

Demonstrate using the command line to install a new program from source code. Demonstrate the new program operation.



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SourceForge.net > Find Software > Iperf

Iperf by [jdugan](#), [mitchkutzko](#)

Summary Files Support Develop

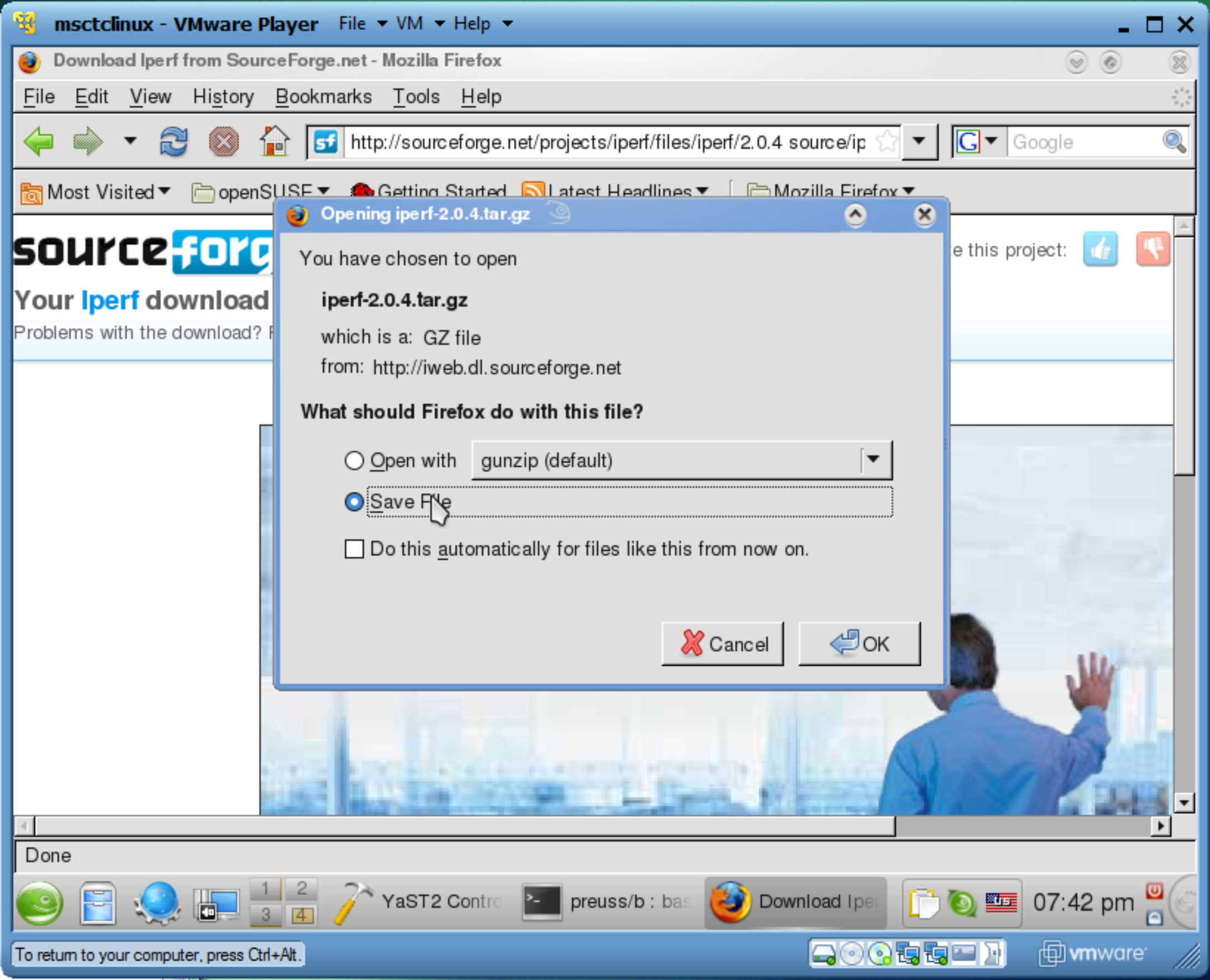
Iperf was developed by NLANR/DAST as a modern alternative for measuring maximum bandwidth performance. Iperf allows the tuning of various parameters and UDP channel bandwidth, delay jitter, datagram loss.

Download Now! **iperf-2.0.4.tar.gz (248.5 KB)** OR [View all files](#)

<http://iperf.sourceforge.net>

TAGS

We have glibc and make installed on our machine. We will now download Iperf.



