ARC::FlO

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Chapter 1

Class Index

1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

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Chapter 2

Class Index

2.1 Class List

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

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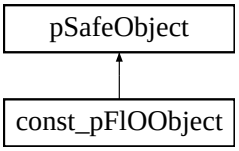
Chapter 3

Class Documentation

3.1 const_pFlOObject Class Reference

Inheritance diagram for const_pFlOObject::



Public Member Functions

- **const_pFlOObject** (const FlOObject &o)
- **const_pFlOObject** (const FlOObject *o)
- **const_pFlOObject** (const const_pFlOObject &p)
- **const_pFlOObject** (const pFlOObject &p)
- const FlOObject & **operator*** (void) const
- const FlOObject * **operator->** (void) const

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

- pointers.h

3.2 FlOAttribute Class Reference

Public Member Functions

- **FlOAttribute** (const std::string &name, bool multi=false)
- **FlOAttribute** (const std::string &name, const std::string &value, bool multi=false)
- **FlOAttribute** (const std::string &name, const std::vector< const std::string > &value)
- const std::string & **name** (void) const
- const std::string & **value** (unsigned int n=0) const
- void **value** (const std::string &v)
- bool **add** (const std::string &v)
- bool **operator==** (const std::string &n) const
- void **serialize** (XMLNode &x) const

Static Public Member Functions

- static FlOAttribute * **deserialize** (const XMLNode &x)

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

- attribute.h

3.3 FlOClient Class Reference

Interface to remote service.

`#include <client.h>`

Public Member Functions

- **FlOClient** (pFlOServiceRemote s)
- **FlOClient** (FlOServiceRemote &s)
- bool registr (FlOService &s)
- bool notify (std::list< FlOMessage > &msgs)

3.3.1 Detailed Description

Interface to remote service.

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

- client.h

3.4 FlOMessage Class Reference

Message sent between services for notification.

`#include <message.h>`

Public Member Functions

- **FlOMessage** (FlOObject::action_t t)
- **FlOMessage** (const FlOObject &o, FlOObject::action_t t)
- void serialize (std::string &msg)
- void operator= (FlOObject::action_t t)
- bool operator== (const std::string &id) const
- bool operator== (const FlOObject &o) const
- bool operator== (const_pFlOObject p) const
- FlOObject::action_t type (void) const
- const_pFlOObject object (void) const

Static Public Member Functions

- static FlOMessage * deserialize (const std::string &msg)

3.4.1 Detailed Description

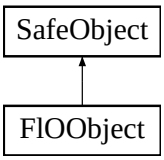
Message sent between services for notification.

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

- message.h

3.5 FlOObject Class Reference

`#include <object.h>`Inheritance diagram for FlOObject::



Public Types

- enum type_t { **undefined**, **reference**, **ordinary** }
- enum action_t { **unknown**, **created**, **updated**, **deleted** }

Public Member Functions

- FlOObject (const std::string &id, type_t t=undefined)
- FlOObject (FlOService &service, const std::string &id, type_t t=undefined)
- const std::string & id (void) const
- type_t type (void) const
- FlOService * service (void) const
- FlOService * service (FlOService *s)
- std::vector< FlOAttribute > & **attributes** (void)
- virtual operator bool (void)
- virtual bool operator! (void)
- virtual void serialize (XMLNode &x) const
- virtual void serialize (XMLNode &x, FlOMessage &m) const
- virtual void serialize (std::string &msg) const
- virtual void serialize (std::string &msg, FlOMessage &m) const
- virtual void notification (FlOMessage &msg, pFlOServiceRemote rsrv)
- virtual void maintain (void)
- virtual void notification (FlOService &srv, FlOMessage &msg, pFlOServiceRemote rsrv) const

Static Public Member Functions

- static void **Register** (deserializer_t sr)
- static FlOObject * deserialize (const XMLNode &x)
- static FlOObject * deserialize (const XMLNode &x, FlOMessage &m)
- static FlOObject * deserialize (const std::string &msg)
- static FlOObject * deserialize (const std::string &msg, FlOMessage &m)

Protected Member Functions

- **FlOObject** (const FlOObject &o)

Protected Attributes

- std::vector< FlOAttribute > attrs_

Friends

- FlOObject * **deserialize_object** (const XMLNode &x)

3.5.1 Detailed Description

Class to represent both reference and ordinary objects with specific methods virtual. Real object reimplements one or another set of them.

