

cxcpamx
2.0.0

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Chapter 1

cxcpamx

1.1 Introduction

`cxcpamx` provides C++ Extensions to `cxcpam`, CIAO's IRAF compatible parameter library

- `cxcpamx::simple` provides a simple wrapper around getting parameter values.

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

Class Documentation

3.1 cxcparamx::simple Class Reference

```
#include <cxcparamx/simple.h>
```

Public Types

- typedef std::unique_ptr< ParamFileImpl, void(*)(ParamFileImpl *)> **pParamFileImpl**

Public Member Functions

- **simple** (int argc, char **argv, const string &mode="rw")
Constructor with file name taken from argv[0].
- **simple** (const string &filename, int argc, char **argv, const string &mode="rw")
Constructor with explicit parameter file name.
- void **get** (const string &name, float &value)
Retrieve a parameter value into a float.
- void **get** (const string &name, double &value)
Retrieve a parameter value into a double.
- void **get** (const string &name, short &value)
Retrieve a parameter value into a short.
- void **get** (const string &name, int &value)
Retrieve a parameter value into an int.
- void **get** (const string &name, long &value)
Retrieve a parameter value into a long.
- void **get** (const string &name, bool &value)
Retrieve a parameter value into an bool.
- void **get** (const string &name, string &value)
Retrieve a parameter value into an string.
- float **getf** (const string &name)

Return a parameter value as a float.

- double `getd` (const string &name)

Return a parameter value as a double.

- short `gets` (const string &name)

Return a parameter value as a short.

- int `geti` (const string &name)

Return a parameter value as an int.

- long `getl` (const string &name)

Return a parameter value as a long.

- bool `getb` (const string &name)

Return a parameter value as a bool.

- string `getstr` (const string &name)

Return a parameter value as a string.

- bool `access` (const string &name)

3.1.1 Detailed Description

A simple wrapper class providing polymorphic attribute retrieval.

Instantiating the class opens the parameter file; the file is closed during object destruction.

3.1.2 Constructor & Destructor Documentation

3.1.2.1 `simple()` [1/2]

```
cxtparamx::simple::simple (
    int argc,
    char ** argv,
    const string & mode = "rw" )
```

Constructor with file name taken from argv[0].

Parameters

| | | |
|----|-------------|--------------------------------------------------------------|
| in | <i>argc</i> | the number of elements in argv |
| in | <i>argv</i> | typically, the command line arguments vector passed to main* |
| in | <i>mode</i> | mode with which to open the file |

3.1.2.2 simple() [2/2]

```

cxcparamx::simple::simple (
    const string & in_filename,
    int argc,
    char ** argv,
    const string & mode = "rw" )

```

Constructor with explicit parameter file name.

Parameters

| | | |
|----|-----------------|--------------------------------------------------------------------------|
| in | <i>filename</i> | the parameter file name |
| in | <i>argc</i> | the number of elements in <i>argv</i> |
| | <i>argv</i> | typically, the command line arguments vector passed to <code>main</code> |
| in | <i>mode</i> | mode with which to open the file |

3.1.3 Member Function Documentation

3.1.3.1 get() [1/7]

```

void cxcparamx::simple::get (
    const string & name,
    float & value )

```

Retrieve a parameter value into a float.

Parameters

| | | |
|-----|--------------|----------------|
| in | <i>name</i> | parameter name |
| out | <i>value</i> | returned value |

Exceptions

| | |
|------------------|---------------------------|
| <i>Exception</i> | if parameter is not found |
|------------------|---------------------------|

3.1.3.2 get() [2/7]

```

void cxcparamx::simple::get (
    const string & name,
    double & value )

```

Retrieve a parameter value into a double.

Parameters

| | | |
|-----|--------------|----------------|
| in | <i>name</i> | parameter name |
| out | <i>value</i> | returned value |

Exceptions

| | |
|------------------|---------------------------|
| <i>Exception</i> | if parameter is not found |
|------------------|---------------------------|

3.1.3.3 `get()` [3/7]

```
void cxcparamx::simple::get (
    const string & name,
    short & value )
```

Retrieve a parameter value into a short.

Parameters

| | | |
|-----|--------------|----------------|
| in | <i>name</i> | parameter name |
| out | <i>value</i> | returned value |

Exceptions

| | |
|------------------|---------------------------|
| <i>Exception</i> | if parameter is not found |
|------------------|---------------------------|

3.1.3.4 `get()` [4/7]

```
void cxcparamx::simple::get (
    const string & name,
    int & value )
```

Retrieve a parameter value into an int.

