peakfinder-0.1 Reference Manual

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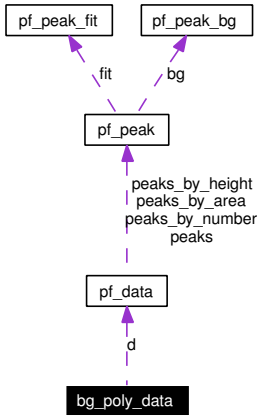
peakfinder-0.1 Data Structure Documentation

3.1 bg_poly_data Struct Reference

Collaboration diagram for bg_poly_data:



3.1.1 Detailed Description

Data on the background for fitting.

Data Fields

- int peak

  The index of the peak for which to fit background.

- int npts

  The number of background points.

- int pts [NCHAN]

The list of bins associated with the background.

- pf_data * d
  The data set.

3.1.2 Field Documentation

3.1.2.1 struct pf_data* bg_poly_data::d

The data set.

3.1.2.2 int bg_poly_data::npts

The number of background points.

3.1.2.3 int bg_poly_data::peak

The index of the peak for which to fit background.

3.1.2.4 int bg_poly_data::pts[NCHAN]

The list of bins associated with the background.

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

- peakfit.c

3.2 cal_fit_info Struct Reference

3.2.1 Detailed Description

Data to which the calibration curve is fit.

Data Fields

- int npts
  The number of points.
- double x [MAXCALPTS]
  The channel for each point.
- double x_err [MAXCALPTS]
  The error in the channel for each point.
- double y [MAXCALPTS]
  The calibrated value for each point.
- int pt [MAXCALPTS]
  The index of the point in the pf_cal_pts structure (ordered by value).
- int pk [MAXCALPTS]
  The index of the peak in the pf_data structure.

3.2.2 Field Documentation

3.2.2.1 int cal_fit_info::npts

The number of points.

3.2.2.2 int cal_fit_info::pk[MAXCALPTS]

The index of the peak in the pf_data structure.

3.2.2.3 int cal_fit_info::pt[MAXCALPTS]

The index of the point in the pf_cal_pts structure (ordered by value).

3.2.2.4 double cal_fit_info::x[MAXCALPTS]

The channel for each point.

3.2.2.5 double cal_fit_info::x_err[MAXCALPTS]

The error in the channel for each point.

3.2.2.6 double cal_fit_info::y[MAXCALPTS]

The calibrated value for each point.

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

- calibrate.c

3.3 def_file_dev Struct Reference

3.3.1 Detailed Description

An association between a file-name extension and a plotting device name.

Data Fields

- char * ext

  The file-name extension.

- char * dev

  The plotting device name.

3.3.2 Field Documentation

3.3.2.1 char* def_file_dev::dev

The plotting device name.

3.3.2.2 char* def_file_dev::ext

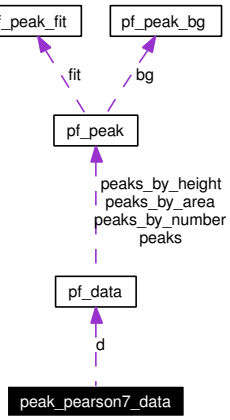
The file-name extension.

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

- plotdata.c

3.4 peak_pearson7_data Struct Reference

Collaboration diagram for peak_pearson7_data:



3.4.1 Detailed Description

Data on a peak for fitting.

Data Fields

- int peak

  The index of the peak to fit.

- pf_data * d

  The data set.

3.4.2 Field Documentation

3.4.2.1 struct pf_data* peak_pearson7_data::d

The data set.

3.4.2.2 int peak_pearson7_data::peak

The index of the peak to fit.

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

- peakfit.c

3.5 pf_cal_fit Struct Reference

`#include <common.h>`

3.5.1 Detailed Description

Calibration fit.

Data Fields

- char unit [MAXUNIT]
  The name of the calibration unit.
- double a
  The quadradic coefficient.
- double b
  The linear coefficient.
- double c
  The constant term.
- double a_err
  Error in a.
- double b_err
  Error in b.
- double c_err
  Error in c.
- double chisq
  chi^2 of the fit
- double chisq_dof
  chi^2 per degree of freedom
- int conv
  Boolean convergance flag.
- int valid
  Boolean validity flag.

3.5.2 Field Documentation

3.5.2.1 double pf_cal_fit::a

The quadradic coefficient.

3.5.2.2 double pf_cal_fit::a_err

Error in a.

3.5.2.3 double pf_cal_fit::b

The linear coefficient.

3.5.2.4 double pf_cal_fit::b_err

Error in b.

3.5.2.5 double pf_cal_fit::c

The constant term.

3.5.2.6 double pf_cal_fit::c_err

Error in c.

3.5.2.7 double pf_cal_fit::chisq

chi^2 of the fit

3.5.2.8 double pf_cal_fit::chisq_dof

chi^2 per degree of freedom

3.5.2.9 int pf_cal_fit::conv

Boolean convergance flag.

3.5.2.10 char pf_cal_fit::unit[MAXUNIT]

The name of the calibration unit.

3.5.2.11 int pf_cal_fit::valid

Boolean validity flag.

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

- common.h

3.6 pf_cal_pt Struct Reference

`#include <common.h>`

3.6.1 Detailed Description

Calibration point.

Data Fields

- int num

  Index of the calibration point.

- double pt

  The value of the point.

- double ri

  The relative intensity of the point.

3.6.2 Field Documentation

3.6.2.1 int pf_cal_pt::num

Index of the calibration point.

3.6.2.2 double pf_cal_pt::pt

The value of the point.

3.6.2.3 double pf_cal_pt::ri

The relative intensity of the point.

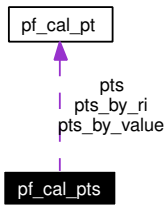
The documentation for this struct was generated from the following file:

- common.h

3.7 pf_cal_pts Struct Reference

`#include <common.h>`

Collaboration diagram for pf_cal_pts:



3.7.1 Detailed Description

Calibration points.

Data Fields

- char unit [MAXUNIT]
  The name of the calibration unit.
- int npts
  The number of calibration points.
- pf_cal_pt pts [MAXCALPTS]
  The calibration points.
- pf_cal_pt * pts_by_value [MAXCALPTS]
  Calibration points sorted by value.
- pf_cal_pt * pts_by_ri [MAXCALPTS]
  Calibration points sorted by relative intensity.

3.7.2 Field Documentation

3.7.2.1 int pf_cal_pts::npts

The number of calibration points.

3.7.2.2 struct pf_cal_pt pf_cal_pts::pts[MAXCALPTS]

The calibration points.

3.7.2.3 struct pf_cal_pt* pf_cal_pts::pts_by_ri[MAXCALPTS]

Calibration points sorted by relative intensity.

3.7.2.4 struct pf_cal_pt* pf_cal_pts::pts_by_value[MAXCALPTS]

Calibration points sorted by value.

3.7.2.5 char pf_cal_pts::unit[MAXUNIT]

The name of the calibration unit.

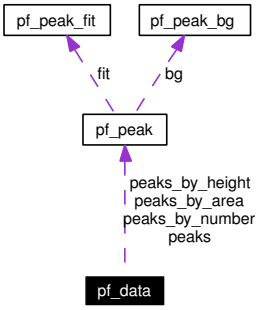
The documentation for this struct was generated from the following file:

- common.h

3.8 pf_data Struct Reference

`#include <common.h>`

Collaboration diagram for pf_data:



3.8.1 Detailed Description

Data set.

Data Fields

- double data_raw [NCHAN]

  Raw data.

- double data_norm [NCHAN]

  Normalized data.

- double max_raw

  Maximum raw value.

- double min_raw

  Minimum raw value.

- double max_norm

  Maximum normalized value.

- double min_norm

  Minimum normalized value.

- int total_counts

  Total number of raw counts.

- double total_chisq

  Total number of normalized counts.

- int data_bg [NCHAN]

  Bin background marking.

- int npeaks
  The number of peaks.
- pf_peak peaks [NCHAN]
  Identified peaks.
- pf_peak * peaks_by_number [NCHAN]
  Peaks sorted by number.
- pf_peak * peaks_by_height [NCHAN]
  Peaks sorted by height.
- pf_peak * peaks_by_area [NCHAN]
  Peaks sorted by area.

3.8.2 Field Documentation

3.8.2.1 int pf_data::data_bg[NCHAN]

Bin background marking.

3.8.2.2 double pf_data::data_norm[NCHAN]

Normalized data.

3.8.2.3 double pf_data::data_raw[NCHAN]

Raw data.

3.8.2.4 double pf_data::max_norm

Maximum normalized value.

3.8.2.5 double pf_data::max_raw

Maximum raw value.

3.8.2.6 double pf_data::min_norm

Minimum normalized value.

3.8.2.7 double pf_data::min_raw

Minimum raw value.

3.8.2.8 int pf_data::npeaks

The number of peaks.

3.8.2.9 struct pf_peak pf_data::peaks[NCHAN]

Identified peaks.

3.8.2.10 struct pf_peak* pf_data::peaks_by_area[NCHAN]

Peaks sorted by area.

3.8.2.11 struct pf_peak* pf_data::peaks_by_height[NCHAN]

Peaks sorted by height.

3.8.2.12 struct pf_peak* pf_data::peaks_by_number[NCHAN]

Peaks sorted by number.

3.8.2.13 double pf_data::total_chisq

Total number of normalized counts.

3.8.2.14 int pf_data::total_counts

Total number of raw counts.

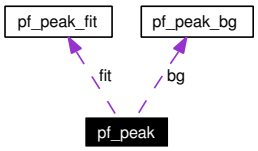
The documentation for this struct was generated from the following file:

- common.h

3.9 pf_peak Struct Reference

`#include <common.h>`

Collaboration diagram for pf_peak:



3.9.1 Detailed Description

Peak data.

Data Fields

- int num
  Index of the peak.
- int lbin
  Starting bin of the peak region.
- int cbin
  Center (maximum) bin of the peak region.
- int rbin
  Ending bin of the peak region.
- pf_peak_bg bg
  Background fit.
- pf_peak_fit fit
  Peak fit.
- double center
  Peak center location.
- double width
  Peak FWHM.
- double lbound
  Starting value of the peak.
- double rbound
  Ending value of the peak.
- double bglbound

Starting value of the peak background.

- double bgrbound

  Ending value of the peak background.

- double area

  Total peak area.

- double height

  Maximum peak height.

3.9.2 Field Documentation

3.9.2.1 double pf_peak::area

Total peak area.

3.9.2.2 struct pf_peak_bg pf_peak::bg

Background fit.

3.9.2.3 double pf_peak::bglbound

Starting value of the peak background.

3.9.2.4 double pf_peak::bgrbound

Ending value of the peak background.

3.9.2.5 int pf_peak::cbin

Center (maximum) bin of the peak region.

3.9.2.6 double pf_peak::center

Peak center location.

3.9.2.7 struct pf_peak_fit pf_peak::fit

Peak fit.

3.9.2.8 double pf_peak::height

Maximum peak height.

3.9.2.9 int pf_peak::lbin

Starting bin of the peak region.

3.9.2.10 double pf_peak::lbound

Starting value of the peak.

3.9.2.11 int pf_peak::num

Index of the peak.

3.9.2.12 int pf_peak::rbin

Ending bin of the peak region.

3.9.2.13 double pf_peak::rbound

Ending value of the peak.

3.9.2.14 double pf_peak::width

Peak FWHM.

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

- common.h

3.10 pf_peak_bg Struct Reference

`#include <common.h>`

3.10.1 Detailed Description

Peak background fit.