3.5.2 Member Function Documentation

3.5.2.1 virtual void FlOObject::serialize (XMLNode & *x*, FlOMessage & *m*) const [virtual]

Convenience method to convert object into XML tree Real object can reimplement it instead of one using string.

3.5.2.2 virtual void FlOObject::serialize (XMLNode & *x*) const [virtual]

Convenience method to convert object into XML tree. Real object can reimplement it instead of one using string.

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

- object.h

3.6 FlORegistration Class Reference

Registration request.

`#include <message.h>`

Public Member Functions

- **FlORegistration** (FlOService &s)
- FlOService & **service** (void)
- bool **operator==** (const FlOService &s) const

3.6.1 Detailed Description

Registration request.

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

- message.h

3.7 FlOService Class Reference

Kind of main class. Represents local service itself.

`#include <service.h>`

Public Member Functions

- **FlOService** (const std::string &url, const std::string &path)
- **operator bool** (void) const
- bool **operator!** (void) const
- const std::string & **url** (void) const
- void add (pFlOObject o)
- void add (pFlOServiceRemote s)
- void notify (const FlOMessage &m)
- void notification (FlOMessage &msg, pFlOServiceRemote &srv)
- pFlOServiceRemote service (const std::string &id)
- void registr (pFlOServiceRemote s)
- pFlOObject find (std::string id)
- void maintain (void)

3.7.1 Detailed Description

Kind of main class. Represents local service itself.

3.7.2 Member Function Documentation

3.7.2.1 void FlOService::notify (const FlOMessage & *m*)

Inform registered services about changes (calls corresponding methods of hadled objects)

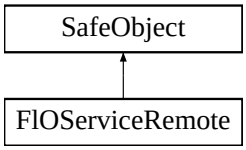
The documentation for this class was generated from the following file:

- service.h

3.8 FlOServiceRemote Class Reference

Interface to remote service.

`#include <service.h>`Inheritance diagram for FlOServiceRemote::



Public Member Functions

- **FlOServiceRemote** (const std::string &url, const std::string &id)
- const std::string & **url** (void)
- const std::string & **id** (void)
- void notify (const FlOMessage &m)
- void registr (FlOService &s)
- void maintain (void)

3.8.1 Detailed Description

Interface to remote service.

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

- service.h

3.9 HTTP_FlO Class Reference

FlO service as seen by connected client (interface to FlOService class).

`#include <flo.h>`

Public Member Functions

- **HTTP_FlO** (HTTP_Connector *c, FlOService &srv)
- virtual HTTP_Error **get** (const char *uri, int &keep_alive)
- virtual HTTP_Error **put** (const char *uri, int &keep_alive)
- virtual void **soap_methods** (void)

Friends

- int nf__notification (struct soap *, int, char **, struct nf__response &)
- int nf__registration (struct soap *, char *, char *, char *, struct nf__response &)
- int **nf__add** (struct soap *, int, char **, struct nf__response &)
- int **nf__find** (struct soap *, char *, char *, struct nf__object_response &)

3.9.1 Detailed Description

FlO service as seen by connected client (interface to FlOService class).

