may have any number of pages, but the number of pages in the booklet will be rounded up to a multiple of 4 pages. So if you print 7 pages, you will get an 8-page booklet with the last page blank. To obtain sensible results, pamphlets should always start on a right-hand page.

To print the pamphlet, choose **Front** to print the front side of the paper only, then turn the paper over and choose **Back** to print the back side. So if you have an 8-page document, choose **Front** to print pages 8/1 on the first sheet and 6/3 on the second. Turn the paper over and select **Back** and **Reverse** to print pages 2/7 on the back of 8/1, and pages 4/5 on the back of 6/3. You should now be able to fold the sheets in half for a correctly ordered booklet.

You may need to experiment to find the correct way to turn the paper over, so that the back side is printed correctly.

If you print the pamphlet with **All sides** selected, all sheets will be printed on one side only. This may be useful if you wish to print multiple copies of the pamphlet on a photocopier.

However if your printer has a duplex unit, **All sides** will result in sheets being printed on both sides. It is necessary to enable the duplex unit, to do this use **Properties** *(see 12.3)*.

The typical way of printing a pamphlet with a duplex unit, is to select **All sides** and from the **Properties** window “flip on short side”.

Please note that when pamphlet printing you may find that the edges of the document are not printed because they fall in the print margin. In this case you should select the **Fit** option, or reduce the scale manually *(see 12.3)*.

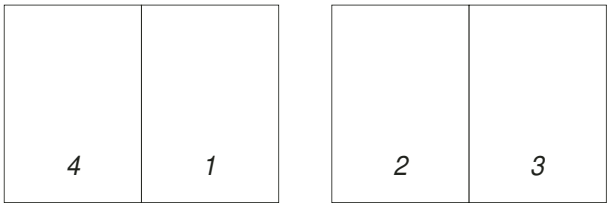


*Fig. 12.3 - A 4-page document **Pamphlet** printed.*

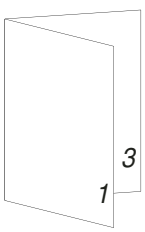


Fig. 12.4 - A folded 4-page pamphlet.

Galley

Galley prints 2 pages side-by-side on each sheet of paper *(fig. 12.5)*. Galley printing is useful for producing draft copies of documents at a smaller scale and thus using less paper.

Pages are printed in the order they appear in the document. By default each page is printed sideways at 71% scale, and the pair of pages are centred on the paper. These settings are suitable for printing an A4 document on A4 paper, producing an A5 pamphlet. However, you may change the scaling, orientation etc. using advanced print options *(see 12.3)*. For example if your document is A5, the scaling should be set to 100%.

Notice that pages are printed on the same sides as they appear in the document. So if a document starts on a right-hand page, the first page printed will be a blank left-hand page. If you want to avoid this blank page *(fig. 12.6)*, you should set the document to start on a left hand page using **Start on left** on the **Page⇨Modify chapter** dialogue box.

If **All sides** on the **Print** dialogue box is selected, each sheet is printed in turn on one side of the paper.

You may print on both sides of the paper by using the **Front** and **Back** options on the **Print** dialogue box. Choose **Front** to print the front side of the paper only, then turn the paper over and select **Back** and **Reverse** to print the back side. So if you have an 8-page document that starts on a left-hand page, choose **Front** to print pages 1/2 on the first sheet, and 5/6 on the second. Turn the paper over and choose **Back** to print pages 3/4 on the back of 1/2, and pages 7/8 on the back of 5/6.

You may need to experiment to find the correct way to turn the paper over, so that the back side is printed correctly. You may need to use the **Reverse** option to reverse the order of printing the back side.

Please note that when galley printing you may find that the edges of the document are not printed because they fall in the print margin. In this case you should select the **Fit** option, or reduce the scale manually *(see 12.3)*.

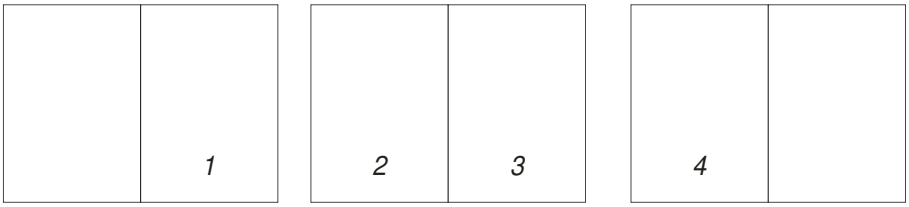


*Fig. 12.5 - A 4-page document **Galley** printed. Document starts on right-hand page*

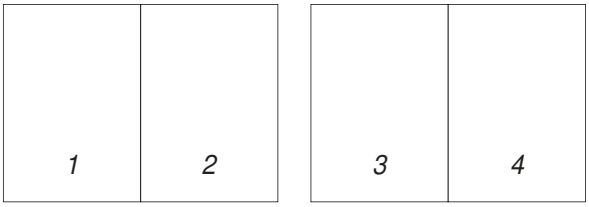


*Fig. 12.6 - A 4-page document **Galley** printed. Document starts on left-hand page*

Printers pairs

This is the same as Pamphlet but used for A4 size printouts without scaling or sideways printing.

Booklet, Thumbnails & Tile

The following printing formats are also available if the **Imposition** applet has been installed:

- Booklet
- Thumbnails
- Tile

Booklet

Booklet is equivalent to 'Four-up' printing found on other systems. It prints 4 pages on each sheet of paper. The pages are printed in such an order that after printing the front and back of the sheet, it can be folded twice and trimmed to form an eight-page booklet.

