

# Using FastX for remote desktops

The **FastX** remote desktop service gives users access to Casper for performing lightweight tasks such as text editing, running programs such as xxdiff and ncview, or running analysis scripts that consume little in the way of graphics resources.

A user can log out of a FastX remote desktop and return to it later. This service will remain available while NCAR and UCAR building closures are in effect.

FastX sessions that consume excessive resources are subject to being killed. For resource-intensive workloads that do not require GPU-based rendering, consider starting a Casper job instead by running an **execcasper** command from a FastX terminal window. For more resource-intensive work with high-end, GPU-accelerated graphics, consider using the [vncmgr script](#) rather than FastX.

FastX can be accessed through a web browser or a desktop client. How to use both of these options is described below.

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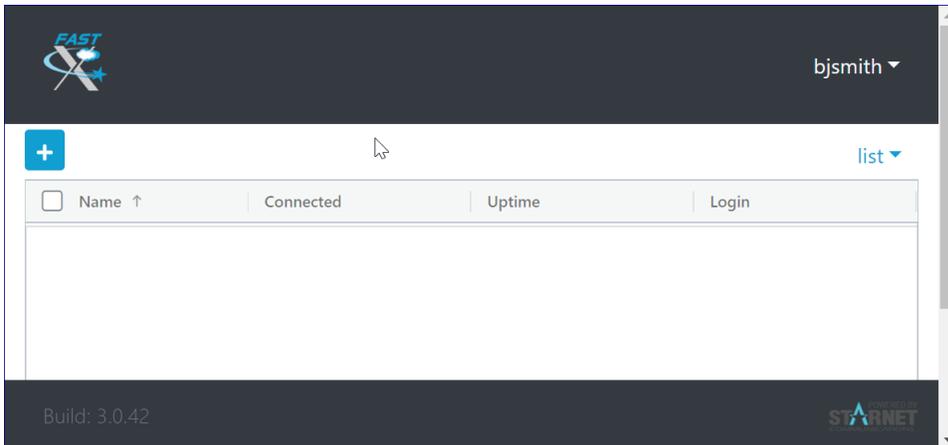
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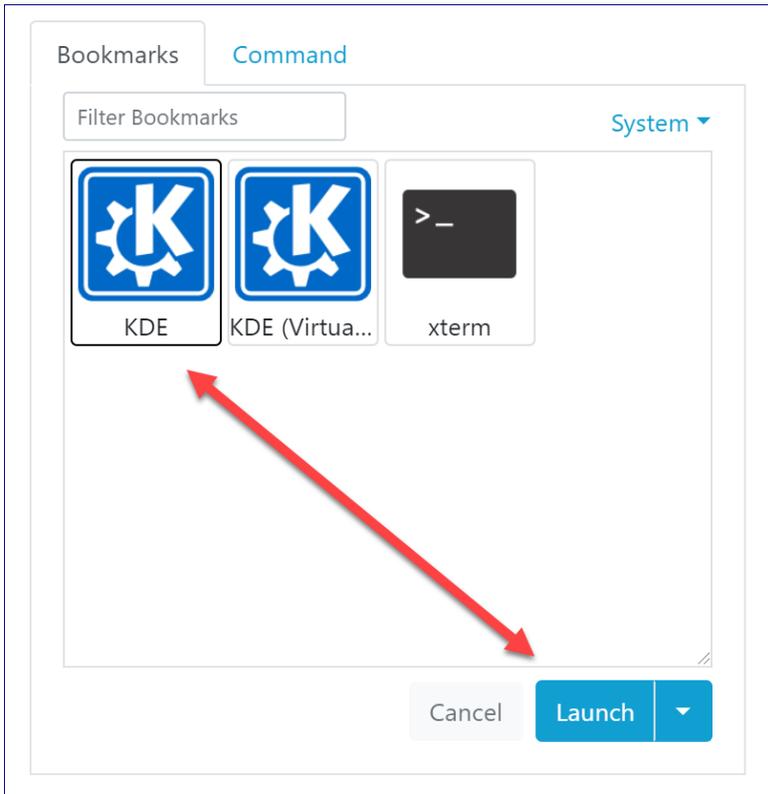
## Using FastX via web browser

To use FastX without installing any software, connect to the NCAR VPN and use an updated version of any common browser. See the following section for an alternative to using the VPN.