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

- flo.h

3.10 nf__object_response Struct Reference

Public Attributes

- int **error_code**
- int **sub_error_code**
- char * **error_description**
- int **__size_obj**
- char ** **obj**

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

- flo_soap.h

3.11 nf__response Struct Reference

Public Attributes

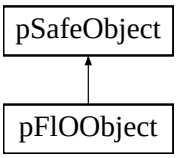
- int **error_code**
- int **sub_error_code**
- char * **error_description**

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

- flo_soap.h

3.12 pFlOObject Class Reference

Inheritance diagram for pFlOObject::



Public Member Functions

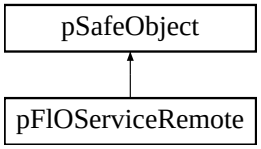
- **pFlOObject** (FlOObject &o)
- **pFlOObject** (FlOObject *o)
- **pFlOObject** (const pFlOObject &p)
- FlOObject & **operator*** (void) const
- FlOObject * **operator->** (void) const

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

- pointers.h

3.13 pFlOServiceRemote Class Reference

Inheritance diagram for pFlOServiceRemote::



Public Member Functions

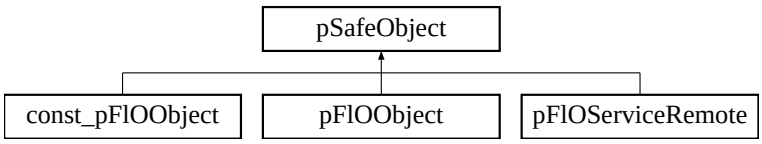
- **pFlOServiceRemote** (FlOServiceRemote &o)
- **pFlOServiceRemote** (FlOServiceRemote *o)
- **pFlOServiceRemote** (const pFlOServiceRemote &p)
- FlOServiceRemote & **operator*** (void) const
- FlOServiceRemote * **operator->** (void) const

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

- pointers.h

3.14 pSafeObject Class Reference

Inheritance diagram for pSafeObject::



Public Member Functions

- **pSafeObject** (SafeObject &o)
- **pSafeObject** (SafeObject *o)
- **pSafeObject** (const pSafeObject &p)
- SafeObject & **operator*** (void) const
- SafeObject * **operator->** (void) const
- void **operator=** (SafeObject &o)
- void **operator=** (SafeObject *o)
- void **operator=** (const pSafeObject &p)
- **operator bool** (void) const
- bool **operator!** (void) const
- bool **operator==** (const pSafeObject &p) const
- bool **operator!=** (const pSafeObject &p) const
- bool **operator==** (const SafeObject &o) const
- bool **operator!=** (const SafeObject &o) const

Protected Attributes

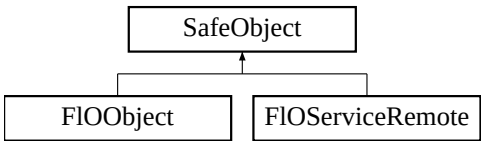
- SafeObject * **object_**

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

- common.h

3.15 SafeObject Class Reference

Inheritance diagram for SafeObject::



Friends

- class pSafeObject

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

- common.h

3.16 XMLNode Class Reference

`#include <xmlwrap.h>`

Public Member Functions

- XMLNode (void)
- XMLNode (const std::string &name)
- XMLNode (const XMLNode &node)
- XMLNode (XMLNode &parent, const std::string &name)
- operator bool (void) const
- bool operator! (void) const
- void operator= (const XMLNode &node)
- void addNode (const XMLNode &node)
- void linkNode (XMLNode &node)
- XMLNode * getNode (int n) const
- XMLNode * getNode (const std::string &name) const
- XMLNode * getNode (const std::string &name, int n) const
- int nodes (void) const
- std::string name (void) const
- void name (const std::string &s)
- std::string content (void) const
- void content (const std::string &s)
- std::string get (void) const
- void set (const std::string &s)

3.16.1 Detailed Description

Wrapper for sophisticated XML management API. Provides very simple, but also very simple to use functionality. There is no separate XML document. Everything is node. This implementation uses libxml2.

3.16.2 Member Function Documentation

3.16.2.1 void XMLNode::operator= (const XMLNode & *node*)

Replace this node with a copy of supplied one. This node becomes a top one.

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

- xmlwrap.h

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