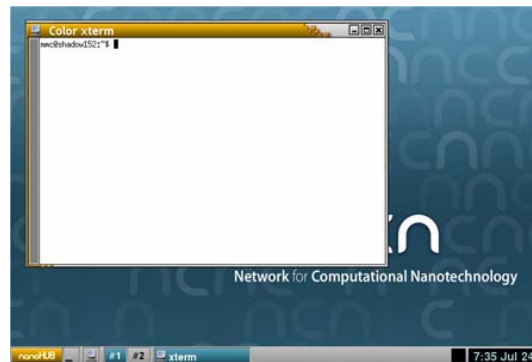
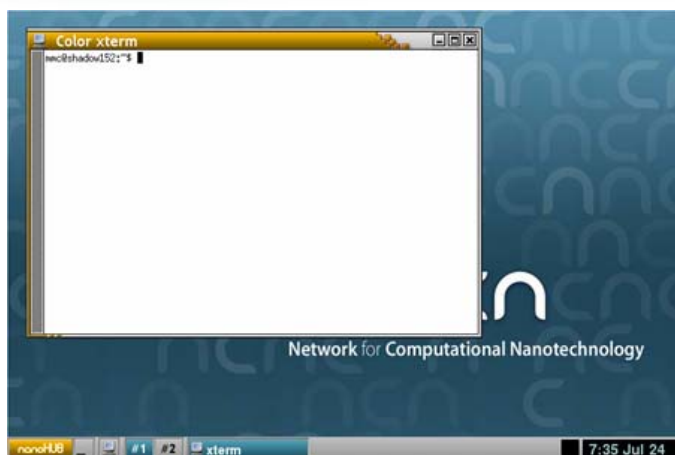


# Using workspaces on nanoHUB.org

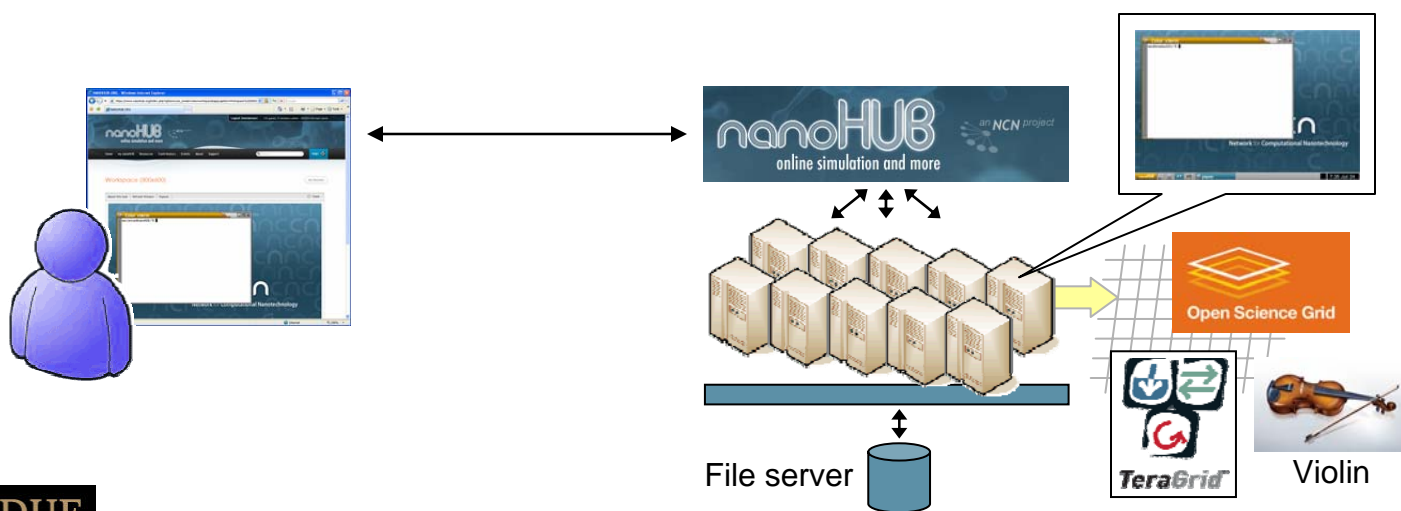


Michael McLennan  
Software Architect  
Network for Computational Nanotechnology

# What is a workspace?



- Full-featured Linux desktop
- For tool developers
- For researchers
- Accessible from any web browser
- Still running after you close your browser
- Access to Grid resources
- File storage provided by nanoHUB



# Requesting workspace access

- Given automatically to tool developers

The image displays two overlapping browser windows from Windows Internet Explorer. The left window shows the nanoHUB 'Contribute' page. A red circle highlights the 'Start a contribution' button. The right window shows the 'Simulation Tool' registration form. The form includes the following fields and options:

- Tool Name:** Input field with 'shortname' entered. Subtext: 'Short name, used for the directory containing this tool. Example: qdot'
- Title:** Input field with 'Full Tool Name' entered. Subtext: 'Full name for this tool. Example: Quantum Dot Lab'
- Version:** Input field with 'X.X' entered. Subtext: 'Optional version number for this release of the tool. Example: 1.0 or 2.1.5b'
- At-a-glance Description:** Input field with 'Tool Description' entered. Subtext: 'A one-line description of your tool. Example: Simulate 3-D confined states in simple quantum dot geometries.'
- Tool Access:** Dropdown menu showing '- Select access level -'
- Source Code Access:** Dropdown menu showing '- Select access level -'
- Development team:** Input field with 'mmclennan' entered. Subtext: 'nanoHUB logins for people allowed to modify your code. Example: mylogin, fred, barney, wilma'

A 'Register Tool' button is located at the bottom of the form. To the right of the form, there is a section titled 'How do I contribute a simulation tool?' with sub-headers 'We've tried to make the tool contribution process easy...' and 'What tool name should I choose?'

