

Detailed Usage Instructions:

1. Compiling the server and client programs:

Login to a flip server.

From the top level Enki directory, run “make enki_client” and “make enki_server”.

```
flip1 ~/cs467/Terminal-Chat 1005$ make enki_client
```

compiling the client

```
flip1 ~/cs467/Terminal-Chat 1005$ make enki_server
```

compiling the server

The executables “enki_server” and “enki_client” will be created inside the same directory.

2. Running the program (*assuming compilation is finished and you are currently located in the same directory as the executables*):

Server

```
./enki_server <Command-Port>
```

```
[-bash-4.2$ ./enki_servr 9000
```

starting Enki server

- Command-Port must be unique integers between 1024 and 65535.
- No further user interaction is necessary at this point. To shutdown the server, enter Ctrl-C.

Client

```
./enki_client <Command-Port> <Session-Port>
```

```
flip1 ~/cs467/Terminal-Chat 1005$ ./enki_client 9000 9005
```

starting Enki client

- The server application must be started before the client application.
- You must be logged in on the same flip server as the server application.
- The first port number must match the port number given to the server application.
- Upon successful program execution, the ncurses GUI will appear in the terminal window.
- To shutdown the client, enter the “/quit” command (no quotations).

3. Using the program

Server perspective

Once the server is started, no further interaction is needed from the user until shutdown. The below screenshots show examples of console output from the server during program runtime.

```
Enki listening on flip1.engr.oregonstate.edu [127.0.0.1:9000], press ctrl-c to terminate.  
Hello 127.0.0.1:42102.  
Connection # 1
```

Successful connection to client

```
2 bytes >> 127.0.0.1:42192.
```

Writing data to client

```
^CDeleting processor...  
Processor: thread 7f940dc1e700 terminating.  
Processor: thread 7f940d41d700 terminating.  
Connection 1::127.0.0.1:42102 (Ricky) terminated.  
Program terminated sucessfully.
```

Server shutdown via Ctrl-C

```
127.0.0.1:42192 >> LOGIN.  
Processor::do_login(): users alias: ricky  
127.0.0.1:42192::LOGIN => error:0 [OK].
```

Server accepting a client with alias

```
127.0.0.1:42192 >> CREATE_CHANNEL.  
Session: In Constructor: PORT: 9005  
Processor: do_create_channel_: wow  
CHANNEL: wow CREATED
```