SourceForge
Your Iperf download
Problems with the download?

Opening iperf-2.0.4.tar.gz

You have chosen to open
iperf-2.0.4.tar.gz
which is a: GZ file
from: http://iweb.dl.sourceforge.net

What should Firefox do with this file?

Open with

Save File

Do this automatically for files like this from now on.

Cancel OK

Desktop Folder



Firefox



iperf-2.0.4.tar.gz



My Computer



Office



Online Help



openSUSE

We forgot to change Firefox. The file is on our desktop, not an easy place to deal with the file.

Desktop Folder



Firefox



iperf-2.0.4.tar.gz



My Computer



Office



Online Help



openSUSE

We will open My Computer. This could also be done in another file manager.



My Computer - Konqueror

File Edit View Go Bookmarks Tools Settings Window Help

sysinfo/

SUSE

My Computer

Folders, Harddisks, Removable Devices, System Information and more...

Common Folders

- My Documents
- My Home Folder**
- Root Folder
- Network Folders

We will open My Home Folder.

Network Status

Device	Space	Available
...	2 GB	...
...	3 GB	4.9 GB

preuss - Konqueror

File Edit View Go Bookmarks Tools Settings Window Help

» /home/preuss

SUSE

- bin
- cptr2224
- Desktop
- Documents
- public_html
- temp
- information.txt

We will open the bin folder/directory.

Desktop Folder



bin - Konqueror

File Edit View Go Bookmarks Tools Settings Window Help

⏪ ⏩ ⏴ ⏵ ↻ ⌂ >> /home/preuss/bin

SUSE

We slide the window so we could see the bin window and iperf-2.0.4.tar.gz file

Desktop Folder



Firefox



openSUSE



We dragged the file over to the bin windows. We are telling the system to move the file to the bin window.

bin - Konqueror

File Edit View Go Bookmarks Tools Settings Window Help

Navigation icons: back, forward, home, refresh, stop

Address bar: /home/preuss/bin

Location: SUSE

- Move Here Shift
- Copy Here Ctrl
- Link Here Ctrl+Shift
- Cancel

Desktop Folder



Firefox



My Computer

bin - Konqueror

File Edit View Go Bookmarks Tools Settings Window Help

← → ↑ ↻ × >> /home/preuss/bin

SUSE

TGZ

iperf-2.0.4.tar.gz

The file is now in ~/bin folder.

preuss/b : bash

File Edit View Scrollback Bookmarks Settings Help

preuss@msctclinux:~/bin>

We open the command prompt and go to the bin folder.

preuss/b : bash

preuss/b : bash

File Edit View Scrollback Bookmarks Settings Help

preuss@msctclinux:~/bin> ls

iperf-2.0.4.tar.gz

preuss@msctclinux:~/bin> tar xzvf iperf-2.0.4.tar.gz

This tar command will unzip and untar the files.

preuss/b : bash

preuss/b : bash

File Edit View Scrollback Bookmarks Settings Help

```

iperf-2.0.4/src/Listener.cpp
iperf-2.0.4/src/Locale.c
iperf-2.0.4/src/main.cpp
iperf-2.0.4/src/Makefile.am
iperf-2.0.4/src/Makefile.in
iperf-2.0.4/src/PerfSocket.cpp
iperf-2.0.4/src/ReportCSV.c
iperf-2.0.4/src/ReportDefault.c
iperf-2.0.4/src/Reporter.c
iperf-2.0.4/src/Server.cpp
iperf-2.0.4/src/service.c
iperf-2.0.4/src/Settings.cpp
iperf-2.0.4/src/SocketAddr.c
iperf-2.0.4/src/sockets.c
iperf-2.0.4/src/stdio.c
iperf-2.0.4/src/tcp_window_size.c
preuss@msctclinux:~/bin> ls
iperf-2.0.4 iperf-2.0.4.tar.gz
preuss@msctclinux:~/bin>

```

The files were put in the folder iperf-2.0.4.

preuss/b : bash

preuss/b : bash

File Edit View Scrollback Bookmarks Settings Help

```

iperf-2.0.4/src/Listener.cpp
iperf-2.0.4/src/Locale.c
iperf-2.0.4/src/main.cpp
iperf-2.0.4/src/Makefile.am
iperf-2.0.4/src/Makefile.in
iperf-2.0.4/src/PerfSocket.cpp
iperf-2.0.4/src/ReportCSV.c
iperf-2.0.4/src/ReportDefault.c
iperf-2.0.4/src/Reporter.c
iperf-2.0.4/src/Server.cpp
iperf-2.0.4/src/service.c
iperf-2.0.4/src/Settings.cpp
iperf-2.0.4/src/SocketAddr.c
iperf-2.0.4/src/sockets.c
iperf-2.0.4/src/stdio.c
iperf-2.0.4/src/tcp_window_size.c
preuss@msctclinux:~/bin> ls
iperf-2.0.4 iperf-2.0.4.tar.gz
preuss@msctclinux:~/bin> cd iperf-2.0.4/

