YAODAQ

Yet An Other DAQ

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Chapter 1

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Chapter 2

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Chapter 3

Namespace Index

3.1 Namespace List

Here is a list of all namespaces with brief descriptions:

spdlog 19
yaodaq 19

Chapter 4

Hierarchical Index

4.1 Class Hierarchy

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

yaodaq::Identifier 21
yaodaq::LoggerHandler 22
ix::WebSocket
    yaodaq::WebsocketClient 24
ix::WebSocketServer
    yaodaq::WebsocketServer 25

Chapter 5

Class Index

5.1 Class List

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

yaodaq::Identifier 21
yaodaq::LoggerHandler 22
yaodaq::WebsocketClient 24
yaodaq::WebsocketServer 25

Chapter 6

File Index

6.1 File List

Here is a list of all files with brief descriptions:

yaodaq/Class.hpp . . . 27
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yaodaq/LoggerHandler.hpp . . . 28
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yaodaq/WebsocketServer.hpp . . . 30
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yaodaq/LoggerHandler.cpp . . . 31
yaodaq/WebsocketClient.cpp . . . 32
yaodaq/WebsocketServer.cpp . . . 33

Chapter 7

Namespace Documentation

7.1 spdlog Namespace Reference

Typedefs

- using sink_ptr = std::shared_ptr< spdlog::sinks::sink >

7.1.1 Detailed Description

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7.1.2 Typedef Documentation

7.1.2.1 sink_ptr

```
using spdlog::sink_ptr = typedef std::shared_ptr<spdlog::sinks::sink>
```

Definition at line 15 of file LoggerHandler.hpp.

7.2 yaodaq Namespace Reference

Classes

- class Identifier
- class LoggerHandler
- class WebsocketClient
- class WebsocketServer

Enumerations

- enum class Class : std::int_least16_t {
  Unknown = -1 , Module = 0 , Browser = 100 , WebsocketServer = Module + 1 ,
  WebsocketClient = Module + 2 }

7.2.1 Detailed Description

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7.2.2 Enumeration Type Documentation

7.2.2.1 Class

```
enum class yaodaq::Class :  std::int_least16_t  [strong]
```

Enumerator

Unknown	
Module	
Browser	
WebsocketServer	
WebsocketClient	

Definition at line 13 of file Class.hpp.

```
{
  Unknown = -1,
  Module  = 0,
  Browser = 100,

  WebsocketServer = Module + 1,
  WebsocketClient = Module + 2,
};
```

Chapter 8

Class Documentation

8.1 yaodaq::Identifier Class Reference

```
#include <yaodaq/Identifier.hpp>
```

Public Member Functions

- Identifier ()=default
- Identifier (const Class &aClass, const std::string &type, const std::string &name)
- std::string getClass () const
- std::string getType () const
- std::string getName () const
- Class getClassId () const
- std::string get () const

8.1.1 Detailed Description

Definition at line 15 of file Identifier.hpp.

8.1.2 Constructor & Destructor Documentation

8.1.2.1 Identifier() [1/2]

```
yaodaq::Identifier::Identifier ( )  [default]
```

8.1.2.2 Identifier() [2/2]

```
yaodaq::Identifier::Identifier (
             const Class & aClass,
             const std::string & type,
             const std::string & name )
```

Definition at line 16 of file Identifier.cpp.

```
00016 : m_Class( aClass ), m_Type( type ), m_Name( name ) {}
```

8.1.3 Member Function Documentation

8.1.3.1 get()

```
std::string yaodaq::Identifier::get ( ) const
```

Definition at line 26 of file Identifier.cpp.

```
00026 { return fmt::format( "{0}/{1}/{2}", getClass(), getType(), getName() ); }
```

8.1.3.2 getClass()

```
std::string yaodaq::Identifier::getClass ( ) const
```

Definition at line 18 of file Identifier.cpp.

```
00018 { return std::string( magic_enum::enum_name( m_Class ) ); }
```

8.1.3.3 getClassId()

```
Class yaodaq::Identifier::getClassId ( ) const
```

Definition at line 24 of file Identifier.cpp.

```
00024 { return m_Class; }
```

8.1.3.4 getName()

```
std::string yaodaq::Identifier::getName ( ) const
```

Definition at line 22 of file Identifier.cpp.

```
00022 { return m_Name; }
```

8.1.3.5 getType()

```
std::string yaodaq::Identifier::getType ( ) const
```

Definition at line 20 of file Identifier.cpp.

```
00020 { return m_Type; }
```

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

- yaodaq/Identifier.hpp
- yaodaq/Identifier.cpp

8.2 yaodaq::LoggerHandler Class Reference

```
#include <yaodaq/LoggerHandler.hpp>
```

Public Types

- enum class Verbosity {
  Off , Trace , Debug , Info ,
  Warn , Error , Critical }

Public Member Functions

- LoggerHandler ()
- LoggerHandler (const std::string &)
- ∼LoggerHandler ()
- void setVerbosity (const Verbosity &verbosity)
- std::shared_ptr< spdlog::logger > logger ()
- void addSink (const spdlog::sink_ptr &)
- void clearSinks ()

8.2.1 Detailed Description

Definition at line 21 of file LoggerHandler.hpp.