If 'Use half-sections' is ticked, and the booklet has 4 pages, then those four pages will be printed on one side of the sheet. Remember to print just the Front side, otherwise 2 sheets will be printed.

If 'Use half-sections' is ticked, and the booklet has 12-pages, 20 pages etc. (a multiple of 8 plus 4 or less) the outer four pages will be printed separately as a 4-page section. The remainder of the pages will be printed as standard 8-page sections.

Thumbnails

Normally ***Ovation Pro*** prints one page onto each sheet of paper, but with Thumbnails it prints as many as it can. In order to print more than one page per sheet, the page size has to be smaller than the paper size or Scale must be set to less than 100%. The number of pages that will fit is also affected by the Sideways option.

The Thumbnails menu will let you choose as many pages as will fit in the paper area or the printable area, or you can specify how many thumbnails are required. Finally you can have the contents of all the thumbnails the same. This may be useful for tasks like printing business cards, where you only have to design one card, but can have a matrix of 4 by 8 printed out.

Tile

By using the Tile print format you print one large page across a number of smaller sheets of paper. You might use this facility to print a large poster onto a number of A4 sheets of paper.

All pages

Select **All pages** to print all pages in the document. The page numbers are shown in the icon to the right of **Range**.

Range

Select **Range** to print the range of pages specified in the writable icon. Page numbers specified should be the same as those shown in the document. So if you have a document whose start page is 8, you may print the first 4 pages by specifying the range 8 to 11.

The page number of the current page (the one in the centre of the document window) is shown on the info palette and the **File➪Info** dialogue box.

If your document has more than one chapter and the page numbering is not continuous, the page number format must be specified in the form `c.n` where `c` is the chapter number and `n` is the page number. So for example, if you have a document with 2 chapters each starting at page 1, and you wish to print the first 4 pages from chapter 2, you should use the range 2.1 to 2.4.

The following forms can be used for page numbers:

`N`	the first page in the document with page number `N` e.g. typed as 6
`S.P`	page number `P` in chapter `S` e.g. 2.6
`S/P`	-- ditto -- e.g. 2/6
`AN`	absolute page `number N` e.g. A6 i.e. the Nth page in the document.
`aN`	-- ditto -- e.g. a6
`S.*`	first page in chapter `S` e.g. 2.*
`S.`	-- ditto -- e.g. 2.
`S.f`	-- ditto -- e.g. 2.f
`S.F`	-- ditto -- e.g. 2.F
`S.l`	last page in chapter `S` (letter L) e.g. 2.l
`S.L`	-- ditto -- e.g. 2.L

A page range can be written as:

Pn	start and end with page Pn
Pn-Qn	Start with page Pn and end with page Qn

Page ranges can be concatenated with a comma. The following examples are valid:

```
1.1-6.5
1,2,3,9,18,20
1,6,88-99
1 to 15
A1 to A6, A10 to 15.6,36,45
```

All sides

All sides causes both left-hand and right-hand pages to be printed.

Left and **Right** allow you to print either the left-hand or right-hand pages. This enables you to print double-sided documents by printing one side, then turning the paper over and printing the other.

If you are pamphlet or galley printing, **All sides** causes both sides of each *sheet* to be printed. The **Left** and **Right** options change to **Front** and **Back**, and allow you to print either the front or back of the sheets. This enables you to print double-sided pamphlets or gallies (see the earlier description of **Pamphlet** and **Galley**).

Pause

If **Pause** is selected, printing will pause between each page printed until you click on **Continue** on the **Printing** dialogue box.

Reverse

If **Reverse** is selected, printing starts with the last page instead of the first.

If your printer stacks pages face-up they will be incorrectly ordered after printing. In this case you can use **Reverse** to correct the page ordering. You may also need to use this option when printing the back side of double-sided documents.

Collate

If **Collate** is not selected, ***Ovation Pro*** prints multiple copies of each page, so pages are printed in the order 1,1,1, 2,2,2, 3,3,3.

If **Collate** is selected when printing multiple copies, ***Ovation Pro*** prints multiple copies of the document, so pages are printed in the order 1,2,3, 1,2,3, 1,2,3.

Some printers such as dot-matrix, take the same amount of time to print each copy of a page. In this case **Collate** may be used to stack the pages in the correct order.

However, other printers such as PostScript, can keep an image of the last page, and print multiple copies of it very quickly without any further reprocessing. In this case it is faster to leave **Collate** not selected, so that multiple copies of each page are printed consecutively.

No pictures

If **No pictures** is selected, ***Ovation Pro*** will ignore pictures and just print text. Only the picture frame guideline is printed. On some printers such as PostScript, printing pictures is very slow, so this option may be useful for quickly printing draft copies.

Reflect

Reflect prints a mirrored image of the document - however this only works if the printer driver supports it.

Tumble

If **Tumble** is selected and **All Sides** is selected, then printing on the even sides will be rotated by 180 degrees. If **Left/Right** or **Front/Back** are selected all printing will be rotated by 180 degrees.

This is useful for using a printer with a duplex unit (which allows printing on both sides of the paper in one pass). Tumble provides the same functionality as the “flip on short side” and “flip on long side” provided by printer drivers for duplex units.

It is also useful when preparing printout to be sent to a commercial printer where it is necessary to arrange the pages as required for the printing machine.