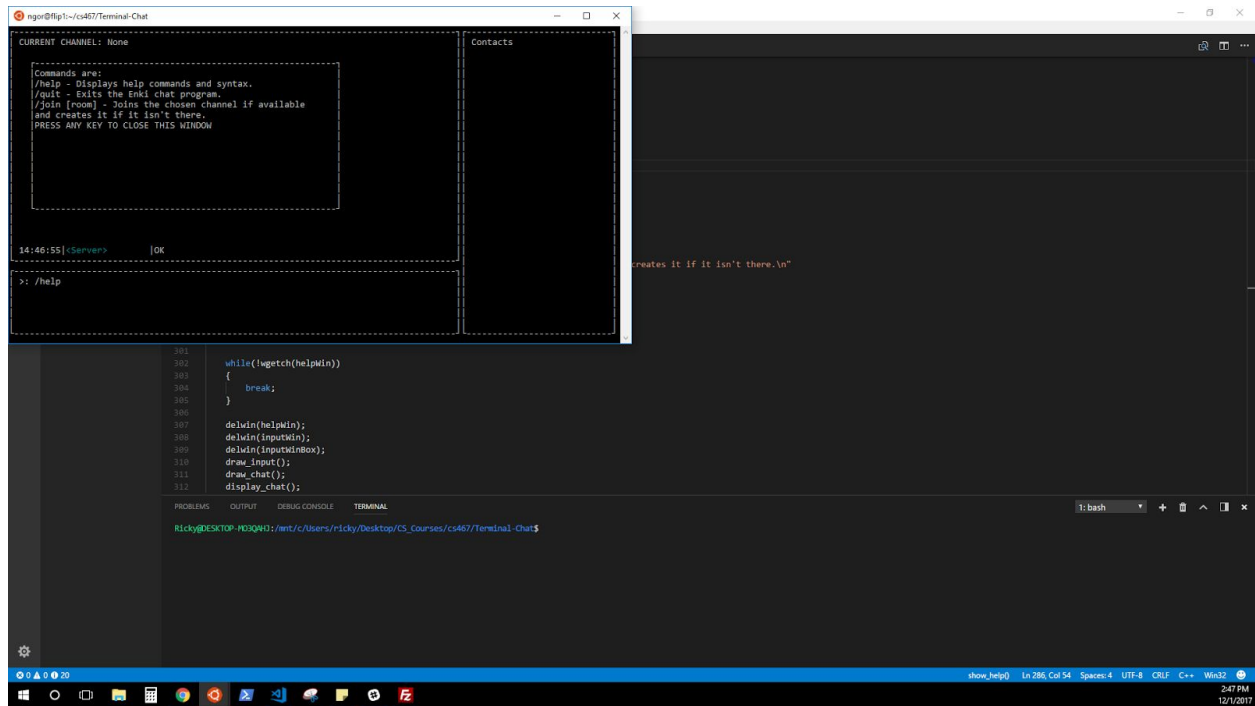
Server creating a channel specified by the user

```
Session::deliver(): YOU HAVE JOINED  
is idle: true  
writing  
Session::do_write_header_(): 000151512082155CHANNEL00000000  
127.0.0.1:42192::CREATE_CHANNEL => error:0 [OK].  
Session::on_write_header_(): 30 bytes  
Session::do_write_body_(): YOU HAVE JOINED  
BODY ON SEND YOU HAVE JOINED
```

Server confirming that the client has joined the channel

Client perspective

Note: It is recommended to start the client with a terminal window that is at least a quarter of the entire screen for the best possible experience.



Once the client is started, the user is prompted to enter an alias between 5 and 15 characters.



