postscript

keys:	[ ]	*<number>*	create a *PostScript* file for the specified source picture, or display frame/partition/picture if ***frame/partition/picture*** is set
	name	*'<text>'*	output filename
	copies	*<number>*	number of copies to print
	times	*<number>*	output scaling factor
	size	*<x>, <y>*	dimensions of subregion
	position	*<x>, <y>*	position/offset of subregion
	layer	*<n1>, <n2>*	range of source picture layers
	text	*'<text>'*	caption string
options:	**encapsulated**		generate *Encapsulated PostScript* file
	frame/partition/picture		output display frame/partition/picture
	preset		scale black-white levels according to existing values of *min*, *max*
	black/white		output display annotation as black/white
	portrait/landscape		output orientation
	left/right/top/bottom		subregion positions
	re/im		output real/imaginary part of a complex display picture
	border		print border around image
	origin		print tick marks aligned with source picture origin
	above/below		print caption string above/below image
	header		print header information
	new		replace an existing output file
	old		re-use an existing output file, starting from the beginning; you can use this option for write-only output devices, for example, printers

Use **postscript** to write out Semper images or screen dumps in a form that can be sent to a *PostScript* printer.

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Examples

```
postscript 5 name 'image' times 2.3 landscape
```

This command creates a *PostScript* file called *image.ps*, containing picture 5 magnified by a factor of 2.3 and in landscape orientation. This file can be sent to a *PostScript* printer.

```
postscript frame name 'screen' encapsulated
```

This command creates the encapsulated *PostScript* file *screen.eps*, containing the image displayed in the current frame, together with display annotation. This file can be included in another *PostScript* document.

```
postscript 2:33 name 'fig10.6' text 'Fig 10.6 Original Sample'
```

This command creates a *PostScript* file containing picture 2:33 and its caption.

Description

The **postscript** command allows you to write images in *PostScript* format. An image can be either all or part of a Semper source picture (stored on disc) or can be a display frame, partition or picture (shown on screen). To specify a display frame, partition or picture use the options **frame/partition/picture**.

Specify a name for the output *PostScript* file using the **name** key. You can choose one of the two following forms of output:

- *PostScript*
- *Encapsulated PostScript*

Both of the above forms follow the *PostScript* Document Structuring Conventions defined by *Adobe Systems Incorporated*.

By default, **postscript** creates a complete *PostScript* program that prints the source image together with annotation. The image is scaled so that each pixel is 1 unit square, or the value you specify using the **times** key. A unit is 1 printer's point (1/72 inch). If you do not specify an extension for the name of the *PostScript* file, it defaults to *.ps*.

Use the **encapsulated** option if you wish to include a Semper image in another *PostScript* document, for example, a document used by a desktop publishing system. The **encapsulated** option creates a *PostScript* program that prints the image onto the current page with the bottom left-hand corner of the image at the origin and with the image scaled so that each pixel is one unit square. The default extension for an *Encapsulated Postscript* file is *.eps*.

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You can use the standard subregion keys, **size**, **position** etc to define a subregion of an image to be output. Refer to *Appendix C, Semper Keys and Options* for further detail about the standard subregion keys. Use the **layer** key to specify a range of layers for the source picture. However, if you specify **encapsulated**, only the first specified layer is output. If you specify the **frame** option, only the specified frame is output, or the start frame if you specify **partition** or **picture.**

By default, **postscript** prints a Semper picture so that the lowest pixel intensity appears black and the highest pixel intensity appears white. You can alter these black and white levels using the **preset** option, which takes the black and white intensity levels from the variables *min* and *max*. The options **black/white** determine whether any display annotation is output as black or white.

Note that the following keys and options can only be used with the default *PostScript* output and cannot be specified with the **encapsulated** option:

- **copies** (number of copies of the document to be printed)
- **times** (scale of output)
- **text** (adds a caption to the printed output)
- **portrait/landscape** (defines the orientation of the output)
- **border** (draws a border around the image)
- **origin** (marks the position of the origin on the printed output)
- **above/below** (positions a caption above/below the image)
- **header** (prints information about the source picture)

Also note the following restrictions on the use of **postscript** keys and options:

- the **black/white** option can only be used if you specify the **frame/partition/picture** option
- the **re/im** option can only be used if you specify the **picture** option
- the **preset** option and **layer** key can only be used with a source picture (they are ignored if you specify the **frame/partition/picture** option)

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Defaults and Ranges

keys/options	defaults	range
[ ]	if source picture, current picture, held in the variable *select* if ***frame***, current frame held in the variable *cframe* if ***partition/picture*** number held in the variable *display*	valid picture/partition/frame number
name	*none*	valid filename
copies	1	positive integer
times	1	positive real number
size	entire picture/frame/partition	less than or equal to the size of picture/frame/partition (integers)
position	position 0,0	within bounds of picture/frame/ partition (integers)
layer	all layers (ignored if ***frame /partition/picture***)	integers in range1 to number of layers
text	*none*	length is machine dependent (text string)
black/white	white	
portrait/landscape	portrait	
border	border is printed	
above/below	below	
header	header is printed	