Data Fields

- double a
  Coefficient of the cubic term.
- double b
  Coefficient of the quadradic term.
- double c
  Coefficient of the linear term.
- double d
  The constant term.
- double a_err
  Error in a.
- double b_err
  Error in b.
- double c_err
  Error in c.
- double d_err
  Error in d.
- double chisq
  chi^2 of the fit
- double chisq_dof
  chi^2 per degree of freedom
- int conv
  Boolean convergance flag.

3.10.2 Field Documentation

3.10.2.1 double pf_peak_bg::a

Coefficient of the cubic term.

3.10.2.2 double pf_peak_bg::a_err

Error in a.

3.10.2.3 double pf_peak_bg::b

Coefficient of the quadradic term.

3.10.2.4 double pf_peak_bg::b_err

Error in b.

3.10.2.5 double pf_peak_bg::c

Coefficient of the linear term.

3.10.2.6 double pf_peak_bg::c_err

Error in c.

3.10.2.7 double pf_peak_bg::chisq

chi^2 of the fit

3.10.2.8 double pf_peak_bg::chisq_dof

chi^2 per degree of freedom

3.10.2.9 int pf_peak_bg::conv

Boolean convergance flag.

3.10.2.10 double pf_peak_bg::d

The constant term.

3.10.2.11 double pf_peak_bg::d_err

Error in d.

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

- common.h

3.11 pf_peak_fit Struct Reference

`#include <common.h>`

3.11.1 Detailed Description

Peak fit.

Data Fields

- double a
  The a parameter.
- double k
  The k parameter.
- double x0
  The x0 parameter.
- double m
  The m parameter.
- double a_err
  Error in a.
- double k_err
  Error in k.
- double x0_err
  Error in x0.
- double m_err
  Error in m.
- double chisq
  chi^2 of the fit
- double chisq_dof
  chi^2 per degree of freedom
- int conv
  Boolean convergance flag.

3.11.2 Field Documentation

3.11.2.1 double pf_peak_fit::a

The a parameter.

3.11.2.2 double pf_peak_fit::a_err

Error in a.

3.11.2.3 double pf_peak_fit::chisq

chi^2 of the fit

3.11.2.4 double pf_peak_fit::chisq_dof

chi^2 per degree of freedom

3.11.2.5 int pf_peak_fit::conv

Boolean convergance flag.

3.11.2.6 double pf_peak_fit::k

The k parameter.

3.11.2.7 double pf_peak_fit::k_err

Error in k.

3.11.2.8 double pf_peak_fit::m

The m parameter.

3.11.2.9 double pf_peak_fit::m_err

Error in m.

3.11.2.10 double pf_peak_fit::x0

The x0 parameter.

3.11.2.11 double pf_peak_fit::x0_err

Error in x0.

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

- common.h

3.12 pf_plot_params Struct Reference

`#include <common.h>`

3.12.1 Detailed Description

Plot parameters.

Data Fields

- double xstart
  Starting domain value.
- double xend
  Ending domain value.
- int xstartcal
  Flag indicating if xstart is in calibrated units.
- int xendcal
  Flag indicating if xend is in calibrated units.
- int peak
  Peak to plot.
- char * fn
  Output file name.
- char * dev
  Plotting device name.
- double rot
  Number of degrees to rotate the plot.
- int norm
  Flag indicating whether or not to plot normalized values.
- int rescale
  Flag indicating whether or not to rescale plot.
- int cal
  Flag indicating whether or not to plot in calibrated units.
- int marked
  Flag indicating whether or not to mark non-backgound regions.
- int annot
  Flag indicating whether or not to annotate plot with peak numbers.

3.12.2 Field Documentation

3.12.2.1 int pf_plot_params::annot

Flag indicating whether or not to annotate plot with peak numbers.

3.12.2.2 int pf_plot_params::cal

Flag indicating whether or not to plot in calibrated units.

3.12.2.3 char* pf_plot_params::dev

Plotting device name.

3.12.2.4 char* pf_plot_params::fn

Output file name.

3.12.2.5 int pf_plot_params::marked

Flag indicating whether or not to mark non-backgound regions.

3.12.2.6 int pf_plot_params::norm

Flag indicating whether or not to plot normalized values.

3.12.2.7 int pf_plot_params::peak

Peak to plot.

3.12.2.8 int pf_plot_params::rescale

Flag indicating whether or not to rescale plot.

3.12.2.9 double pf_plot_params::rot

Number of degrees to rotate the plot.

3.12.2.10 double pf_plot_params::xend

Ending domain value.

3.12.2.11 int pf_plot_params::xendcal

Flag indicating if xend is in calibrated units.

3.12.2.12 double pf_plot_params::xstart

Starting domain value.

3.12.2.13 int pf_plot_params::xstartcal

Flag indicating if xstart is in calibrated units.

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

- common.h

3.13 pf_plot_range Struct Reference

`#include <commands.h>`

3.13.1 Detailed Description

A plot-range specification.

Data Fields

- double xstart
  Starting domain value.
- double xend
  Ending domain value.
- int xstartcal
  Flag indicating if xstart is in calibrated units.
- int xendcal
  Flag indicating if xend is in calibrated units.

3.13.2 Field Documentation

3.13.2.1 double pf_plot_range::xend

Ending domain value.

3.13.2.2 int pf_plot_range::xendcal

Flag indicating if xend is in calibrated units.

3.13.2.3 double pf_plot_range::xstart

Starting domain value.

3.13.2.4 int pf_plot_range::xstartcal

Flag indicating if xstart is in calibrated units.

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

- commands.h

3.14 yy_buffer_state Struct Reference

Data Fields

- FILE * yy_input_file
- char * yy_ch_buf
- char * yy_buf_pos
- yy_size_t yy_buf_size
- int yy_n_chars
- int yy_is_our_buffer
- int yy_is_interactive
- int yy_at_bol
- int yy_fill_buffer
- int yy_buffer_status

3.14.1 Field Documentation

3.14.1.1 int yy_buffer_state::yy_at_bol

3.14.1.2 char* yy_buffer_state::yy_buf_pos

3.14.1.3 yy_size_t yy_buffer_state::yy_buf_size

3.14.1.4 int yy_buffer_state::yy_buffer_status

3.14.1.5 char* yy_buffer_state::yy_ch_buf

3.14.1.6 int yy_buffer_state::yy_fill_buffer

3.14.1.7 FILE* yy_buffer_state::yy_input_file

3.14.1.8 int yy_buffer_state::yy_is_interactive

3.14.1.9 int yy_buffer_state::yy_is_our_buffer

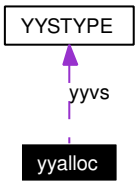
3.14.1.10 int yy_buffer_state::yy_n_chars

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

- cmdlex.c

3.15 yyalloc Union Reference

Collaboration diagram for yyalloc:



Data Fields

- short int yyss
- YYSTYPE yyvs

3.15.1 Field Documentation

3.15.1.1 short int yyalloc::yyss

3.15.1.2 YYSTYPE yyalloc::yyvs

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

- cmdparse.c

3.16 YYSTYPE Union Reference

`#include <cmdparse.h>`

Data Fields

- double num
- char * str
- char * str

3.16.1 Field Documentation

3.16.1.1 double YYSTYPE::num

3.16.1.2 char* YYSTYPE::str

3.16.1.3 char* YYSTYPE::str

The documentation for this union was generated from the following files:

- cmdparse.c
- cmdparse.h

Chapter 4

peakfinder-0.1 File Documentation

4.1 calibrate.c File Reference

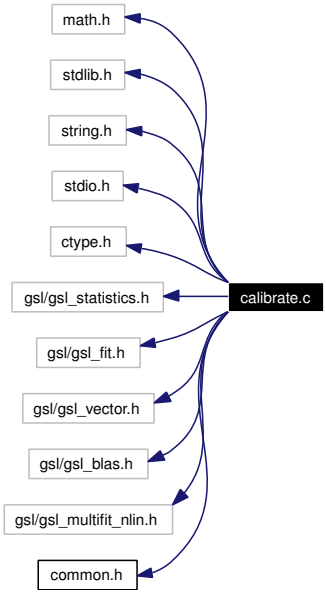
4.1.1 Detailed Description

Author:
Hal Finkel

Calibration and fitting functions

```
#include <math.h>
#include <stdlib.h>
#include <string.h>
#include <stdio.h>
#include <ctype.h>
#include <gsl/gsl_statistics.h>
#include <gsl/gsl_fit.h>
#include <gsl/gsl_vector.h>
#include <gsl/gsl_blas.h>
#include <gsl/gsl_multifit_nlin.h>
#include "common.h"
```

Include dependency graph for calibrate.c:



Data Structures

- struct cal_fit_info

  Data to which the calibration curve is fit.

Defines

- #define MAXITER 1000

  The maximum number of fitting iterations.

- #define MAXFLEX 6

  The maximum number of channels by which a peak location can vary from the fit.

Functions

- int pf_calibrate (struct pf_data ∗d, struct pf_cal_fit ∗f, char ∗fn)

  Calibrate input using known data points.

- double pf_calfunc (struct pf_cal_fit ∗f, double ch)

  Evaluate the calibration fit function for a given peak.

4.1.2 Define Documentation

4.1.2.1 #define MAXFLEX 6

The maximum number of channels by which a peak location can vary from the fit.

4.1.2.2 #define MAXITER 1000

The maximum number of fitting iterations.

4.1.3 Function Documentation

4.1.3.1 double pf_calfunc (struct pf_cal_fit * *f*, double *ch*)

Evaluate the calibration fit function for a given peak.

Parameters:

← ***f*** The calibration fit

← ***ch*** The value at which to evaluate the function

Returns:

The value of the function

4.1.3.2 int pf_calibrate (struct pf_data * *d*, struct pf_cal_fit * *f*, char * *fn*)

Calibrate input using known data points.

Parameters:

← ***d*** The data set

→ ***f*** The calibration fit

← ***fn*** The file containing the calibration points

Returns:

Boolean success flag

4.2 cmdlex.c File Reference

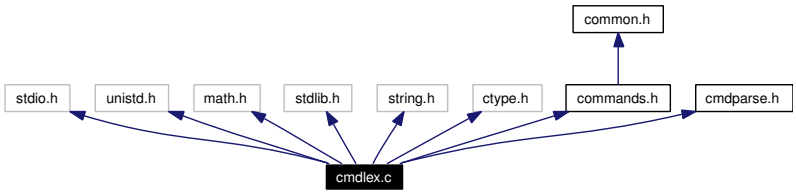
4.2.1 Detailed Description

Author:
Hal Finkel

The command lexer

```
#include <stdio.h>
#include <unistd.h>
#include <math.h>
#include <stdlib.h>
#include <string.h>
#include <ctype.h>
#include "commands.h"
#include "cmdparse.h"
```

Include dependency graph for cmdlex.c:



Data Structures

- struct yy_buffer_state

Defines

- #define FLEX_SCANNER
- #define YY_FLEX_MAJOR_VERSION 2
- #define YY_FLEX_MINOR_VERSION 5
- #define yyconst
- #define YY_PROTO(proto) ()
- #define YY_NULL 0
- #define YY_SC_TO_UI(c) ((unsigned int) (unsigned char) c)
- #define BEGIN yy_start = 1 + 2 ∗
- #define YY_START ((yy_start - 1) / 2)
- #define YYSTATE YY_START
- #define YY_STATE_EOF(state) (YY_END_OF_BUFFER + state + 1)
- #define YY_NEW_FILE yyrestart(yyin)
- #define YY_END_OF_BUFFER_CHAR 0
- #define YY_BUF_SIZE 16384
- #define EOB_ACT_CONTINUE_SCAN 0

