

SPHERLSanal

1.0

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Chapter 1

Directory Hierarchy

1.1 Directories

This directory hierarchy is sorted roughly, but not completely, alphabetically:

scripts 7

Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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Chapter 3

File Index

3.1 File List

Here is a list of all documented files with brief descriptions:

/home/cgeroux/SPHERLS/scripts/[cp_files.py](#) 21

Chapter 4

Directory Documentation

4.1 /home/cgeroux/SPHERLS/scripts/ Directory Reference

Files

- file `average_PKE.py`
- file `combine_bins.py`
- file `combine_bins_persistent.py`
- file `compare_sedov_blasts.py`
- file [cp_files.py](#)
- file `datafile.py`
- file `diffDumps.py`
- file `disect_filename.py`
- file `dump.py`
- file `foureir_transform.py`
- file `make_2DSlices.py`
- file `make_profiles.py`
- file `mv_files.py`
- file `paths.py`
- file `period_from_PKE_ave.py`
- file `plot_2DSlices.py`
- file `plot_file.py`
- file `plot_light_curve.py`
- file `plot_Lum_diffs.py`
- file `plot_max_variance.py`
- file `plot_max_variance_ave.py`
- file `plot_max_variance_exploring.py`
- file `plot_profile.py`
- file `plot_reproducible.py`
- file `post_processing.py`
- file `rm_files.py`

- file `rm_oldest_dir.py`
- file `SPHERLS_run.py`
- file `test_calculation.py`
- file `test_restart.py`
- file `work_plot.py`

Chapter 5

Class Documentation

5.1 `plot_file::Axis` Class Reference

Public Member Functions

- `def __init__`
- `def load`

Public Attributes

- `plots`
- `xlabel`
- `limits`
- `bMinorTics`
- `grid`

5.1.1 Detailed Description

This class holds all the information needed for a particular x-axis. An axis can either be either of time, or of some column in the data files.

5.1.2 Member Function Documentation

5.1.2.1 `def plot_file::Axis::__init__ (self, element, options)`

This function initializes the axis object.

5.1.2.2 `def plot_file::Axis::load (self, files, options)`

This function loads the values needed for the x-axis data from the `fileData` argument

The documentation for this class was generated from the following file:

- `/home/cgeroux/SPHERLS/scripts/plot_file.py`

5.2 plot_profile::Axis Class Reference

Public Member Functions

- def `__init__`
- def `load`

Public Attributes

- `plots`
- `bTime`
- `period`
- `nColumn`
- `xlabel`
- `x`
- `formulaOrig`
- `formula`
- `phase`
- `code`
- `limits`
- `bMinorTics`
- `grid`

5.2.1 Detailed Description

This class holds all the information needed for a particular x-axis. An axis can either be either of time, or of some column in the data files.

5.2.2 Member Function Documentation

5.2.2.1 def plot_profile::Axis::__init__ (*self*, *element*, *options*)

This function initializes the axis object.

5.2.2.2 def plot_profile::Axis::load (*self*, *fileData*, *options*)

This function loads the values needed for the x-axis data from the fileData argument

The documentation for this class was generated from the following file:

- `/home/cgeroux/SPHERLS/scripts/plot_profile.py`

5.3 plot_profile::Curve Class Reference

Public Member Functions

- def `__init__`
- def `load`

Public Attributes

- `nColumn`
- `zone`
- `nCurveIDForZoneRef`
- `y`
- `index`
- `bTime`
- `formulaOrig`
- `code`
- `style`
- `color`
- `markersize`
- `linewidth`
- `testZoneAdjust`
- `label`
- `formula`

5.3.1 Detailed Description

This class holds all the information for a curve on a plot.

5.3.2 Member Function Documentation

5.3.2.1 def plot_profile::Curve::__init__ (*self*, *element*, *type*)

This method initializes a curve object, the `type` parameter allows checking curve syntax against axis syntax to see if they match.

5.3.2.2 def plot_profile::Curve::load (*self*, *fileData*, *options*)

This method adds a `y` value and `index` to the curve for the current `fileData`.

The documentation for this class was generated from the following file:

- `/home/cgeroux/SPHERLS/scripts/plot_profile.py`

5.4 plot_file::Curve Class Reference

Public Member Functions

- def [__init__](#)
- def [load](#)

Public Attributes

- nColumnX
- nColumnY
- y
- x
- index
- formulaOrigY
- formulaOrigX
- formulaX
- formulaY
- codeY
- codeX
- style
- color
- markersize
- linewidth
- label
- fileReference

5.4.1 Detailed Description

This class holds all the information for a curve on a plot.

5.4.2 Member Function Documentation

5.4.2.1 def plot_file::Curve::__init__ (*self*, *element*)

This method initializes a curve object, the type parameter allows checking curve syntax against axis syntax to see if they match.

5.4.2.2 `def plot_file::Curve::load (self, files, options)`

This method adds a y value and index to the curve for the current fileData.

The documentation for this class was generated from the following file:

- `/home/cgeroux/SPHERLS/scripts/plot_file.py`

5.5 datafile::DataFile Class Reference

Public Member Functions

- def `setFileSize`
- def `readFile`
- def `readFileFixed`
- def `readFileUnFixed`

Static Public Attributes

- `sColumnNames` = None
- `fColumnValues` = None
- `sHeader` = None

5.5.1 Detailed Description

A generic class for holding a file consisting of a header and columns of floats

5.5.2 Member Function Documentation

5.5.2.1 def datafile::DataFile::readFile (*self*, *sFileName*)

a wrapper to determine which readFile function should be used

5.5.2.2 def datafile::DataFile::readFileFixed (*self*, *sFileName*)

Reads in a file when the size has already been set using \ref setFileSize, or by a previous file read using \ref readFileUnFixed.

5.5.2.3 def datafile::DataFile::readFileUnFixed (*self*, *sFileName*)

Reads in a file when the size is not fixed and needs to be determined from the input file being read in

The documentation for this class was generated from the following file:

- `/home/cgeroux/SPHERLS/scripts/datafile.py`

5.6 plot_profile::DataSet Class Reference

Public Member Functions

- def `__init__`
- def `load`
- def `getCurve`

Public Attributes

- `baseFileName`
- `start`
- `end`
- `axes`
- `nNumFiles`
- `fileIndices`
- `hasNonTimeAxis`

5.6.1 Detailed Description

This class holds all the information for a single dataSet, which includes the `baseFileName` of the dataset, the range of the dataSet (start-end), the times and phases of the files within the range of the dataSet, and the plots made from the dataSet.

5.6.2 Member Function Documentation

5.6.2.1 def plot_profile::DataSet::__init__ (*self*, *element*, *options*)

Initilizes the dataSet by setting `baseFileName`, `start`, `end`, and intilizing plots from an xml element

5.6.2.2 def plot_profile::DataSet::load (*self*, *options*)

Loads the dataSet, this means that it sets, time, phases, and plots data

5.6.2.3 def plot_profile::DataSet::getCurve (*self*, *ID*)

Returns a curve object that has ID, ID

The documentation for this class was generated from the following file:

- `/home/cgeroux/SPHERLS/scripts/plot_profile.py`

5.7 plot_file::DataSet Class Reference

Public Member Functions

- def `__init__`
- def `load`
- def `getCurve`

Public Attributes

- `axes`
- `files`

5.7.1 Detailed Description

This class holds all the information for a single dataSet, which includes the baseFileName of the dataset, the range of the dataSet (start-end), the times and phases of the files within the range of the dataSet, and the plots made from the dataSet.

5.7.2 Member Function Documentation

5.7.2.1 def plot_file::DataSet::__init__ (*self*, *element*, *options*)

Initilizes the dataSet by setting baseFileName, start, end, and intilizing plots from an xml element

5.7.2.2 def plot_file::DataSet::load (*self*, *options*)

Loads the dataSet, this means that it sets, time, phases, and plots data

5.7.2.3 def plot_file::DataSet::getCurve (*self*, *ID*)

Returns a curve object that has ID, ID

The documentation for this class was generated from the following file:

- `/home/cgeroux/SPHERLS/scripts/plot_file.py`

5.8 plot_profile::Plot Class Reference

Public Member Functions

- def `__init__`
- def `load`

Public Attributes

- `ylabel`
- `curves`
- `limits`
- `grid`
- `bMinorTics`
- `legendloc`

5.8.1 Detailed Description

This class holds all the information for a single plot, namely the list of curves for that plot.

5.8.2 Member Function Documentation

5.8.2.1 def plot_profile::Plot::__init__ (*self*, *element*, *type*)

This method initializes the plot object

5.8.2.2 def plot_profile::Plot::load (*self*, *fileData*, *options*)

loads the data for a plot, y-data is stored in the curves, and sets the ylabel from the first file read in

The documentation for this class was generated from the following file:

- `/home/cgeroux/SPHERLS/scripts/plot_profile.py`

5.9 plot_file::Plot Class Reference

Public Member Functions

- def `__init__`
- def `load`

Public Attributes

- `ylabel`
- `curves`
- `limits`
- `grid`
- `bMinorTics`
- `legendloc`

5.9.1 Detailed Description

This class holds all the information for a single plot, namely the list of curves for that plot.

5.9.2 Member Function Documentation

5.9.2.1 def plot_file::Plot::__init__ (*self*, *element*)

This method initializes the plot object

5.9.2.2 def plot_file::Plot::load (*self*, *files*, *options*)

loads the data for a plot, y-data is stored in the curves, and sets the ylabel from the first file read in

The documentation for this class was generated from the following file:

- `/home/cgeroux/SPHERLS/scripts/plot_file.py`

Chapter 6

File Documentation

6.1 /home/cgeroux/SPHERLS/scripts/cp_files.py File Reference

Namespaces

- namespace `cp_files`

Functions

- def `cp_files::main`
Documentation for a function.
- def `cp_files::cp_files`
Documentation for a function.

6.1.1 Detailed Description

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