

Semper 6 Command Reference

correct

keys:	[from]	<i><number></i>	source picture
	[to]	<i><number></i>	output picture
	with	<i><number></i>	picture containing reference modulus
	verify		verify the processing at the console

correct resets the modulus of a *Complex* picture to that of a given reference picture, without altering the phase. This command is commonly used in iterative phase-determination algorithms of the *Gerchberg* type. For information on *Complex* pictures, refer to *Appendix A: Picture Types*.

Examples

```
correct with 40
```

This command alters the current picture to have the modulus given in picture 40.

```
correct 1 to 2 with 4 verify
```

This command applies the alteration to picture 1, storing the result as picture 2. The **verify** option is used to send information about the processing to the console.

Description

correct resets the modulus of each pixel of the source picture (**from**) to the reference modulus given in the reference picture (**with**). Note that it copies zero-valued source pixels unchanged. **correct** calculates a mismatch (error) criterion, prints this to the console if you specify the **verify** option and returns a variable *e*. This variable consists of the summed squared difference between the source modulus and the reference, expressed as a fraction of the summed squared reference.

Notes

multi-layer pictures:	faulted
forms used internally:	complex
variables set:	<i>e</i> (mismatch criterion fractional summed squared difference)

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Defaults and Ranges

keys/options	defaults	range
[from]	current picture, held in the variable <i>select</i>	valid picture number
[to]	source picture	valid picture number
with	<i>none</i> : specify a picture number	valid picture number
verify	verification off	