# Requesting workspace access

- Given to others on a case-by-case basis



*Give us a good reason:*

- How are you affiliated with NCN?
- What are you doing?

**Trouble Report**

For immediate assistance browse through our support center. You can find answers to many questions in just a few minutes.

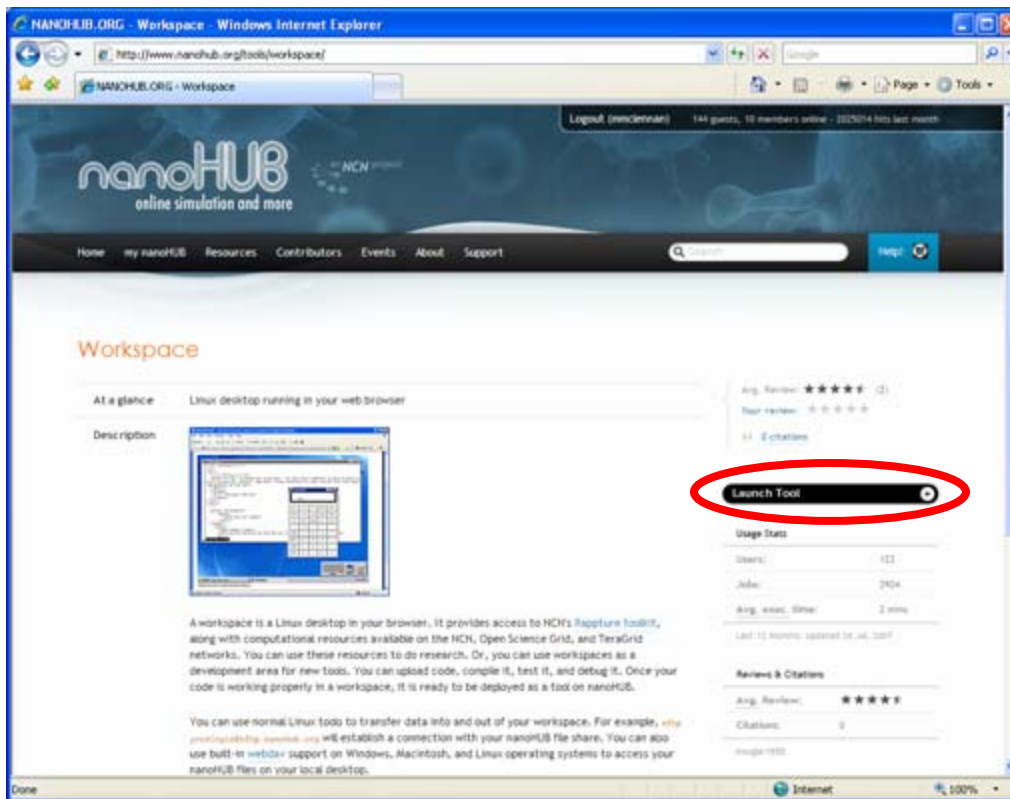
If still experiencing problems, send us a report.

nanoHUB login: OPTIONAL	Problem: REQUIRED
<input type="text" value="mmclennan"/>	<input type="text" value="I'm an NCN researcher working with Prof. Datta. I need workspace access to launch simulations of a NEGF code."/>
Name: REQUIRED	
<input type="text" value="Michael McLennan"/>	
E-mail: REQUIRED	
<input type="text" value="mmclennan@purdue.edu"/>	

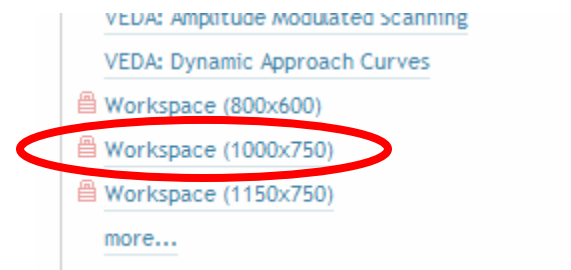
MEMS/Nanofabrication Tools for MEMS and Nanofabrication Collaborate Work with your colleagues Nanoelectronics Curriculum on Nanoelectronics Give us Feedback Success story! Suggestions!  
Nano-bio Tools for nano-bio Web Meetings Right in your browser Learning Modules Self-paced web instruction Take a Poll Compared to other web sites!

# Launching workspaces

<http://www.nanohub.org/tools/workspace>



“my tools” list on  
“my nanoHUB” page



# Accessing running workspaces

Close the browser

Still running, and listed under "my sessions"

# Closing workspaces

Workspace (800x600)

Color xterm

My nanoHUB

Welcome, Michael McLennan (mclennan)

My Sessions

Workspace (800x600)

My Tools

- ADEPT
- Bandstructure Lab
- BinkOCA
- BuPNET
- BLGT
- CENEGS
- CCTS
- Chemical reactions
- Chess
- CHTbands 2.0
- CHT Bundle
- CHTSM

My Settings

You have no upcoming meetings.

view expired meetings ++

reserve a room ++

Resources

- Learning
- Teaching
- Nanotechnology 101
- Nanotechnology 501
- Nanoscipedia
- Collaboration
- Online Seminars
- Annotations
- Workshops
- Publications

Personalize Change Password My Account

Compared to other web sites I visit, the nanoHUB response time is...

