PSEUDO-IRC-SERVER

1.0

Generated by Doxygen 1.8.3.1

Sat Nov 16 2013 18:42:47

Contents

Chapter 1

IRC

IRC Server

I - How to run

- Download the repository
- In the directory use the command ’qmake’ and then ’make’
- Start the server with ’./irc_server’
- If you get the error "undefined reference to vtable for . . . " try this : make clean; qmake; make

Chapter 2

Namespace Index

2.1 Namespace List

Here is a list of all documented namespaces with brief descriptions:

Chapter 3

Hierarchical Index

3.1 Class Hierarchy

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

Chapter 4

Class Index

4.1 Class List

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

Chapter 5

File Index

5.1 File List

Here is a list of all documented files with brief descriptions:

Chapter 6

Namespace Documentation

6.1 CMD Namespace Reference

Enumerations

- enum {
  C_PRIVMSG = 1, C_PUBMSG, C_GWHO, C_CWHO,
  C_LIST, C_TOPIC, C_KICK, C_BAN,
  C_OP, C_DEOP = 20, C_JOIN, C_NICK,
  C_LEAVE, C_UNBAN, C_BANLIST }

6.1.1 Detailed Description

Namespace gathering command codes refering to the commands

6.1.2 Enumeration Type Documentation

6.1.2.1 anonymous enum

Enumerator

C_PRIVMSG	Command private message
C_PUBMSG	Command public message
C_GWHO	Command general who
C_CWHO	Command who on a channel
C_LIST	Command list
C_TOPIC	Command topic
C_KICK	Command kick
C_BAN	Command ban
C_OP	Command op
C_DEOP	Command deop
C_JOIN	Command join
C_NICK	Command nick
C_LEAVE	Command leave
C_UNBAN	Command unban
C_BANLIST	Command banlist

6.2 ERROR Namespace Reference

Enumerations

- enum {
  esuccess = 0, eBadArg = 250, eNickCollision, eNotAuthorised,
  eMissingArg, eNotExist, error }

6.2.1 Detailed Description

Namespace gathering error codes binded to the commands

6.2.2 Enumeration Type Documentation

6.2.2.1 anonymous enum

Enumerator

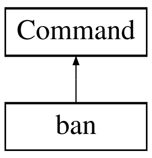
esuccess	Command has been executed successfully
eBadArg	The parameter is non-compliant
eNickCollision	The nickname is already in use by another client
eNotAuthorised	Not enough rights to use this command
eMissingArg	A parameter is missing to use this command correctly
eNotExist	The argument refers to a client/channel that doesn't exist
error	Other errors

Chapter 7

Class Documentation

7.1 ban Class Reference

Inheritance diagram for ban:



Public Member Functions

- ban (Client ∗sender, Frame &frame)

  Constructor.
- virtual quint8 verify ()

  Check the validity of the command according to the parameters contained in the frame given to the construcor.
- virtual quint8 **execute** ()

Additional Inherited Members

7.1.1 Constructor & Destructor Documentation

7.1.1.1 ban::ban (**Client** ∗ *sender,* **Frame** & *frame*)

Constructor.

Parameters

sender	: A pointer on the client who requests the Command object.
frame	: The frame providing all the informations to parameterized the command.

7.1.2 Member Function Documentation

7.1.2.1 quint8 ban::verify ( ) `[virtual]`

Check the validity of the command according to the parameters contained in the frame given to the construcor.

The method check wether one argument is missing or not and then check wether the regex given is valid or not.

Returns

ERROR::eMissingArg if an argument is missing, ERROR::esuccess if the command is valid.

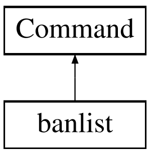
Implements Command.

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

- command.h
- command.cpp

7.2 banlist Class Reference

Inheritance diagram for banlist:



Public Member Functions

- banlist (Client ∗sender, Frame &frame)

  Constructor.
- virtual quint8 verify ()

  Check the validity of the command according to the parameters contained in the frame given to the construcor.
- virtual quint8 **execute** ()

Additional Inherited Members

7.2.1 Constructor & Destructor Documentation

7.2.1.1 banlist::banlist (**Client** ∗ *sender,* **Frame** & *frame*)

Constructor.

Parameters

sender	: A pointer on the client who requests the Command object.
frame	: The frame providing all the informations to parameterized the command.

7.2.2 Member Function Documentation

7.2.2.1 quint8 banlist::verify ( ) `[virtual]`

Check the validity of the command according to the parameters contained in the frame given to the construcor.

