

## Semper 6 Command Reference

### syntax

<b>keys:</b> <i>&lt;command name&gt;</i> displays syntax of specified Semper command
--

**syntax** gives a short summary of the syntax of a Semper command. This is the precise command definition used by Semper, and is always available, even when no help libraries are assigned.

### Examples

```
syntax base
```

This command details the syntax of the **base** command. Semper produces the following output:

```
Options:
```

```
ver uvo
```

```
Keys:
```

```
tol=.3 num nu2 rad pos po2 tim=5 $2=0 to=$2 $1=sel  
fro=$1
```

```
Picture opens:
```

```
(lp1, old)=fro
```

The syntax of the **base** command is given below in full for comparison:

<b>keys:</b>	<b>[from]</b>	<i>&lt;number&gt;</i>	<i>Plist</i> picture
	<b>[to]</b>	<i>&lt;number&gt;</i>	output picture
	<b>position</b>	<i>&lt;x&gt;, &lt;y&gt;</i>	centre of region to which fit is restricted
	<b>radius</b>	<i>&lt;number&gt;</i>	radius of region to which fit is restricted
	<b>numbers</b>	<i>&lt;n1&gt;, &lt;n2&gt;</i>	serial number of positions to which fit is restricted
	<b>tolerance</b>	<i>&lt;number&gt;</i>	fractional deviation from initial (estimated) lattice sites beyond which sites are excluded from fit
	<b>mark</b>	<i>&lt;number&gt;</i> <i>&lt;yes&gt; or &lt;no&gt;</i>	mark the final deviations of all positions from the lattice on the display
	<b>times</b>	<i>&lt;number&gt;</i>	if <i>mark</i> , magnification of display marking
<b>options:</b>	<b>uvonly</b>		fit lattice base vectors <i>u</i> , <i>u2</i> and <i>v</i> , <i>v2</i> only, preserving lattice origin <i>w</i> , <i>w2</i>
	<b>verify</b>		verify details of fitting process at the console

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# syntax

### Description

**syntax** lists the keys, options and implicit *picture opens* of a Semper command. **syntax** lists only the first three characters of options and keys, as this is as much as Semper needs to know to decode the command line.

### Keys

Keys are shown either by their name, or as *key=val*, where *val* is the default value that is substituted if you do not specify the key in the command line. The special keys **\$1**, **\$2**, **\$12**, **\$13** etc. are used to read from the command line values that are entered without any prefixed key name. This mechanism is used by many commands. For example, **display** includes the following in its key list:

```
$1=sel fro=$1 $2=dis to=$2
```

This means that Semper assigns the first value found on the line without a keyword to the key **\$1**, and by default to the key **fro(m)**, and the second value found to the key **\$2**, and by default to the key **to**. Note that the default values for these keys are *sel(ect)* for **\$1** and *dis(play)* for **\$2**. This means that when you do not specify any keys, **display** displays the currently selected picture on the currently selected display.

In some cases **syntax** lists no default value, as Semper does not immediately provide a default for the key. This is because no useful default exists, or because the default cannot be expressed simply. In the latter case, the syntax definition in the help library will explain the default action taken by the command.

### Notes

*Picture opens* refers to pictures that the command interpreter opens for the command before processing. The most common item listed by **syntax** is:

```
(lp1, old)=fro
```

which means that the picture number held in the key *fro(m)* is opened in *old* mode as logical picture number 1. *Old* mode means that the picture must already exist.

The other form given by **syntax** is:

```
(lp2, new, lp1)=to
```

which means that a new picture, number *to*, with the default characteristics of logical picture 1 is opened as logical picture 2.