```

We need to change directory/folder to iperf-2.0.4/

preuss/b : bash

preuss/b : bash

File Edit View Scrollback Bookmarks Settings Help

```

iperf-2.0.4/src/ReportCSV.c
iperf-2.0.4/src/ReportDefault.c
iperf-2.0.4/src/Reporter.c
iperf-2.0.4/src/Server.cpp
iperf-2.0.4/src/service.c
iperf-2.0.4/src/Settings.cpp
iperf-2.0.4/src/SocketAddr.c
iperf-2.0.4/src/sockets.c
iperf-2.0.4/src/stdio.c
iperf-2.0.4/src/tcp_window_size.c

```

This is a listing of the files after unzip and untar.

```

preuss@msctclinux:~/bin> ls
iperf-2.0.4  iperf-2.0.4.tar.gz
preuss@msctclinux:~/bin> cd iperf-2.0.4/
preuss@msctclinux:~/bin/iperf-2.0.4> ls

```

```

aclocal.m4  config.guess  configure.ac  include  Makefile.am  README
AUTHORS    config.h.in   COPYING      INSTALL   Makefile.in  src
ChangeLog  config.sub   depcomp     install-sh  man
compat     configure    doc          m4         missing

```

preuss/b : bash

iperf-2.0.4 : bash

File Edit View Scrollback Bookmarks Settings Help

```

iperf-2.0.4/src/ReportCSV.c
iperf-2.0.4/src/ReportDefault.c
iperf-2.0.4/src/Reporter.c
iperf-2.0.4/src/Server.cpp
iperf-2.0.4/src/service.c
iperf-2.0.4/src/Settings.cpp
iperf-2.0.4/src/SocketAddr.c
iperf-2.0.4/src/sockets.c
iperf-2.0.4/src/stdio.c
iperf-2.0.4/src/tcp_window_size.c

```

The first command is ./configure. This will check the environment for compile. It will tell you if you are missing programs or libraries that are needed.

```

preuss@msctclinux:~/bin> ls
iperf-2.0.4  iperf-2.0.4.tar.gz
preuss@msctclinux:~/bin> cd iperf-2.0.4/
preuss@msctclinux:~/bin/iperf-2.0.4> ls
aclocal.m4  config.guess  configure.ac  include      Makefile.am  README
AUTHORS    config.h.in   COPYING      INSTALL      Makefile.in  src
ChangeLog  config.sub    depcomp      install-sh   man
compat     configure     doc          m4           missing
preuss@msctclinux:~/bin/iperf-2.0.4> ./configure

```

iperf-2.0.4 : bash

iperf-2.0.4 : configure

File Edit View Scrollback Bookmarks Settings Help

```

checking whether AF_INET6 is declared... yes
checking for IPv6 headers and structures... yes
checking for struct ipv6_mreq... yes
checking whether IPV6_ADD_MEMBERSHIP is declared... yes
checking whether IPV6_MULTICAST_HOPS is declared... yes
checking for IPv6 multicast support... yes
checking whether make is GNU make... yes
configure: creating ./config.status
config.status: creating Makefile
config.status: creating compat/Makefile
config.status: creating doc/Makefile
config.status: creating include/Makefile
config.status: creating src/Makefile
config.status: creating man/Makefile
config.status: creating config.h
config.status: executing depfiles commands
config.status: executing include/iperf-int.h commands
config.status: creating include/iperf-int.h : _IPERF_INCLUDE_IPERF_INT_H
preuss@msctclinux:~/bin/iperf-2.0.4> █

```

This is success for running configure for iperf. We may continue.