- much faster
- somewhat faster
- about the same
- somewhat slower
- much slower

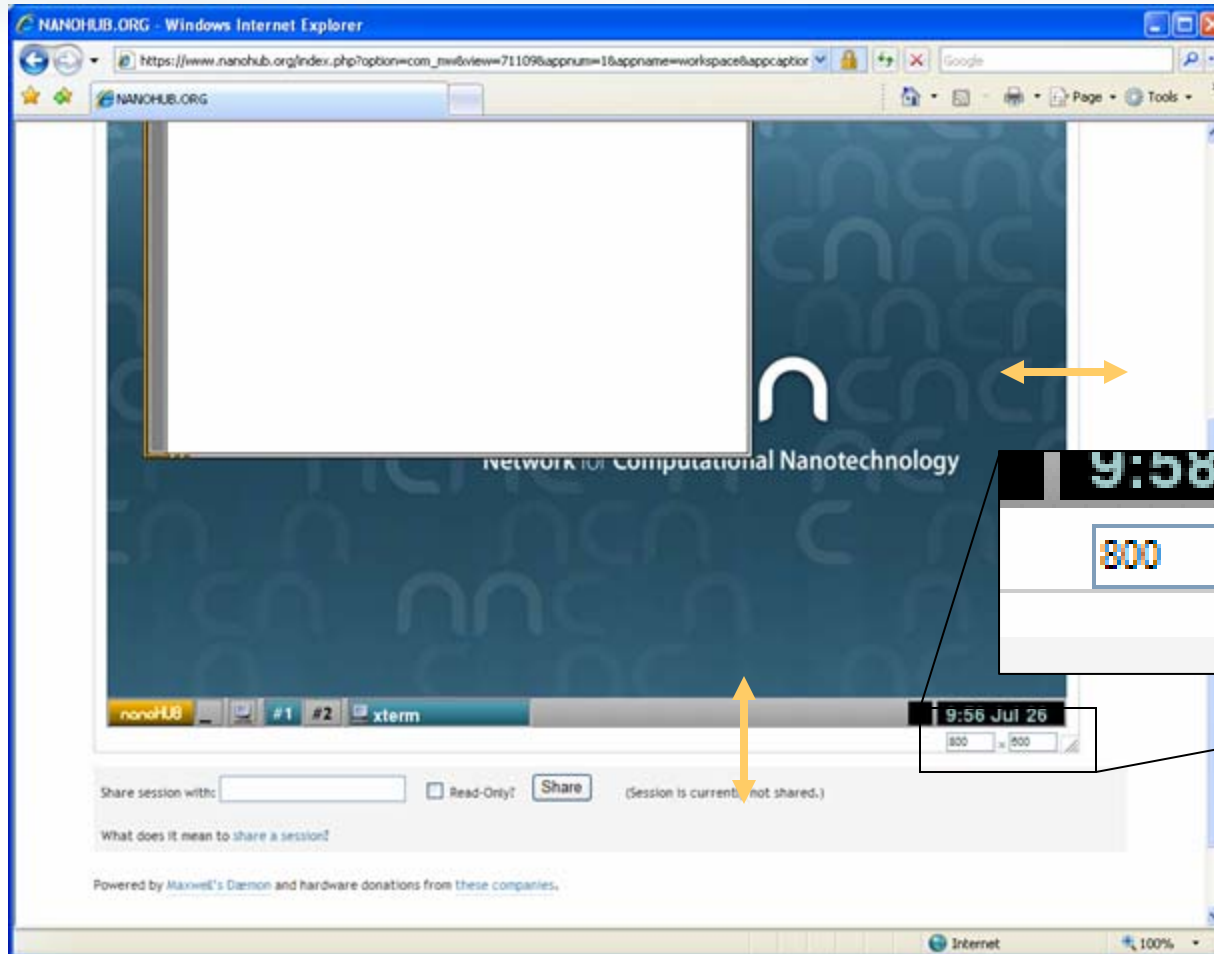
Vote! Results...

