**Introduction**

The primary function of this application will be to allow for instant messaging between users on a server which contains a number of rooms. The admin of a server may create new rooms, and rename them.

**User Nicknames**

Users are each assigned a unique nickname of no more than twenty-four characters and no less than six characters. Each nickname must be chosen by the user and must only contain alphanumeric characters, with no use of punctuation or symbols.

**Generic Error Messages**

There are a number of generic error messages which the system may output.

ERROR\_COMMANDNOTFOUND ERROR\_CONNECTIONDROPPED

ERROR\_OUTOFBOUNDS

**Connection**

On connection the user must provide the server information. This information takes the form of a Username and password (some servers may not require this information). On connection the server will provide a user message to notify the user that their connection was successful.

The recommended order for this information to be registered is as follows:

1. Username
2. Password
3. User message

Username Message

Command: USERNAME

Parameters: <Nickname>

The USERNAME command is used to set a user’s nickname if they do not have one, or to change the user’s nickname if they already have one.

Error messages:

ERROR\_NICKINUSE

ERROR\_SYMBOLSINUSE ERROR\_NONICKGIVEN

Example:

USERNAME Joe Save the user’s nickname as “Joe” if still unregistered, or alter the nickname if user already has a nickname in use.

Password Message

Command: PASSSET

Parameters: <Password>

The PASSSET command is used for the admin of a server to set a new password, or alter an already existing one. Passwords are restricted to the same constraints as nicknames.

Error messages:

ERROR\_NOPASSGIVEN

ERROR\_SYMBOLSINUSE

Example:

PASSSET Password Sets the server password to “Password” if there is currently not a password in use, or alters an already existing password.

Command: PASS

Parameters: <Password>

The PASS command is used for the user to input a server’s password. Note that not all servers may want to set a password.

Error messages:

ERROR\_WRONGPASSWORD ERROR\_NOPASSGIVEN

ERROR\_SYMBOLSINUSE

Example:

PASS Password The user has inputted a password, and will either get an error message, or they will enter the server.

Disconnection

Command: KICK

Parameters<Username>

The KICK command is used by a server admin to forcibly disconnect a user.

Error messages:

ERROR\_WRONGNICK ERROR\_NONICKGIVEN

Example:

KICK Joe The admin has inputted another user’s nickname and will either get an error message or will remove the user from the server

Command: DISCONNECT

The DISCONNECT command is used by a user to disconnect or leave a server.

**Server**

There are a number of commands a user or admin may use to either traverse the server, or to create and delete rooms within the server.

Rooms

Command: CREATEROOM

Parameters:<Room Name>

The CREATEROOM command is used by a server admin to create a new chat room and assign it a name. This name shares the same constraints as a nickname.

Error messages:

ERROR\_SYMBOLSINUSE ERROR\_NONAMEGIVEN

ERROR\_NAMETOOLONG ERROR\_NAMETOOSHORT

Example:

CREATEROOM Room1 The admin has used the command to create a room called Room1

Command: DELETEROOM

Parameters:<Room Name>

The DELETEROOM command is used by a server admin to delete a pre-existing chat room from the server.

Error Messages:

ERROR\_SYMBOLSINUSE ERROR\_NONAMEGIVEN

ERROR\_CHANNELNOTFOUND

Example:

DELETEROOM Room1 The admin has used the command to delete the room called Room1

Command: MOVEROOM

Parameters:<Room Name>

The MOVEROOM command is used by a user to change which room they are currently chatting in.

The channel name given is the name of the channel the user wishes to be moved to. If the user gives

an incorrect channel name, their channel will not be switched.

Error Messages:

ERROR\_NONAMEGIVEN ERROR\_SYMBOLSINUSE

ERROR\_CHANNELNOTFOUND

Example:

MOVEROOM Room2 The user has used the command to change from one room, to a room named Room2.