...rf-2.0.4 : configure

iperf-2.0.4 : configure

File Edit View Scrollback Bookmarks Settings Help

```

config.status: creating compat/Makefile
config.status: creating doc/Makefile
config.status: creating include/Makefile
config.status: creating src/Makefile
config.status: creating man/Makefile
config.status: creating config.h
config.status: executing depfiles commands
config.status: executing include/iperf-int.h commands
config.status: creating include/iperf-int.h : _IPERF_INCLUDE_IPERF_INT_H
preuss@msctclinux:~/bin/iperf-2.0.4> make

```

We now run the make command.

```

make
make[1]: Entering directory '/home/preuss/bin/iperf-2.0.4'
Making all in compat
make[2]: Entering directory '/home/preuss/bin/iperf-2.0.4/compat'
if gcc -I.. -I../include -I../include -Wall -O2 -M
T Thread.Tpo" -c -o Thread.o Thread.c; \
ad.Tpo" ".deps/Thread.Po"; else rm -f ".deps/Th
read.

```

...rf-2.0.4 : configure

iperf-2.0.4 : make

File Edit View Scrollback Bookmarks Settings Help

```

if gcc -DHAVE_CONFIG_H -I. -I. -I.. -I../include -I../include -Wall -O2 -M
T tcp_window_size.o -MD -MP -MF ".deps/tcp_window_size.Tpo" -c -o tcp_window_
size.o tcp_window_size.c; \
    then mv -f ".deps/tcp_window_size.Tpo" ".deps/tcp_window_size.Po"; el
se rm -f ".deps/tcp_window_size.Tpo"; exit 1; fi
g++ -Wall -O2 -o iperf -O2 -pthread -DHAVE_CONFIG_H Client.o Extractor.o
Launch.o List.o Listener.o Locale.o PerfSocket.o Report.o ReportDefault.o
Reporter.o Server.o Settings.o SocketAddr.o gnu_getopt.o main.o service.o sockets.o stdio.o tcp_window_size.o
make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
Making all in man
make[2]: Entering directory `/home/preuss/bin/iperf-2.0.4'
make[2]: Nothing to be done for `all'.
make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
make[2]: Entering directory `/home/preuss/bin/iperf-2.0.4'
make[2]: Nothing to be done for `all-am'.
make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
make[1]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
preuss@msctclinux:~/bin/iperf-2.0.4>

```

This is the end of successfully running make on iperf.

iperf-2.0.4 : make

iperf-2.0.4 : make

File Edit View Scrollback Bookmarks Settings Help

```

make[2]: Nothing to be done for `install-exec-am'.
make[2]: Nothing to be done for `install-data-am'.
make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4/include'
make[1]: Leaving directory `/home/preuss/bin/iperf-2.0.4/include'
Making install in src
make[1]: Entering directory `/home/preuss/bin/iperf-2.0.4/src'
make[2]: Entering directory `/home/preuss/bin/iperf-2.0.4/src'
test -z "/usr/local/bin" || mkdir -p -- "/usr/local/bin"
  /usr/bin/install -c 'iperf' '/usr/local/bin/iperf'
/usr/bin/install: cannot create regular file `/usr/local/bin/iperf'
Permission denied
make[2]: *** [install-binPROGRAMS] Error 1
make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4/src'
make[1]: *** [install-am] Error 2
make[1]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
make: *** [install-recursive] Error 1
preuss@msctclinux:~/bin/iperf-2.0.4> su
Password:
msctclinux:/home/preuss/bin/iperf-2.0.4 #

```

Usually we need to be root to run the last command.

iperf-2.0.4 : make

iperf-2.0.4 : make

File Edit View Scrollback Bookmarks Settings Help

```

make[2]: Nothing to be done for `install-exec-am'.
make[2]: Nothing to be done for `install-data-am'.
make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4/include'
make[1]: Leaving directory `/home/preuss/bin/iperf-2.0.4/include'
Making install in src
make[1]: Entering directory `/home/preuss/bin/iperf-2.0.4/src'
make[2]: Entering directory `/home/preuss/bin/iperf-2.0.4/src'
test -z "/usr/local/bin" || mkdir -p -- "/usr/local/bin"
  /usr/bin/install -c 'iperf' '/usr/local/bin/iperf'
/usr/bin/install: cannot create regular file '/usr/local/bin/iperf': permission
denied
make[2]: *** [install-binPROGRAMS] Error 1
make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4/src'
make[1]: *** [install-am] Error 2
make[1]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
make: *** [install-recursive] Error 1
preuss@msctclinux:~/bin/iperf-2.0.4> su
Password:
msctclinux:/home/preuss/bin/iperf-2.0.4 # make install

```

The last command is make install.

