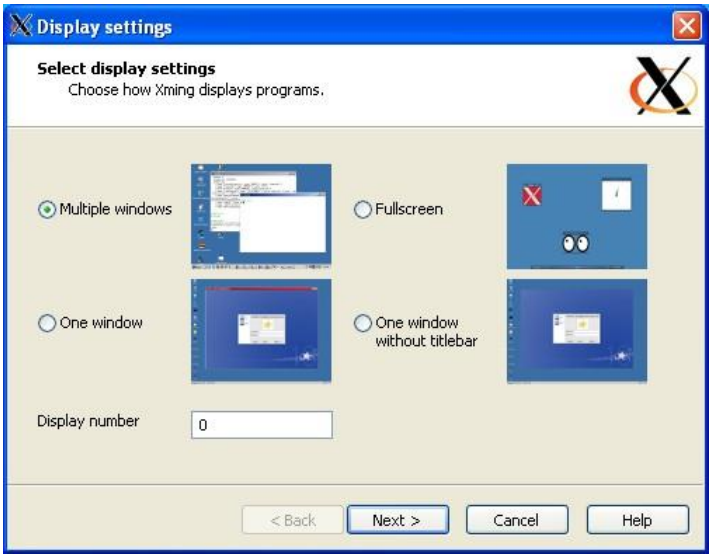
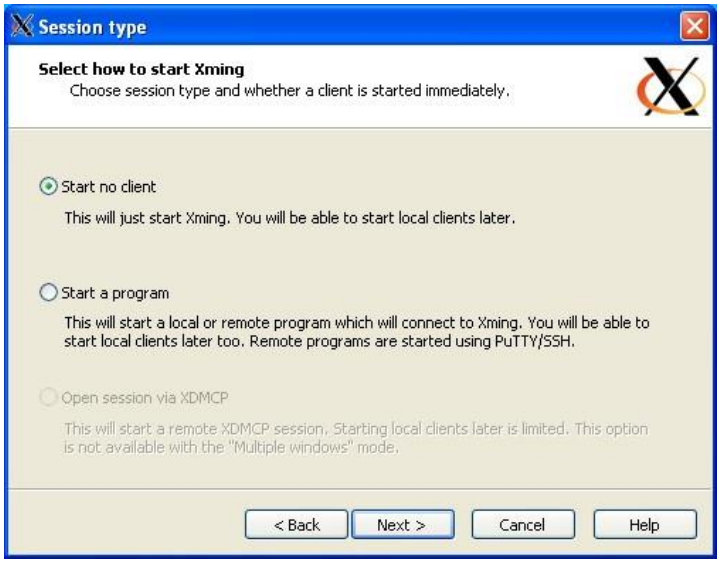
Set up a remote display via SSH

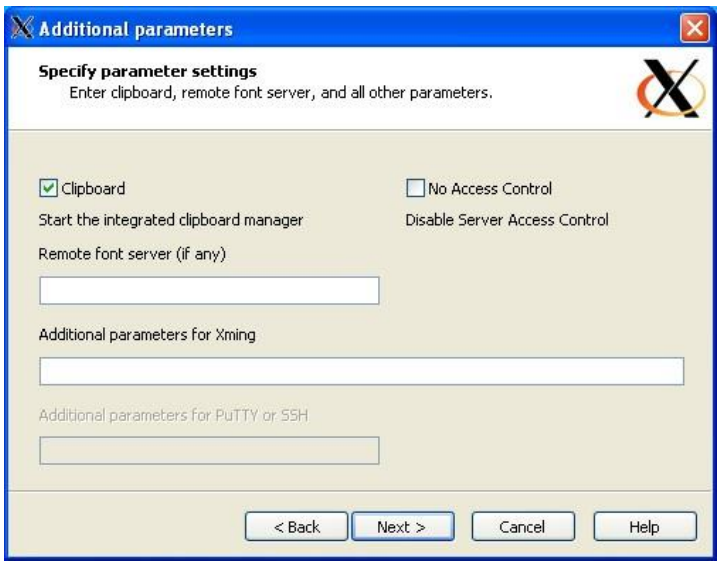
If you use a PC running Windows to connect to MTU server (colossus.it.mtu.edu), the PC interacts with the server through the X-windows system, forwarding the display from the server to the PC.