Focus Areas

- Nanoelectronics
- Material Science

Closes the session

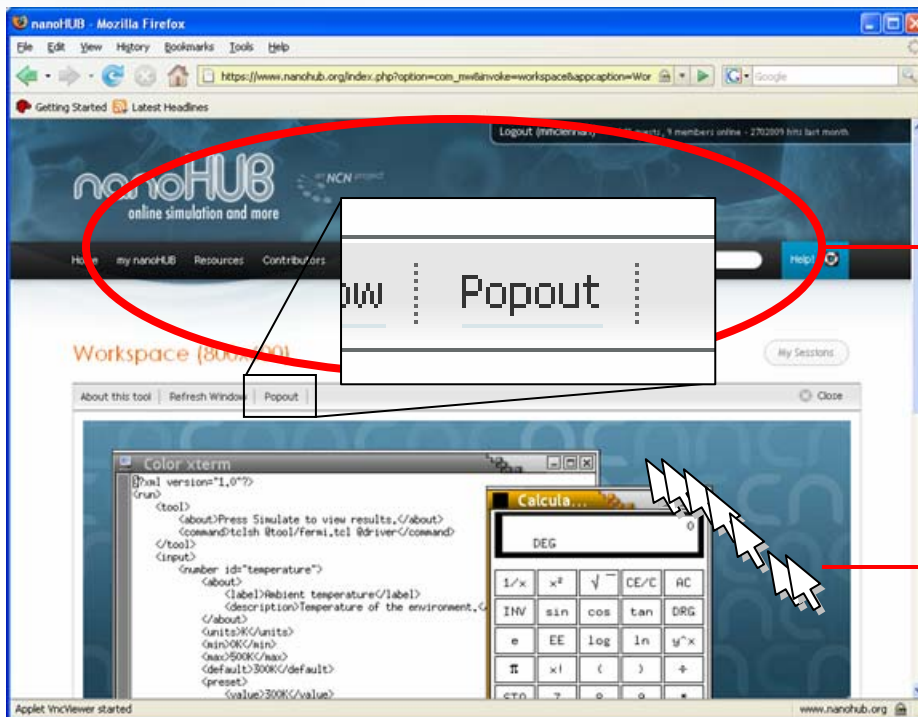
# Resize the screen



Click and drag

Type in a new size  
Press Tab

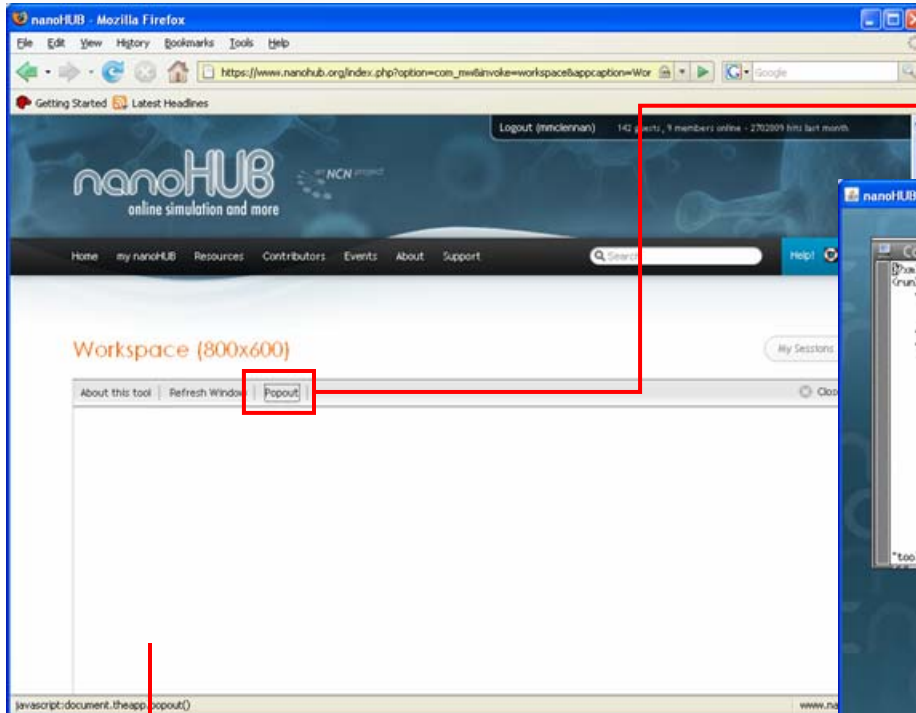
# Pop out as a separate window



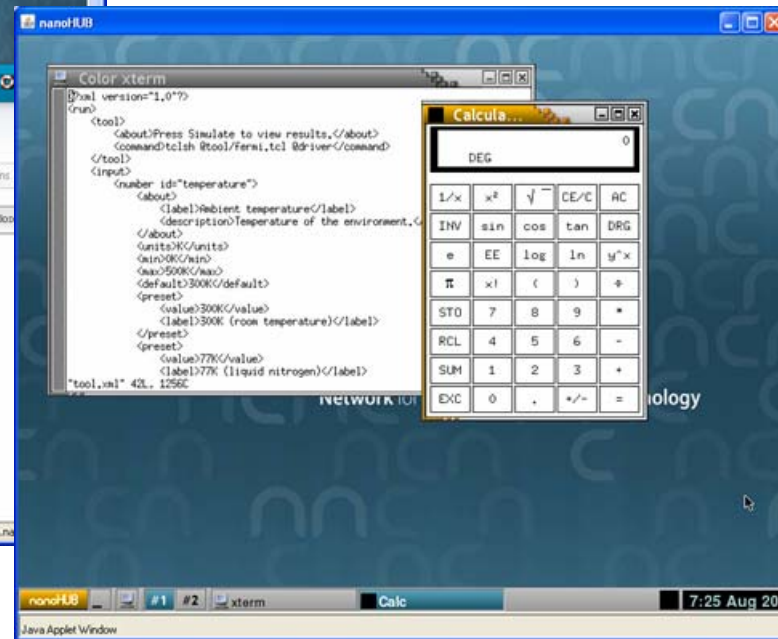
Get rid of this header and see more of the workspace