8.2.2 Member Enumeration Documentation

8.2.2.1 Verbosity

```
enum class yaodaq::LoggerHandler::Verbosity  [strong]
```

Enumerator

Off	
Trace	
Debug	
Info	
Warn	
Error	
Critical	

Definition at line 24 of file LoggerHandler.hpp.

```
00025   {
00026     Off,
00027     Trace,
00028     Debug,
00029     Info,
00030     Warn,
00031     Error,
00032     Critical
00033   };
```

8.2.3 Constructor & Destructor Documentation

8.2.3.1 LoggerHandler() [1/2]

```
yaodaq::LoggerHandler::LoggerHandler ( )
```

Definition at line 12 of file LoggerHandler.cpp.

```
00012 { init(); }
```

8.2.3.2 LoggerHandler() [2/2]

```
yaodaq::LoggerHandler::LoggerHandler (
                const std::string & name )  [explicit]
```

Definition at line 14 of file LoggerHandler.cpp.

```
00014 : m_Name( name ) { init(); }
```

8.2.3.3 ∼LoggerHandler()

```
yaodaq::LoggerHandler::∼LoggerHandler ( )
```

Definition at line 16 of file LoggerHandler.cpp.

```
00016 {}
```

8.2.4 Member Function Documentation

8.2.4.1 addSink()

```
void yaodaq::LoggerHandler::addSink (
                const spdlog::sink_ptr & sink )
```

Definition at line 41 of file LoggerHandler.cpp.

```
00042 {
00043   m_Sinks.push_back( sink );
00044   init();
00045 }
```

8.2.4.2 clearSinks()

`void yaodaq::LoggerHandler::clearSinks ( )`

Definition at line 47 of file LoggerHandler.cpp.

```
00048 {
00049   m_Sinks.clear();
00050   init();
00051 }
```

8.2.4.3 logger()

`std::shared_ptr< spdlog::logger > yaodaq::LoggerHandler::logger ( )`

Definition at line 39 of file LoggerHandler.cpp.

```
00039 { return std::shared_ptr<spdlog::logger>( m_Logger ); }
```

8.2.4.4 setVerbosity()

```
void yaodaq::LoggerHandler::setVerbosity (
            const Verbosity & verbosity )
```

Definition at line 18 of file LoggerHandler.cpp.

```
00019 {
00020   m_Verbosity = verbosity;
00021   init();
00022 }
```

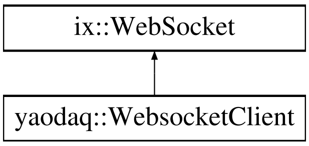
The documentation for this class was generated from the following files:

- yaodaq/LoggerHandler.hpp
- yaodaq/LoggerHandler.cpp

8.3 yaodaq::WebsocketClient Class Reference

`#include <yaodaq/WebsocketClient.hpp>`

Inheritance diagram for yaodaq::WebsocketClient:



Public Member Functions

- WebsocketClient (const std::string &name, const std::string &type)
- virtual ~WebsocketClient ()

8.3.1 Detailed Description

Definition at line 16 of file WebsocketClient.hpp.

8.3.2 Constructor & Destructor Documentation

8.3.2.1 WebsocketClient()

```
yaodaq::WebsocketClient::WebsocketClient (
            const std::string & name,
            const std::string & type )
```

Definition at line 12 of file WebsocketClient.cpp.

```
00012 : m_Identifier( Class::WebsocketClient, type, name ) { ix::initNetSystem(); }
```

8.3.2.2 ∼WebsocketClient()

```
yaodaq::WebsocketClient::∼WebsocketClient ( )  [virtual]
```

Definition at line 14 of file WebsocketClient.cpp.

```
00014 { ix::uninitNetSystem(); }
```

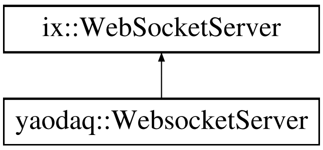
The documentation for this class was generated from the following files:

- yaodaq/WebsocketClient.hpp
- yaodaq/WebsocketClient.cpp

8.4 yaodaq::WebsocketServer Class Reference

```
#include <yaodaq/WebsocketServer.hpp>
```

Inheritance diagram for yaodaq::WebsocketServer:



Public Member Functions

- WebsocketServer (const std::string &name, const int &port=ix::SocketServer::kDefaultPort, const std::string &host=ix::SocketServer::kDefaultHost, const int &backlog=ix::SocketServer::kDefaultTcpBacklog, const std::size_t &maxConnections=ix::SocketServer::kDefaultMaxConnections, const int &handshakeTimeoutSecs=ix::WebSocketServer::kDefaultHandShakeTimeoutSecs, const int &addressFamily=ix::SocketServer::kDefaultAddressFamily, const std::string &type="Default")
- virtual ∼WebsocketServer ()
- void loop ()

8.4.1 Detailed Description

Definition at line 16 of file WebsocketServer.hpp.

8.4.2 Constructor & Destructor Documentation

8.4.2.1 WebsocketServer()

```
yaodaq::WebsocketServer::WebsocketServer (
            const std::string & name,
            const int & port = ix::SocketServer::kDefaultPort,
            const std::string & host = ix::SocketServer::kDefaultHost,
            const int & backlog = ix::SocketServer::kDefaultTcpBacklog,
            const std::size_t & maxConnections = ix::SocketServer::kDefaultMaxConnections,
            const int & handshakeTimeoutSecs = ix::WebSocketServer::kDefaultHandShakeTimeoutSecs,
            const int & addressFamily = ix::SocketServer::kDefaultAddressFamily,
            const std::string & type = "Default" )  [explicit]
```

Definition at line 12 of file WebsocketServer.cpp.

```
00012
                                :
00013   ix::WebSocketServer( port, host, backlog, maxConnections, handshakeTimeoutSecs, addressFamily ),
       m_Identifier( Class::WebsocketServer, type, name )
00014 {
00015   ix::initNetSystem();
00016 }
```

8.4.2.2 ∼WebsocketServer()

```
yaodaq::WebsocketServer::∼WebsocketServer ( )  [virtual]
```

Definition at line 18 of file WebsocketServer.cpp.

```
00018 { ix::uninitNetSystem(); }
```

8.4.3 Member Function Documentation

8.4.3.1 loop()

```
void yaodaq::WebsocketServer::loop ( )
```

Definition at line 20 of file WebsocketServer.cpp.

```
00020 {}
```

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

- yaodaq/WebsocketServer.hpp
- yaodaq/WebsocketServer.cpp

Chapter 9

File Documentation

9.1 docs/third_party_licenses.md File Reference

9.2 License.md File Reference

9.3 yaodaq/Class.hpp File Reference

```
#include <cstdint>
```

Namespaces

- namespace yaodaq

Enumerations

- enum class yaodaq::Class : std::int_least16_t {
  yaodaq::Unknown = -1 , yaodaq::Module = 0 , yaodaq::Browser = 100 , yaodaq::WebsocketServer = Module + 1 ,
  yaodaq::WebsocketClient = Module + 2 }

9.4 Class.hpp

Go to the documentation of this file.

```
#ifndef YAODAQ_CLASS_HPP
#define YAODAQ_CLASS_HPP

#include <cstdint>

namespace yaodaq
{

enum class Class : std::int_least16_t
{
  Unknown = -1,
  Module  = 0,
  Browser = 100,

  WebsocketServer = Module + 1,
  WebsocketClient = Module + 2,
};

}  // namespace yaodaq

#endif  // YAODAQ_CLASS_HPP
```

9.5 yaodaq/Identifier.hpp File Reference

```
#include "yaodaq/Class.hpp"
#include <string>
```

Classes

- class yaodaq::Identifier

Namespaces

- namespace yaodaq

9.6 Identifier.hpp

Go to the documentation of this file.

```
#ifndef YAODAQ_IDENTIFIER_HPP
#define YAODAQ_IDENTIFIER_HPP

#include "yaodaq/Class.hpp"

#include <string>

namespace yaodaq
{

class Identifier
{
public:
  Identifier() = default;
  Identifier( const Class& aClass, const std::string& type, const std::string& name );
  [[nodiscard]] std::string getClass() const;
  [[nodiscard]] std::string getType() const;
  [[nodiscard]] std::string getName() const;
  [[nodiscard]] Class       getClassId() const;
  [[nodiscard]] std::string get() const;

private:
  Class       m_Class{ Class::Unknown };
  std::string m_Type{ "Unknown" };
  std::string m_Name{ "Unknown" };
};

}  // namespace yaodaq

#endif  // YAODAQ_IDENTIFIER_HPP
```

9.7 yaodaq/LoggerHandler.hpp File Reference

```
#include <memory>
#include <spdlog/fwd.h>
#include <string>
#include <vector>
```

Classes

- class yaodaq::LoggerHandler

Namespaces

- namespace spdlog
- namespace yaodaq

Typedefs

- using spdlog::sink_ptr = std::shared_ptr< spdlog::sinks::sink >

9.8 LoggerHandler.hpp

Go to the documentation of this file.

```
#ifndef YAODAQ_LOGGERHANDLER
#define YAODAQ_LOGGERHANDLER

#include <memory>
#include <spdlog/fwd.h>
#include <string>
#include <vector>

namespace spdlog
{
using sink_ptr = std::shared_ptr<spdlog::sinks::sink>;
}

namespace yaodaq
{

class LoggerHandler
{
public:
  enum class Verbosity
  {
    Off,
    Trace,
    Debug,
    Info,
    Warn,
    Error,
    Critical
  };
  LoggerHandler();
  explicit LoggerHandler( const std::string& );
  ~LoggerHandler();
  void                             setVerbosity( const Verbosity& verbosity );
  std::shared_ptr<spdlog::logger> logger();
  void                             addSink( const spdlog::sink_ptr& );
  void                             clearSinks();

private:
  std::shared_ptr<spdlog::logger> m_Logger{ nullptr };
  std::vector<spdlog::sink_ptr>   m_Sinks;
  std::string                      m_Name{ "Unknown" };
  Verbosity                        m_Verbosity{ Verbosity::Trace };
  void                             init();
};

}  // namespace yaodaq

#endif
```

9.9 yaodaq/WebsocketClient.hpp File Reference

```
#include "ixwebsocket/IXWebSocket.h"
#include "yaodaq/Identifier.hpp"
#include <string>
```

Classes

- class yaodaq::WebsocketClient

Namespaces

- namespace yaodaq

9.10 WebsocketClient.hpp

Go to the documentation of this file.

```
#ifndef YAODAQ_WEBSOCKETCLIENT
#define YAODAQ_WEBSOCKETCLIENT

#include "ixwebsocket/IXWebSocket.h"
#include "yaodaq/Identifier.hpp"

#include <string>

namespace yaodaq
{

class WebsocketClient : public ix::WebSocket
{
public:
  WebsocketClient( const std::string& name, const std::string& type );
  virtual ~WebsocketClient();

private:
  Identifier m_Identifier;
};

}  // namespace yaodaq

#endif
```

9.11 yaodaq/WebsocketServer.hpp File Reference

```
#include "ixwebsocket/IXWebSocketServer.h"
#include "yaodaq/Identifier.hpp"
#include <string>
```

Classes

- class yaodaq::WebsocketServer

Namespaces

- namespace yaodaq

9.12 WebsocketServer.hpp

Go to the documentation of this file.

```
#ifndef YAODAQ_WEBSOCKETSERVER
#define YAODAQ_WEBSOCKETSERVER

#include "ixwebsocket/IXWebSocketServer.h"
#include "yaodaq/Identifier.hpp"

#include <string>

namespace yaodaq
{

class WebsocketServer : public ix::WebSocketServer
{
public:
  explicit WebsocketServer( const std::string& name, const int& port = ix::SocketServer::kDefaultPort,
 const std::string& host = ix::SocketServer::kDefaultHost, const int& backlog =
 ix::SocketServer::kDefaultTcpBacklog,
                            const std::size_t& maxConnections =
 ix::SocketServer::kDefaultMaxConnections, const int& handshakeTimeoutSecs =
 ix::WebSocketServer::kDefaultHandShakeTimeoutSecs, const int& addressFamily =
 ix::SocketServer::kDefaultAddressFamily,
                            const std::string& type = "Default" );
  virtual ~WebsocketServer();
  void loop();

private:
  Identifier m_Identifier;
};

} // namespace yaodaq

#endif // YAODAQ_WEBSOCKETSERVER
```

9.13 yaodaq/Identifier.cpp File Reference

```
#include "yaodaq/Identifier.hpp"
#include "yaodaq/Class.hpp"
#include <fmt/color.h>
#include <magic_enum.hpp>
#include <string>
```