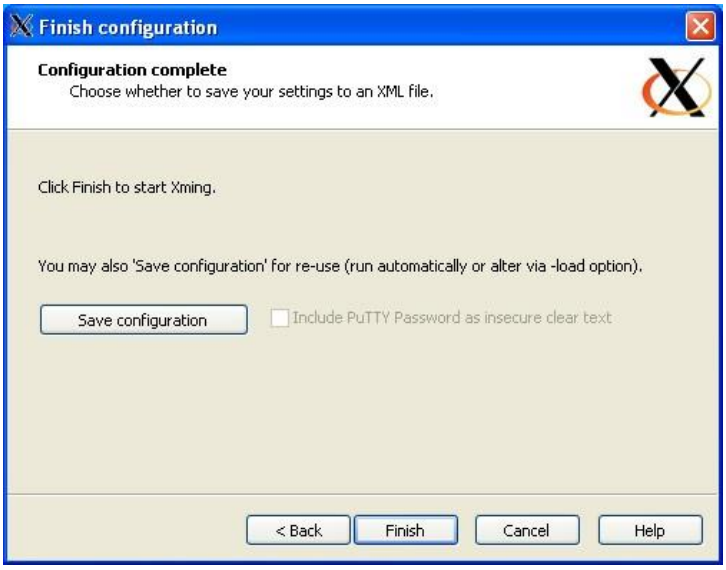
1. You need to download and install two clients:
   a) PuTTY : https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html
   b) Xming: https://sourceforge.net/projects/xming/