- #define EOB_ACT_END_OF_FILE 1
- #define EOB_ACT_LAST_MATCH 2
- #define yyless(n)
- #define unput(c) yyunput(c, yytext_ptr)
- #define YY_BUFFER_NEW 0
- #define YY_BUFFER_NORMAL 1
- #define YY_BUFFER_EOF_PENDING 2
- #define YY_CURRENT_BUFFER yy_current_buffer
- #define YY_FLUSH_BUFFER yy_flush_buffer(yy_current_buffer)
- #define yy_new_buffer yy_create_buffer
- #define yy_set_interactive(is_interactive)
- #define yy_set_bol(at_bol)
- #define YY_AT_BOL() (yy_current_buffer → yy_at_bol)
- #define yytext_ptr yytext
- #define YY_DO_BEFORE_ACTION
- #define YY_NUM_RULES 34
- #define YY_END_OF_BUFFER 35
- #define REJECT reject_used_but_not_detected
- #define yymore() yymore_used_but_not_detected
- #define YY_MORE_ADJ 0
- #define YY_RESTORE_YY_MORE_OFFSET
- #define INITIAL 0
- #define YY_INPUT(buf, result, max_size)
- #define YY_SKIP_YYWRAP
- #define YY_NO_UNPUT
- #define YY_NO_PUSH_STATE 1
- #define YY_NO_POP_STATE 1
- #define YY_NO_TOP_STATE 1
- #define YY_READ_BUF_SIZE 8192
- #define ECHO (void) fwrite(yytext, yyleng, 1, yyout)
- #define yyterminate() return YY_NULL
- #define YY_START_STACK_INCR 25
- #define YY_FATAL_ERROR(msg) yy_fatal_error(msg)
- #define YY_DECL int yylex YY_PROTO((void))
- #define YY_BREAK break;
- #define YY_RULE_SETUP YY_USER_ACTION
- #define YY_EXIT_FAILURE 2
- #define yyless(n)

Typedefs

- typedef yy_buffer_state * YY_BUFFER_STATE
- typedef unsigned int yy_size_t
- typedef unsigned char YY_CHAR
- typedef int yy_state_type

Functions

- void yyrestart YY_PROTO ((FILE *input_file))
- void yy_switch_to_buffer YY_PROTO ((YY_BUFFER_STATE new_buffer))
- void yy_load_buffer_state YY_PROTO ((void))
- YY_BUFFER_STATE yy_create_buffer YY_PROTO ((FILE *file, int size))
- void yy_delete_buffer YY_PROTO ((YY_BUFFER_STATE b))
- void yy_init_buffer YY_PROTO ((YY_BUFFER_STATE b, FILE *file))
- YY_BUFFER_STATE yy_scan_buffer YY_PROTO ((char *base, yy_size_t size))
- YY_BUFFER_STATE yy_scan_string YY_PROTO ((yyconst char *yy_str))
- YY_BUFFER_STATE yy_scan_bytes YY_PROTO ((yyconst char *bytes, int len))
- int yywrap ()

  Dummy yywrap function.

Variables

- int yyleng
- FILE * yyin = (FILE *) 0 *yyout = (FILE *) 0
- FILE * yyout
- char * yytext
- char * parse_buffer

  The current buffer to parse.

- int parse_pos

  The current position in the parse buffer.

- int size
- FILE * file
- int len

4.2.2 Define Documentation

4.2.2.1 #define BEGIN yy_start = 1 + 2 *

4.2.2.2 #define ECHO (void) fwrite(yytext, yyleng, 1, yyout)

4.2.2.3 #define EOB_ACT_CONTINUE_SCAN 0

4.2.2.4 #define EOB_ACT_END_OF_FILE 1

4.2.2.5 #define EOB_ACT_LAST_MATCH 2

4.2.2.6 #define FLEX_SCANNER

4.2.2.7 #define INITIAL 0

4.2.2.8 #define REJECT reject_used_but_not_detected

4.2.2.9 #define unput(c) yyunput(c, yytext_ptr)

4.2.2.10 #define YY_AT_BOL() (yy_current_buffer → yy_at_bol)

4.2.2.11 #define YY_BREAK break;

4.2.2.12 #define YY_BUF_SIZE 16384

4.2.2.13 #define YY_BUFFER_EOF_PENDING 2

4.2.2.14 #define YY_BUFFER_NEW 0

4.2.2.15 #define YY_BUFFER_NORMAL 1

4.2.2.16 #define YY_CURRENT_BUFFER yy_current_buffer

4.2.2.17 #define YY_DECL int yylex YY_PROTO((void))

4.2.2.18 #define YY_DO_BEFORE_ACTION

Value:

```
yytext_ptr = yy_bp; \
        yyleng = (int) (yy_cp - yy_bp); \
        yy_hold_char = *yy_cp; \
        *yy_cp = '\0'; \
        yy_c_buf_p = yy_cp;
```

4.2.2.19 #define YY_END_OF_BUFFER 35

4.2.2.20 #define YY_END_OF_BUFFER_CHAR 0

4.2.2.21 #define YY_EXIT_FAILURE 2

4.2.2.22 #define YY_FATAL_ERROR(msg) yy_fatal_error(msg)

4.2.2.23 #define YY_FLEX_MAJOR_VERSION 2

4.2.2.24 #define YY_FLEX_MINOR_VERSION 5

4.2.2.25 #define YY_FLUSH_BUFFER yy_flush_buffer(yy_current_buffer)

4.2.2.26 #define YY_INPUT(buf, result, max_size)

Value:

```
{ \
        char c = parse_buffer[parse_pos++]; \
        result = (c == '\0') ? YY_NULL : (buf[0] = c, 1); \
        }
```

4.2.2.27 #define YY_MORE_ADJ 0

4.2.2.28 #define yy_new_buffer yy_create_buffer

4.2.2.29 #define YY_NEW_FILE yyrestart(yyin)

4.2.2.30 #define YY_NO_POP_STATE 1

4.2.2.31 #define YY_NO_PUSH_STATE 1

4.2.2.32 #define YY_NO_TOP_STATE 1

4.2.2.33 #define YY_NO_UNPUT

4.2.2.34 #define YY_NULL 0

4.2.2.35 #define YY_NUM_RULES 34

4.2.2.36 #define YY_PROTO(proto) ()

4.2.2.37 #define YY_READ_BUF_SIZE 8192

4.2.2.38 #define YY_RESTORE_YY_MORE_OFFSET

4.2.2.39 #define YY_RULE_SETUP YY_USER_ACTION

4.2.2.40 #define YY_SC_TO_UI(c) ((unsigned int) (unsigned char) c)

4.2.2.41 #define yy_set_bol(at_bol)

Value:

```
{ \
        if ( ! yy_current_buffer ) \
                yy_current_buffer = yy_create_buffer( yyin, YY_BUF_SIZE ); \
        yy_current_buffer->yy_at_bol = at_bol; \
        }
```

4.2.2.42 #define yy_set_interactive(is_interactive)

Value:

```
{ \
        if ( ! yy_current_buffer ) \
                yy_current_buffer = yy_create_buffer( yyin, YY_BUF_SIZE ); \
        yy_current_buffer->yy_is_interactive = is_interactive; \
        }
```

4.2.2.43 #define YY_SKIP_YYWRAP

4.2.2.44 #define YY_START ((yy_start - 1) / 2)

4.2.2.45 #define YY_START_STACK_INCR 25

4.2.2.46 #define YY_STATE_EOF(state) (YY_END_OF_BUFFER + state + 1)

4.2.2.47 #define yyconst

4.2.2.48 #define yyless(n)

Value:

```
do \
                { \
                /* Undo effects of setting up yytext. */ \
                yytext[yyleng] = yy_hold_char; \
                yy_c_buf_p = yytext + n; \
                yy_hold_char = *yy_c_buf_p; \
                *yy_c_buf_p = '\0'; \
                yyleng = n; \
                } \
        while ( 0 )
```

4.2.2.49 #define yyless(n)

Value:

```
do \
                { \
                /* Undo effects of setting up yytext. */ \
                *yy_cp = yy_hold_char; \
                YY_RESTORE_YY_MORE_OFFSET \
                yy_c_buf_p = yy_cp = yy_bp + n - YY_MORE_ADJ; \
                YY_DO_BEFORE_ACTION; /* set up yytext again */ \
                } \
        while ( 0 )
```

4.2.2.50 #define yymore() yymore_used_but_not_detected

4.2.2.51 #define YYSTATE YY_START

4.2.2.52 #define yyterminate() return YY_NULL

4.2.2.53 #define yytext_ptr yytext

4.2.3 Typedef Documentation

4.2.3.1 typedef struct yy_buffer_state* YY_BUFFER_STATE

4.2.3.2 typedef unsigned char YY_CHAR

4.2.3.3 typedef unsigned int yy_size_t

4.2.3.4 typedef int yy_state_type

4.2.4 Function Documentation

4.2.4.1 YY_BUFFER_STATE yy_scan_bytes YY_PROTO ((yyconst char *bytes, int len))

4.2.4.2 YY_BUFFER_STATE yy_scan_string YY_PROTO ((yyconst char *yy_str))

4.2.4.3 YY_BUFFER_STATE yy_scan_buffer YY_PROTO ((char *base, yy_size_t size))

4.2.4.4 void yy_init_buffer YY_PROTO ((YY_BUFFER_STATE b, FILE *file))

4.2.4.5 void yy_flush_buffer YY_PROTO ((YY_BUFFER_STATE b))

4.2.4.6 YY_BUFFER_STATE yy_create_buffer YY_PROTO ((FILE *file, int size))

4.2.4.7 int input YY_PROTO ((void))

4.2.4.8 void yy_switch_to_buffer YY_PROTO ((YY_BUFFER_STATE new_buffer))

4.2.4.9 void yyrestart YY_PROTO ((FILE *input_file))

4.2.4.10 int yywrap ()

Dummy yywrap function.

Returns:
Always a value of 1

4.2.5 Variable Documentation

4.2.5.1 FILE* file

4.2.5.2 int len

4.2.5.3 char* parse_buffer

The current buffer to parse.

4.2.5.4 int parse_pos

The current position in the parse buffer.

