

Manual for MantidWorkbench Nightly

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I. Downloading the ThinLinc client.

1) ThinLinc session can be started through a browser. Go to SNS Cluster Link at <https://analysis.sns.gov/> and log in with UCAMS username and password.



Remote Analysis Service

Remote Desktop Capabilities

As a Neutron Sciences user, you can view, analyze and download your data from anywhere. You will be on a machine just like one you use in our Instrument Hall or Target Building. You can work with your data and use the Data Analysis tools provided. To get started using our webclient click the "Launch Session" button below. For more information about different ways to access your data, please see the "Connection Options" section below.

Launch Session

Connection Options

Mouse over one of the icons above for more information
Use Cyberduck to connect via SFTP to analysis.sns.gov on port 22

For assistance connecting to the Analysis servers or accessing your data, please contact Linux Support: linux@support.sns.gov or call 865-309-4649 for urgent requests.

Username:

Password:

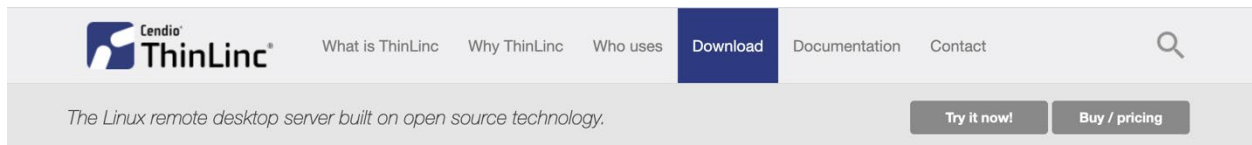
Login

Version 4.12.0 (build 6517) on analysis.sns.gov

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To download ThinLinc client, click on its icon. This will provide instructions and necessary links to install ThinLinc client to your computer.

2) **ALTERNATIVELY**, open a browser and go to <https://www.cendio.com/thinlinc/download/>.



Cendio ThinLinc®

What is ThinLinc Why ThinLinc Who uses Download Documentation Contact

The Linux remote desktop server built on open source technology.

Try it now! Buy / pricing

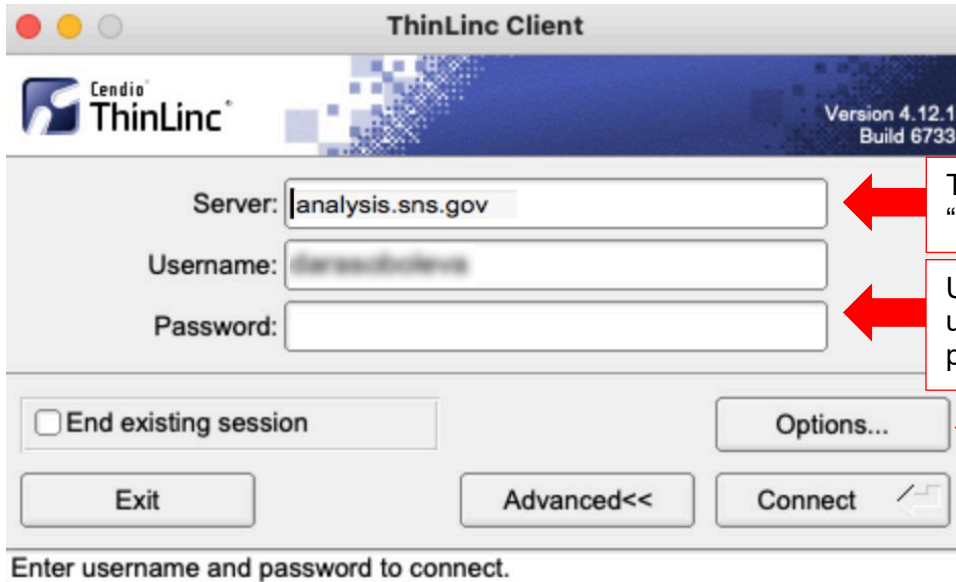
ThinLinc downloads

For users - ThinLinc Clients

Windows	32-bit/64-bit	-	-
macOS	-	64-bit	-
Linux RPM	32-bit	64-bit	ARMv7 hard-float
Linux DEB	32-bit	64-bit	ARMv7 hard-float
Linux tar.gz	32-bit	64-bit	ARMv7 hard-float

3) Download the file appropriate for your computer's operating system. Once the file is downloaded, install the ThinLinc client.