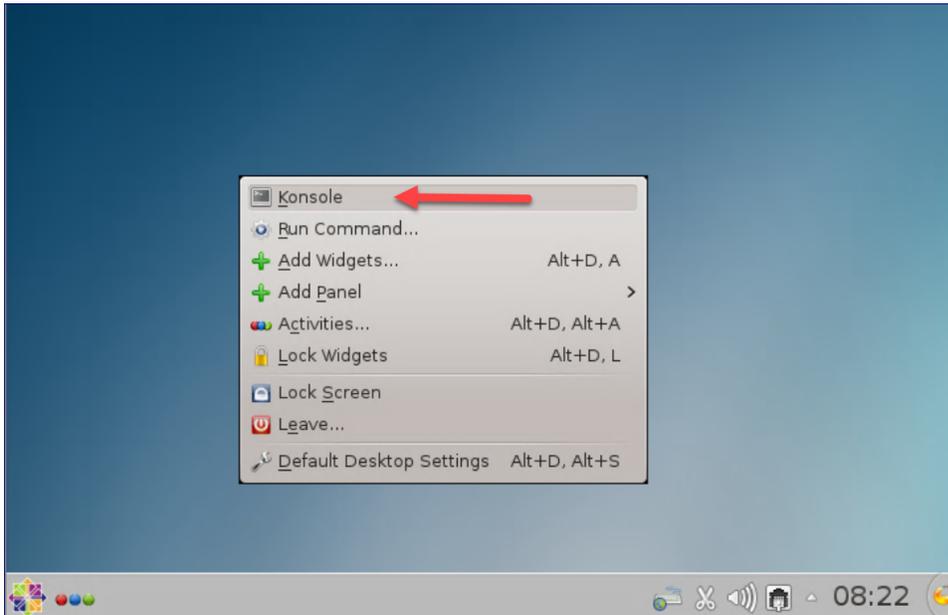
1. Connect to the [NCAR VPN](#).
2. Go to <https://fastx.ucar.edu:3300>.
3. Authenticate with your username and token response.
4. Click the **+** button in the upper-left corner of the FastX window.