Namespaces

- namespace yaodaq

9.14 Identifier.cpp

Go to the documentation of this file.

```

#include "yaodaq/Identifier.hpp"

#include "yaodaq/Class.hpp"

#include <fmt/color.h>
#include <magic_enum.hpp>
#include <string>

namespace yaodaq
{

Identifier::Identifier( const Class& aClass, const std::string& type, const std::string& name ) :
 m_Class( aClass ), m_Type( type ), m_Name( name ) {}

std::string Identifier::getClass() const { return std::string( magic_enum::enum_name( m_Class ) ); }

std::string Identifier::getType() const { return m_Type; }

std::string Identifier::getName() const { return m_Name; }

Class Identifier::getClassId() const { return m_Class; }

std::string Identifier::get() const { return fmt::format( "{0}/{1}/{2}", getClass(), getType(),
 getName() ); }

}; // namespace yaodaq
```

9.15 yaodaq/LoggerHandler.cpp File Reference

```
#include "yaodaq/LoggerHandler.hpp"
#include "spdlog/spdlog.h"
```

Namespaces

- namespace yaodaq

9.16 LoggerHandler.cpp

Go to the documentation of this file.

```

#include "yaodaq/LoggerHandler.hpp"

#include "spdlog/spdlog.h"

```

```
namespace yaodaq
{

LoggerHandler::LoggerHandler() { init(); }

LoggerHandler::LoggerHandler( const std::string& name ) : m_Name( name ) { init(); }

LoggerHandler::~LoggerHandler() {}

void LoggerHandler::setVerbosity( const Verbosity& verbosity )
{
  m_Verbosity = verbosity;
  init();
}

void LoggerHandler::init()
{
  m_Logger = std::make_shared<spdlog::logger>( m_Name, std::begin( m_Sinks ), std::end( m_Sinks ) );
  switch( m_Verbosity )
  {
    case Verbosity::Off: m_Logger->set_level( spdlog::level::off ); break;
    case Verbosity::Trace: m_Logger->set_level( spdlog::level::trace ); break;
    case Verbosity::Debug: m_Logger->set_level( spdlog::level::debug ); break;
    case Verbosity::Info: m_Logger->set_level( spdlog::level::info ); break;
    case Verbosity::Warn: m_Logger->set_level( spdlog::level::warn ); break;
    case Verbosity::Error: m_Logger->set_level( spdlog::level::err ); break;
    case Verbosity::Critical: m_Logger->set_level( spdlog::level::critical ); break;
  }
}

std::shared_ptr<spdlog::logger> LoggerHandler::logger() { return std::shared_ptr<spdlog::logger>( m_Logger ); }

void LoggerHandler::addSink( const spdlog::sink_ptr& sink )
{
  m_Sinks.push_back( sink );
  init();
}

void LoggerHandler::clearSinks()
{
  m_Sinks.clear();
  init();
}

}  // namespace yaodaq
```

9.17 yaodaq/WebsocketClient.cpp File Reference

```
#include "yaodaq/WebsocketClient.hpp"
#include "ixwebsocket/IXNetSystem.h"
```

Namespaces

- namespace yaodaq

9.18 WebsocketClient.cpp

Go to the documentation of this file.

```

#include "yaodaq/WebsocketClient.hpp"

#include "ixwebsocket/IXNetSystem.h"

namespace yaodaq
{

WebsocketClient::WebsocketClient( const std::string& name, const std::string& type ) : m_Identifier( Class::WebsocketClient, type, name ) { ix::initNetSystem(); }

WebsocketClient::~WebsocketClient() { ix::uninitNetSystem(); }

}  // namespace yaodaq
```

9.19 yaodaq/WebsocketServer.cpp File Reference

```
#include "yaodaq/WebsocketServer.hpp"
#include "ixwebsocket/IXNetSystem.h"
```

Namespaces

- namespace yaodaq

9.20 WebsocketServer.cpp

Go to the documentation of this file.

```

#include "yaodaq/WebsocketServer.hpp"

#include "ixwebsocket/IXNetSystem.h"

namespace yaodaq
{

WebsocketServer::WebsocketServer( const std::string& name, const int& port, const std::string& host,
 const int& backlog, const std::size_t& maxConnections, const int& handshakeTimeoutSecs, const int&
 addressFamily, const std::string& type ) :
  ix::WebSocketServer( port, host, backlog, maxConnections, handshakeTimeoutSecs, addressFamily ),
 m_Identifier( Class::WebsocketServer, type, name )
{
  ix::initNetSystem();
}

WebsocketServer::~WebsocketServer() { ix::uninitNetSystem(); }

void WebsocketServer::loop() {}

}  // namespace yaodaq
```