

README

Directory/Files Details:

File/Folder name	Description
custom_ipc	This directory has source code and supporting files.
Design_Document_CS551_P2_Group8	This document has design details, program flow chart, exception handling.
Test_Case_Document_CS551_P2_Group8	This Document contains Test case details and their output.
Vm file link	Download vm file and import into VMware virtual machine from the below link

MINIMUM OS & COMPILER REQUIREMENTS:

Minix Version: Minix 3.2.1.

Compiler: Clang

SETTING UP MINIX FOR IPC

➤ Boot Image

1. Copy the files in Minix 3.2.1 boot image to /boot/minix/3.2.1r17 folder in your minix machine.

➤ Manually copy all the files and build as follows

1. Start Minix and copy the contents of our source code to /root/custom_ipc directory.
2. Change directory to /root/custom_ipc/

```
cd /root/custom_ipc/ cd /root/custom_ipc/
```

3. Copy below files to respective directories

callnr.h --> /usr/src/include/minix/

```
cp callnr.h /usr/src/include/minix/
```

table.c,proto.h,misc.c,main.c,topic.h,topic.c --> /usr/src/servers/pm/

```
cp table.c /usr/src/servers/pm/  
cp proto.h /usr/src/servers/pm/  
cp misc.c /usr/src/servers/pm/  
cp main.c /usr/src/servers/pm/  
cp topic.c /usr/src/servers/pm/  
cp topic.h /usr/src/servers/pm/
```

4. Navigate to /usr/src/servers/pm/ and open Makefile.
Insert "topic.c" at the end for SRCS.

5. Compile the changed system files

```
cd /usr/src/servers/pm/  
make
```

6. Now copy user program header file to /usr/include/
cd /root/custom_ipc/
cp user_ipc.h /usr/include/

7. Compile all system files by navigating to /usr/src/releasetools and reboot to see the changes in effect

```
cd /usr/src/releasetools  
  
make install  
reboot
```

8. After reboot, copy the user program to the root and compile it.

```
cd /root/custom_ipc/  
cp user_ipc.c /root  
cd /root  
  
cc user_ipc.c -o myipc
```

9. Execute the user program output file to test the program

```
./myipc
```

10. After executing user should be seeing the below screen

```
##### Menu #####  
  
1. Create topic.  
2. Become a publisher for a topic.  
3. Become a subscriber for a topic.  
4. Publish a message to a topic.  
5. Retrieve a message from a topic.  
6. Topic lookup.  
7. Exit  
  
Make a choice:
```