5. In the next window, click the **KDE** button and then **Launch**.



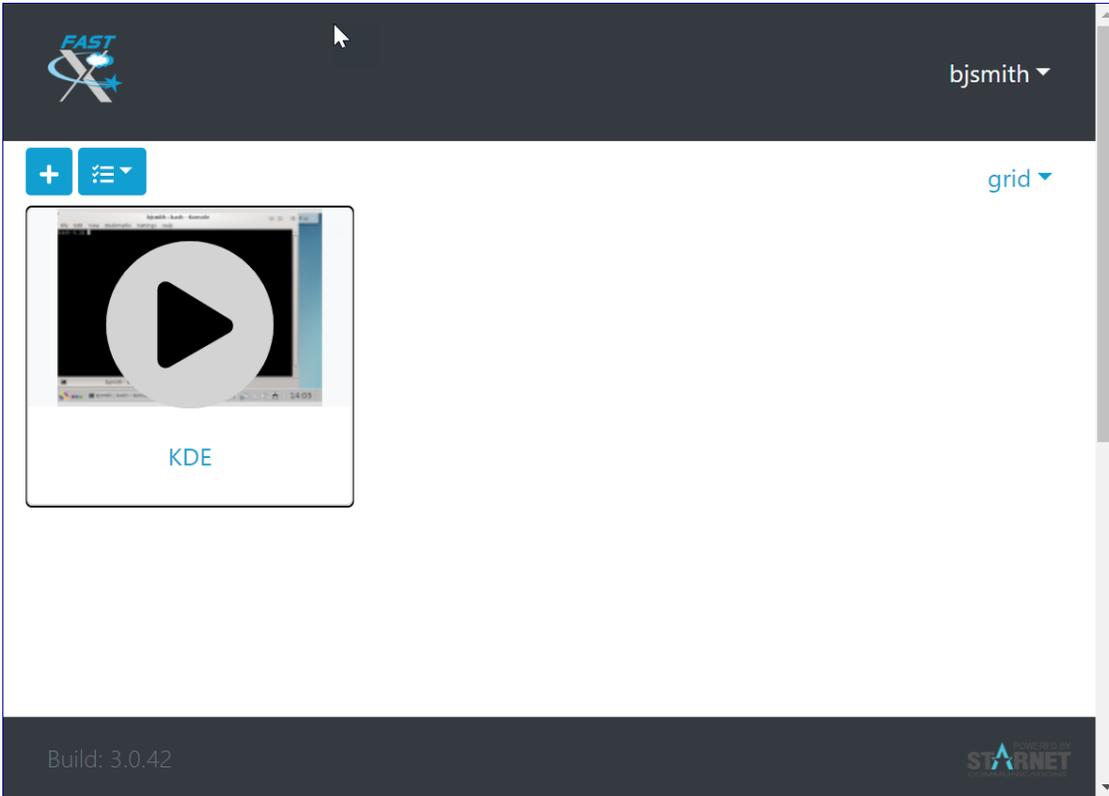
6. The KDE desktop will open in a new tab or a new browser window. Right-click on the desktop to start a Kconsole terminal window.



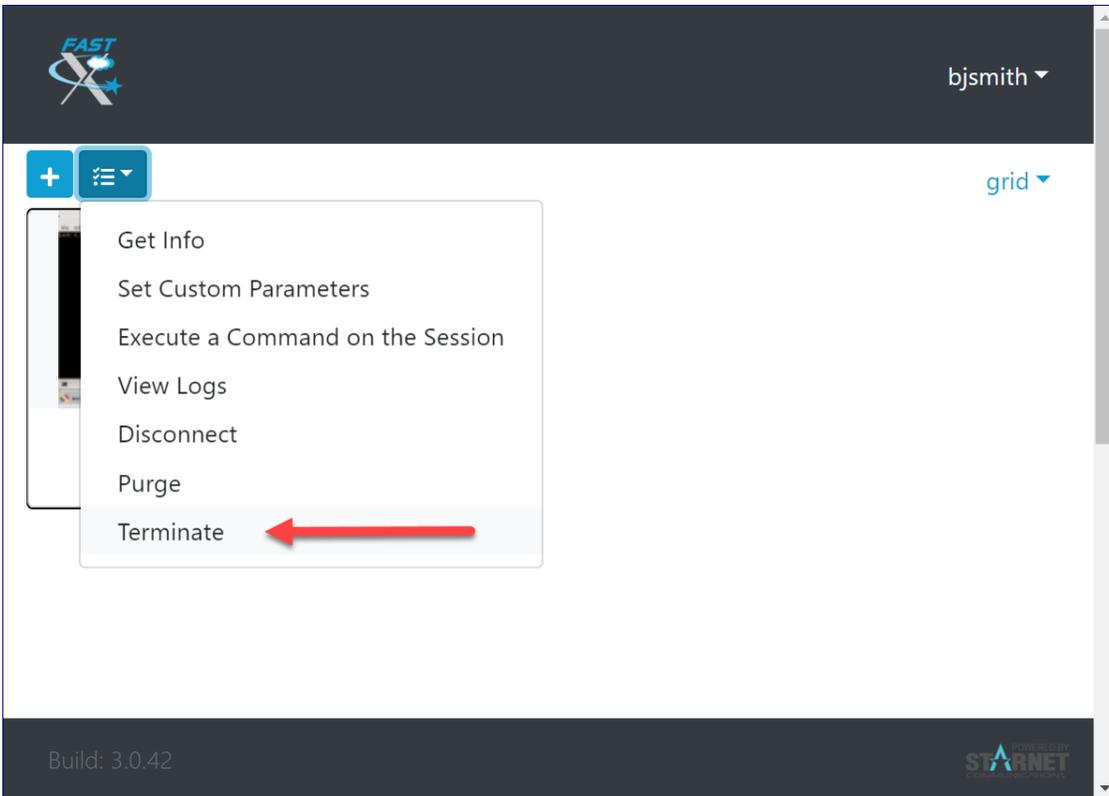
Some users will find that their terminal environment configuration is not complete (module commands will not be available, for example). To initialize your environment, run the following command once you open the Kconsole:

**bash, ksh users:** `source /etc/profile`  
**csh, tcsh users:** `source /etc/csh.login`

If you want to retain your session to return to it later, just log out or kill the browser window. When you log in again, select the icon to re-open the session.



If you do not want to retain your session, terminate it as shown here before logging out:



## Using FastX via web browser and ssh tunnel

If you are *not connected* to or *do not want to connect* to the NCAR VPN, you can still use FastX via web browser by creating an **ssh tunnel** from your laptop or desktop to FastX.

1. Start by running the following on your command line, inserting your own username.

```
ssh -L 3300:fastx.ucar.edu:3300 -l username fastx.ucar.edu
```

2. Authenticate as usual and you will be in a terminal session on a Casper node.
3. Leave that terminal session running, open your browser, and go to <https://localhost:3300/>. You may see a warning about the site being unsafe, but ignore the warning and continue.
4. Authenticate with your username and token response.
5. Continue as described in the previous section to launch the **KDE** desktop.

## Alternatives for creating ssh tunnel

To create a tunnel using PuTTY or SecureCRT, following the examples in these video demonstrations:

- [PuTTY ssh tunnel](#)
- [SecureCRT ssh tunnel](#)

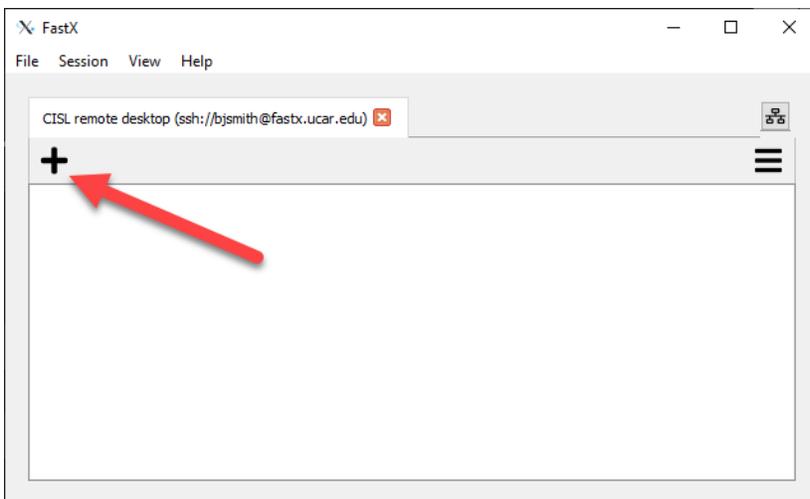
After creating the tunnel, proceed as described in the previous section.