Set

All the options on the **Print** dialogue box are stored in the document when it is saved. Click on **Set** to set the values without actually printing anything.

Print

Click on **Print** to print the document. The pointer changes to an hourglass and the **Printing** dialogue box is displayed *(fig 12.7)*. It shows the **Page** and **Copy** being printed, and if you are mail merging, the current **Record**.

The green slider gives a visual indication of how much of the print job has been completed, but please note that this is only accurate to the nearest whole page.

Separation indicates the colour of the plate being printed when printing separations.

Click on **Cancel** to terminate printing. There is only a limited amount of multitasking possible when printing i.e. when the hourglass occasionally turns back to the standard pointer, so there may be a delay before **Cancel** takes effect. Usually it is quicker to press Esc instead.

Click on **Pause** to pause printing. Again, there may be a delay before **Pause** takes effect. When paused, the **Pause** option changes to **Continue** which you should click on to continue printing.

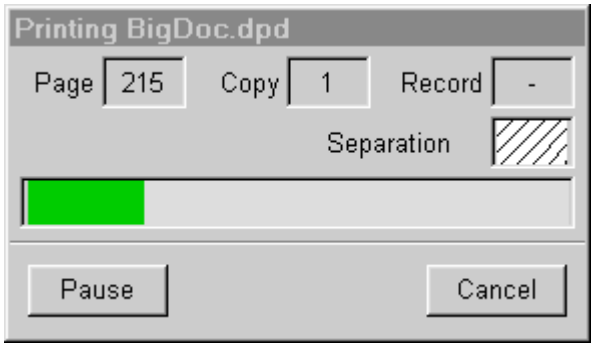


*Fig. 12.7 - The **Printing** dialogue box.*

Printing Multiple Documents

You can print multiple documents by dragging a selection directly from disc to the printer driver in the icon on the Printers and Faxes window.

12.3 Advanced Print Setup Options

Select **Print setup** to expand the **Print** dialogue box to display the advanced setup options *(fig. 12.8)*.

Fit

If **Fit** is selected, **Scale** is automatically set so that the entire page fits inside the printable area. The consequence of this is that your printed output may become smaller, but all of it will be printed.

X and **Y** are automatically set so that the page is centred within the printable area. However, if **Centre** is also selected, the page will be centred on the paper. This may result in the scale being reduced further.

When **Fit** is selected, **Scale**, **X** and **Y** are shaded and cannot be manually altered.

When calculating the scale, **Fit** takes **Bleed** and **Printers marks** into account i.e. it ensures they are within the printable area.

Scale

Scale allows you to set how big the page is printed on the paper. At 100%, the page is printed at exactly the size specified in the document. So a frame that is 100mm square in the document is printed exactly 100mm square on the paper. To print the page at half size, set the scale to 50%. If you want to print an A4 page at A5 size, set the scale to 71%.

Aspect

Aspect allows you to set the horizontal scale of the printed page. A value of 100% means that the page is printed the same shape that it appears in the document. To stretch the printed page sideways, increase this value, or to squash it sideways, decrease this value. So to print the page 10% wider, set **Aspect** to 110%.

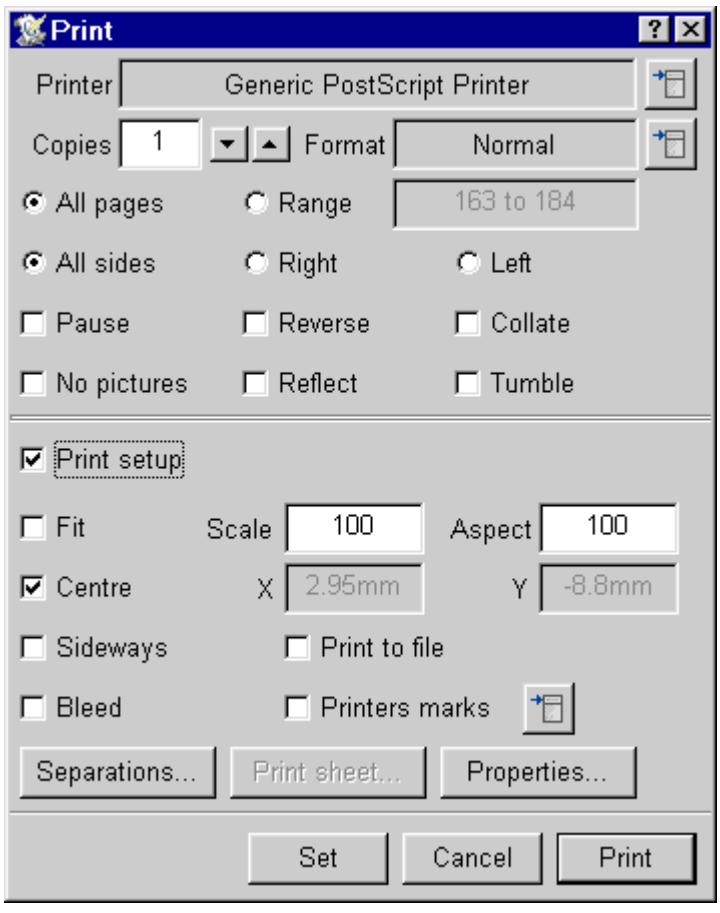


*Fig. 12.8 - The extended **Print** dialogue box.*

Centre

If **Centre** is selected, **X** and **Y** are automatically set so that pages are printed in the centre of the paper.