2. Run 'XLaunch' and configure Xming as follows:

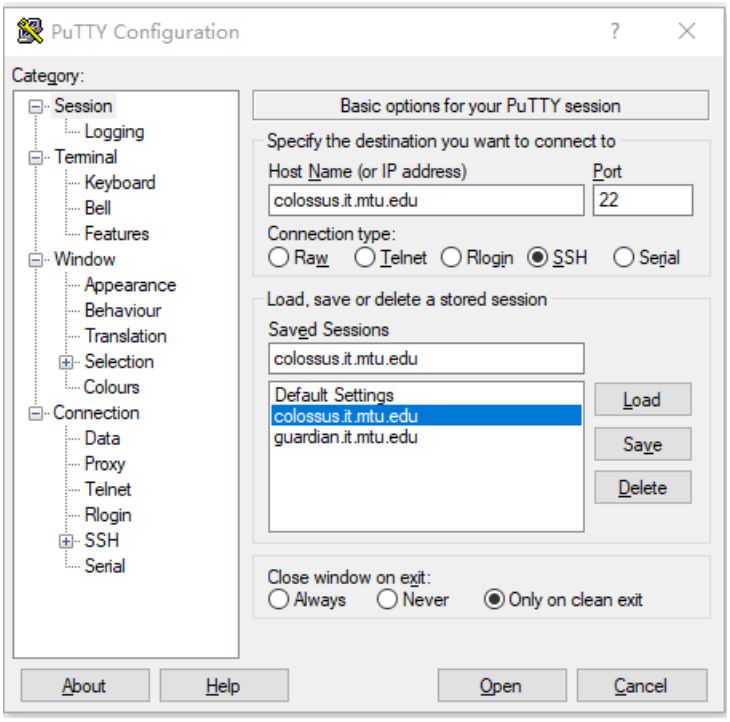


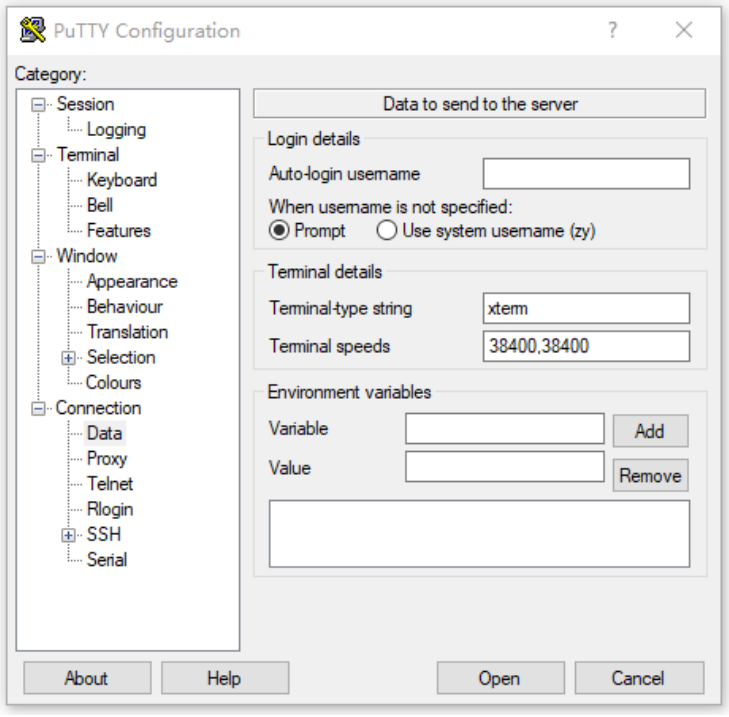


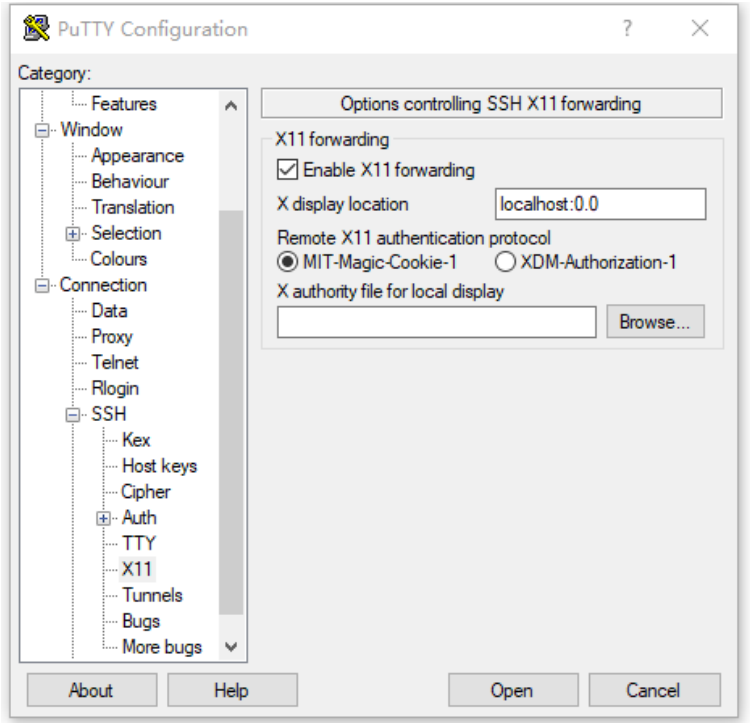




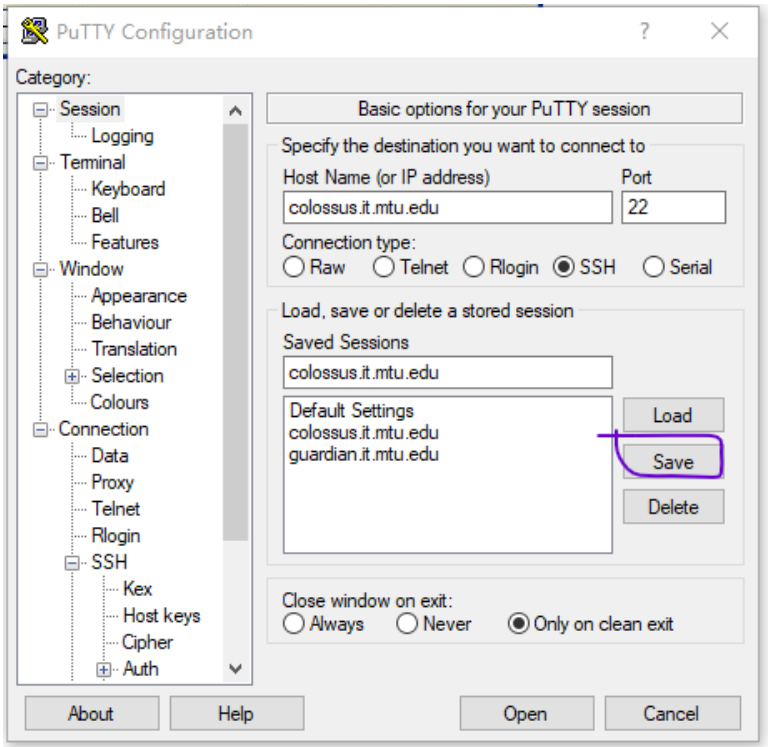
3. Configure PuTTY as follows:


PuTTY Configuration
Category:
Session
Logging
Terminal
Keyboard
Bell
Features
Window
Appearance
Behaviour
Translation
Selection
Colours
Connection
Data
Proxy
Telnet
Rlogin
SSH
Serial
Basic options for your PuTTY session
Specify the destination you want to connect to
Host Name (or IP address)
Port
colossus.it.mtu.edu
22
Connection type:
Raw
Telnet
Rlogin
SSH
Serial
Load, save or delete a stored session
Saved Sessions
colossus.it.mtu.edu
Default Settings
colossus.it.mtu.edu
guardian.it.mtu.edu
Load
Save
Delete
Close window on exit:
Always
Never
Only on clean exit
About
Help
Open
Cancel