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## Using the FastX desktop client

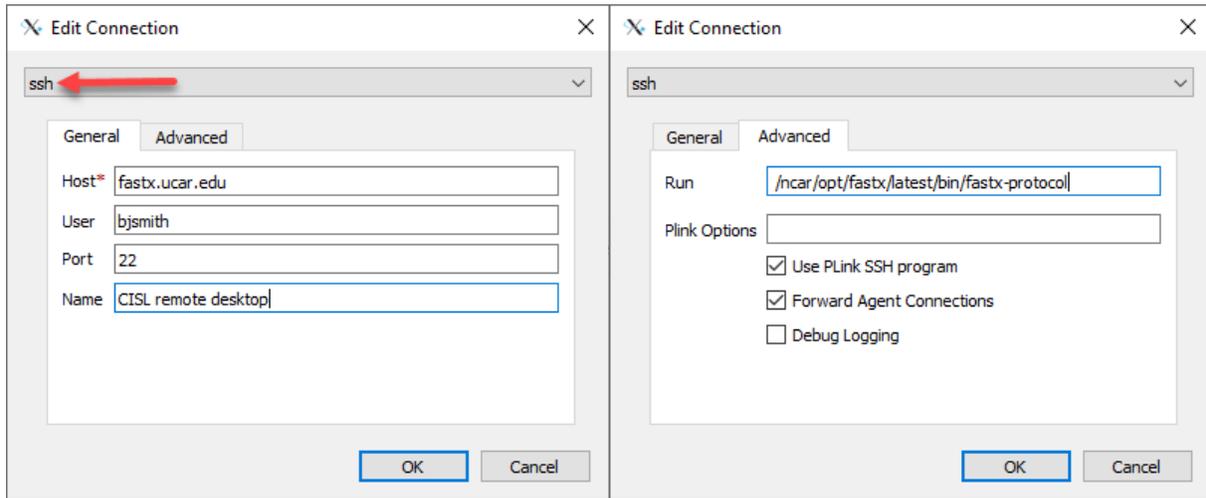
If you're not connected to the NCAR VPN or prefer to use a faster, more robust remote desktop service, consider downloading and installing the [FastX desktop client](#). Windows users: If you do not have admin privileges to install the client on your machine, choose the "Windows Nonroot" client.

1. Start the FastX client.
2. Click the **+** button in the upper-left corner.

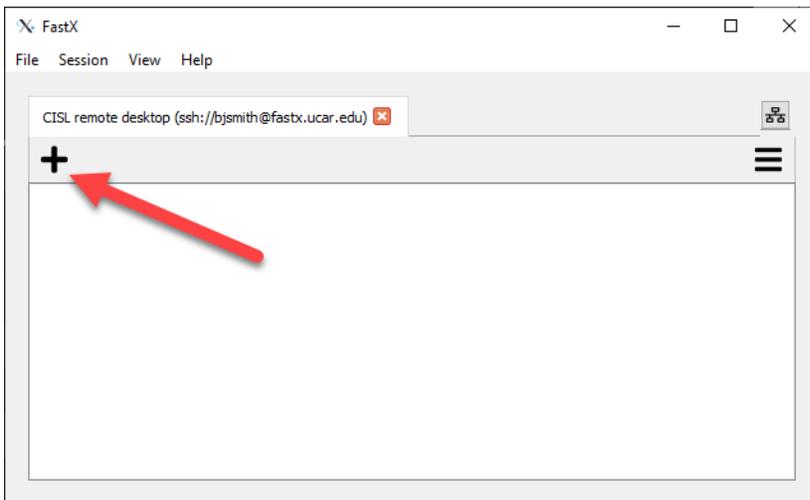


3. Fill in the fields of the pop-up boxes as follows:

**Host:** fastx.ucar.edu  
**User:** Enter your username  
**Port:** 22  
**Name:** CISL remote desktop (or any string)  
**Run (advanced tab):** /ncar/opt/fastx/latest/bin/fastx-protocol



4. Click **OK**.
5. Select the remote desktop collection (double-click or press **Enter**).
6. Authenticate with your username and token response.
7. Click the **+** button in the upper-left corner of the next window.



8. Select the **KDE** icon that displays **startkde** in the required command field.
  - a. Double-click the icon to start the KDE desktop. You can then right-click on the desktop to get a Kconsole menu.
  - OR
  - b. Double-click the **xterm** icon instead to get a single xterm.