When **Centre** is selected, **X** and **Y** are shaded and cannot be manually altered.

X, Y

X and Y are the offsets from the bottom left corner of the paper to the bottom left corner of the page *(fig. 12.9)*. They allow you to accurately position printed pages on the paper.

Bleed and **Printers marks** are taken into account if they are selected.

Sideways

If **Sideways** is not selected, pages are printed upright on the paper. This is often called portrait printing.

If **Sideways** is selected, pages are rotated through 90° and printed sideways. This is often called landscape printing. **Sideways** is automatically selected if the page format in the document is defined to be **Sideways** in the **New** or **Page guidelines** dialogue boxes.

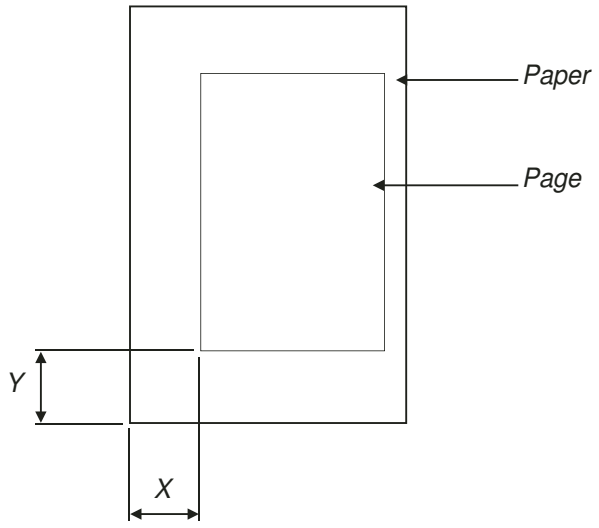


*Fig. 12.9 - **X** and **Y** specify the position of the printed page on the paper.*

Bleed

If **Bleed** is not selected, the exact page area is printed on the paper.

If **Bleed** is selected, the page area plus an extra 3mm margin all around the page, is printed.

If you want an object to go to the edge of the paper, you must print the page on a bigger piece of paper and trim it afterwards. Unfortunately inaccuracies in trimming may result in a gap along the edge of the paper. The solution is to bleed the object off the page, then use the **Bleed** option to print a slightly larger page. Trimming the paper to the page size should then give perfect results *(fig. 12.10)*.

The amount of bleed may be changed, and saved, in the Choices dialogue box *(see 15.4)*

Menu⇨Misc⇨Choices⇨Print⇨Bleed

Print to file

If **Print to file** is selected, you will be prompted to enter a file name to save the printer data to instead of sending it to the printer.

Properties...

This opens the usual Windows window allowing you to configure the current printer. Some settings e.g. number of copies are also provided by the **Ovation Pro** print window.

Printers marks

Printers marks are positioned outside the page area of your document *(fig 12.10)*. If **Crop check** has been set in **Choices** *(see 15.4)* you will be alerted if the printable area is bigger than the paper size. If you decide to proceed the printout will be cropped.

If **Printers marks** is selected, *crop marks* are printed around the edges of the page *(fig. 12.10)*. These are used to trim a page to size when it has been printed on a larger piece of paper. In addition, *registration marks* are printed at the centres of each side of the page. These are used to help align separated film.

The window which opens when you click on the icon to the right of **Printers marks** lets you choose which crop and/or registration marks are to be printed.

The thickness and size of the printers marks may be changed in Choices *(see 15.4)*.

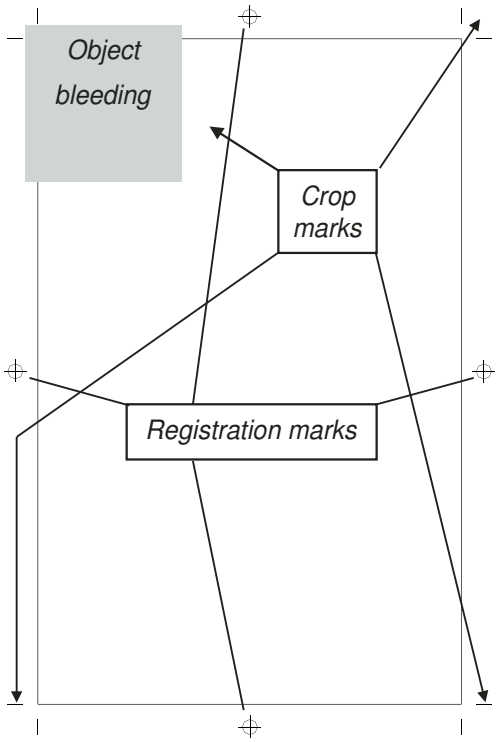


*Fig. 12.10 - Page showing **Printers marks** and object bleeding off the edge of the page.*

Print Sheet

When the print format is set to **Pamphlet** or **Galley**, the **Print sheet** option becomes available and allows you to easily print individual sheets. The Print sheet dialogue box shows the pages that will be printed on the front and back of each sheet of paper *(fig. 12.11)*.

Sheet shows the sheet number that is currently being displayed followed by the total number of sheets required for the document. Click on the up and down icons to step to other sheets.

Print sheet prints the current sheet. The options **Front** and **Back** allow you to choose whether to print the front or back of the current sheet. **Both** prints the front and then the back, this is useful if your printer has a duplex unit i.e. if it can print on both sides of the paper.

The number of copies, scaling etc. are all set on the normal **Print** dialogue box *(fig. 12.8)*.