4) To log into the SNS Linux machines, open the ThinLinc application.

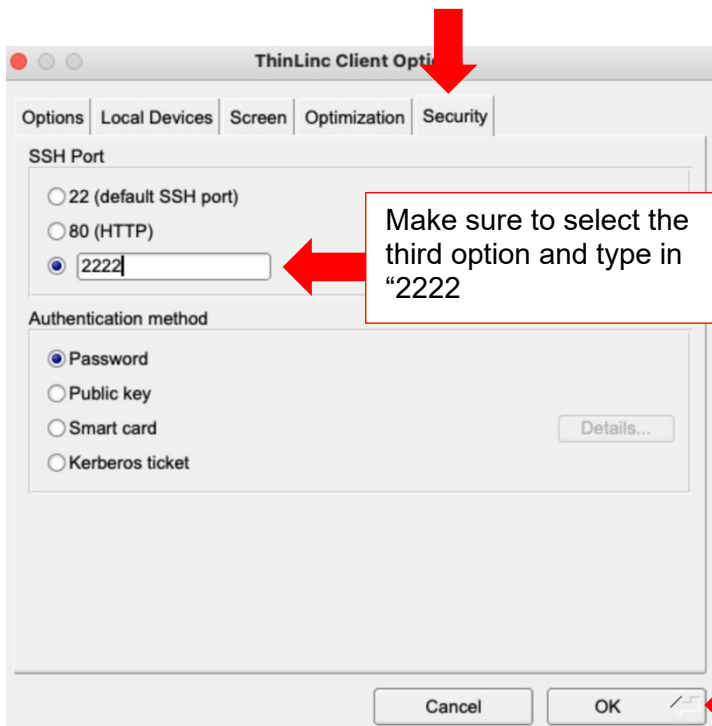


Type in "analysis.sns.gov"

Use your UCAMS username and password.

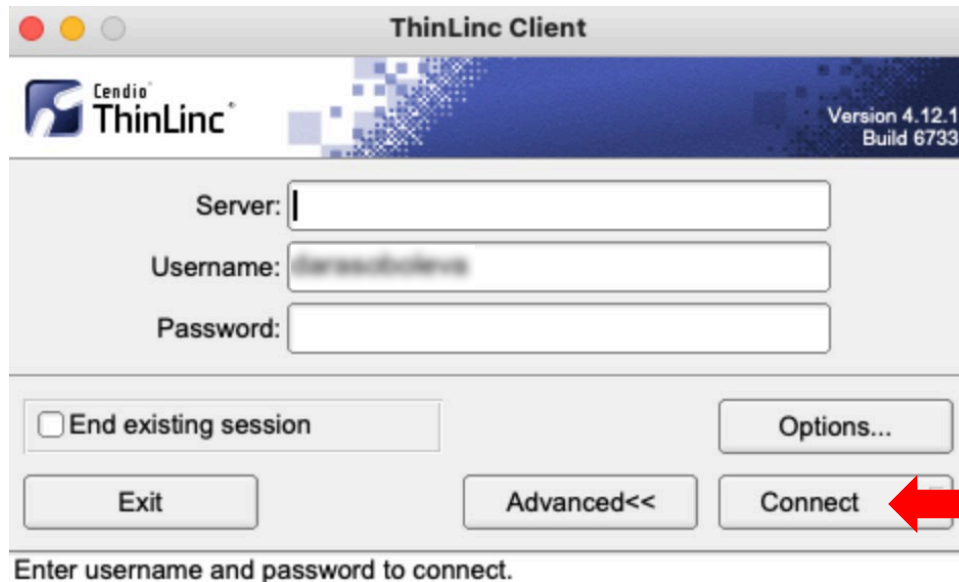
To make sure that the SSH port is correct for analysis.sns.gov, click on "Options".