Solve problem of mouse trails e.g., MacOSX/Firefox

# Pop out as a separate window

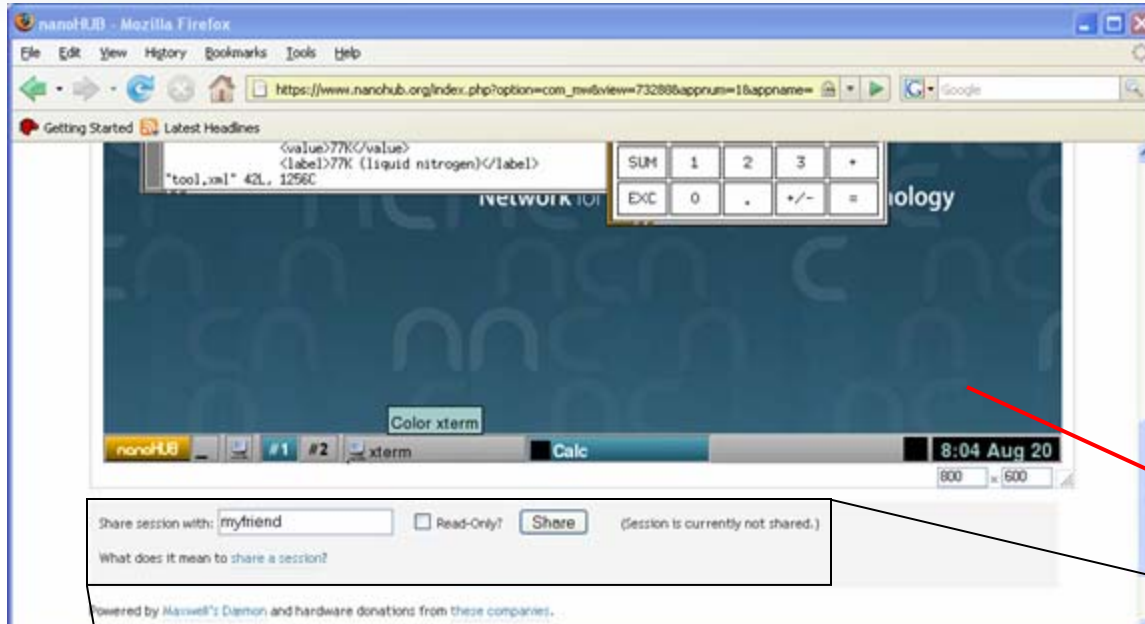


Click Popout again to pop back in



This area goes blank.  
Closing this window also closes the popup.

# Share your screen



**My Sessions**

Workspace (800x600)  
owner: mmclennan



myfriend

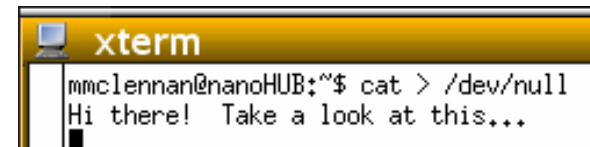
See same  
screen at  
same time

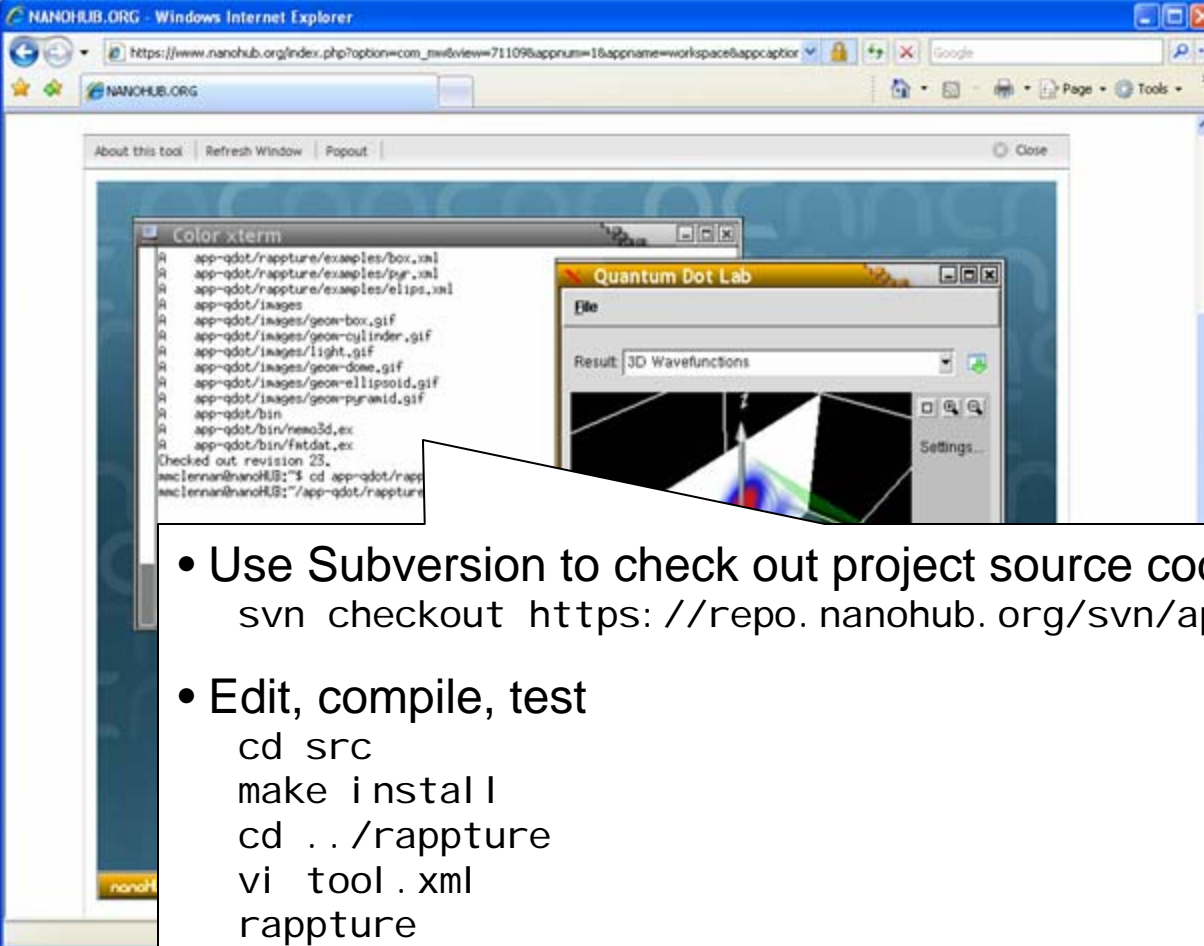
Share session with:   Read-Only?  (Session is currently not shared.)

What does it mean to share a session?