Fig. 12.11 represents what you see when you open the print sheet window for this chapter and select the sheet which contains this page (the Pamphlet print format must be chosen first).

***Front** will print pages 176 and 173 sideways on an A4 sized page. Turn the page around. put back into the printer, then select **Back** to have pages 174 and 175 printed on the reverse side.*

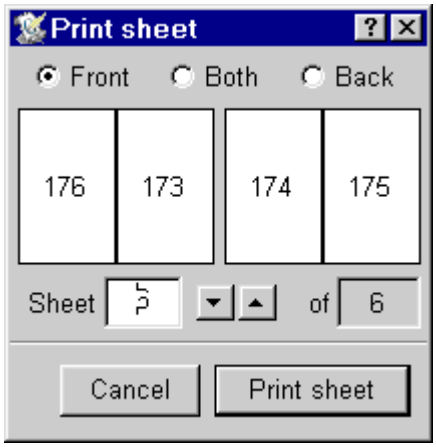


*Fig. 12.11 - The **Print sheet** dialogue box allows you to print individual sheets.*

12.4 PostScript Printing

The PostScript printer language has an important role in professional printing and so it is given special treatment in **Ovation Pro**.

PostScript printing can work like printing to any other sort of printer. You can install a suitable Windows printer driver for your PostScript printer and print to it as normal. It will often be useful to create a file of PostScript data, perhaps to take to a print shop or to pass to another program *(see 13.7)*.

However the standard Windows PostScript printer drivers have shortcomings, not everything you can design in ***Ovation Pro*** will be correctly reproduced on paper by them. For example it is common for them to have problems with masked bitmap images (i.e. images with areas of transparency). ***Ovation Pro*** therefore can generate PostScript itself. This "Direct PostScript" should be better than the PostScript generated by the standard Windows drivers. That means it should be smaller (faster to print) and give more reliable results.

You can control if ***Ovation Pro*** or Windows generates PostScript from **Misc➪Choices➪Print** select **Direct PostScript output**.

The icon to the right of this allows you to open the PostScript choices window *(fig. 12.12)*.

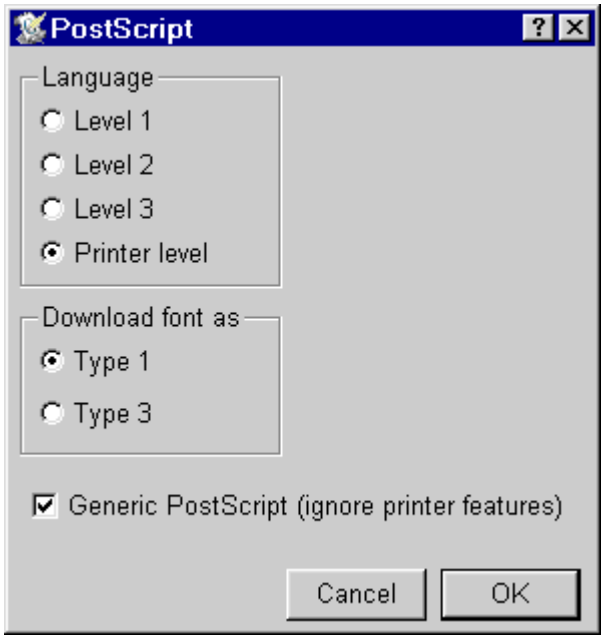


Fig. 12.12 - PostScript choices.

Language sets the level of PostScript that is used. Best results will be obtained with a higher level, however you cannot use a level higher than that supported by your printer, e.g. a level 2 printer cannot understand special level 3 commands. The final option **Printer level** automatically sets the level which the printer driver says it supports, and is the option usually used.

Download font as controls the format of fonts in PostScript output.Type 1 will give better results.

Generic PostScript if this is selected ***Ovation Pro*** will generate all the PostScript itself, this means the PostScript conforms to the relevant standards, however it does not contain any PostScript for printer dependent features. If not selected Ovation Pro will insert the PostScript into a wrapper provided by the Windows printer driver. Typically you would use generic PostScript if you wanted to produce a PostScript file to use in another program.

12.5 Mail Merge

The mail merge facility allows you to print a document a number of times, merging different data into each printout. You insert *merge tags* into the text at the required places, and specify a *comma separated value* (CSV) file which contains suitable data. When you print, the merge tags are replaced by the data. This process continues until all the data has been exhausted.

Typically mail merge could be used to print a standard letter a number of times, merging different names and address into each copy.

CSV File Format

The data used for mail merge must be in CSV format. Many applications output data in this format, or if you wish you can create your own CSV file.

A CSV file comprises a number of records separated by a carriage return or line feed. Each record comprises a number of fields each separated by a comma.

```
field 1,field 2,field 3<CR>
field 1,field 2,field 3<CR>
field 1,field 2,field 3<CR>
field 1,field 2,field 3
```

The example above has four records each containing three fields. Notice that a carriage return is not needed after the last record.

If data in a field contains a comma, the entire field must be enclosed in double quotes:

```
"field 1,2",field 3,field 4<CR>
```

The filetype of the CSV file may be set to Text or CSV.

A simple CSV file containing people's names, might look like this:

```
Smith,John,Mr,34567<CR>
Jones,Sue,Miss,34985<CR>
Clarke,Ian,Mr,33450<CR>
Simpson,Linda,Mrs,33986
```

Creating CSV Files

You may create your own CSV file by typing the data in the format described above, in a text editor such as Edit. Press Return at the end of each record, and only insert spaces where they are needed as part of the text in each field. Once the data has been prepared it should be saved to disc.