Then click on "Security".



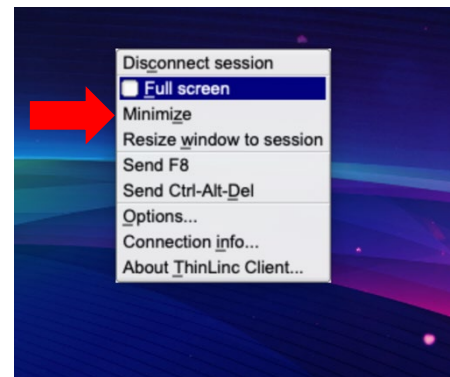
Make sure to select the third option and type in "2222"

Press OK to navigate back to the start window.

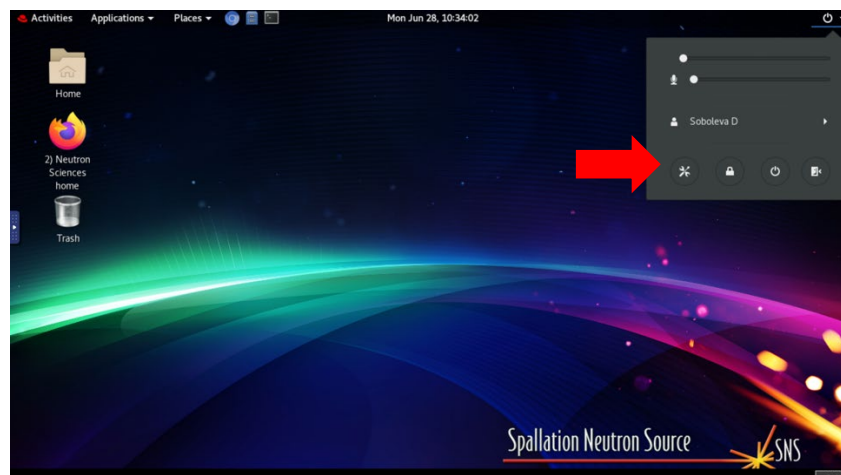


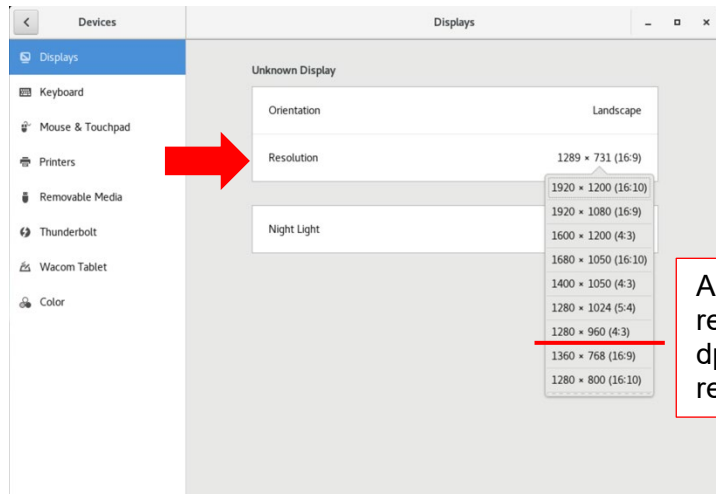
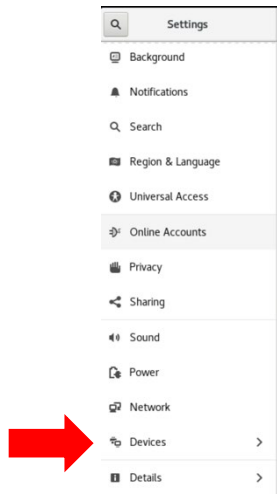
Press "Connect" to initiate a session in analysis.sns.gov

5) After the ThinLinc client session was initiated, you can switch between Full screen mode and Window mode by pressing F8 (fn+F8 for IOS) and clicking on the box. The Full screen option is optimal due to the larger active screen available in that mode. This option can be disabled as the default in the options of the starting window.



6) To adjust your screen resolution, click on the arrow in the right upper corner, and find "Settings".