Enter the login  
for your friend

Check this if you don't  
want to share control





The screenshot shows a Windows Internet Explorer browser window displaying the nanoHUB website. A terminal window titled 'Color xterm' is open, showing a list of files and directories for the 'app-qdot' project. A 'Quantum Dot Lab' window is also visible, displaying a 3D visualization of wavefunctions.

```
app-qdot/rappture/examples/box.xml
app-qdot/rappture/examples/pyr.xml
app-qdot/rappture/examples/ellips.xml
app-qdot/images
app-qdot/images/geom-box.gif
app-qdot/images/geom-cylinder.gif
app-qdot/images/light.gif
app-qdot/images/geom-dome.gif
app-qdot/images/geom-ellipsoid.gif
app-qdot/images/geom-pyramid.gif
app-qdot/bin
app-qdot/bin/new3d.exe
app-qdot/bin/fatdat.exe
Checked out revision 23.
ncn@ncn:nanoHUB:~$ cd app-qdot/rap
ncn@ncn:nanoHUB:~/app-qdot/rap
```

See instructions:

- in your project area  
at [wiki/GettingStarted](#)
- [Subversion tutorial](#)
- [Rappture tutorial](#)

- Use Subversion to check out project source code  
svn checkout <https://repo.nanohub.org/svn/app-qdot/trunk> app-qdot
- Edit, compile, test  
cd src  
make install  
cd ../rappture  
vi tool.xml  
rappture

# Downloading Files

The screenshot shows the NanoHub website interface in a Windows Internet Explorer browser. The main content area displays a 'Color xterm' window with a terminal output showing directory listings. Below the terminal, there are two 'Save As...' buttons. The background shows several overlapping browser windows, each displaying a different file download page with XML code. The XML code includes elements like `<label>Cylinder</label>`, `<label>Pyramid</label>`, and `<group id="geometry">`.

- Easy way to download files:  
exportfile tool.xml  
exportfile examples/\*

# Uploading files

The image shows two overlapping browser windows from Internet Explorer. The left window displays the nanoHUB homepage with a terminal window titled 'Color xterm' open. The terminal shows the following output:

```

macleannan@nanoHUB:~/app-qdot/rapture$ ls -l
total 52
drwxr-xr-x 3 macleannan public 4096 Jul 26 22:10 data
drwxr-xr-x 3 macleannan public 4096 Jul 26 22:10 examples
-rw-r--r-- 1 macleannan public 29060 Jul 26 22:10 qdot.r
-rw-r--r-- 1 macleannan public 11895 Jul 26 22:10 tool.xml
macleannan@nanoHUB:~/app-qdot/rapture$
    
```

The right window shows the 'Upload' page. It has a form with the following fields and options:

- File src.tgz:
- Upload a file  Copy/paste text
- (with a 'Browse' button)
- 

A 'Choose file' dialog box is open over the 'Browse' button, showing a file explorer view of the 'Images' folder. The file list includes:

- critbands
- critbands-small
- computingcapacity
- creativecommons-2.5
- cvd-process
- cyberinfrastructure
- cyberinfrastructure
- cyberinfrastructure
- cyberinfrastructure-raw
- dna
- gennano2
- gennano3
- gennano4
- groups
- groups-raw
- hpweblogo
- hub0 for ppt
- hubzero
- hubzero
- hubzero
- hubzero-all
- img\_0272
- twice
- twice-python
- lecture-head
- mission-nano
- msl-crit
- nanoHUB
- nanoHUB

A mouse cursor is pointing at the 'Open' button in the 'Choose file' dialog.

- Easy way to upload files:  
importfile src.tgz

# Uploading files

The image shows two overlapping browser windows from the nanoHUB website. The left window displays a terminal window titled 'Color xterm' with the following output:

```
meclennan@nanoHUB:~/app-qdot/raptures$ ls -l
total 52
drwxr-xr-x 3 meclennan public 4096 Jul 26 22:10 data
drwxr-xr-x 3 meclennan public 4096 Jul 26 22:10 examples
-rw-r--r-- 1 meclennan public 29060 Jul 26 22:10 qdot.r
-rw-r--r-- 1 meclennan public 11885 Jul 26 22:10 tool.xml
meclennan@nanoHUB:~/app-qdot/raptures$
```

The right window shows the 'Upload' page, which includes the nanoHUB logo and the following text: 'Use this form to upload data. If you don't specify a file for a particular input, that input won't be modified by the Upload operation.' Below this, there are two sections for file uploads:

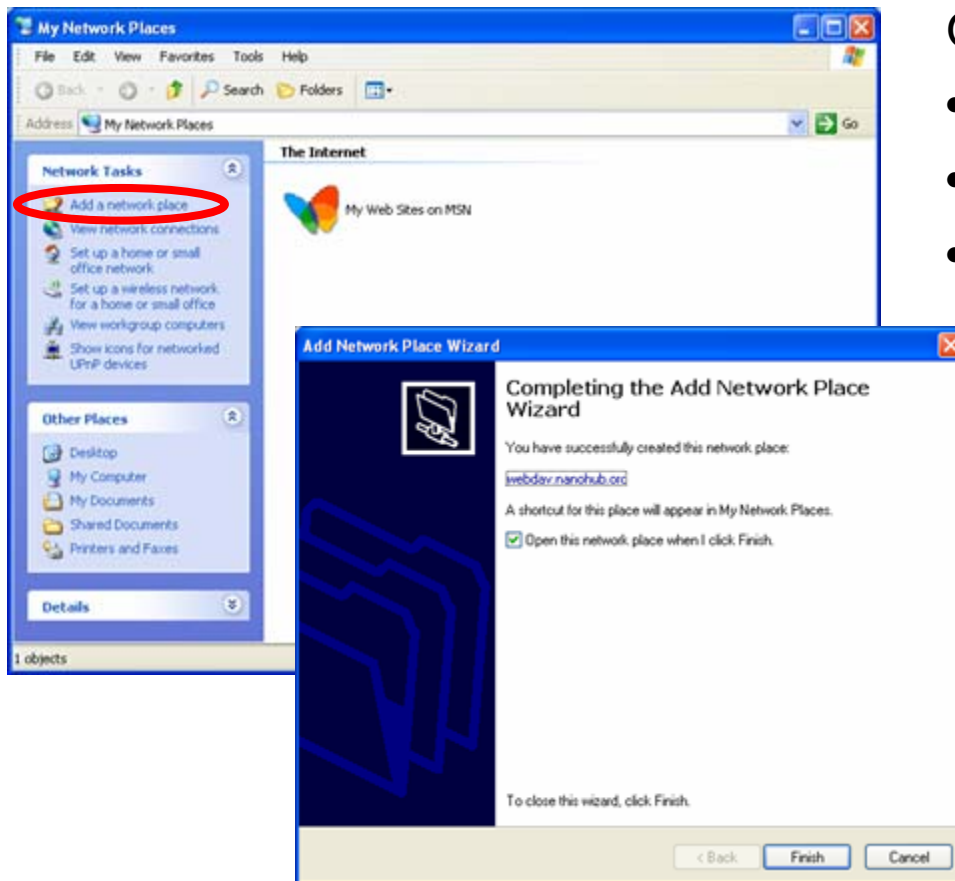
- File mesh.dat:** Includes radio buttons for 'Upload a file' (selected) and 'Copy/paste text', followed by a text input field and a 'Browse...' button.
- File doping.dat:** Includes radio buttons for 'Upload a file' (selected) and 'Copy/paste text', followed by a text input field and a 'Browse...' button.

