

*AHELP for CIAO 3.4*

## get\_raw\_axes

Context: [sherpa](#)*Jump to: [Description](#) [Bugs](#) [See Also](#)*

## Synopsis

Module functions to retrieve the raw channel number grids of source and background datasets.

## Syntax

```
{Struct_Type | Array_Type} get_raw_axes([Integer_Type])
{Struct_Type | Array_Type} get_raw_baxes([Integer_Type])
{Struct_Type | Array_Type} get_full_raw_axes([Integer_Type])
{Struct_Type | Array_Type} get_full_raw_baxes([Integer_Type])
```

Error Return Value: NULL

Arguments:

(1) data set number (default 1)

## Description

In Sherpa parlance, a "dataspace" is an N-dimensional grid defined by the independent variables of the dataset (i.e.,  $x_i$  in the expression  $y = f(x_0, x_1, \dots, x_{(N-1)})$ ). Simple examples include the CHANNELS array in PHA datasets and the pixel numbers along each axis of FITS images.

The `get_raw_axes()` function retrieves the dataspace, or filtered data set axes of the appropriate data set (if no argument is given, the axes for data set 1 are retrieved). Regardless of the current Sherpa ANALYSIS setting, this function returns the dataspace in units of channels. Otherwise, the function is similar to `get_axes()`.

The function `get_full_raw_axes()` is similar to `get_raw_axes()`, except that `get_full_raw_axes()` returns the original, unfiltered dataspace in channels. (And `get_raw_baxes()` and `get_full_raw_baxes()` return filtered and unfiltered dataspace for the background associated with the source data set, in units of channels.)

One may display data et al. on the same grid output by `get_raw_axes` using the Sherpa plotting commands `L PLOT DATA et al.`

## Bugs

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

## See Also

*chandra*

[guide](#)

*sherpa*

[get analysis](#), [get arf axes](#), [get axes](#), [get coord](#), [get data](#), [get energy axes](#), [get errors](#), [get filter](#),  
[get filter expr](#), [get fit](#), [get fluxed spectrum](#), [get ftest](#), [get metadata](#), [get photon axes](#),  
[get photon energy axes](#), [get photon wave axes](#), [get qvalue](#), [get record](#), [get source](#), [get statistic](#),  
[get stats](#), [get syserrors](#), [get wave axes](#), [get weights](#), [record](#), [save](#), [write](#)

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URL:  
[http://cxc.harvard.edu/ciao3.4/get\\_raw\\_axes.html](http://cxc.harvard.edu/ciao3.4/get_raw_axes.html)  
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