A minimum vertical resolution of 780 dpi is recommended.

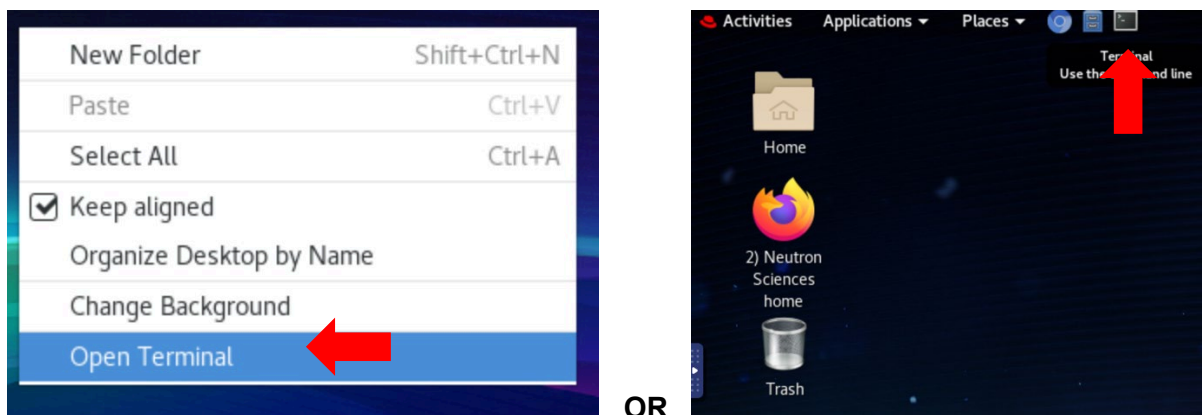
II. Opening Mantid Workbench Nightly:

1) Next we'll open MantidWorkbench nightly. MantidWorkbench is the software used to reduce, visualize and perform some analysis of WAND² data (and that more generally of HFIR and SNS.) There are multiple versions of MantidWorkbench. The most stable version is Mantid Workbench (61 in this case); however, it does not always have the most current algorithms, which are currently in testing/development. To access these, we will use MantidWorkbench nightly which is a version which receives daily updates.

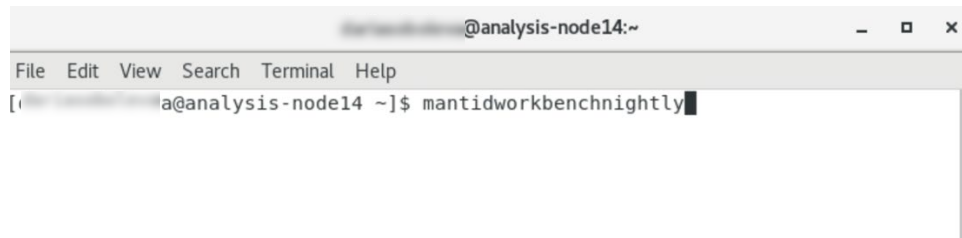
I. Mantid Workbench can be open by going to the left upper corner and following the pathway Application→Education→Mantid Workbench Nightly.



II. Alternatively, Mantid Workbench can be open using the Terminal. Right click anywhere on the screen and select "Open Terminal" or use the shortcut on the upper left corner

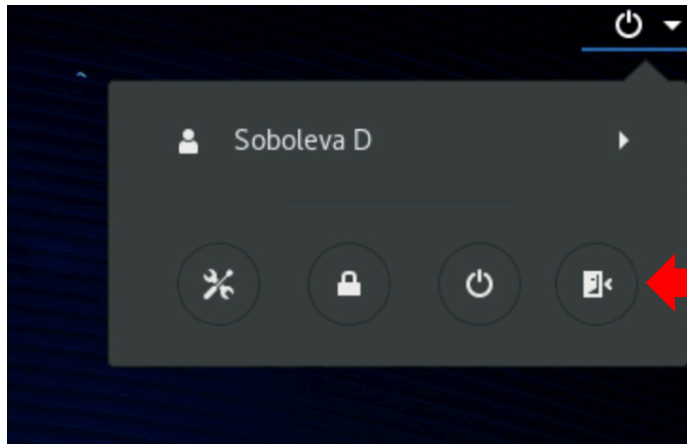


2) Once the terminal is open, type in "**mantidworkbenchnightly**" and press Enter to open the latest version.



```
@analysis-node14:~  
File Edit View Search Terminal Help  
[i@analysis-node14 ~]$ mantidworkbenchnightly
```