At the bottom of the upload form is an 'Upload' button.

- Easy way to upload files:  
importfile src.tgz  
importfile mesh.dat doping.dat

# Using webdav to access files

Browse your nanoHUB files on any Windows, Macintosh, or Linux desktop

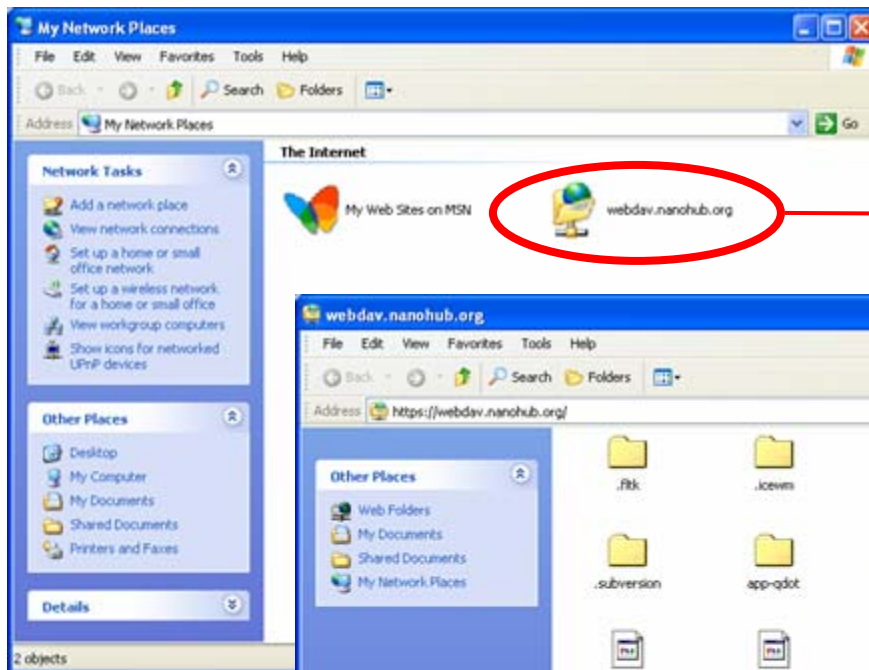


On Microsoft Windows:

- Go to *My Network Places*
- Click *Add a network place*
- Internet or network address:  
`https://webdav.nanohub.org`

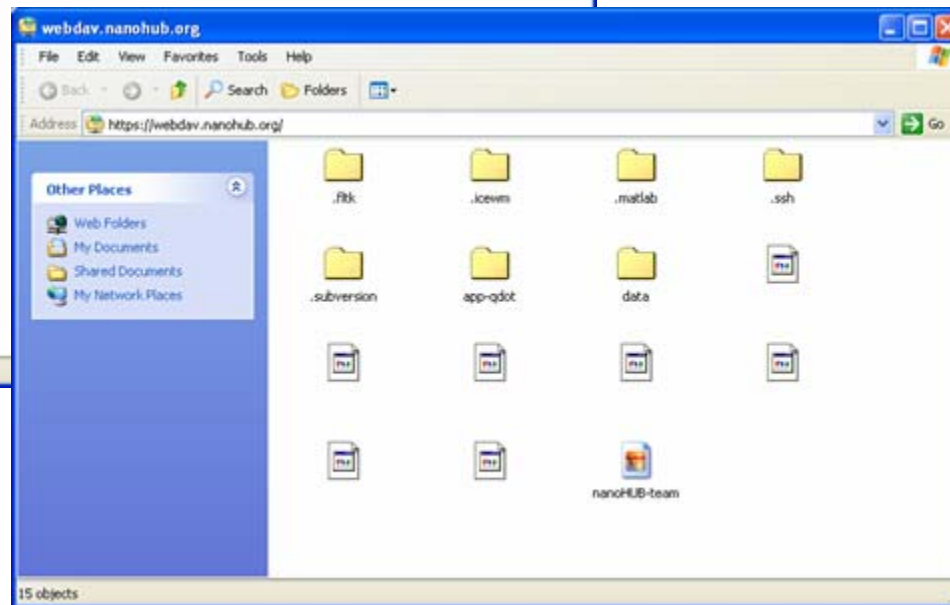
# Using webdav to access files

Browse your nanoHUB files on any Windows, Macintosh, or Linux desktop



See [this page](#) on nanoHUB for instructions on other platforms

Next time, use this shortcut



Drag files in and out



# Using sftp to access files

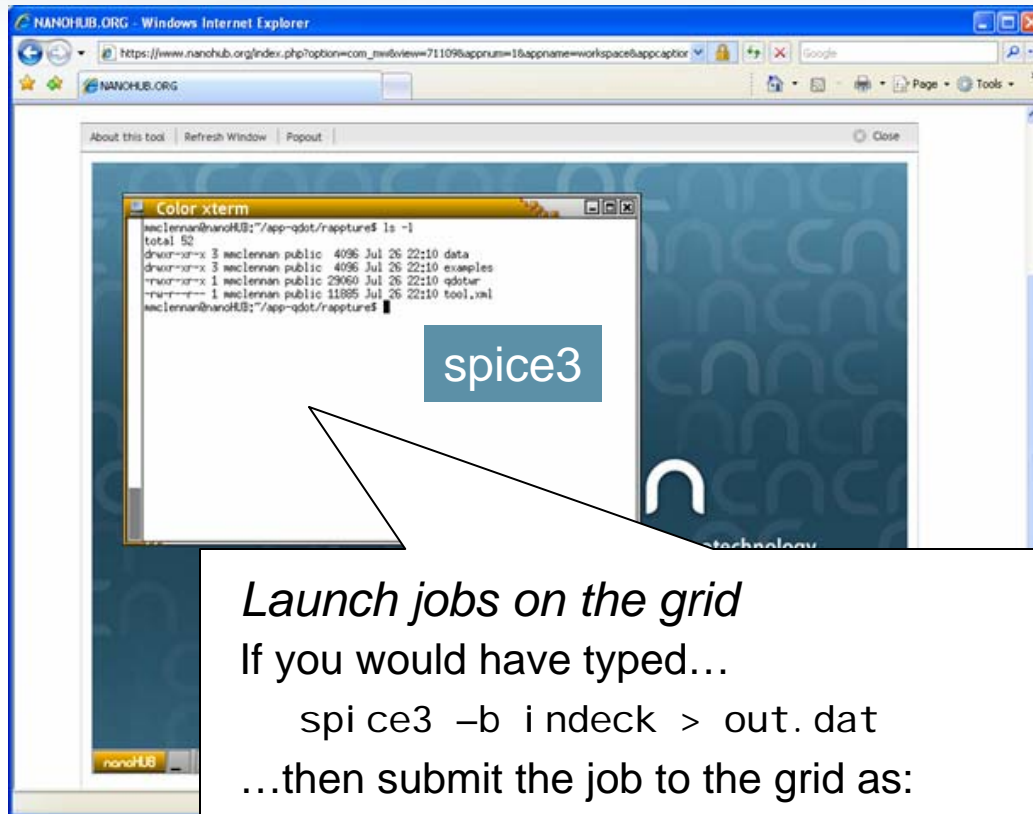
Color xterm

```
mmclennan@nanoHUB:~/app-qdot/rappture$ ls -l
total 52
drwxr-xr-x 3 mmclennan public 4096 Jul 26 22:10 data
drwxr-xr-x 3 mmclennan public 4096 Jul 26 22:10 examples
-rw-r--r-- 1 mmclennan public 29060 Jul 26 22:10 qdot.r
-rw-r--r-- 1 mmclennan public 11885 Jul 26 22:10 tool.xml
mmclennan@nanoHUB:~/app-qdot/rappture$
```

~~sftp mmc@mmc.rcac.purdue.edu~~

sftp mmclennan@sftp.nanohub.org  
your nanoHUB login

# Accessing the grid



Violin

*Launch jobs on the grid*

If you would have typed...

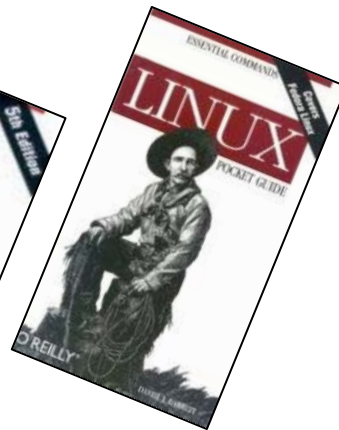
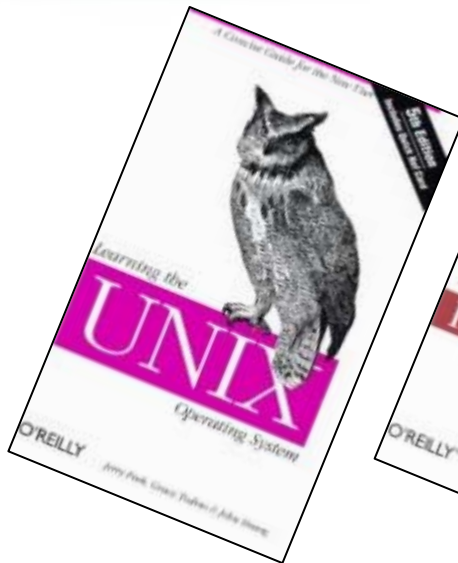
```
spi ce3 -b i ndeck > out. dat
```

...then submit the job to the grid as:

```
submi t spi ce3 -b i ndeck > out. dat
```

```
submi t --venue haml et spi ce3 -b i ndeck > out. dat
```

## More Information



Pick an editor:

- vi
- emacs
- nano
- xedit



Linux tutorial online:

<http://www.ee.surrey.ac.uk/Teaching/Unix/>