The method check wether one argument is missing or not.

Returns

ERROR::eMissingArg if an argument is missing, ERROR::esuccess if the command is valid.

Implements Command.

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

- command.h
- command.cpp

7.3 Channel Class Reference

Class reprensenting a channel.

Public Member Functions

- Channel (const QString &name)

  Constructor.
- void setTopic (const QString &topic)

  Set the topic of the channel.
- QString & getTopic (void)

  Getter of the topic of the channel.
- QString & getChannelName (void)

  Getter of the name of the channel.
- std::list< Client * > & getClientList (status s=REGULAR)

  Getter of the client lists of the channel.
- void addClient (Client *c, status s=REGULAR)

  Allows to add and/or set the status of a client on the channel.
- void removeClient (Client *c)

  Remove a client from a channel.
- void unbanClient (Client *c)

  Unban a client.
- bool isStatus (Client *c, status s=REGULAR)

  Check the status of a client on a channel.
- void setOperator (Client *c)

  Set a client operator.
- void unsetOperator (Client *c)

  Unset operator a client.
- bool isEmpty (void)

7.3.1 Detailed Description

Class reprensenting a channel.

This class manage 3 lists of clients : banned, regular (connected to the channel including operators) and operator clients.

7.3.2 Constructor & Destructor Documentation

7.3.2.1 Channel::Channel (const QString & *name*)

Constructor.

Parameters

name	: Name of the channel.

7.3.3 Member Function Documentation

7.3.3.1 void Channel::addClient (Client ∗ *c*, status *s* = REGULAR)

Allows to add and/or set the status of a client on the channel.

Parameters

c	: The address of the client you want to add and or change the status on the channel.
s	: The status you want to give to the client you are adding.

Returns

void.

7.3.3.2 QString & Channel::getChannelName (void)

Getter of the name of the channel.

Returns

A string containing the name of the channel.

7.3.3.3 std::list< Client ∗ > & Channel::getClientList (status *s* = REGULAR)

Getter of the client lists of the channel.

For example : sampleChannel.getClientList(OPERATOR) returns the operator clients list of the channel.

If no status is given, the getter returns the connected clients list.

Parameters

s	: The client list you want to get

Returns

A list (from STL) containing the adresses of clients depending on the status given in parameter.

7.3.3.4 QString & Channel::getTopic (void)

Getter of the topic of the channel.

Returns

A string containing the topic of the channel.

7.3.3.5 bool Channel::isEmpty (void)

Returns

True if the channel is empty, false either.

7.3.3.6 bool Channel::isStatus (Client ∗ *c*, status *s* = REGULAR)

Check the status of a client on a channel.

Parameters

c	: The address of the client you want to check the status.
s	: The status you want to check if the client has.

Returns

True if the client c is in the list corresponding to status given, false either.

7.3.3.7 void Channel::removeClient (Client ∗ *c*)

Remove a client from a channel.

Remove a client from the regular and operator lists if the client is operator on the channel. This function doesn't intend to remove a client from the ban list, if you want to do so, you should use unbanClient().

Parameters

c	: The address of the client you want to remove from the channel.

Returns

void.

7.3.3.8 void Channel::setOperator (Client ∗ *c*)

Set a client operator.

Parameters

c	: The address of the client you want to set operator.

Returns

void.

7.3.3.9 void Channel::setTopic (const QString & *topic*)

Set the topic of the channel.

Parameters

topic	: A string containing the topic of the channel.

Returns

void.

7.3.3.10 void Channel::unbanClient (Client ∗ *c*)

Unban a client.

Parameters

c	: The address of the client you want to unban.

Returns

void.

7.3.3.11 void Channel::unsetOperator (Client ∗ *c*)

Unset operator a client.

Parameters

c	: The address of the client you want to unset operator.

Returns

void.

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

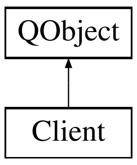
- channel.h
- channel.cpp

7.4 Client Class Reference

Class representing a Client connected to the server. This class inherits from QObjet to use slots and signals.

`#include <client.h>`

Inheritance diagram for Client:



Public Slots

- void onDisconnection (void)

  Remove the client from the server list of clients when it has left the server. SLOT connected to SIGNAL disconnected() of the QTcpSocket attribute.
- void onDataReady ()

Public Member Functions

- Client (QTcpSocket ∗socket, QObject ∗parent)

  Constructor.
- ∼Client ()

  Destructeur Frees up the memory allocated for the attribute m_socket.
- void setNickname (const QString &nickname)
- void setSocket (QTcpSocket ∗socket)
- void setState (bool state)
- QTcpSocket ∗ getSocket (void) const
- QString getNickname (void) const
- QString getMsg (void) const
- void setMsg (const QString &msg)
- bool getState (void) const

7.4.1 Detailed Description

Class representing a Client connected to the server. This class inherits from QObjet to use slots and signals.

7.4.2 Constructor & Destructor Documentation

7.4.2.1 Client::Client (QTcpSocket ∗ *socket*, QObject ∗ *parent*)

Constructor.

Parameters

socket	: the socket used to communicate with the server. Given by the server.
parent	: The adress of the Server instance. The client is binded to the server, when the server shuts down, the client is destroyed regularly by the application. It prevents problems like memory leak.

7.4.3 Member Function Documentation

7.4.3.1 QString Client::getMsg (void) const

Get the current message held by the client.

Returns

A QString containing the current message held by the client.

7.4.3.2 QString Client::getNickname (void) const

Get the nickname of the client

Returns

A QString containing the nickname of the client.

7.4.3.3 QTcpSocket ∗ Client::getSocket (void) const

Get the socket used by the client to communicate with the server.

Returns

The address of the socket used by the client to communicate with the server.

7.4.3.4 bool Client::getState (void) const

Get the current state of the client

Returns

A boolean containing true if the client has a nickname, false either.

7.4.3.5 void Client::onDataReady ( ) [slot]

data sent by the client program corresponding.

Read and execute a command sent by the client program corresponding to the instance of the client. SLOT connected to SIGNAL readyRead() of the QTcpSocket attribute.

7.4.3.6 void Client::setMsg (const QString & *msg*)

Set the message of the client.

Parameters

msg	: A QString depicting the result of the last command sent by the client.

7.4.3.7 void Client::setNickname (const QString & *nickname*)

Set the nickname of the client.

Parameters

nickname	: A QString containing the new nickname for the client.

7.4.3.8 void Client::setSocket (QTcpSocket ∗ *socket*)

Set the socket of the client.

Parameters

socket	: A QTcpSocket pointer containing the address of the QTcpSocket for the client.

7.4.3.9 void Client::setState (bool *state*)

Set the state of the client.

Parameters

state	: A boolean containing the new state of the client depending on wether it has set is nickname(true) or not(false).

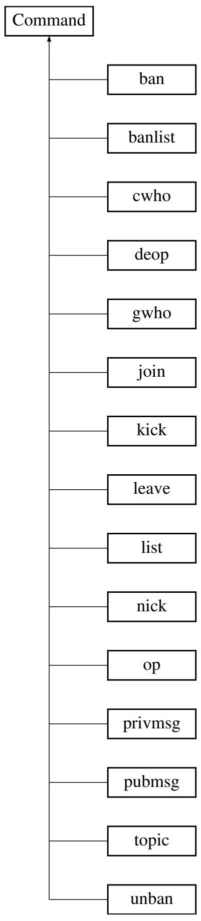
The documentation for this class was generated from the following files:

- client.h
- client.cpp

7.5 Command Class Reference

Class representing an abstract command.

Inheritance diagram for Command:



Public Member Functions

- virtual quint8 **execute** ()=0
- virtual quint8 **verify** ()=0

Static Public Member Functions

- static Command ∗ getCommand (Client ∗c, Frame &frame)

  Get a parameterized command object from a raw Frame object.

Protected Member Functions

- Command ()

  Constructor.

7.5.1 Detailed Description

Class representing an abstract command.

This class encapsulate a request as an object. It uses the pattern Command.

7.5.2 Member Function Documentation

7.5.2.1 Command ∗ Command::getCommand (Client ∗ *c*, Frame & *frame*) [static]

Get a parameterized command object from a raw Frame object.

This method uses the parameters and the command id code contained in the Frame object to return a specialized command (inherited from Command) and parameterized correctly, ready to be self verified and executed.

Parameters

c	: The client who requests the Command object.
frame	: The frame providing all the informations to instantiate the right Command object well parameterized.

Returns

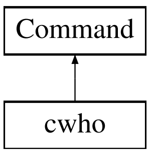
A pointer on the Command object parameterized according to the Frame object.

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

- command.h
- command.cpp

7.6 cwho Class Reference

Inheritance diagram for cwho:



Public Member Functions

- cwho (Client ∗sender, Frame &frame)

  Constructor.
- virtual quint8 verify ()

  Check the validity of the command according to the parameters contained in the frame given to the construcor.
- virtual quint8 **execute** ()

Additional Inherited Members

7.6.1 Constructor & Destructor Documentation

7.6.1.1 cwho::cwho (Client ∗ *sender*, Frame & *frame*)

Constructor.

Parameters

sender	: A pointer on the client who requests the Command object.
frame	: The frame providing all the informations to parameterized the command.

7.6.2 Member Function Documentation

7.6.2.1 quint8 cwho::verify ( ) `[virtual]`

Check the validity of the command according to the parameters contained in the frame given to the construcor.

The method check wether one argument is missing or not.

Returns

ERROR::eMissingArg if an argument is missing, ERROR::esuccess if the command is valid.

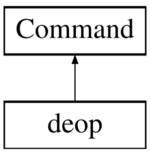
Implements Command.

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

- command.h
- command.cpp

7.7 deop Class Reference

Inheritance diagram for deop:



Public Member Functions

- deop (Client ∗sender, Frame &frame)

    Constructor.
- virtual quint8 verify ()

    Check the validity of the command according to the parameters contained in the frame given to the construcor.
- virtual quint8 **execute** ()

Additional Inherited Members

7.7.1 Constructor & Destructor Documentation

7.7.1.1 deop::deop (**Client** ∗ *sender,* **Frame** & *frame*)

Constructor.

Parameters

sender	: A pointer on the client who requests the Command object.
frame	: The frame providing all the informations to parameterized the command.

7.7.2 Member Function Documentation

7.7.2.1 quint8 deop::verify ( ) [virtual]

Check the validity of the command according to the parameters contained in the frame given to the construcor.

The method check wether one argument is missing or not.

Returns

ERROR::eMissingArg if an argument is missing, ERROR::esuccess if the command is valid.

Implements Command.

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

- command.h
- command.cpp

7.8 Frame Class Reference

This class provides tools for frame analysis.

Public Member Functions

- Frame (QByteArray &data)

  Constructor.
- quint16 getSize (void) const
- quint16 getId (void) const
- quint8 getCode (void) const
- QStringList getArgList (void) const
- quint16 getNbArg (void) const

Static Public Member Functions

- static QByteArray getReadyToSendFrame (QString &data, quint16 id, quint8 code)

  Allows to get a ready to send formatted frame.

7.8.1 Detailed Description

This class provides tools for frame analysis.

Frame allows to send formatted frames according to a Pseudo-Irc protocol from a simple string plus tools for a complete analysis of the frames received on the Pseudo-Irc protocol compatible server.

7.8.2 Constructor & Destructor Documentation

7.8.2.1 Frame::Frame (QByteArray & *frame*)

Constructor.

Parameters

frame	: A QByteArray containing the formatted frame received.

7.8.3 Member Function Documentation

7.8.3.1 QStringList Frame::getArgList (void) const

Returns

A QStringList containing the arguments of the command.

7.8.3.2 quint8 Frame::getCode (void) const

Returns

The code of the command contained in the frame.

7.8.3.3 quint16 Frame::getId (void) const

Returns

The Id of the command contained in the frame.

7.8.3.4 quint16 Frame::getNbArg (void) const

Returns

The number of arguments contained in the command.

7.8.3.5 QByteArray Frame::getReadyToSendFrame (QString & *data,* quint16 *id,* quint8 *code*) [static]

Allows to get a ready to send formatted frame.

Allows to get a ready to send formatted frame according to the pseudo-irc protocol. depending on the parameters given.

Parameters

data	: The arguments of the command separated by a ' ' character.
id	: The id of the command.
code	: The code of the command (see Command.h for an exhaustive list).

Returns

The formatted frame according to the parameters given.

7.8.3.6 quint16 Frame::getSize (void) const

Returns

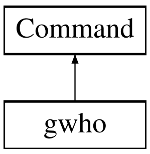
The size of the arguments of the command.

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

- frame.h
- frame.cpp

7.9 gwho Class Reference

Inheritance diagram for gwho:



Public Member Functions

- gwho (Client ∗sender, Frame &frame)

    Constructor.
- virtual quint8 verify ()

    Check the validity of the command according to the parameters contained in the frame given to the construcor.
- virtual quint8 **execute** ()

Additional Inherited Members

7.9.1 Constructor & Destructor Documentation

7.9.1.1 gwho::gwho (**Client** ∗ *sender,* **Frame** & *frame*)

Constructor.

Parameters

sender	: A pointer on the client who requests the Command object.
frame	: The frame providing all the informations to parameterized the command.

7.9.2 Member Function Documentation

7.9.2.1 quint8 gwho::verify ( ) [virtual]

Check the validity of the command according to the parameters contained in the frame given to the construcor.

The method begin to check if one argument is missing and then check wether the regex given is valid or not.

Returns

ERROR::eMissingArg if an argument is missing, ERROR::eBadArg if the regex given isn't valid, ERROR::esuccess if the command is valid.

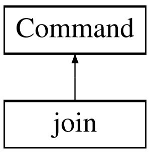
Implements Command.

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

- command.h
- command.cpp

7.10 join Class Reference

Inheritance diagram for join:



Public Member Functions

- join (Client ∗sender, Frame &frame)

  Constructor.
- virtual quint8 verify ()

  Check the validity of the command according to the parameters contained in the frame given to the construcor.
- virtual quint8 **execute** ()

Additional Inherited Members

7.10.1 Constructor & Destructor Documentation

7.10.1.1 join::join (**Client** ∗ *sender,* **Frame** & *frame*)

Constructor.

Parameters

sender	: A pointer on the client who requests the Command object.
frame	: The frame providing all the informations to parameterized the command.

7.10.2 Member Function Documentation

7.10.2.1 quint8 join::verify ( ) [virtual]

Check the validity of the command according to the parameters contained in the frame given to the construcor.

The method begin to check if one argument is missing and then check wether the channel name given is valid or not.

Returns

ERROR::eMissingArg if an argument is missing, ERROR::eBadArg if the channel name given isn't valid, ERROR::esuccess if the command is valid.

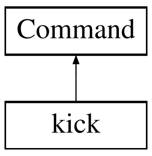
Implements Command.

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

- command.h
- command.cpp

7.11 kick Class Reference

Inheritance diagram for kick:



Public Member Functions

- kick (Client ∗sender, Frame &frame)

  Constructor.
- virtual quint8 verify ()

  Check the validity of the command according to the parameters contained in the frame given to the construcor.
- virtual quint8 **execute** ()

Additional Inherited Members

7.11.1 Constructor & Destructor Documentation

7.11.1.1 kick::kick (**Client** ∗ *sender,* **Frame** & *frame*)

Constructor.

Parameters

sender	: A pointer on the client who requests the Command object.
frame	: The frame providing all the informations to parameterized the command.

7.11.2 Member Function Documentation

7.11.2.1 quint8 kick::verify ( ) [virtual]

Check the validity of the command according to the parameters contained in the frame given to the construcor.

The method check wether one argument is missing or not and then check wether the regex given is valid or not.

Returns

ERROR::eMissingArg if an argument is missing, ERROR::esuccess if the command is valid.

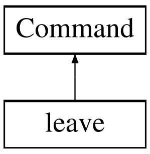
Implements Command.

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

- command.h
- command.cpp

7.12 leave Class Reference

Inheritance diagram for leave:



Public Member Functions

- leave (Client ∗sender, Frame &frame)

  Constructor.
- virtual quint8 verify ()

  Check the validity of the command according to the parameters contained in the frame given to the construcor.
- virtual quint8 **execute** ()

Additional Inherited Members

7.12.1 Constructor & Destructor Documentation

7.12.1.1 leave::leave (**Client** ∗ *sender,* **Frame** & *frame*)

Constructor.

Parameters

sender	: A pointer on the client who requests the Command object.
frame	: The frame providing all the informations to parameterized the command.

7.12.2 Member Function Documentation

7.12.2.1 quint8 leave::verify ( ) `[virtual]`

Check the validity of the command according to the parameters contained in the frame given to the construcor.

The method check wether one argument is missing or not.

Returns

ERROR::eMissingArg if an argument is missing, ERROR::esuccess if the command is valid.

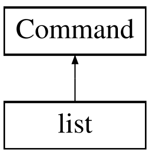
Implements Command.

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

- command.h
- command.cpp

7.13 list Class Reference

Inheritance diagram for list:



Public Member Functions

- list (Client ∗sender, Frame &frame)

  Constructor.
- virtual quint8 verify ()

  Check the validity of the command according to the parameters contained in the frame given to the construcor.
- virtual quint8 **execute** ()

Additional Inherited Members

7.13.1 Constructor & Destructor Documentation

7.13.1.1 list::list (**Client** ∗ *sender,* **Frame** & *frame*)

Constructor.

Parameters

sender	: A pointer on the client who requests the Command object.
frame	: The frame providing all the informations to parameterized the command.

7.13.2 Member Function Documentation

7.13.2.1 quint8 list::verify ( ) `[virtual]`

Check the validity of the command according to the parameters contained in the frame given to the construcor.

The method begin to check if one argument is missing and then check wether the regex given is valid or not.

Returns

ERROR::eMissingArg if an argument is missing, ERROR::eBadArg if the regex given isn't valid, ERROR-::esuccess if the command is valid.

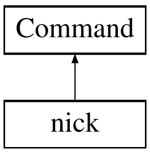
Implements Command.

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

- command.h
- command.cpp

7.14 nick Class Reference

Inheritance diagram for nick:



Public Member Functions

- nick (Client ∗sender, Frame &frame)

  Constructor.
- virtual quint8 verify ()

  Check the validity of the command according to the parameters contained in the frame given to the construcor.
- virtual quint8 **execute** ()

Additional Inherited Members

7.14.1 Constructor & Destructor Documentation

7.14.1.1 nick::nick (**Client** ∗ *sender,* **Frame** & *frame*)

Constructor.

Parameters

sender	: A pointer on the client who requests the Command object.
frame	: The frame providing all the informations to parameterized the command.

7.14.2 Member Function Documentation

7.14.2.1 quint8 nick::verify ( ) `[virtual]`

Check the validity of the command according to the parameters contained in the frame given to the construcor.

The method begin to check if one argument is missing and then check wether the nickname given is valid or not.

Returns

ERROR::eMissingArg if an argument is missing, ERROR::eBadArg if the nickname given isn't valid, ERROR-::esuccess if the command is valid.

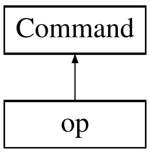
Implements Command.

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

- command.h
- command.cpp

7.15 op Class Reference

Inheritance diagram for op:



Public Member Functions

- op (Client ∗sender, Frame &frame)

  Constructor.
- virtual quint8 verify ()

  Check the validity of the command according to the parameters contained in the frame given to the construcor.
- virtual quint8 **execute** ()

Additional Inherited Members

7.15.1 Constructor & Destructor Documentation

7.15.1.1 op::op (**Client** ∗ *sender,* **Frame** & *frame*)

Constructor.

Parameters

sender	: A pointer on the client who requests the Command object.
frame	: The frame providing all the informations to parameterized the command.

7.15.2 Member Function Documentation

7.15.2.1 quint8 op::verify ( ) `[virtual]`

Check the validity of the command according to the parameters contained in the frame given to the construcor.

The method check wether one argument is missing or not.

Returns

ERROR::eMissingArg if an argument is missing, ERROR::esuccess if the command is valid.

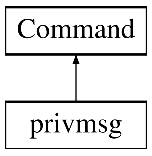
Implements Command.

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

- command.h
- command.cpp

7.16 privmsg Class Reference

Inheritance diagram for privmsg:



Public Member Functions

- privmsg (Client ∗sender, Frame &frame)

  Constructor.
- virtual quint8 verify ()

  Check the validity of the command according to the parameters contained in the frame given to the construcor.
- virtual quint8 **execute** ()

Additional Inherited Members

7.16.1 Constructor & Destructor Documentation

7.16.1.1 privmsg::privmsg (**Client** ∗ *sender,* **Frame** & *frame*)

Constructor.

Parameters

sender	: A pointer on the client who requests the Command object.
frame	: The frame providing all the informations to parameterized the command.

7.16.2 Member Function Documentation

7.16.2.1 quint8 privmsg::verify ( ) `[virtual]`

Check the validity of the command according to the parameters contained in the frame given to the construcor.

The method check wether one argument is missing or not.

Returns

ERROR::eMissingArg if an argument is missing, ERROR::esuccess if the command is valid.

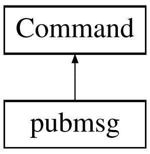
Implements Command.

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

- command.h
- command.cpp

7.17 pubmsg Class Reference

Inheritance diagram for pubmsg:



Public Member Functions

- pubmsg (Client ∗sender, Frame &frame)

  Constructor.
- virtual quint8 verify ()

  Check the validity of the command according to the parameters contained in the frame given to the construcor.
- virtual quint8 **execute** ()

Additional Inherited Members

7.17.1 Constructor & Destructor Documentation

7.17.1.1 pubmsg::pubmsg (**Client** ∗ *sender,* **Frame** & *frame*)

Constructor.

Parameters

sender	: A pointer on the client who requests the Command object.
frame	: The frame providing all the informations to parameterized the command.