iperf-2.0.4 : make

iperf-2.0.4 : make

File Edit View Scrollback Bookmarks Settings Help

```

make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4/src'
make[1]: Leaving directory `/home/preuss/bin/iperf-2.0.4/src'
Making install in man
make[1]: Entering directory `/home/preuss/bin/iperf-2.0.4/man'
make[2]: Entering directory `/home/preuss/bin/iperf-2.0.4/man'
make[2]: Nothing to be done for `install-exec-am'.
test -z "/usr/local/share/man/man1" || mkdir -p -- "/usr/local/share/man/man1"
/usr/bin/install -c -m 644 './iperf.1' '/usr/local/share/man/man1/iperf.1'
/usr/bin/install -c -m 644 './iperf.1' '/usr/local/share/man/man1/iperf.1'
make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4/man'
make[1]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
make[1]: Entering directory `/home/preuss/bin/iperf-2.0.4'
make[2]: Entering directory `/home/preuss/bin/iperf-2.0.4'
make[2]: Nothing to be done for `install-exec-am'.
make[2]: Nothing to be done for `install-data-am'.
make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
make[1]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
msctclinux: /home/preuss/bin/iperf-2.0.4 #

```

This is the result of successfully running make install for iperf.

iperf-2.0.4 : make

iperf-2.0.4 : bash

File Edit View Scrollback Bookmarks Settings Help

```

Making install in man
make[1]: Entering directory `/home/preuss/bin/iperf-2.0.4/man'
make[2]: Entering directory `/home/preuss/bin/iperf-2.0.4/man'
make[2]: Nothing to be done for `install-exec-am'.
test -z "/usr/local/share/man/man1" || mkdir -p -- "/usr/local/share/man/man1"
`
  /usr/bin/install -c -m 644 './iperf.1' /usr/local/share/man/man1/iperf.1
  /usr/bin/install -c -m 644 './iperf.1' /usr/local/share/man/man1/iperf.1
make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4/man'
make[1]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
make[1]: Entering directory `/home/preuss/bin/iperf-2.0.4'
make[2]: Entering directory `/home/preuss/bin/iperf-2.0.4'
make[2]: Nothing to be done for `install-exec-am'.
make[2]: Nothing to be done for `install-data-am'.
make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
make[1]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
msctclinux:/home/preuss/bin/iperf-2.0.4 # exit
exit
preuss@msctclinux:~/bin/iperf-2.0.4>

```

We no longer need to be root.

iperf-2.0.4 : bash

iperf-2.0.4 : bash

File Edit View Scrollback Bookmarks Settings Help

```

"
 /usr/bin/install -c -m 644 './iperf.1' '/usr/local/share/man/man1/iperf.1'
 /usr/bin/install -c -m 644 './iperf.1' '/usr/local/share/man/man1/iperf.1'
make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4/man'
make[1]: Leaving directory `/home/preuss/bin/iperf-2.0.4/man'
make[1]: Entering directory `/home/preuss/bin/iperf-2.0.4'
make[2]: Entering directory `/home/preuss/bin/iperf-2.0.4'
make[2]: Nothing to be done for `install-exec-am'.
make[2]: Nothing to be done for `install-data-am'.
make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
make[1]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
msctclinux:/home/preuss/bin/iperf-2.0.4 # exit
exit

```

According to the directions, this is one way to run iperf. Iperf is running in server mode.

```
preuss@msctclinux:~/bin/iperf-2.0.4> iperf -s
```

```

-----
Server listening on TCP port 5001
TCP window size: 85.3 KByte (default)
-----

```

iperf-2.0.4 : bash

iperf-2.0.4 : iperf

File Edit View Scrollback Bookmarks Settings Help

```

"
 /usr/bin/install -c -m 644 './iperf.1' '/usr/local/share/man/man1/iperf.1'
 /usr/bin/install -c -m 644 './iperf.1' '/usr/local/share/man/man1/iperf.1'
make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4/man'
make[1]: Leaving directory `/home/preuss/bin/iperf-2.0.4/man'
make[1]: Entering directory `/home/preuss/bin/iperf-2.0.4'
make[2]: Entering directory `/home/preuss/bin/iperf-2.0.4'
make[2]: Nothing to be done for `install-exec-am'.
make[2]: Nothing to be done for `install-data-am'.
make[2]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
make[1]: Leaving directory `/home/preuss/bin/iperf-2.0.4'
msctclinux:/home/preuss/bin/iperf-2.0.4 # exit
exit
preuss@msctclinux:~/bin/iperf-2.0.4> iperf -s
-----
Server listening on TCP port 5001
TCP window size: 85.3 KByte (default)
-----
^Cpreuss@msctclinux:~/bin/iperf-2.0.4> █

```

The ctrl-c sequence will end the program.

iperf-2.0.4 : iperf