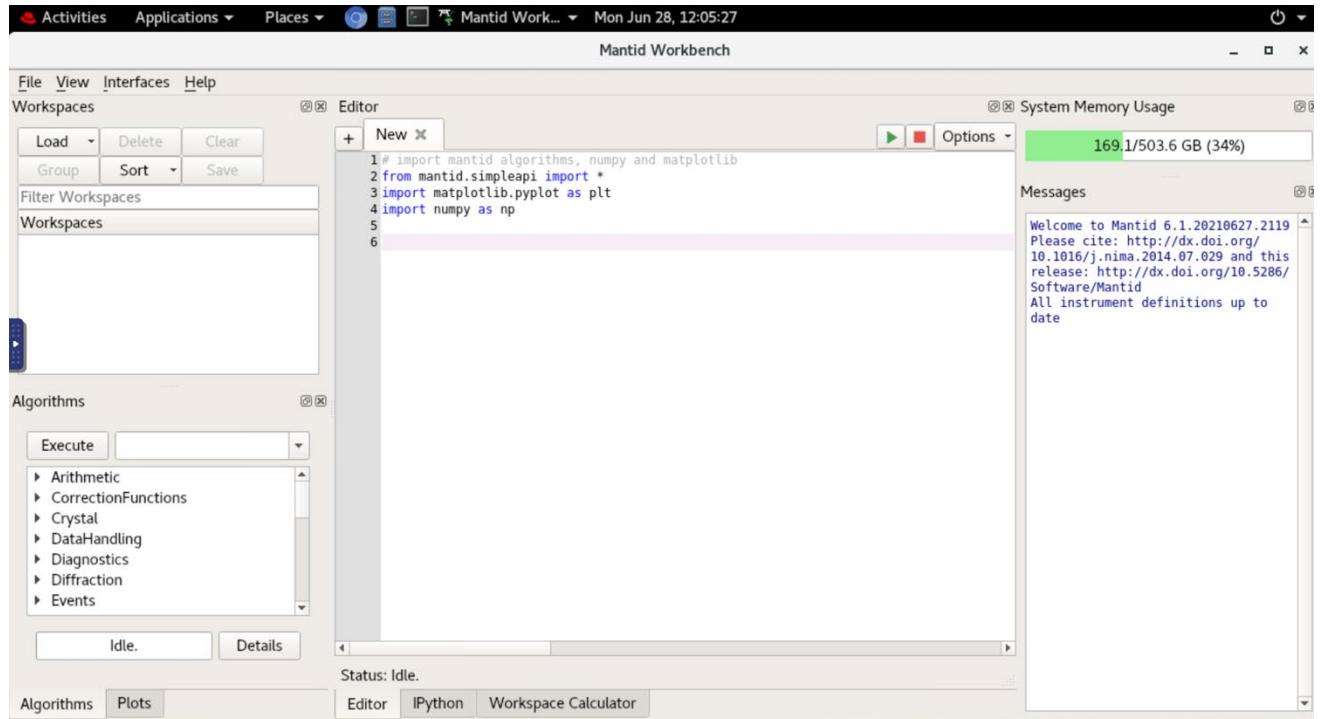
3) Your session will stay active as long as the remote Linux computer has not been restarted, which happens periodically due to maintenance, so always be sure to save checkpoint scripts/workspaces. Please Log out when you have completed your task. To Log out, click on the power icon in the right upper corner.



Click on the right icon and Log Out.