7.17.2 Member Function Documentation

7.17.2.1 quint8 pubmsg::verify ( ) `[virtual]`

Check the validity of the command according to the parameters contained in the frame given to the construcor.

The method check wether one argument is missing or not.

Returns

ERROR::eMissingArg if an argument is missing, ERROR::esuccess if the command is valid.

Implements Command.

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

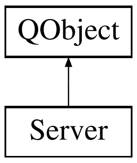
- command.h
- command.cpp

7.18 Server Class Reference

Class defining the Server. This class inherits from QObjet to use slots and signals. This class uses the pattern Singleton.

```
#include <server.h>
```

Inheritance diagram for Server:



Public Slots

- void onNewConnection (void)

  Create and add a client to the server.

Public Member Functions

- ~Server ()

  Destructor.
- void delClient (Client ∗c)

  Remove a client from the server list of clients.
- Channel ∗ getChannelFromName (QString &name)
- Client ∗ getClientFromName (QString &name)
- quint8 **nick** (Client ∗c, QString &nickname)
- quint8 **privmsg** (Client ∗c, QString &dest, QString &message)
- quint8 **pubmsg** (Client ∗c, QString &dest, QString &message)
- quint8 **join** (Client ∗c, QString &dest)
- quint8 **leave** (Client ∗c, QString &dest)
- quint8 **list** (Client ∗c, QString &filter)
- quint8 **topic** (Client ∗c, QString &dest, QString &topic)
- quint8 **gwho** (Client ∗c, QString &filter)
- quint8 **cwho** (Client ∗c, QString &dest)
- quint8 **kick** (Client ∗c, QString &dest_channel, QString &filter)
- quint8 **ban** (Client ∗c, QString &dest_channel, QString &filter)
- quint8 **unban** (Client ∗c, QString &dest_channel, QString &filter)
- quint8 **banlist** (Client ∗c, QString &dest_channel)
- quint8 **op** (Client ∗c, QString &dest_channel, QString &dest_client)
- quint8 **deop** (Client ∗c, QString &dest_channel, QString &dest_client)

Static Public Member Functions

- static Server ∗ **Instance** ()

Protected Member Functions

- Server (QObject ∗parent=0)

  Constructor.
- void init ()

  Initialize the server from the server.conf file.
- void broadCast (QString &message, quint16 id, quint8 code, Channel ∗chan=NULL, Client ∗sender=NULL)

  Broadcast a message on several channels/to several clients.

7.18.1 Detailed Description

Class defining the Server. This class inherits from QObjet to use slots and signals. This class uses the pattern Singleton.

7.18.2 Constructor & Destructor Documentation

7.18.2.1 Server::Server (QObject ∗ *parent* = `0`) `[protected]`

Constructor.

The list of the channel of the server

7.18.3 Member Function Documentation

7.18.3.1 void Server::broadCast (QString & *message*, quint16 *id*, quint8 *code*, Channel ∗ *chan* = `NULL`, Client ∗ *sender* = `NULL`) `[protected]`

Broadcast a message on several channels/to several clients.

Parameters

message	: The message to broadcast.
id	: the id of the message (in our protocol, always 255).
code	: see protocol description document.
chan	: if chan is not specified, message will be sent to all clients connected to the server else, the message will be sent to all the clients connected to the channel.
sender	: if a sender is specified, message will not be sent to him. false sinon

7.18.3.2 Channel ∗ Server::getChannelFromName (QString & *name*)

Returns

the channel corresponding to the name given or null if channel doesn't exist.

7.18.3.3 Client ∗ Server::getClientFromName (QString & *name*)

Returns

the client corresponding to the name given or null if channel doesn't exist.

7.18.3.4 void Server::init (void) `[protected]`

Initialize the server from the server.conf file.

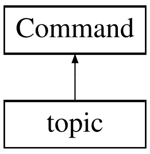
The file server.conf must be placed in the folder of the executable program.

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

- server.h
- server.cpp

7.19 topic Class Reference

Inheritance diagram for topic:



Public Member Functions

- topic (Client ∗sender, Frame &frame)

  Constructor.
- virtual quint8 verify ()

  Check the validity of the command according to the parameters contained in the frame given to the construcor.
- virtual quint8 **execute** ()

Additional Inherited Members

7.19.1 Constructor & Destructor Documentation

7.19.1.1 topic::topic (**Client** ∗ *sender,* **Frame** & *frame*)

Constructor.