Creating CSV Files in Ovation Pro

You may create CSV files using ***Ovation Pro*** in a similar manner. However, when you save the file, you must use **File⇨Save story** to save the file as plain ASCII text.

> If you later reload the CSV file into ***Ovation Pro*** for editing, you must ensure that any quotation marks in the file are not converted to smart quotes using the **Smart quotes** facility. If the CSV file contains quotations marks, you should disable **Smart quotes** on **Choices** *(see 15.7)*.

Other CSV files

In general one can export a CSV file directly from a Database to disc.

Inserting Merge Tags

Menu⇨Misc⇨Insert⇨Merge tag…
Ctrl+Shift+M

Once you have prepared the CSV file, you should create the ***Ovation Pro*** document inserting merge tags where you want to insert data *(fig. 12.13)*.

To insert a merge tag, position the caret at the required position and press **Ctrl Shift M** to display the **Mail merge tag** dialogue box *(fig. 12.14)*. Now enter the number of the field to be inserted and click on **OK**. Fields are numbered from 1 upwards. A tag of the form `[Merge n]` is inserted in the text, where `n` is the field number. when the mail merge is started, the merge tag will be replaced by the field whose number is specified. This will happen for each record in the CSV file.

The merge tag `[Merge n]`, can be edited just like normal text, but it behaves just like a single character. You may apply effects and styles to the merge tag, and these will be applied to the data when it is merged.

Example CSV File & Document

A simple CSV file might look like this:

```
Smith,John,Mr,34567<CR>
Jones,Sue,Miss,34985<CR>
Clarke,Ian,Mr,33450<CR>
Simpson,Linda,Mrs,33986
```

The ***Ovation Pro*** document might look like this:

```
To: [Merge 3] [Merge 1]
Dear [Merge 2]
Thanks you for your valuable
order, ref. [Merge 4].
...
```

When you use mail merge, the first record printed will look like this:

```
To: Mr Smith
Dear John
Thanks you for your valuable
order, ref. 34567.
...
```

The second record will be:

```
To: Miss Jones
Dear Sue
Thanks you for your valuable
order, ref. 34985.
...
```

Notice the use of spaces between the merge tags, and the last tag which is highlighted in bold.

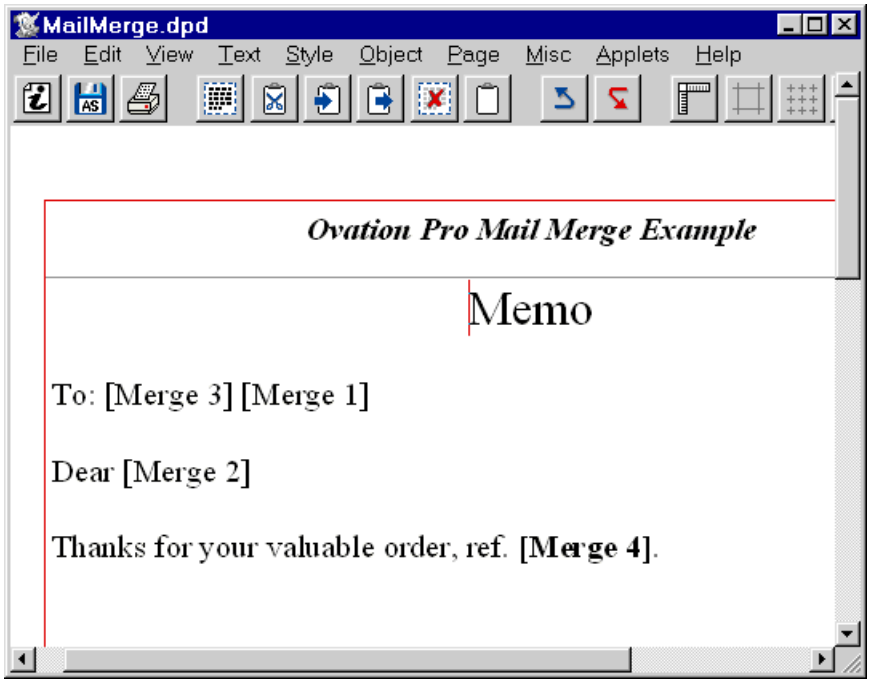


Fig. 12.13 - An example Mail merge document, partly shown

*Fig. 12.14 - The **Mail merge tag** dialogue box.*

Starting the Mail Merge

Menu➪File➪Print... **Ctrl+P**

To start the mail merge, first open the **File➪Print** dialogue box and set the number of copies and the print format that you require. Once this has been done, click on **Set** to set the options without printing the document.

Now choose **Mail merge** to open the **Mail merge** dialogue box *(fig. 12.15)*.

Menu➪File➪Mail merge...

The name of the CSV file to be merged should be entered into the icon labelled **CSV file**. The easiest way to do this is to just drag the CSV file into this icon.

To perform the mail merge click on **Print**. ***Ovation Pro*** will now print the document once for each record in the CSV file. The current record being printed is indicated in the **Printing** dialogue box.

Before printing each page, the merge tags are replaced by the data from the CSV file and the text reflowed. If the fields in the data file are longer than the merge tags, the text may overflow its frame. To reduce the possibility of this happening always ensure there is some blank space at the bottom of text frames containing merge commands.