4.2.5.5 yy_size_t size

4.2.5.6 FILE * yyin = (FILE *) 0 *yyout = (FILE *) 0

4.2.5.7 int yyleng

4.2.5.8 FILE * yyout

4.2.5.9 char * yytext

4.3 cmdparse.c File Reference

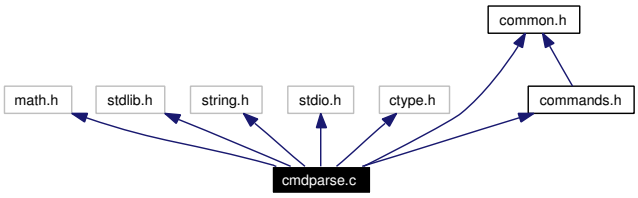
4.3.1 Detailed Description

Author:
Hal Finkel

The command line parser

```
#include <math.h>
#include <stdlib.h>
#include <string.h>
#include <stdio.h>
#include <ctype.h>
#include "commands.h"
#include "common.h"
```

Include dependency graph for cmdparse.c:



Data Structures

- union YYSTYPE
- union yyalloc

Defines

- #define YYBISON 1
- #define YYSKELETON_NAME "yacc.c"
- #define YYPURE 0
- #define YYLSP_NEEDED 0
- #define QUIT 258
- #define PLOT 259
- #define PRINT 260
- #define DATA 261
- #define NORM 262
- #define SMOOTH 263
- #define LOAD 264
- #define TO 265
- #define RESCALE 266
- #define MARKED 267
- #define PEAKS 268

- #define PEAK 269
- #define ANNOTATE 270
- #define DRIVER 271
- #define ROTATED 272
- #define SORTED 273
- #define BY 274
- #define NUMBER 275
- #define HEIGHT 276
- #define AREA 277
- #define CALIBRATE 278
- #define USING 279
- #define CLEAR 280
- #define CALIBRATION 281
- #define CALIBRATED 282
- #define CHANNEL 283
- #define STRING 284
- #define NUM 285
- #define YYDEBUG 0
- #define YYERROR_VERBOSE 0
- #define yystype YYSTYPE
- #define YYSTYPE_IS_DECLARED 1
- #define YYSTYPE_IS_TRIVIAL 1
- #define YYFREE free
- #define YYMALLOC malloc
- #define YYSTACK_ALLOC YYMALLOC
- #define YYSTACK_FREE YYFREE
- #define YYSTACK_GAP_MAXIMUM (sizeof (union yyalloc) - 1)
- #define YYSTACK_BYTES(N)
- #define YYCOPY(To, From, Count)
- #define YYSTACK_RELOCATE(Stack)
- #define YYFINAL 23
- #define YYLAST 55
- #define YYNTOKENS 31
- #define YYNNTS 27
- #define YYNRULES 55
- #define YYNSTATES 77
- #define YYUNDEFTOK 2
- #define YYMAXUTOK 285
- #define YYTRANSLATE(YYX) ((unsigned int) (YYX) <= YYMAXUTOK ? yytranslate[YYX] : YYUNDEFTOK)
- #define YYPACT_NINF -25
- #define YYTABLE_NINF -1
- #define YYSIZE_T unsigned int
- #define yyerrok (yyerrstatus = 0)
- #define yyclearin (yychar = YYEMPTY)
- #define YYEMPTY (-2)
- #define YYEOF 0
- #define YYACCEPT goto yyacceptlab
- #define YYABORT goto yyabortlab
- #define YYERROR goto yyerrorlab

- #define YYFAIL goto yyerrlab
- #define YYRECOVERING() (!!yyerrstatus)
- #define YYBACKUP(Token, Value)
- #define YYTERROR 1
- #define YYERRCODE 256
- #define YYLLOC_DEFAULT(Current, Rhs, N)
- #define YYLEX yylex ()
- #define YYDPRINTF(Args)
- #define YYDSYMPRINT(Args)
- #define YYDSYMPRINTF(Title, Token, Value, Location)
- #define YY_STACK_PRINT(Bottom, Top)
- #define YY_REDUCE_PRINT(Rule)
- #define YYINITDEPTH 200
- #define YYMAXDEPTH 10000
- #define YYPOPSTACK (yyvsp–, yyssp–)

Typedefs

- typedef YYSTYPE YYSTYPE
- typedef short int yysigned_char

Enumerations

- enum yytokentype {
  QUIT = 258, PLOT = 259, PRINT = 260, DATA = 261,
  NORM = 262, SMOOTH = 263, LOAD = 264, TO = 265,
  RESCALE = 266, MARKED = 267, PEAKS = 268, PEAK = 269,
  ANNOTATE = 270, DRIVER = 271, ROTATED = 272, SORTED = 273,
  BY = 274, NUMBER = 275, HEIGHT = 276, AREA = 277,
  CALIBRATE = 278, USING = 279, CLEAR = 280, CALIBRATION = 281,
  CALIBRATED = 282, CHANNEL = 283, STRING = 284, NUM = 285 }

Functions

- int yylex ()
  yylex function
- void yyerror (char const ∗s)
  The provided yyerror function.
- int yyparse ()
- void pf_init_parse_data ()
  Initialize the parse context data.
- void pf_free_parse_data ()
  Free any data associated with the last parse.

- void pf_get_parsed_plot_params (struct pf_plot_params *p)
  Get the parsed plot parameters.
- int pf_get_parsed_rescale ()
  Get the parsed rescale flag.
- int pf_get_parsed_cal ()
  Get the parsed calibration flag.
- int pf_get_parsed_norm ()
  Get the parsed normailzation flag.
- int pf_get_parsed_marked ()
  Get the parsed mark flag.
- int pf_get_parsed_annot ()
  Get the parsed annotate flag.
- int pf_get_parsed_peak ()
  Get the parsed peak number.
- double pf_get_parsed_rotation ()
  The the parsed rotation amount.
- enum pf_command pf_get_parsed_command ()
  Get the parsed command.
- enum pf_peak_sort pf_get_parsed_sort ()
  Get the parsed sort flag.
- pf_plot_range * pf_get_parsed_plot_range ()
  Get the parsed plot range.
- char * pf_get_parsed_file ()
  Get the parsed file name.
- char * pf_get_parsed_driver ()
  Get the parsed driver name.

Variables

- pf_plot_range plot_range
  The range of the requested plot.
- char * load_file
  The provided file name.
- char * driver_name

The provided plotting driver name.

- int use_norm

  Flag indicating if the plot should use normalized data.

- int need_rescale

  Flag indicating if the plot should be rescaled for the data displayed.

- int need_cal

  Flag indicating if the plot should use a calibrated x-axis.

- int should_mark

  Flag indicating if the plot should mark non-background areas.

- int should_annot

  Flag indicating if the peaks should be numbered on the plot.

- int peak_num

  The peak number of the peak requested.

- double rot_angle

  The number of degrees to rotate the plot from the default angle.

- int yychar
- YYSTYPE yylval
- int yynerrs

4.3.2 Define Documentation

4.3.2.1 #define ANNOTATE 270

4.3.2.2 #define AREA 277

4.3.2.3 #define BY 274

4.3.2.4 #define CALIBRATE 278

4.3.2.5 #define CALIBRATED 282

4.3.2.6 #define CALIBRATION 281

4.3.2.7 #define CHANNEL 283

4.3.2.8 #define CLEAR 280

4.3.2.9 #define DATA 261

4.3.2.10 #define DRIVER 271

4.3.2.11 #define HEIGHT 276

4.3.2.12 #define LOAD 264

4.3.2.13 #define MARKED 267

4.3.2.14 #define NORM 262

4.3.2.15 #define NUM 285

4.3.2.16 #define NUMBER 275

4.3.2.17 #define PEAK 269

4.3.2.18 #define PEAKS 268

4.3.2.19 #define PLOT 259

4.3.2.20 #define PRINT 260

4.3.2.21 #define QUIT 258

4.3.2.22 #define RESCALE 266

4.3.2.23 #define ROTATED 272

4.3.2.24 #define SMOOTH 263

4.3.2.25 #define SORTED 273

4.3.2.26 #define STRING 284

4.3.2.27 #define TO 265

4.3.2.28 #define USING 279

4.3.2.29 #define YY_REDUCE_PRINT(Rule)

4.3.2.30 #define YY_STACK_PRINT(Bottom, Top)

```
do                                                              \
  if (yychar == YYEMPTY && yylen == 1)                          \
    {                                                           \
      yychar = (Token);                                         \
      yylval = (Value);                                         \
      yytoken = YYTRANSLATE (yychar);                           \
      YYPOPSTACK;                                               \
      goto yybackup;                                            \
    }                                                           \
  else                                                          \
    {                                                           \
      yyerror ("syntax error: cannot back up");\
      YYERROR;                                                  \
    }                                                           \
while (0)
```

4.3.2.34 #define YYBISON 1

4.3.2.35 #define yyclearin (yychar = YYEMPTY)

4.3.2.36 #define YYCOPY(To, From, Count)

Value:

```
do                                      \
        {                                       \
          register YYSIZE_T yyi;                \
          for (yyi = 0; yyi < (Count); yyi++)   \
            (To)[yyi] = (From)[yyi];            \
        }                                       \
      while (0)
```

4.3.2.37 #define YYDEBUG 0

4.3.2.38 #define YYDPRINTF(Args)

4.3.2.39 #define YYDSYMPRINT(Args)

4.3.2.40 #define YYDSYMPRINTF(Title, Token, Value, Location)

4.3.2.41 #define YYEMPTY (-2)

4.3.2.42 #define YYEOF 0

4.3.2.43 #define YYERRCODE 256

4.3.2.44 #define yyerrok (yyerrstatus = 0)

4.3.2.45 #define YYERROR goto yyerrorlab

4.3.2.46 #define YYERROR_VERBOSE 0

4.3.2.47 #define YYFAIL goto yyerrlab

4.3.2.48 #define YYFINAL 23

4.3.2.49 #define YYFREE free

4.3.2.50 #define YYINITDEPTH 200

4.3.2.51 #define YYLAST 55

4.3.2.52 #define YYLEX yylex ()

4.3.2.53 #define YYLLOC_DEFAULT(Current, Rhs, N)

Value:

```
((Current).first_line   = (Rhs)[1].first_line,  \
    (Current).first_column = (Rhs)[1].first_column,     \
    (Current).last_line    = (Rhs)[N].last_line,        \
    (Current).last_column  = (Rhs)[N].last_column)
```

4.3.2.54 #define YYLSP_NEEDED 0

4.3.2.55 #define YYMALLOC malloc

4.3.2.56 #define YYMAXDEPTH 10000

4.3.2.57 #define YYMAXUTOK 285

4.3.2.58 #define YYNNTS 27

4.3.2.59 #define YYNRULES 55

4.3.2.60 #define YYNSTATES 77

4.3.2.61 #define YYNTOKENS 31

4.3.2.62 #define YYPACT_NINF -25

4.3.2.63 #define YYPOPSTACK (yyvsp–, yyssp–)

4.3.2.64 #define YYPURE 0

4.3.2.65 #define YYRECOVERING() (!!yyerrstatus)

4.3.2.66 #define YYSIZE_T unsigned int

4.3.2.67 #define YYSKELETON_NAME "yacc.c"

4.3.2.68 #define YYSTACK_ALLOC YYMALLOC

4.3.2.69 #define YYSTACK_BYTES(N)

Value:

```
((N) * (sizeof (short int) + sizeof (YYSTYPE))                \
      + YYSTACK_GAP_MAXIMUM)
```

4.3.2.70 #define YYSTACK_FREE YYFREE

4.3.2.71 #define YYSTACK_GAP_MAXIMUM (sizeof (union yyalloc) - 1)

4.3.2.72 #define YYSTACK_RELOCATE(Stack)

Value:

```
do                                                              \
      {                                                         \
        YYSIZE_T yynewbytes;                                    \
        YYCOPY (&yyptr->Stack, Stack, yysize);                  \
        Stack = &yyptr->Stack;                                  \
        yynewbytes = yystacksize * sizeof (*Stack) + YYSTACK_GAP_MAXIMUM; \
        yyptr += yynewbytes / sizeof (*yyptr);                  \
      }                                                         \
    while (0)
```

4.3.2.73 #define yystype YYSTYPE

4.3.2.74 #define YYSTYPE_IS_DECLARED 1

4.3.2.75 #define YYSTYPE_IS_TRIVIAL 1

4.3.2.76 #define YYTABLE_NINF -1

4.3.2.77 #define YYTERROR 1

4.3.2.78 #define YYTRANSLATE(YYX) ((unsigned int) (YYX) <= YYMAXUTOK ? yytranslate[YYX] : YYUNDEFTOK)

4.3.2.79 #define YYUNDEFTOK 2

4.3.3 Typedef Documentation

4.3.3.1 typedef short int yysigned_char

4.3.3.2 typedef union YYSTYPE YYSTYPE

4.3.4 Enumeration Type Documentation

4.3.4.1 enum yytokentype

Enumeration values:

- *QUIT*
- *PLOT*
- *PRINT*
- *DATA*
- *NORM*
- *SMOOTH*
- *LOAD*
- *TO*
- *RESCALE*
- *MARKED*
- *PEAKS*
- *PEAK*
- *ANNOTATE*
- *DRIVER*
- *ROTATED*
- *SORTED*
- *BY*
- *NUMBER*
- *HEIGHT*
- *AREA*
- *CALIBRATE*

USING

CLEAR

CALIBRATION

CALIBRATED

CHANNEL

STRING

NUM

4.3.5 Function Documentation

4.3.5.1 void pf_free_parse_data ()

Free any data associated with the last parse.

4.3.5.2 int pf_get_parsed_annot ()

Get the parsed annotate flag.

Returns:
The parsed annotate flag

4.3.5.3 int pf_get_parsed_cal ()

Get the parsed calibration flag.

Returns:
The parsed calibration flag

4.3.5.4 enum pf_command pf_get_parsed_command ()

Get the parsed command.

Returns:
The parsed command

4.3.5.5 char* pf_get_parsed_driver ()

Get the parsed driver name.

Returns:
The parsed driver name

4.3.5.6 char* pf_get_parsed_file ()

Get the parsed file name.

Returns:
The parsed file name

4.3.5.7 int pf_get_parsed_marked ()

Get the parsed mark flag.

Returns:
The parsed mark flag

4.3.5.8 int pf_get_parsed_norm ()

Get the parsed normailzation flag.

Returns:
The parsed normailzation flag

4.3.5.9 int pf_get_parsed_peak ()

Get the parsed peak number.

Returns:
The parsed peak number

4.3.5.10 void pf_get_parsed_plot_params (struct pf_plot_params * *p*)

Get the parsed plot parameters.

Parameters:
→ ***p*** The plot parameters

4.3.5.11 struct pf_plot_range* pf_get_parsed_plot_range ()

Get the parsed plot range.

Returns:
The parsed plot range

4.3.5.12 int pf_get_parsed_rescale ()

Get the parsed rescale flag.

Returns:
The parsed rescale flag

4.3.5.13 double pf_get_parsed_rotation ()

The the parsed rotation amount.

Returns:
The parsed rotation amount

4.3.5.14 enum pf_peak_sort pf_get_parsed_sort ()

Get the parsed sort flag.

Returns:
The parsed sort flag

4.3.5.15 void pf_init_parse_data ()

Initialize the parse context data.

4.3.5.16 void yyerror (char const * *s*)

The provided yyerror function.

Parameters:
← ***s*** The parser-provided error string

4.3.5.17 int yylex ()

yylex function

Returns:
The token type

4.3.5.18 int yyparse ()

Here is the call graph for this function:

4.3.6 Variable Documentation

4.3.6.1 char* driver_name

The provided plotting driver name.

4.3.6.2 char* load_file

The provided file name.

4.3.6.3 int need_cal

Flag indicating if the plot should use a calibrated x-axis.

4.3.6.4 int need_rescale

Flag indicating if the plot should be rescaled for the data displayed.

4.3.6.5 int peak_num

The peak number of the peak requested.

4.3.6.6 struct pf_plot_range plot_range

The range of the requested plot.

4.3.6.7 double rot_angle

The number of degrees to rotate the plot from the default angle.

4.3.6.8 int should_annot

Flag indicating if the peaks should be numbered on the plot.

4.3.6.9 int should_mark

Flag indicating if the plot should mark non-background areas.

4.3.6.10 int use_norm

Flag indicating if the plot should use normalized data.

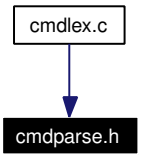
4.3.6.11 int yychar

4.3.6.12 YYSTYPE yylval

4.3.6.13 int yynerrs

4.4 cmdparse.h File Reference

This graph shows which files directly or indirectly include this file:



Data Structures

- union YYSTYPE

Defines

- #define QUIT 258
- #define PLOT 259
- #define PRINT 260
- #define DATA 261
- #define NORM 262
- #define SMOOTH 263
- #define LOAD 264
- #define TO 265
- #define RESCALE 266
- #define MARKED 267
- #define PEAKS 268
- #define PEAK 269
- #define ANNOTATE 270
- #define DRIVER 271
- #define ROTATED 272
- #define SORTED 273
- #define BY 274
- #define NUMBER 275
- #define HEIGHT 276
- #define AREA 277
- #define CALIBRATE 278
- #define USING 279
- #define CLEAR 280
- #define CALIBRATION 281
- #define CALIBRATED 282
- #define CHANNEL 283
- #define STRING 284
- #define NUM 285
- #define yystype YYSTYPE
- #define YYSTYPE_IS_DECLARED 1
- #define YYSTYPE_IS_TRIVIAL 1

Typedefs

- typedef YYSTYPE YYSTYPE

Enumerations

- enum yytokentype {

  QUIT = 258, PLOT = 259, PRINT = 260, DATA = 261,

  NORM = 262, SMOOTH = 263, LOAD = 264, TO = 265,

  RESCALE = 266, MARKED = 267, PEAKS = 268, PEAK = 269,

  ANNOTATE = 270, DRIVER = 271, ROTATED = 272, SORTED = 273,

  BY = 274, NUMBER = 275, HEIGHT = 276, AREA = 277,

  CALIBRATE = 278, USING = 279, CLEAR = 280, CALIBRATION = 281,

  CALIBRATED = 282, CHANNEL = 283, STRING = 284, NUM = 285 }

Variables

- YYSTYPE yylval

4.4.1 Define Documentation

4.4.1.1 #define ANNOTATE 270

4.4.1.2 #define AREA 277

4.4.1.3 #define BY 274

4.4.1.4 #define CALIBRATE 278

4.4.1.5 #define CALIBRATED 282

4.4.1.6 #define CALIBRATION 281

4.4.1.7 #define CHANNEL 283

4.4.1.8 #define CLEAR 280

4.4.1.9 #define DATA 261

4.4.1.10 #define DRIVER 271

4.4.1.11 #define HEIGHT 276

4.4.1.12 #define LOAD 264

4.4.1.13 #define MARKED 267

4.4.1.14 #define NORM 262

4.4.1.15 #define NUM 285

4.4.1.16 #define NUMBER 275

4.4.1.17 #define PEAK 269

4.4.1.18 #define PEAKS 268

4.4.1.19 #define PLOT 259

4.4.1.20 #define PRINT 260

4.4.1.21 #define QUIT 258

4.4.1.22 #define RESCALE 266

4.4.1.23 #define ROTATED 272

4.4.1.24 #define SMOOTH 263

4.4.1.25 #define SORTED 273

4.4.1.26 #define STRING 284

4.4.1.27 #define TO 265

4.4.1.28 #define USING 279

4.4.1.29 #define yystype YYSTYPE

4.4.1.30 #define YYSTYPE_IS_DECLARED 1

PLOT
PRINT
DATA
NORM
SMOOTH
LOAD
TO
RESCALE
MARKED
PEAKS
PEAK
ANNOTATE
DRIVER
ROTATED
SORTED
BY
NUMBER
HEIGHT
AREA
CALIBRATE
USING
CLEAR
CALIBRATION
CALIBRATED
CHANNEL
STRING
NUM

4.4.4 Variable Documentation

4.4.4.1 YYSTYPE yylval

4.5 commands.h File Reference

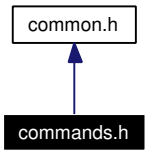
4.5.1 Detailed Description

Author:
Hal Finkel

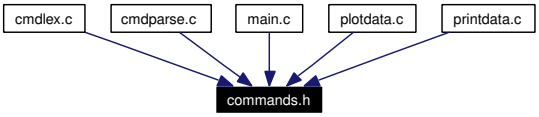
Command lexing and parsing

`#include "common.h"`

Include dependency graph for commands.h:



This graph shows which files directly or indirectly include this file:



Data Structures

- struct pf_plot_range
  A plot-range specification.

Enumerations

- enum pf_command {
  command_invalid, command_quit, command_load, command_print_data,
  command_print_peaks, command_print_peak, command_print_calibration, command_plot_data,
  command_plot_peak, command_calibrate, command_clear_calibration }
  A command type.

Functions

- enum pf_command pf_get_parsed_command ()
  Get the parsed command.
- enum pf_peak_sort pf_get_parsed_sort ()
  Get the parsed sort flag.

- pf_plot_range * pf_get_parsed_plot_range ()

  Get the parsed plot range.

- char * pf_get_parsed_file ()

  Get the parsed file name.

- char * pf_get_parsed_driver ()

  Get the parsed driver name.

- int pf_get_parsed_rescale ()

  Get the parsed rescale flag.

- int pf_get_parsed_cal ()

  Get the parsed calibration flag.

- int pf_get_parsed_norm ()

  Get the parsed normailzation flag.

- int pf_get_parsed_marked ()

  Get the parsed mark flag.

- int pf_get_parsed_annot ()

  Get the parsed annotate flag.

- int pf_get_parsed_peak ()

  Get the parsed peak number.

- double pf_get_parsed_rotation ()

  The the parsed rotation amount.

- void pf_get_parsed_plot_params (struct pf_plot_params *p)

  Get the parsed plot parameters.

- void pf_init_parse_data ()

  Initialize the parse context data.

- void pf_free_parse_data ()

  Free any data associated with the last parse.

- void pf_execute_command ()

  Execute the next command.

- void pf_set_command_parse_buffer (char *cmd)

  Set the buffer to parse.

4.5.2 Enumeration Type Documentation

4.5.2.1 enum pf_command

A command type.

Enumeration values:

command_invalid Invalid command.

command_quit Quit command.

command_load Load command.

command_print_data Print-data command.

command_print_peaks Print-peaks command.

command_print_peak Print-peak command.

command_print_calibration Print-calibration command.

command_plot_data Plot-data command.

command_plot_peak Plot-peak command.

command_calibrate Calibrate command.

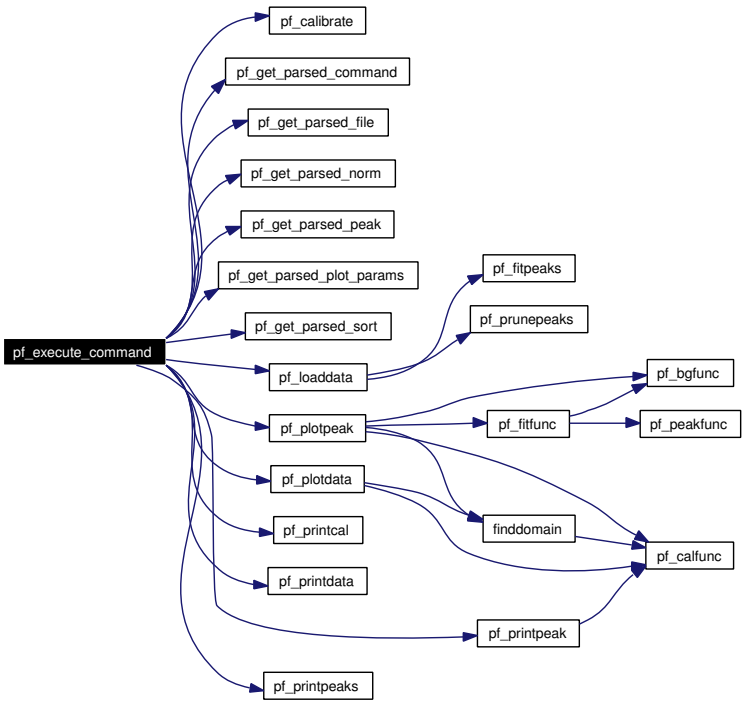
command_clear_calibration Clear-calibration command.

4.5.3 Function Documentation

4.5.3.1 void pf_execute_command ()

Execute the next command.

Here is the call graph for this function:



4.5.3.2 void pf_free_parse_data ()

Free any data associated with the last parse.

4.5.3.3 int pf_get_parsed_annot ()

Get the parsed annotate flag.

Returns:
The parsed annotate flag

4.5.3.4 int pf_get_parsed_cal ()

Get the parsed calibration flag.

Returns:
The parsed calibration flag

4.5.3.5 enum pf_command pf_get_parsed_command ()

Get the parsed command.

Returns:
The parsed command

4.5.3.6 char* pf_get_parsed_driver ()

Get the parsed driver name.

Returns:
The parsed driver name

4.5.3.7 char* pf_get_parsed_file ()

Get the parsed file name.

Returns:
The parsed file name

4.5.3.8 int pf_get_parsed_marked ()

Get the parsed mark flag.

Returns:
The parsed mark flag

4.5.3.9 int pf_get_parsed_norm ()

Get the parsed normailzation flag.

Returns:
The parsed normailzation flag

4.5.3.10 int pf_get_parsed_peak ()

Get the parsed peak number.

Returns:
The parsed peak number

4.5.3.11 void pf_get_parsed_plot_params (struct pf_plot_params * *p*)

Get the parsed plot parameters.

Parameters:
→ ***p*** The plot parameters

4.5.3.12 struct pf_plot_range* pf_get_parsed_plot_range ()

Get the parsed plot range.

Returns:
The parsed plot range

4.5.3.13 int pf_get_parsed_rescale ()

Get the parsed rescale flag.

Returns:
The parsed rescale flag

4.5.3.14 double pf_get_parsed_rotation ()

The the parsed rotation amount.

Returns:
The parsed rotation amount

4.5.3.15 enum pf_peak_sort pf_get_parsed_sort ()

Get the parsed sort flag.

Returns:
The parsed sort flag

4.5.3.16 void pf_init_parse_data ()

Initialize the parse context data.

4.5.3.17 void pf_set_command_parse_buffer (char * *cmd*)

Set the buffer to parse.

Parameters:
← ***cmd*** The buffer with the command string

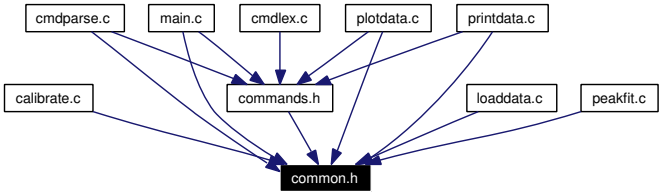
4.6 common.h File Reference

4.6.1 Detailed Description

Author:
Hal Finkel

Main peakfinder program

This graph shows which files directly or indirectly include this file:



Data Structures

- struct pf_peak_bg
  Peak background fit.
- struct pf_peak_fit
  Peak fit.
- struct pf_peak
  Peak data.
- struct pf_cal_fit
  Calibration fit.
- struct pf_cal_pt
  Calibration point.
- struct pf_cal_pts
  Calibration points.
- struct pf_data
  Data set.
- struct pf_plot_params
  Plot parameters.

Defines

- #define NCHAN 4096
  The maximum number of channels in the data set.

- #define MAXCALPTS 1024

  The maximum number of calibration points.

- #define MAXUNIT 256

  The maximum length of a calibration unit string.

Enumerations

- enum pf_peak_sort { sort_number, sort_height, sort_area }

  Peak sort type.

Functions

- int pf_parse_command (char *command)

  Parse a command string.

- int pf_loaddata (char *fn, struct pf_data *d)

  Load data from a file.

- double pf_chanwindowavg (double *data, int ds, int ci, int ac)

  Compute the average counts per bin over some window.

- void pf_plotdata (struct pf_data *d, struct pf_plot_params *p, struct pf_cal_fit *cal)

  Plot data.

- void pf_plotpeak (struct pf_data *d, struct pf_plot_params *p, struct pf_cal_fit *cal)

  Plot a given peak.

- int pf_printdata (struct pf_data *d, char *fn, int norm)

  Print the data set.

- int pf_printpeaks (struct pf_data *d, char *fn, enum pf_peak_sort srt)

  Print the peaks.

- int pf_printpeak (struct pf_data *d, struct pf_cal_fit *cal, int peak, char *fn)

  Print data about a given peak.

- int pf_printcal (struct pf_data *d, struct pf_cal_fit *f, char *fn)

  Print data about the calibration fit.

- void pf_fitpeaks (struct pf_data *d)

  Fit peaks in the data set.

- void pf_prunepeaks (struct pf_data *d)

  Prune peaks without reasonable fits.

- double pf_bgfunc (struct pf_data *d, int peak, double x)

  Evaluate the background function for a given peak.

- double pf_peakfunc (struct pf_data *d, int peak, double x)

  Evaluate the peak fit function for a given peak.

- double pf_fitfunc (struct pf_data *d, int peak, double x)

  Evaluate the total fit function for a given peak.

- int pf_calibrate (struct pf_data *d, struct pf_cal_fit *f, char *fn)

  Calibrate input using known data points.

- double pf_calfunc (struct pf_cal_fit *f, double ch)

  Evaluate the calibration fit function for a given peak.

4.6.2 Define Documentation

4.6.2.1 #define MAXCALPTS 1024

The maximum number of calibration points.

4.6.2.2 #define MAXUNIT 256

The maximum length of a calibration unit string.

4.6.2.3 #define NCHAN 4096

The maximum number of channels in the data set.

4.6.3 Enumeration Type Documentation

4.6.3.1 enum pf_peak_sort

Peak sort type.

Enumeration values:

sort_number Sort by peak number.

sort_height Sort by peak height.

sort_area Sort by peak area.

4.6.4 Function Documentation

4.6.4.1 double pf_bgfunc (struct pf_data * *d*, int *peak*, double *x*)

Evaluate the background function for a given peak.

Parameters:

← ***d*** The data set

← ***peak*** The peak for which to evalutate the background function

← ***x*** The value at which to evaluate the function

Returns:

The value of the function

4.6.4.2 double pf_calfunc (struct pf_cal_fit * *f*, double *ch*)

Evaluate the calibration fit function for a given peak.

Parameters:

← ***f*** The calibration fit

← ***ch*** The value at which to evaluate the function

Returns:

The value of the function

4.6.4.3 int pf_calibrate (struct pf_data * *d*, struct pf_cal_fit * *f*, char * *fn*)

Calibrate input using known data points.

Parameters:

← ***d*** The data set

→ ***f*** The calibration fit

← ***fn*** The file containing the calibration points

Returns:

Boolean success flag

4.6.4.4 double pf_chanwindowavg (double * *data*, int *ds*, int *ci*, int *ac*)

Compute the average counts per bin over some window.

Parameters:

← ***data*** The data array

← ***ds*** The size of the data array

← ***ci*** The center of the window

← ***ac*** The size of the window

Returns:

The average over the window

4.6.4.5 double pf_fitfunc (struct pf_data * *d*, int *peak*, double *x*)

Evaluate the total fit function for a given peak.

Parameters:

← ***d*** The data set

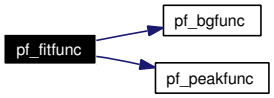
← ***peak*** The peak for which to evalutate the total fit function

← ***x*** The value at which to evaluate the function

Returns:

The value of the function

Here is the call graph for this function:



4.6.4.6 void pf_fitpeaks (struct pf_data * *d*)

Fit peaks in the data set.

Parameters:

↔ ***d*** The data set

4.6.4.7 int pf_loaddata (char * *fn*, struct pf_data * *d*)

Load data from a file.

Parameters:

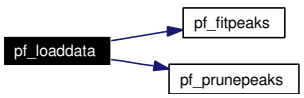
← ***fn*** The file name

→ ***d*** The data set

Returns:

Boolean status flag

Here is the call graph for this function:



4.6.4.8 int pf_parse_command (char * *command*)

Parse a command string.

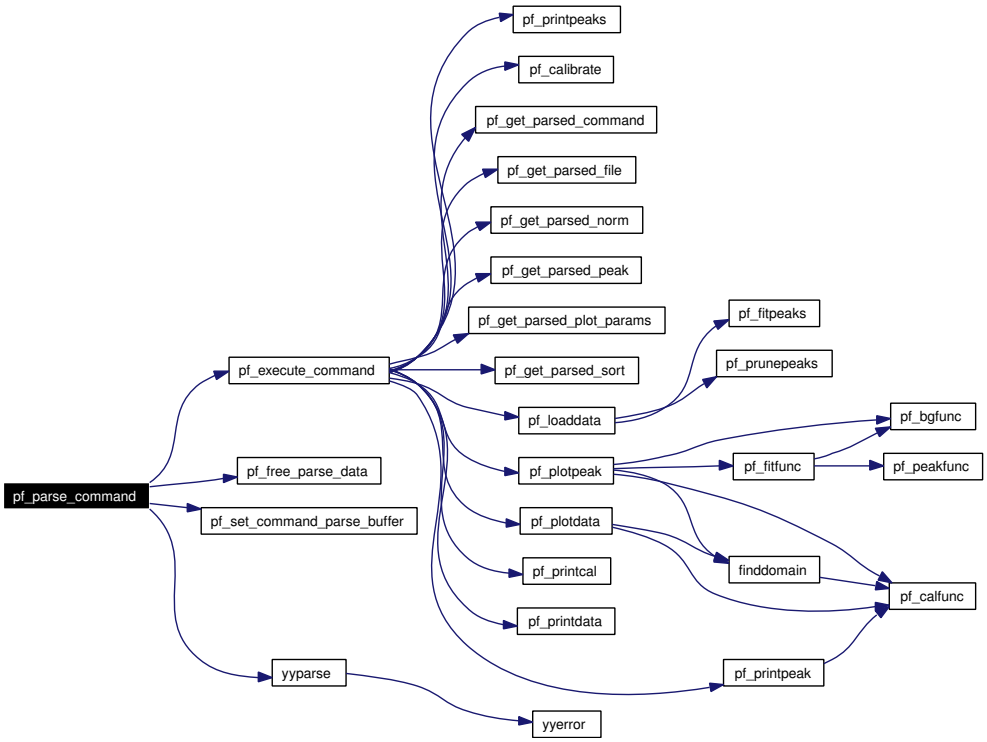
Parameters:

← ***command*** The command to parse and execute

Returns:

Status code

Here is the call graph for this function:



4.6.4.9 double pf_peakfunc (struct pf_data * *d*, int *peak*, double *x*)

Evaluate the peak fit function for a given peak.

Parameters:

← ***d*** The data set

← ***peak*** The peak for which to evalutate the peak fit function

← ***x*** The value at which to evaluate the function

Returns:

The value of the function

4.6.4.10 void pf_plotdata (struct pf_data * *d*, struct pf_plot_params * *p*, struct pf_cal_fit * *cal*)

Plot data.

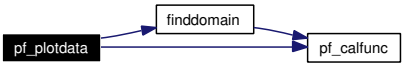
Parameters:

← ***d*** The data set

← ***p*** The plotting parameters

← ***cal*** The calibration fit

Here is the call graph for this function:



4.6.4.11 void pf_plotpeak (struct pf_data * *d*, struct pf_plot_params * *p*, struct pf_cal_fit * *cal*)

Plot a given peak.

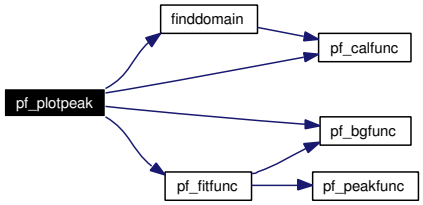
Parameters:

← ***d*** The data set

← ***p*** The plotting parameters

← ***cal*** The calibration fit

Here is the call graph for this function:



4.6.4.12 int pf_printcal (struct pf_data * *d*, struct pf_cal_fit * *f*, char * *fn*)

Print data about the calibration fit.

Parameters:

← ***d*** The data set

← ***f*** The calibration fit

← ***fn*** The output file name

Returns:

Boolean status flag

4.6.4.13 int pf_printdata (struct pf_data * *d*, char * *fn*, int *norm*)

Print the data set.

Parameters:
- ← ***d*** The data set
- ← ***fn*** The output file name
- ← ***norm*** Flag indicating whether to print normalized data

Returns:
Boolean status flag

4.6.4.14 int pf_printpeak (struct pf_data * *d*, struct pf_cal_fit * *cal*, int *peak*, char * *fn*)

Print data about a given peak.

Parameters:
- ← ***d*** The data set
- ← ***cal*** The calibration fit
- ← ***peak*** The peak about which to print data
- ← ***fn*** The output file name

Returns:
Boolean status flag

Here is the call graph for this function:

4.6.4.15 int pf_printpeaks (struct pf_data * *d*, char * *fn*, enum pf_peak_sort *srt*)

Print the peaks.

Parameters:
- ← ***d*** The data set
- ← ***fn*** The output file name
- ← ***srt*** Peak sort type

Returns:
Boolean status flag

4.6.4.16 void pf_prunepeaks (struct pf_data * *d*)

Prune peaks without reasonable fits.

Parameters:
- ↔ ***d*** The data set

4.7 loaddata.c File Reference

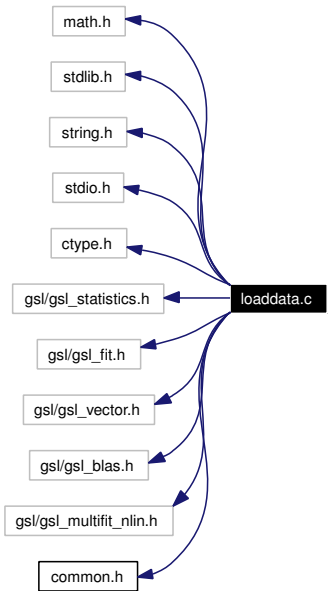
4.7.1 Detailed Description

Author:
Hal Finkel

Data loading, normalization and background identification

```
#include <math.h>
#include <stdlib.h>
#include <string.h>
#include <stdio.h>
#include <ctype.h>
#include <gsl/gsl_statistics.h>
#include <gsl/gsl_fit.h>
#include <gsl/gsl_vector.h>
#include <gsl/gsl_blas.h>
#include <gsl/gsl_multifit_nlin.h>
#include "common.h"
```

Include dependency graph for loaddata.c:



Defines

- #define MINWIDTH 4

  Minimum width of a peak.

Functions

- int pf_loaddata (char *fn, struct pf_data *d)

  Load data from a file.

- double pf_chanwindowavg (double *data, int ds, int ci, int ac)

  Compute the average counts per bin over some window.

4.7.2 Define Documentation

4.7.2.1 #define MINWIDTH 4

Minimum width of a peak.

This number must be greater than or equal to the number of parameters in the peak fit

4.7.3 Function Documentation

4.7.3.1 double pf_chanwindowavg (double * *data*, int *ds*, int *ci*, int *ac*)

Compute the average counts per bin over some window.

Parameters:

← ***data*** The data array

← ***ds*** The size of the data array

← ***ci*** The center of the window

← ***ac*** The size of the window

Returns:

The average over the window

4.7.3.2 int pf_loaddata (char * *fn*, struct pf_data * *d*)

Load data from a file.

Parameters:

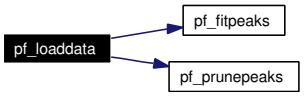
← ***fn*** The file name

→ ***d*** The data set

Returns:

Boolean status flag

Here is the call graph for this function:



4.8 main.c File Reference

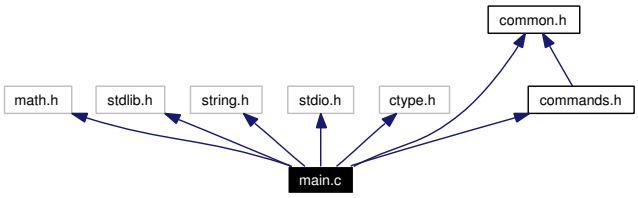
4.8.1 Detailed Description

Author:
Hal Finkel

The main program, command parsing and execution

```
#include <math.h>
#include <stdlib.h>
#include <string.h>
#include <stdio.h>
#include <ctype.h>
#include "commands.h"
#include "common.h"
```

Include dependency graph for main.c:



Defines

- #define HISTORY_FILE ".peakfind_history"
  The name of the command-history file.
- #define MAXCMDLINE 1024
  If readline is not available, the maximum number of characters per line.

Functions

- int yyparse ()
  The generated parsing function.
- int main (int argc, char ∗argv[ ])
  The main function.
- int pf_parse_command (char ∗command)
  Parse a command string.
- void pf_execute_command ()
  Execute the next command.

Variables

- int should_quit

  Should the main loop terminate.

- pf_cal_fit current_cal

  The current calibration.

- pf_data current_data

  The current data set.

- int has_data

  Valid data-set flag.

4.8.2 Define Documentation

4.8.2.1 #define HISTORY_FILE ".peakfind_history"

The name of the command-history file.

4.8.2.2 #define MAXCMDLINE 1024

If readline is not available, the maximum number of characters per line.

4.8.3 Function Documentation

4.8.3.1 int main (int *argc*, char * *argv*[ ])

The main function.

Parameters:

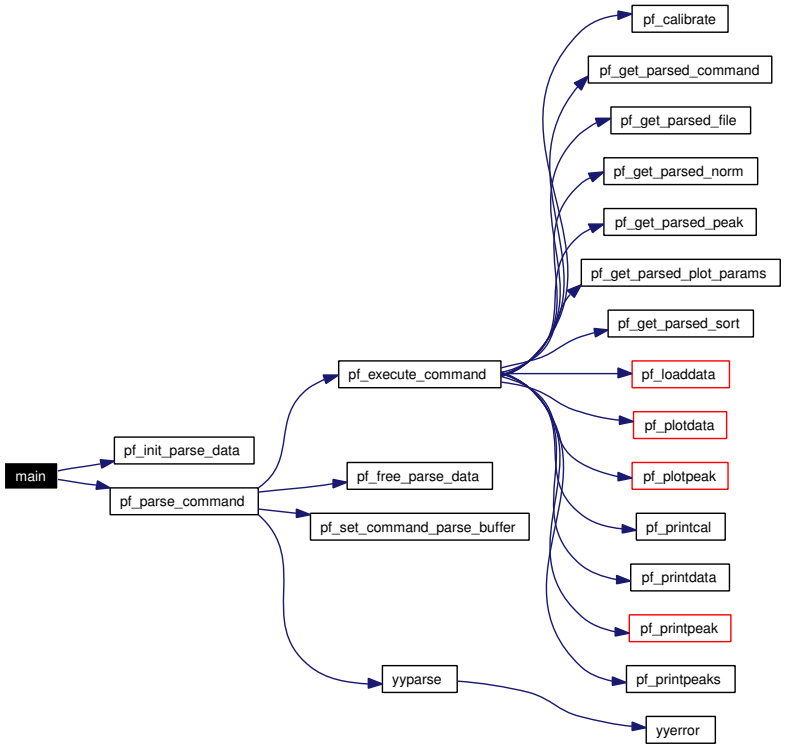
← ***argc*** The number of command line arguments

← ***argv*** The command line arguments

Returns:

The program exit status

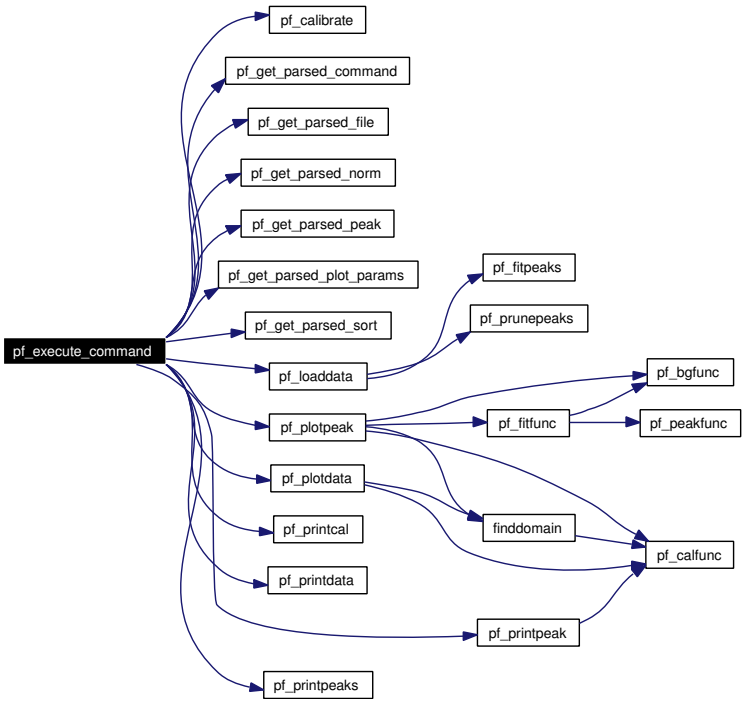
Here is the call graph for this function:



4.8.3.2 void pf_execute_command ()

Execute the next command.

Here is the call graph for this function:



4.8.3.3 int pf_parse_command (char * *command*)

Parse a command string.

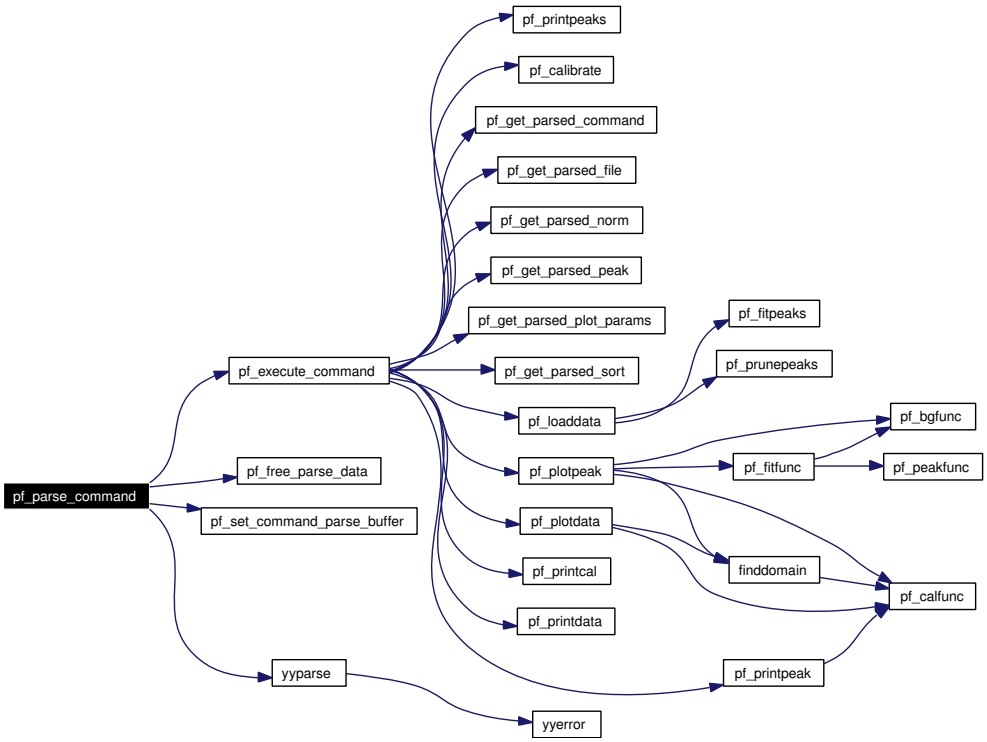
Parameters:

← ***command*** The command to parse and execute

Returns:

Status code

Here is the call graph for this function:



4.8.3.4 int yyparse ()

The generated parsing function.