Parameters

sender	: A pointer on the client who requests the Command object.
frame	: The frame providing all the informations to parameterized the command.

7.19.2 Member Function Documentation

7.19.2.1 quint8 topic::verify ( ) `[virtual]`

Check the validity of the command according to the parameters contained in the frame given to the construcor.

The method check wether one argument is missing or not.

Returns

ERROR::eMissingArg if an argument is missing, ERROR::esuccess if the command is valid.

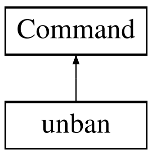
Implements Command.

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

- command.h
- command.cpp

7.20 unban Class Reference

Inheritance diagram for unban:



Public Member Functions

- unban (Client ∗sender, Frame &frame)

  Constructor.
- virtual quint8 verify ()

  Check the validity of the command according to the parameters contained in the frame given to the construcor.
- virtual quint8 **execute** ()

Additional Inherited Members

7.20.1 Constructor & Destructor Documentation

7.20.1.1 unban::unban (**Client** ∗ ***sender,*** **Frame** & ***frame***)

Constructor.

Parameters

sender	: A pointer on the client who requests the Command object.
frame	: The frame providing all the informations to parameterized the command.

7.20.2 Member Function Documentation

7.20.2.1 quint8 unban::verify ( ) [virtual]

Check the validity of the command according to the parameters contained in the frame given to the construcor.

The method check wether one argument is missing or not and then check wether the regex given is valid or not.

Returns

ERROR::eMissingArg if an argument is missing, ERROR::esuccess if the command is valid.

Implements Command.

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

- command.h
- command.cpp

Chapter 8

File Documentation

8.1 channel.h File Reference

This file gathers tools to manage clients inside channels.

```
#include <list>
#include <iostream>
#include "client.h"
```

Classes

- class Channel

  Class reprensenting a channel.

Enumerations

- enum status { BANNED, REGULAR, OPERATOR }

  Status of a client on the channel.

8.1.1 Detailed Description

This file gathers tools to manage clients inside channels.

8.1.2 Enumeration Type Documentation

8.1.2.1 enum **status**

Status of a client on the channel.

Enumerator

BANNED Client is banned of the channel

REGULAR Client is connected to the channel

OPERATOR Client is operator on the channel note that it means the client is also connected to the channel

8.2 client.h File Reference

This file gathers informations on a client connected to the server using a TCP connection.

```
#include <QTcpSocket>
```

Classes

- class Client

  Class representing a Client connected to the server. This class inherits from QObjet to use slots and signals.

8.2.1 Detailed Description

This file gathers informations on a client connected to the server using a TCP connection.

8.3 command.h File Reference

File containing the declaration of the commands.

```
#include "server.h"
#include "frame.h"
```

Classes

- class Command

  Class representing an abstract command.
- class nick
- class privmsg
- class pubmsg
- class join
- class leave
- class list
- class topic
- class gwho
- class cwho
- class kick
- class ban
- class unban
- class banlist
- class op
- class deop

Namespaces

- namespace ERROR
- namespace CMD

Enumerations

- enum {
  ERROR::esuccess = 0, ERROR::eBadArg = 250, ERROR::eNickCollision, ERROR::eNotAuthorised,
  ERROR::eMissingArg, ERROR::eNotExist, ERROR::error }
- enum {
  CMD::C_PRIVMSG = 1, CMD::C_PUBMSG, CMD::C_GWHO, CMD::C_CWHO,
  CMD::C_LIST, CMD::C_TOPIC, CMD::C_KICK, CMD::C_BAN,
  CMD::C_OP, CMD::C_DEOP = 20, CMD::C_JOIN, CMD::C_NICK,
  CMD::C_LEAVE, CMD::C_UNBAN, CMD::C_BANLIST }

8.3.1 Detailed Description

File containing the declaration of the commands.

8.4 frame.h File Reference

Frame analyser based on a Pseudo-Irc protocol.

```
#include <QStringList>
```

Classes

- class Frame

  This class provides tools for frame analysis.

8.4.1 Detailed Description

Frame analyser based on a Pseudo-Irc protocol.

8.5 server.h File Reference

IRC Server Near-IRC server : A simplified IRC server not in accordance with RFC 1459.

```
#include <QTcpServer>
#include <list>
#include "channel.h"
```

Classes

- class Server

  Class defining the Server. This class inherits from QObjet to use slots and signals. This class uses the pattern Singleton.

8.5.1 Detailed Description

IRC Server Near-IRC server : A simplified IRC server not in accordance with RFC 1459.

Index