The example CSV file, named CSVfile, and the document shown on the previous page, named MailMerge, are supplied with ***Ovation Pro*** in the directory 12_Examples.

Ignore headings record

The **Ignore headings record** button allows you to make ***Ovation Pro*** ignore the first record in the CSV file. Some CSV files use this record for the names of the fields.

First

The **First** button will mail merge in the first record of the CSV file. Once this has been clicked on the other buttons will become available.

Next

Next merges in the next record, after having selected **First**.

Clear

Clear terminates the merge process, and the merge tags in the document revert to their usual appearance e.g, [Merge 1].

First, **Next** and **Clear** let the merge takes place without any printing, so you can preview the mail merge without using paper. At any time the **Print record** button will print the document in it's current state i.e. with merge tags replaced by a record from the CSV file.

Fix

The **Fix** button permanently replaces the mail merge tags with their current values. Use this with care! Effectively it creates a new document and you lose the old one.

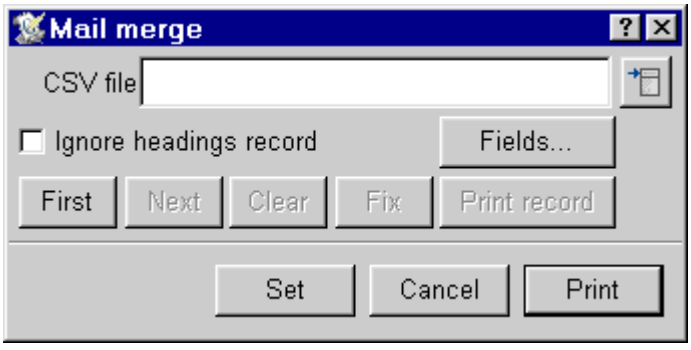


*Fig. 12.15 - The **Mail merge** dialogue box.*

12.6 Mail Merge, advanced features

Fields

Mail merge fields are conventionally referred to by a number `1..n` corresponding to the field in the CSV file being merged. So field `1` is replaced by the first field in the CSV file and so on.

It is possible to associate with each field, two strings, firstly a *name* which is not currently used. Secondly a *command*. This is a macro which is evaluated each time the merge field occurs in the document.

A button on the mail merge window, called **Fields...** allows access to a window which can be used to manipulate these field strings.

Menu➪File➪Mail merge…➪Fields…

Various tricks can be played using field commands:

1. Adding sequential numbers to documents whilst printing;

2. Adding random numbers to documents whilst printing;

3. Generating new mail merge data on the basis of other fields e.g.

```
{if(field(1)=="Mr.") macv="his"
else macv="her"}
```

4. Merging more than one CSV file record into one print of one document. This provides a solution to the old problem of how to do a mailmerge on a sheet of address labels;

5. Generating mail merge data from other sources, e.g. a database.

6. Manipulating mail merge data, e.g. removing blank lines from addresses.

Some examples follow for using **Fields**. For these examples a CSV file called **UK** is included in the directory 12_Examples.

A description of all the script functions can be found in the separate Script document.

Mail Merge can also be done with pictures *(see 10.12)*.

It is possible to control the way merged printing is formed into print jobs *(see 15.4)*.

It is not possible to have more than one merged print of a document on one sheet of paper.

12.7 Mail Merge, some examples

1. Generating Address Labels

The problem: you have a CSV file of names and addresses, one name and address per record. You have sheets of A4 sticky labels, perhaps 20 to a page, and you want to print the names and address 20 to a sheet on the labels.

And the solution;

a. Design a label. Insert into it mail merge tags for each field in the CSV file. e.g. 1,2,3. After all the usual tags, add one more, e.g. tag number 99 *(fig. 12.16)*

b. Open the Fields window. Click on New, enter a number of 99, and a name of **next**. For the body of the field enter `{nextrecord()}` *(fig. 12.17)*.

c. Duplicate as many labels across and down the page as you require.

d. Remove from the last label on the page mail merge tag 99.

e. You can now do a standard mail merge operation on the page, for each label on the page, one record from your CSV file will be merged.

The document Example1 in 12_Examples demonstrates the above.

A questionable area with this technique is what is meant by the ‘last label’, this is the last piece of text that the mail merge data will be merged into, usually it will be the frame which is at the front, i.e. on top of all the other frames.

[Merge 1]
[Merge 2]
[Merge 3]
[Merge 4]
[Merge 5]
[Merge 6]
[Merge 99]

Fig. 12.16 - The merge tags in a label. See Example1

*Fig. 12.17 - Entering the command in the **Fields** window*

2. Adding sequential numbers to documents.

Or how to print your own raffle tickets.

The situation here is that we want each document to have its own unique number.

The solution;

a. Install the **Unique** number applet.

b. Create a field, say number 99.

c. For the body of the field enter:

```
{macv=(unique_getprefix() +
unique_getnumber());unique_putnumber(
itos(stoi(unique_getnumber()) + 1));}
```

The unique number generated will follow the same rules as explained for the unique number applet.

d. Use tag number 99 in your document when inserting the merge tag. **Ctrl+Shift+M**

3. Adding Random numbers to documents

Or how to print your own bingo tickets.

Here we want to have random numbers appearing in documents. The solution is similar to that in the previous section. The only problem is obtaining random numbers. To do this it is necessary to add a random number generator to the ***Ovation Pro*** script library. This is provided in the !MergeLib script in the Library folder in the directory where ***Ovation Pro*** is installed.