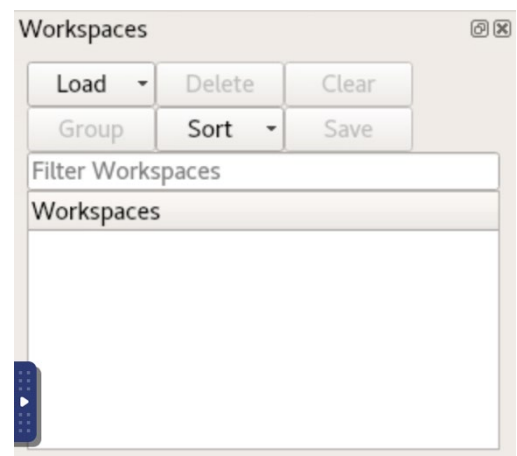
III. Mantid Workbench Nightly Software:

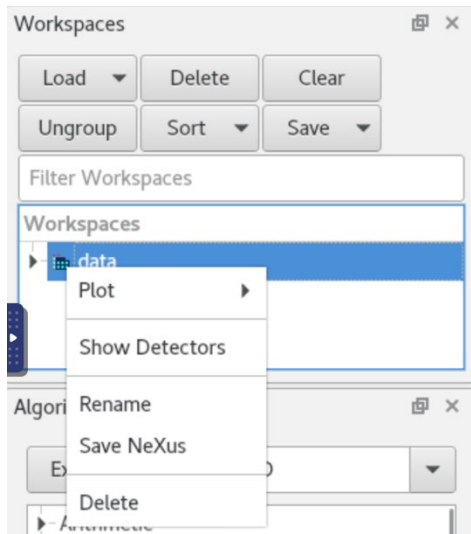
Once the Welcome window closed, this is the interface you should see on your screen.



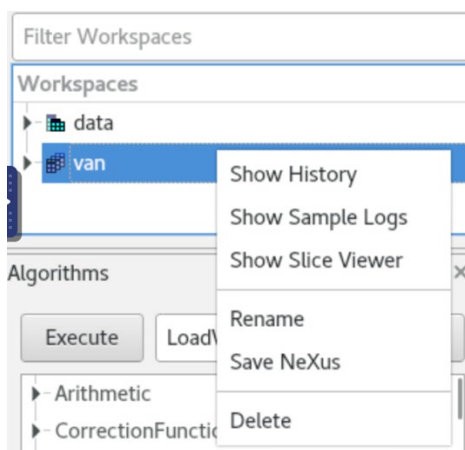
The following windows are available for the user:

1) **Workspaces** – this box will display all the workspaces that were loaded/created/changed. On top of the list of workspaces, there are actions available to the user; more options available as the workspaces are loaded/created.





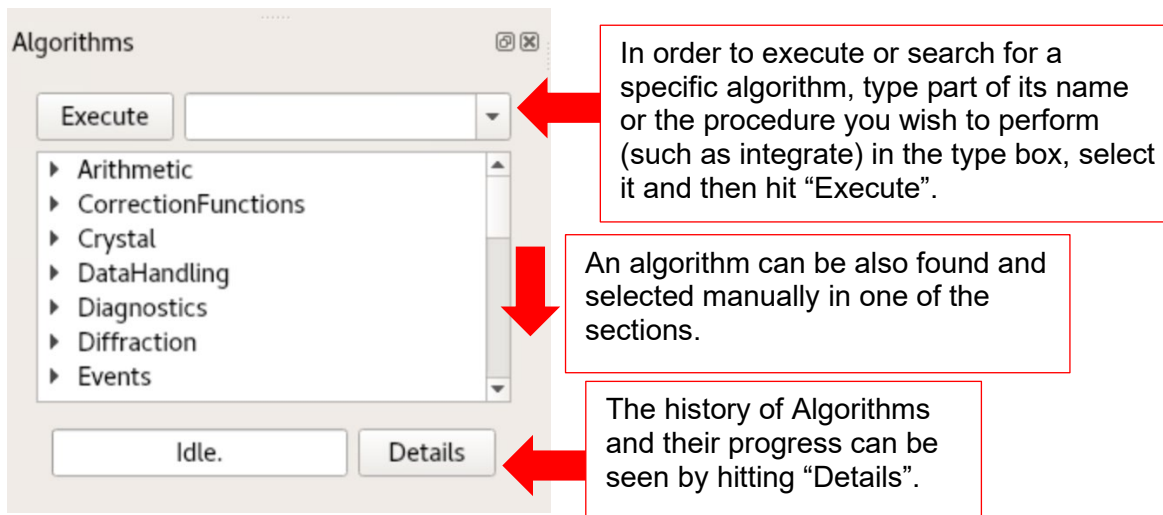
Depending on the type of the workspace you are working with, there will be different possible actions available. To use them, right click on the workspace.



