URL: http://cxc.harvard.edu/ciao3.4/paramio_plist.html
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AHELP for CIAO 3.4

plist_names

Context: paramio

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Synopsis

List parameter names for a single tool from S−Lang.

Syntax

```
String_Type [] plist_names( paramfile )
String_Type [] plist_mode( paramfile, mode )
String_Type [] plist_type( paramfile, type )
```

Description

These functions return an array of strings containing the parameter names for the given parameter file:

- plist_names() returns the names of all the parameters in the file.
- plist_mode() returns the names of all parameters matching the supplied mode, which can be one of: PF_MODE_AUTO, PF_MODE_QUERY, PF_MODE_LEARN, or PF_MODE_HIDDEN.
- plist_type() returns the names of all parameters matching the supplied datatype, which can be one of: PF_BOOL, PF_INT, PF_REAL, PF_STRING, or PF_FILENAME.

If the parameter file exists but does not contain any entries that match the given mode or type then the return value will be an array with 0 elements; this is also the return value when the mode or type is not a recognised value. If the parameter file does not exist then the routines return the NULL value and PF_Errno will be set.

As with all the paramio routines, the PF_Errno variable is set to 0 on success, or on error it is set to one of the error codes listed in the paramio documentation.

Example 1

```
chips> require("paramio")
chips> n = plist_names("dmextract")
chips> n
String_Type[15]
chips> print(n[[0:3]])
infile
outfile
bkg
```

```
error
```

Here we use the plist_names() command to find the list of parameters for dmextract. The return value is an array of strings. For dmextract there are 16 parameters; we use the print() command to display the first four.

Note that the require("paramio") line only needs to be issued once per ChIPS/Sherpa session.

Example 2

```
chips> print( plist_mode("dmextract", PF_MODE_AUTO) )
infile
outfile
```

Here we use plist_mode() to find all the auto parameters for dmextract.

Example 3

```
chips> fp = paramopen( "dmextract" )
chips> print( plist_type( fp, PF_REAL ) )
bkgnorm
sys_err
```

Here we use plist_type() to find all the parameters for dmextract which accept a real number. As shown, the plist functions can also accept a Param_File_Type variable − as returned by paramopen() − to access a given parameter file.

See Also

concept
parameter
modules
paramio
paramio
paccess, paramclose, paramopen, pget, pgets, pquery, pset, punlearn
tools
dmhistory, dmkeypar, dmmakepar, dmreadpar, paccess, pdump, pget, pline, plist, pquery, pset, punlearn

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