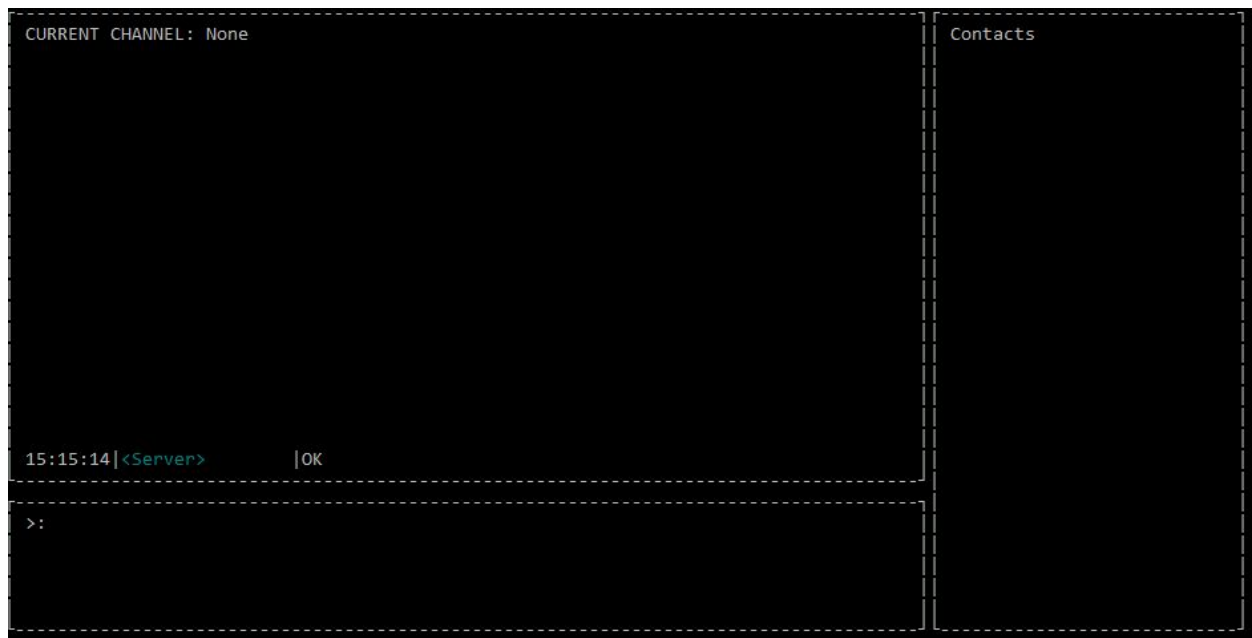
Login page

An invalid input will prompt a warning message, and the user must try again.



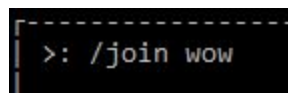
Invalid alias

After successfully choosing an alias, the user's screen is refreshed and the home screen is shown.



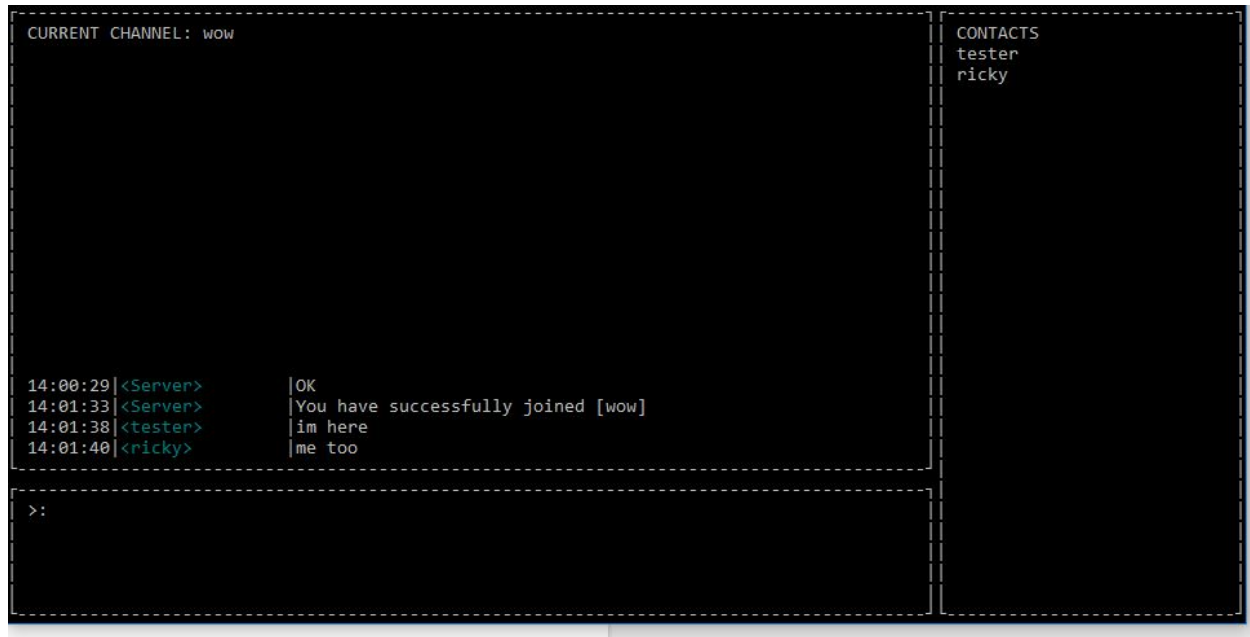
Home screen

Once on the home screen, the user can create a new chat room or join an existing chat room through the following commands:



/join <channel name>

where “channel name” is single word less than 25 characters. The screen will refresh as the client joins or creates that chat room. If there is any existing previous conversation in the room, it will appear in the chat log, and the user can chat with other users by entering text, no command needed.



Chatting with other users inside chat room

When a user decides to leave a channel, the “/leave” command is used. The user’s screen will be cleared, and the user is free to join a new channel. To quit Enki entirely, enter the “/quit” command.

```
>: /leave
```

```
>: /quit
```