You can also filter workspaces by typing in the first letters of the workspace's name.

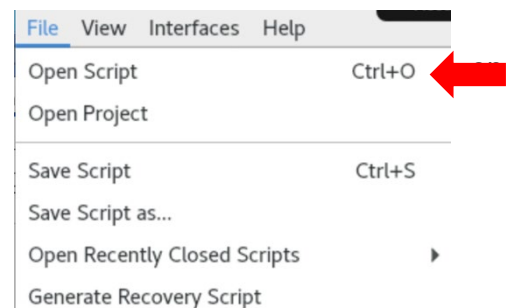
Right clicking gives quick access to information such as Sample Logs or Slice Viewer.

2) **Algorithms** – this section is one of the main sources of command in this software. All the algorithms can be found <https://docs.mantidproject.org/nightly/algorithms/categories/AlgorithmIndex.html>. It is always important to read the documentation for every algorithm you plan to use to understand what the options are doing, what conventions it uses, what the default values are and just generally its method - it is not always safe to assume this information.



3) **Editor** – part of the software that uses scripts. A specific script can be open by following going to **File** the left upper corner and hit “**Open Script**” or **Ctrl+O**.

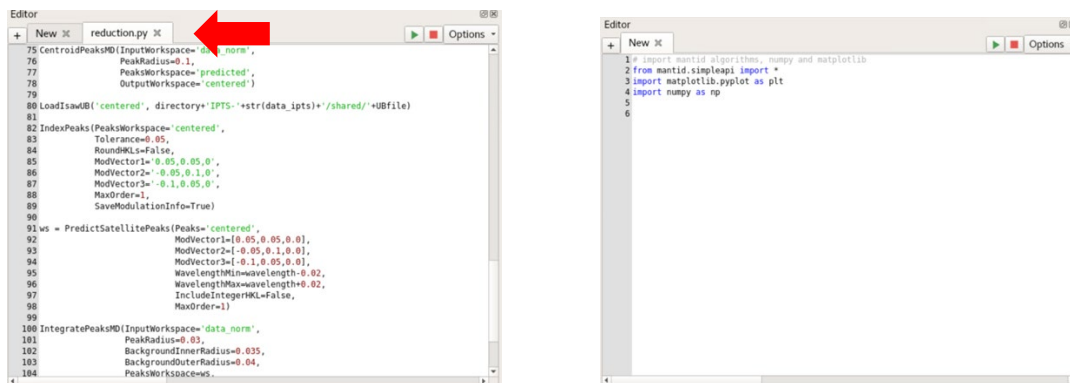
To find commonly used WAND2 reduction scripts, follow the path
data→HFIR→HB2C→shared→WANDscripts and locate
desired script (such as reduction.py)



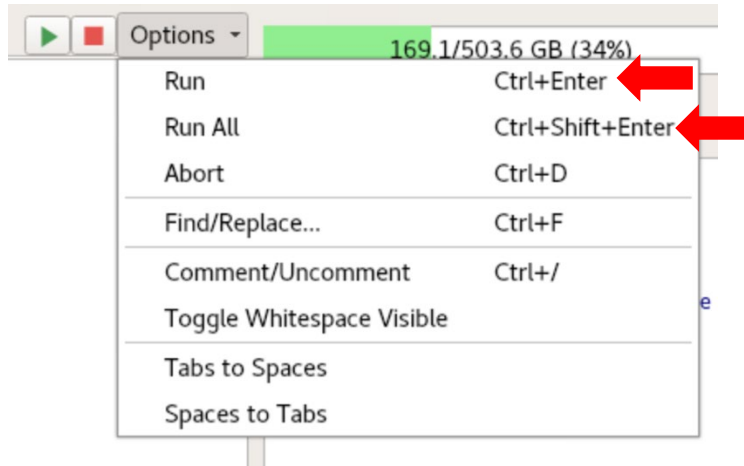
the



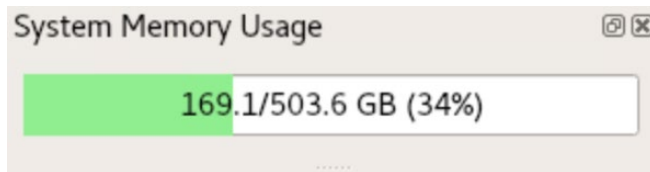
The script will be in a new window. More than one script can be open at the same time. The default script contains import statements for commonly used python libraries



To run a script, either hit the green arrow or select options, hit “**Ctrl+Shift+Enter**” and hit “Run”. There are more options available to the user, such as “Abort” to stop the execution.” Run All” will run the whole script. To run part of the script, highlight the desired part and hit “Run”.

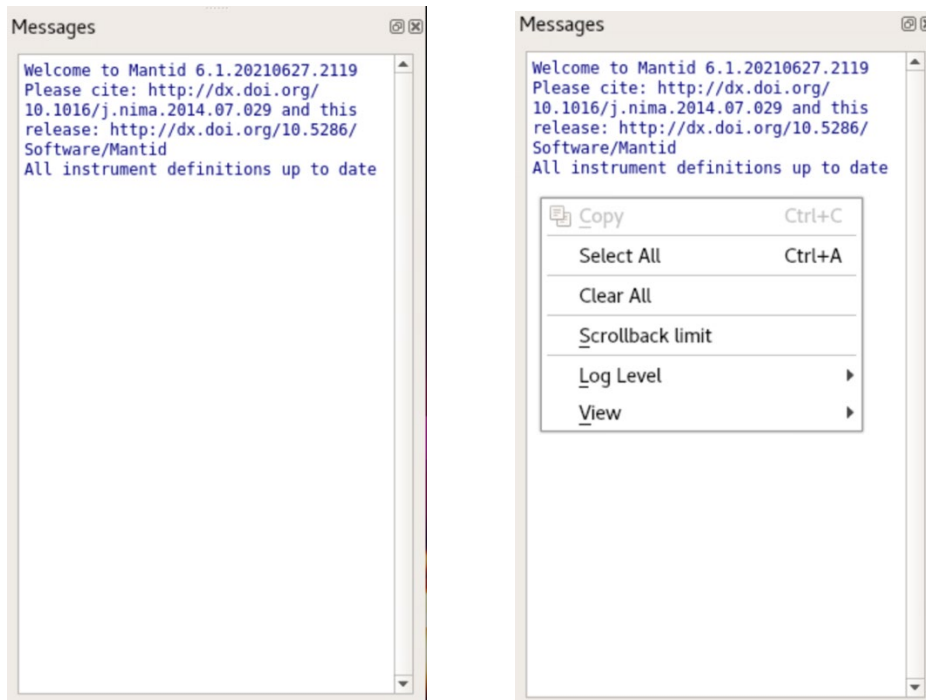


4) **System Memory Usage** – this box informs the user about the memory storage already used. Once the line becomes red, the memory is reaching its maximum and the program can abort in case the maximum memory is reached.

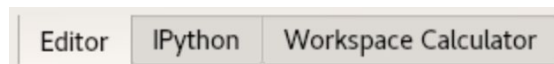


If your memory is already quite full, try logging out of analysis and logging in again. You might be logged into a different node with more free memory.

5) **Messages** – this box will show all the feedback of the software – progress of the algorithms, scripts, etc. It will also show the type of error in case it occurs. Messages will be stored and can be found by scrolling up and down. The user can select to clear the messages by right clicking on the box.



6) On the bottom part of the software, the user can switch from “Editor” to “IPython” or “Workspace Calculator” and back.



7) Right click anywhere on the screen – this will allow to hide or show all the available windows of this software. Click on the box to either hide it or show it.