Returns:
Parsing status code

4.8.4 Variable Documentation

4.8.4.1 struct pf_cal_fit current_cal

The current calibration.

4.8.4.2 struct pf_data current_data

The current data set.

4.8.4.3 int has_data

Valid data-set flag.

4.8.4.4 int should_quit

Should the main loop terminate.

4.9 peakfit.c File Reference

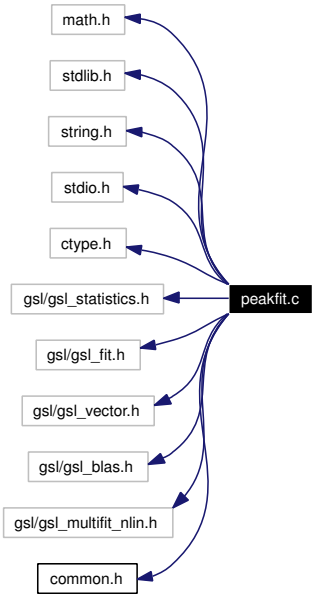
4.9.1 Detailed Description

Author:
Hal Finkel

Peak identification and fitting

```
#include <math.h>
#include <stdlib.h>
#include <string.h>
#include <stdio.h>
#include <ctype.h>
#include <gsl/gsl_statistics.h>
#include <gsl/gsl_fit.h>
#include <gsl/gsl_vector.h>
#include <gsl/gsl_blas.h>
#include <gsl/gsl_multifit_nlin.h>
#include "common.h"
```

Include dependency graph for peakfit.c:



Data Structures

- struct bg_poly_data

  Data on the background for fitting.

- struct peak_pearson7_data

  Data on a peak for fitting.

Defines

- #define MAXITER 100000

  The maximum number of iterations for fitting peaks and background.

- #define MINBGPTS 3

  Mininum number of background points per side.

- #define BGWIDTH 2

  The number of peak widths to look for background if possible.

- #define SEARCHSTEP 0.1

  Search step for peak bounds.

Functions

- void pf_prunepeaks (struct pf_data *d)

  Prune peaks without reasonable fits.

- void pf_fitpeaks (struct pf_data *d)

  Fit peaks in the data set.

- double pf_bgfunc (struct pf_data *d, int peak, double x)

  Evaluate the background function for a given peak.

- double pf_peakfunc (struct pf_data *d, int peak, double x)

  Evaluate the peak fit function for a given peak.

- double pf_fitfunc (struct pf_data *d, int peak, double x)

  Evaluate the total fit function for a given peak.

4.9.2 Define Documentation

4.9.2.1 #define BGWIDTH 2

The number of peak widths to look for background if possible.

4.9.2.2 #define MAXITER 100000

The maximum number of iterations for fitting peaks and background.

4.9.2.3 #define MINBGPTS 3

Mininum number of background points per side.

Total from both sides needs to be at least the number of fit parameters

4.9.2.4 #define SEARCHSTEP 0.1

Search step for peak bounds.

4.9.3 Function Documentation

4.9.3.1 double pf_bgfunc (struct pf_data * *d*, int *peak*, double *x*)

Evaluate the background function for a given peak.

Parameters:

← ***d*** The data set

← ***peak*** The peak for which to evalutate the background function

← ***x*** The value at which to evaluate the function

Returns:

The value of the function

4.9.3.2 double pf_fitfunc (struct pf_data * *d*, int *peak*, double *x*)

Evaluate the total fit function for a given peak.

Parameters:

← ***d*** The data set

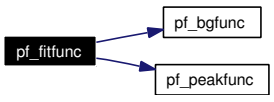
← ***peak*** The peak for which to evalutate the total fit function

← ***x*** The value at which to evaluate the function

Returns:

The value of the function

Here is the call graph for this function:



4.9.3.3 void pf_fitpeaks (struct pf_data * *d*)

Fit peaks in the data set.

Parameters:

↔ ***d*** The data set

4.9.3.4 double pf_peakfunc (struct pf_data * *d*, int *peak*, double *x*)

Evaluate the peak fit function for a given peak.

Parameters:

← ***d*** The data set

← ***peak*** The peak for which to evalutate the peak fit function

← ***x*** The value at which to evaluate the function

Returns:

The value of the function

4.9.3.5 void pf_prunepeaks (struct pf_data * *d*)

Prune peaks without reasonable fits.

Parameters:

↔ ***d*** The data set

4.10 plotdata.c File Reference

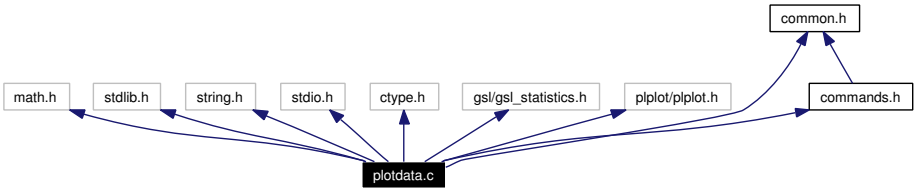
4.10.1 Detailed Description

Author:
Hal Finkel

Data and peak plotting

```
#include <math.h>
#include <stdlib.h>
#include <string.h>
#include <stdio.h>
#include <ctype.h>
#include <gsl/gsl_statistics.h>
#include <plplot/plplot.h>
#include "commands.h"
#include "common.h"
```

Include dependency graph for plotdata.c:



Data Structures

- struct def_file_dev

  An association between a file-name extension and a plotting device name.

Defines

- #define MAXTITLE 256

  The maximum length of the plot title.

- #define CHANPTS 10

  The number of points to draw per channel.

- #define DEFDEV "xwin"

  The default plplot output device.

Functions

- int finddomain (struct pf_data *d, struct pf_plot_params *p, struct pf_cal_fit *cal)
  Calculate the domain in channels if specified in calibrated units.
- void pf_plotdata (struct pf_data *d, struct pf_plot_params *p, struct pf_cal_fit *cal)
  Plot data.
- void pf_plotpeak (struct pf_data *d, struct pf_plot_params *p, struct pf_cal_fit *cal)
  Plot a given peak.

Variables

- const struct def_file_dev def_file_devs [ ]
  Mapping of file-name extensions to plotting device names.
- const int def_file_devsn = sizeof(def_file_devs)/sizeof(def_file_devs[0])
  Number of entries in the def_file_devs array.

4.10.2 Define Documentation

4.10.2.1 #define CHANPTS 10

The number of points to draw per channel.

4.10.2.2 #define DEFDEV "xwin"

The default plplot output device.

4.10.2.3 #define MAXTITLE 256

The maximum length of the plot title.

4.10.3 Function Documentation

4.10.3.1 int finddomain (struct pf_data * *d*, struct pf_plot_params * *p*, struct pf_cal_fit * *cal*)

Calculate the domain in channels if specified in calibrated units.

Parameters:

← ***d*** The data set

↔ ***p*** The plot parameters

← ***cal*** The calibration fit

Returns:

Boolean success indicator

Here is the call graph for this function:

4.10.3.2 void pf_plotdata (struct pf_data * d, struct pf_plot_params * p, struct pf_cal_fit * cal)

Plot data.

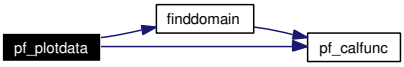
Parameters:

← ***d*** The data set

← ***p*** The plotting parameters

← ***cal*** The calibration fit

Here is the call graph for this function:



4.10.3.3 void pf_plotpeak (struct pf_data * d, struct pf_plot_params * p, struct pf_cal_fit * cal)

Plot a given peak.

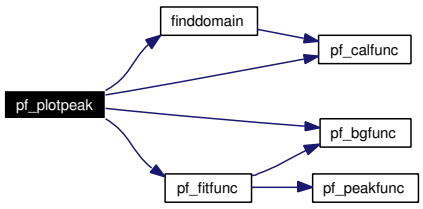
Parameters:

← ***d*** The data set

← ***p*** The plotting parameters

← ***cal*** The calibration fit

Here is the call graph for this function:



4.10.4 Variable Documentation

4.10.4.1 const struct def_file_dev def_file_devs[ ]

Initial value:

```
 {
        { "plmeta", "plmeta" },
        { "plm", "plmeta" },
        { "ps", "ps" },
        { "psc", "psc" },
        { "xfig", "xfig" },
        { "imp", "imp" },
        { "pbm", "pbm" },
        { "jpg", "jpeg" },
        { "jpeg", "jpeg" },
        { "png", "png" },
        { "cgm", "cgm" }
}
```

Mapping of file-name extensions to plotting device names.

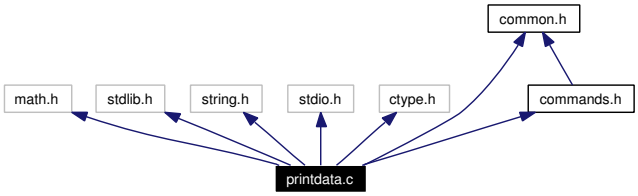
4.10.4.2 const int def_file_devsn = sizeof(def_file_devs)/sizeof(def_file_devs[0])

Number of entries in the def_file_devs array.

4.11 printdata.c File Reference

```
#include <math.h>
#include <stdlib.h>
#include <string.h>
#include <stdio.h>
#include <ctype.h>
#include "commands.h"
#include "common.h"
```

Include dependency graph for printdata.c:



Functions

- int pf_printdata (struct pf_data *d, char *fn, int norm)
  Print the data set.
- int pf_printpeaks (struct pf_data *d, char *fn, enum pf_peak_sort srt)
  Print the peaks.
- int pf_printpeak (struct pf_data *d, struct pf_cal_fit *cal, int peak, char *fn)
  Print data about a given peak.
- int pf_printcal (struct pf_data *d, struct pf_cal_fit *f, char *fn)
  Print data about the calibration fit.

4.11.1 Function Documentation

4.11.1.1 int pf_printcal (struct pf_data * d, struct pf_cal_fit * f, char * fn)

Print data about the calibration fit.

Parameters:

← ***d*** The data set

← ***f*** The calibration fit

← ***fn*** The output file name

Returns:

Boolean status flag

4.11.1.2 int pf_printdata (struct pf_data * *d*, char * *fn*, int *norm*)

Print the data set.

Parameters:
- ← ***d*** The data set
- ← ***fn*** The output file name
- ← ***norm*** Flag indicating whether to print normalized data

Returns:
Boolean status flag

4.11.1.3 int pf_printpeak (struct pf_data * *d*, struct pf_cal_fit * *cal*, int *peak*, char * *fn*)

Print data about a given peak.

Parameters:
- ← ***d*** The data set
- ← ***cal*** The calibration fit
- ← ***peak*** The peak about which to print data
- ← ***fn*** The output file name

Returns:
Boolean status flag

Here is the call graph for this function:

4.11.1.4 int pf_printpeaks (struct pf_data * *d*, char * *fn*, enum pf_peak_sort *srt*)

Print the peaks.

Parameters:
- ← ***d*** The data set
- ← ***fn*** The output file name
- ← ***srt*** Peak sort type

Returns:
Boolean status flag

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