Now follow the steps in the previous section, but this time step c is;

```
c. {macv=itos(merge_random(49))}
```

It is supposed that 49 is the highest possible number. Otherwise change this number.

> If you really were printing bingo tickets you'd have to add some checks to prevent the same numbers being printed more than once on individual tickets.

4. Creating new mail merge data from other fields.

The first example of this is using the POBar applet (which creates UK Post Office bar codes) to automatically insert bar codes into the mail merge.

This is done as follows;

a. Create a new field, e.g. tag number 99. Now assuming that the CSV file you are merging contains the post code in field 6, enter this for the field body.

```
{macv=bar_code("",field(6),"1A")}
```

b. Insert mail merge tag 99 in your document to be printed, e.g. usually a label. This tag should be surrounded by white space, be in the POBar font at 14pt, and be horizontal or vertical.

The document Example4 demonstrates the above. Note that you must have the POBar applet and font installed for any of the above to work.

Another example is customising printed documents on the basis of some mail merge field. For example setting up the following for the body of a field.

```
{if(field(1)=="Mr".) macv="his" else
macv="her"}
```

With this field created, you can use the corresponding tag in place of the words “his” and “her”.

Yet another idea is to create some data if a field in the CSV file is blank. This field definition might be used;

```
{if(field(5)=="") macv="No fax
number" else macv="Fax: "+field(5)}
```

5. Generating Mail Merge Data From Other Sources

Usually mail merge data comes from the ‘CSV file’ a file implicitly associated with the mail merge operation. With the fields features this need no longer be the case. It is for example quite possible to use the **First** and **Next** buttons with no CSV file at all. Even if the CSV file is being used some data can come from other sources. You could read a name from the CSV file, and then find data associated with that name in another file, and merge it into the document.

A ‘mail merge’ with no CSV file gets into the realms of macro text. One idea is to set up a tag which allows you to write “Continued on page [X]”. When the fields are replaced X would be filled in with the page reference - this would probably make use of the book mark manager.

Another idea would be to support text of the form “page 1 of [X]”.

6. Manipulating Mail Merge Data

The first example of this is how to remove blank fields from records. Typically some addresses will have 4 lines, others 5, but the post code will always be in the 6th field. You want to avoid unsightly blank lines.

A horrible solution is followed by a simpler one. For each of the fields in the CSV file, set up a field with this body. Note that one number changes for each field. The line below is for field 5.

```
{int i=1,j=1;while(j<=5 &&
i<=maxfield()) {if(field(i)!="")j++;
i++;} macv=field(i-1);}
```
(fig. 12.19)

The document Example 6 demonstrates this.

Notice that the above code uses `maxfield()` to set the limit on the number of fields that will be searched for blanks. However the example CSV file UK in 12_Examples only uses fields 2 to 6 for the address, later fields are used for other information which we don't want to appear on the label. To get around that, replace `maxfield()` with the number 6. It is also necessary to replace each `macv=field(i-1)` with `macv=(j<=5)?"":field(i-1);` replacing 5 with the appropriate number.

[Merge 1]
[Merge 2]
[Merge 3]
[Merge 4]
[Merge 5]
[Merge 6]

Fig. 12.18 - The merge tags in a label

The above field definitions are tedious to type. The !MergeLib file mentioned in section 3, provides a function which does all the hard work. You can now use for the field bodies;

{macv=merge_strip(5,maxfield())} *(fig. 12.20)*

Here the first number is the intended field number (1 to 6 in the example), the second argument of the function can as before be replaced with the last field of data to be entered, as in the last but two paragraph this could be;

{macv=merge_strip(5,6)}

In both of these cases you would of course define six fields, and enter these macros with the first number stepping between 1 and 6. The document Example6a demonstrates this.

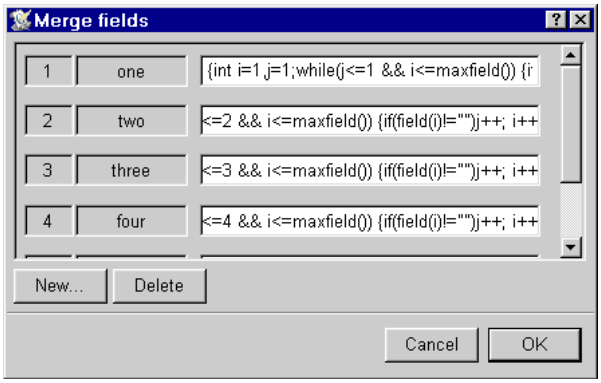


Fig. 12.19 - The general commands for the merge tags to avoid blank lines. Field 1 shows the start of the command

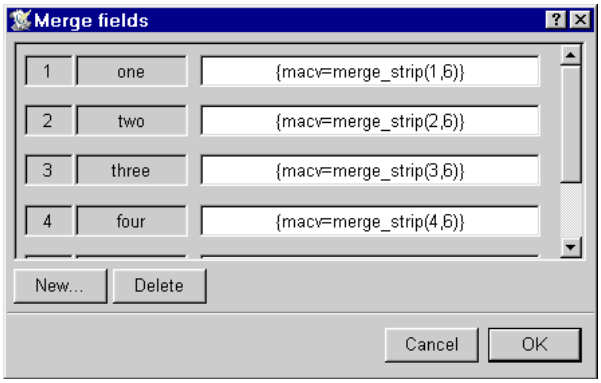


Fig. 12.20 - Using the script command "merge_strip".

Notes: