SPHERLSanal

1.0

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Directory Hierarchy

1.1 Directories

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

Chapter 2

Class Index

2.1 Class List

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

Chapter 3

File Index

3.1 File List

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

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_reproducable.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 initizalizes 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 initizalizes 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 initilizes 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 initilizes 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 initlizes 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 initlizes 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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