



AHELP for CIAO 3.4

create_model

Context: [sherpa](#)

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Synopsis

Module functions to instantiate new source or instrument models.

Syntax

```
Integer_Type create_model(String_Type[,String_Type])
Integer_Type create_inst_model(String_Type[,String_Type])

Success/Error Return Values: 1/0

Arguments:

(1) Name of Sherpa model component (e.g., GAUSS)
(2) ID applied to that component (e.g., g)
```

Description

See the related Sherpa command CREATE for more information.

NOTE: In CIAO 3.1 the definition of INSTRUMENT BACK is required for fitting PHA data if either background file or background models have been defined. INSTRUMENT BACK is set automatically when the PHA data file is input to Sherpa, however it is deleted if the NEW background file is input for a given data set. Thus the new INSTRUMENT BACK has to be defined on the command line before starting a simultaneous fit with the new background file.

Example 1

Instantiate a polynomial model, and name it p:

```
sherpa> () = create_model("POLY","p")
```

Example 2

Instantiate an rsp instrument model, and name it a:

```
sherpa> () = create_inst_model("RSP","a")
```

Example 3

Instantiate a Gaussian model with default ID:

```
sherpa> () = create_model("GAUSS1D")
sherpa> SHOW
...
gauss1d[GAUSS1D] (integrate: on)
  Param  Type      Value      Min      Max      Units
  -----
  1  fwhm  thawed      10  1.1755e-38  3.4028e+38
  2   pos  thawed       0 -3.403e+38  3.4028e+38
  3  ampl  thawed       1 -3.403e+38  3.4028e+38
```

Bugs

See the [Sherpa bug pages](#) online for an up-to-date listing of known bugs.

See Also

sherpa

[autoest](#), [background](#), [create](#), [createparamset](#), [fit](#), [freeze](#), [get defined models](#), [get model params](#), [get models](#), [get num par](#), [get par](#), [get stackexpr](#), [getx](#), [gety](#), [guess](#), [instrument](#), [integrate](#), [is paramset](#), [jointmode](#), [kernel](#), [lineid](#), [linkparam](#), [mdl](#), [modelexp](#), [modelstack](#), [nestedmodel](#), [noise](#), [paramprompt](#), [paramset](#), [pileup](#), [rename](#), [run fit](#), [set par](#), [set paramset](#), [set stackexpr](#), [source](#), [thaw](#), [truncate](#), [unlink](#)

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URL:
http://cxc.harvard.edu/ciao3.4/create_model.html
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