Parameters

| | | |
|-----|--------------|----------------|
| in | <i>name</i> | parameter name |
| out | <i>value</i> | returned value |

Exceptions

| | |
|------------------|---------------------------|
| <i>Exception</i> | if parameter is not found |
|------------------|---------------------------|

3.1.3.5 get() [5/7]

```
void cxcparamx::simple::get (
    const string & name,
    long & value )
```

Retrieve a parameter value into a long.

Parameters

| | | |
|-----|--------------|----------------|
| in | <i>name</i> | parameter name |
| out | <i>value</i> | returned value |

Exceptions

| | |
|------------------|---------------------------|
| <i>Exception</i> | if parameter is not found |
|------------------|---------------------------|

3.1.3.6 get() [6/7]

```
void cxcparamx::simple::get (
    const string & name,
    bool & value )
```

Retrieve a parameter value into an bool.

Parameters

| | | |
|-----|--------------|----------------|
| in | <i>name</i> | parameter name |
| out | <i>value</i> | returned value |

Exceptions

| | |
|------------------|---------------------------|
| <i>Exception</i> | if parameter is not found |
|------------------|---------------------------|

3.1.3.7 `get()` [7/7]

```
void cxcparamx::simple::get (
    const string & name,
    string & value )
```

Retrieve a parameter value into an string.

Parameters

| | | |
|-----|--------------|----------------|
| in | <i>name</i> | parameter name |
| out | <i>value</i> | returned value |

Exceptions

| | |
|------------------|---------------------------|
| <i>Exception</i> | if parameter is not found |
|------------------|---------------------------|

3.1.3.8 `getb()`

```
bool cxcparamx::simple::getb (
    const string & name )
```

Return a parameter value as an bool.

Parameters

| | | |
|----|-------------|----------------|
| in | <i>name</i> | parameter name |
|----|-------------|----------------|

Exceptions

| | |
|------------------|---------------------------|
| <i>Exception</i> | if parameter is not found |
|------------------|---------------------------|

3.1.3.9 `getd()`

```
double cxcparamx::simple::getd (
    const string & name )
```

Return a parameter value as a double.

Parameters

| | | |
|----|-------------|----------------|
| in | <i>name</i> | parameter name |
|----|-------------|----------------|

Exceptions

| | |
|------------------|---------------------------|
| <i>Exception</i> | if parameter is not found |
|------------------|---------------------------|

3.1.3.10 getf()

```
float cxcparamx::simple::getf (
    const string & name )
```

Return a parameter value as a float.

Parameters

| | | |
|----|-------------|----------------|
| in | <i>name</i> | parameter name |
|----|-------------|----------------|

Exceptions

| | |
|------------------|---------------------------|
| <i>Exception</i> | if parameter is not found |
|------------------|---------------------------|

3.1.3.11 geti()

```
int cxcparamx::simple::geti (
    const string & name )
```

Return a parameter value as an int.

Parameters

| | | |
|----|-------------|----------------|
| in | <i>name</i> | parameter name |
|----|-------------|----------------|

Exceptions

| | |
|------------------|---------------------------|
| <i>Exception</i> | if parameter is not found |
|------------------|---------------------------|

3.1.3.12 getl()

```
long cxcparamx::simple::getl (
    const string & name )
```

Return a parameter value as a long.

Parameters

| | | |
|----|-------------|----------------|
| in | <i>name</i> | parameter name |
|----|-------------|----------------|

Exceptions

| | |
|------------------|---------------------------|
| <i>Exception</i> | if parameter is not found |
|------------------|---------------------------|

3.1.3.13 gets()

```
short cxcparamx::simple::gets (
    const string & name )
```

Return a parameter value as a short.

Parameters

| | | |
|----|-------------|----------------|
| in | <i>name</i> | parameter name |
|----|-------------|----------------|

Exceptions

| | |
|------------------|---------------------------|
| <i>Exception</i> | if parameter is not found |
|------------------|---------------------------|

3.1.3.14 getstr()

```
string cxcparamx::simple::getstr (
    const string & name )
```

Return a parameter value as an string.

Parameters

| | | |
|----|-------------|----------------|
| in | <i>name</i> | parameter name |
|----|-------------|----------------|

Exceptions

| | |
|------------------|---------------------------|
| <i>Exception</i> | if parameter is not found |
|------------------|---------------------------|

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

- simple.h
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