PuTTY Configuration
Category:
Session
Logging
Terminal
Keyboard
Bell
Features
Window
Appearance
Behaviour
Translation
Selection
Colours
Connection
Data
Proxy
Telnet
Rlogin
SSH
Serial
Data to send to the server
Login details
Auto-login username
When username is not specified:
Prompt
Use system username (zy)
Terminal details
Terminal-type string
xterm
Terminal speeds
38400,38400
Environment variables
Variable
Value
Add
Remove
About
Help
Open
Cancel

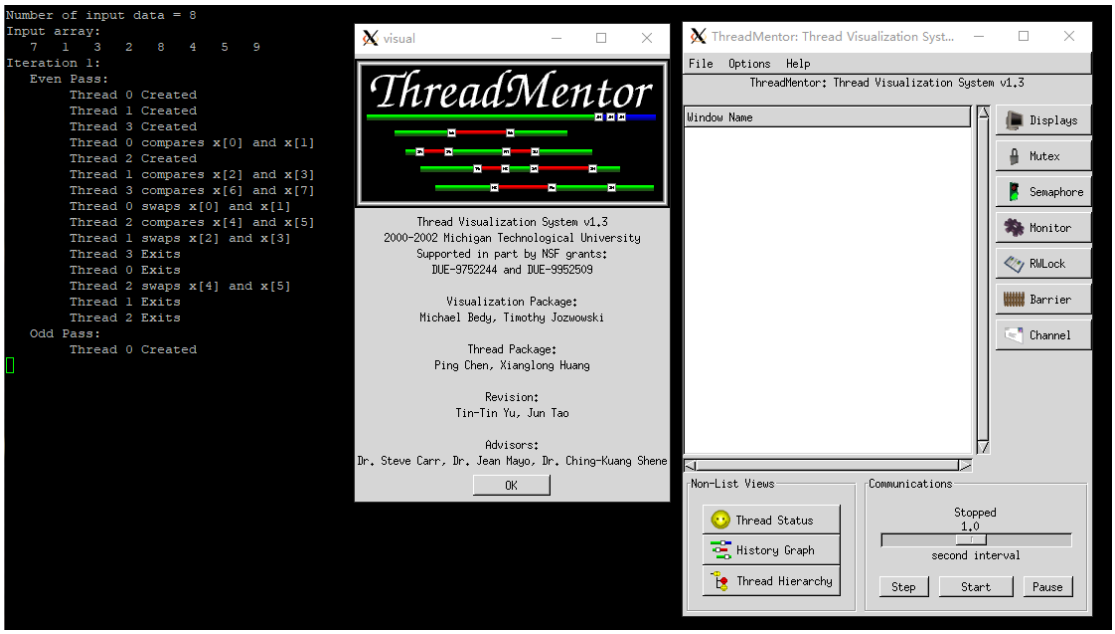


Save the configuration



4. Click Open to open the terminal window, use your own Michigan Tech account name and password to login

5. Compile your program with ThreadMentor Visualization library.
   Here is a Makefile example.

```
CC   = c++
FLAGS    =
CFLAGS   = -g -O2
DFLAGS   = -DPACKAGE=\"threadsystem\" -DVERSION=\"1.0\" -DPTHREAD=1 -DUNIX_MSG_Q=1 -DSTDC_HEADERS=1
IFLAGS   = -I/local/eit-linux/apps/ThreadMentor/include
TMLIB    = /local/eit-linux/apps/ThreadMentor/Visual/libthreadclass.a
TMLIB_NV     = /local/eit-linux/apps/ThreadMentor/NoVisual/libthreadclass.a

OBJ_FILE = thread.o thread-main.o
EXE_FILE = prog3

${EXE_FILE}: ${OBJ_FILE}
    ${CC} ${FLAGS}  -o ${EXE_FILE}  ${OBJ_FILE} ${TMLIB} -lpthread

thread.o: thread.cpp
    ${CC} ${DFLAGS} ${IFLAGS} ${CFLAGS} -c thread.cpp

thread-main.o: thread-main.cpp
    ${CC} ${DFLAGS} ${IFLAGS} ${CFLAGS} -c thread-main.cpp

noVisual: ${OBJ_FILE}
    ${CC} ${FLAGS}  -o ${EXE_FILE}  ${OBJ_FILE} ${TMLIB_NV} -lpthread

clean:
    rm -f ${OBJ_FILE} ${EXE_FILE}
```

6. Run your program, ThreadMentor Visualization windows will display