

Semper 6 Command Reference

create

keys:	[]	<number>	picture to be created
	size	<x>,<y>,<z>	dimensions of picture
	value	<number>	value to which pixels are initialised
		<n1>,<n2>	real and imaginary value for complex picture
options:	Image/fourier/spectrum/ correlation/undefined/ waish/plist/lut		class of picture
	lilst/curve		type of <i>Plist</i> picture, if plist
	open/closed		type of curve, if plist curve
	byte/Integer/fp/complex		data form of picture

Use the **create** command to:

- initialise disc pictures to constant values, possibly for calculation or pasting operations
- test if there is enough space for a picture
- redeclare displays to use the display memory in a different way

Examples

```
create 1 size 256 byte; calculate 100+.13*x-.096*y
```

This example generates a *Byte* picture 1 filled with a planar intensity ramp.

```
min=0 max=255 create display size 512
```

This command allows you to treat a 512x512 display, initially created with a different black-white range, as if its range were 0-255.

```
create 52 fourier complex size 129, 256 value 0,0; origin left  
p 2,3=p,q
```

This sequence of commands creates a half-plane *Fourier* picture containing a single non-zero Fourier coefficient at (2,3).

Description

By default, the **create** command creates an *Image* picture in floating point form with the same dimensions as the current picture. You can change these defaults using the **size** key, the class option (**fourier/spectrum** etc) and the form option (**byte/Integer/fp/complex**). Note that when creating a display picture, **create** does not erase the associated partition when the **erase** option is set (unlike most Semper commands).

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For a *Plist* picture, you can use the additional options **list/curve**, **open/closed** to specify the type of *Plist*:

...plist or ...plist list	(list)
...plist curve or ...plist open curve	(open curve)
...plist closed curve	(closed curve)

create can be used to access byte data on magnetic tape in files that do not have the standard 256 byte labels used by Semper. Use **create** to specify the picture size; Semper assumes class *Image* and byte form. A picture opened in this way is not open permanently, so you need to use **copy** to copy it to a device:

Note that usually you do *not* need to create a picture before using it as output for a Semper command, as commands create their own output pictures as necessary, using the (assumed) key **to**.

Notes

multi-layer pictures:	fully supported
forms used internally	all
see also:	copy

Defaults and Ranges

keys/options	defaults	range
[]	current picture, held in the variable <i>select</i>	valid picture number
size	dimensions of current picture	positive integers
value	no pixel initialisation	real numbers
image/fourier/ spectrum/correlation/ undefined/waish/ plist/lut	image	
list/curve	list	
open/closed	open	
byte/integer/fp complex	fp	