

8006 Asn3 - Testing

Let's hope this works, punk

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Building and Running

Prerequisites:

- CMake is installed
- Python3 is installed
- C11 compliant compiler is installed

Step 1

Generate makefile by running 'cmake .'

Expected Result

```
16:15:12(master)isaac@isaacbox:8006-asn3$ cmake ./
-- The C compiler identification is GNU 7.3.0
-- The CXX compiler identification is GNU 7.3.0
-- Check for working C compiler: /usr/bin/cc
-- Check for working C compiler: /usr/bin/cc -- works
-- Detecting C compiler ABI info
-- Detecting C compiler ABI info - done
-- Detecting C compile features
-- Detecting C compile features - done
-- Check for working CXX compiler: /usr/bin/c++
-- Check for working CXX compiler: /usr/bin/c++ -- works
-- Detecting CXX compiler ABI info
-- Detecting CXX compiler ABI info - done
-- Detecting CXX compile features
-- Detecting CXX compile features - done
-- Looking for pthread.h
-- Looking for pthread.h - found
-- Looking for pthread_create
-- Looking for pthread_create - not found
-- Check if compiler accepts -pthread
-- Check if compiler accepts -pthread - yes
-- Found Threads: TRUE
-- Found Curses: /usr/lib/libcurses.so
-- Configuring done
-- Generating done
-- Build files have been written to: /home/isaac/code/8006-asn3
16:15:18(master)isaac@isaacbox:8006-asn3$ |
```

Step 2

Build project running 'make'

Expected Result

```
16:15:18(master)isaac@isaacbox:8006-asn3$ make
Scanning dependencies of target 8006-asn3
[ 16%] Building C object CMakeFiles/8006-asn3.dir/src/epoll.c.o
[ 33%] Building C object CMakeFiles/8006-asn3.dir/src/inotify.c.o
[ 50%] Building C object CMakeFiles/8006-asn3.dir/src/iptables.c.o
[ 66%] Building C object CMakeFiles/8006-asn3.dir/src/main.c.o
[ 83%] Building C object CMakeFiles/8006-asn3.dir/src/ui.c.o
[100%] Linking C executable bin/8006-asn3
[100%] Built target 8006-asn3
16:15:41(master)isaac@isaacbox:8006-asn3$ |
```

Test UI mode

Purpose

Run the program in an interactive ui mode to see when IPs are banned and unbanned.

Step 1

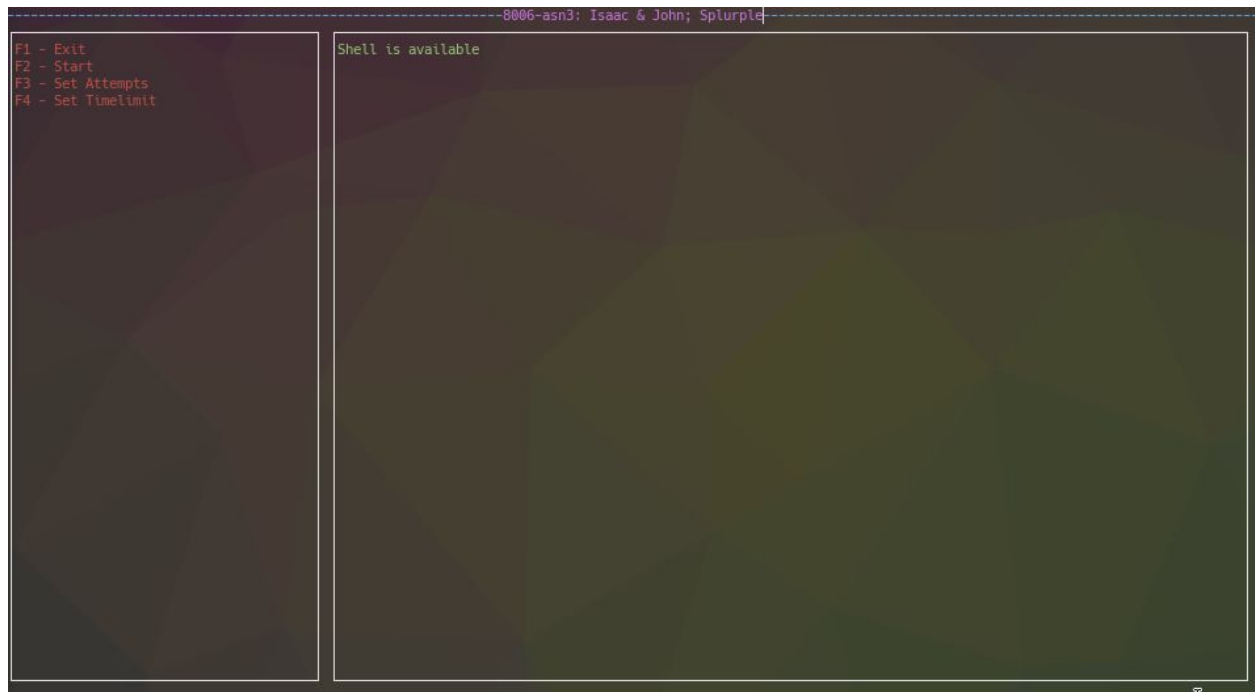
Run the program with 'sudo ./bin/8005-asn3'

Expected Result

Without sudo it will not be able to run

```
16:22:59(master)isaac@isaacbox:8006-asn3$ ./bin/8006-asn3
/home/isaac/code/8006-asn3/src/main.c::main::85
    setuid(0) != -1: Operation not permitted
16:23:01(master)isaac@isaacbox:8006-asn3$ |
```

With sudo a UI will render



Step 2

Once the UI is running pressing the function keys will allow you to change the defaults. Press F1 when you are done to start the daemon.

Expected Result

```
-----8006-asn3: Isaac & John; Splurple-----  
F1 - Exit  
F2 - Start  
F3 - Set Attempts  
F4 - Set Timelimit  
Shell is available  
Enter Attempt Limit:  
3  
Enter Timelimit:  
40000
```

Step 3

Upon starting it ssh into the machine running the program three times unsuccessfully to trigger a ban

Step 4

Wait for the timeout as will be indicated by the *unbanning IP* message and ssh in with the correct information.

Expected Result

```
-----8006-asn3: Isaac & John; Splurple-----
F1 - Exit
F2 - Start
F3 - Set Attempts
F4 - Set Timelimit

Shell is available
Enter Attempt Limit:
3
Enter Timelimit:
5
Starting...
Banning 192.168.0.15
Unbanning 192.168.0.15
```

Test Daemon mode

Purpose

Run the program as an uninteractive daemon.

Step 1

Run program with 'sudo ./bin/8005-asn3 -d' to start daemonized

Expected Result

The daemon will launch and you will be returned to the terminal

```
16:55:57(master)isaac@isaacbox:8006-asn3$ sudo ./bin/8006-asn3 -d
[sudo] password for isaac:
16:59:33(master)isaac@isaacbox:8006-asn3$ |
```

While this process shows no output the banning and unbanning process works the same as with the UI based mode.