Use WinSCP file transfer

(i) This document describes file transfer procedures from network restricted lab equipment. By design, equipment in the nanoFAB **does not** have direct internet access, so you cannot directly connect to any cloud services.

Background information

To maximize security of tool control PC workstations, nanoFAB operates a segregated network, strictly limiting incoming and outgoing network traffic.

University of Alberta provides 24 GB storage on AFS (Andrews File System) to every CCID holder. nanoFAB leverages this storage to allow secure data transfer from tool control PC workstations while minimizing exposure to public Internet.

If you are a nanoFAB user not otherwise affiliated with University of Alberta, you can request a guest CCID by following Request a CCID process.

File Transfer Flow
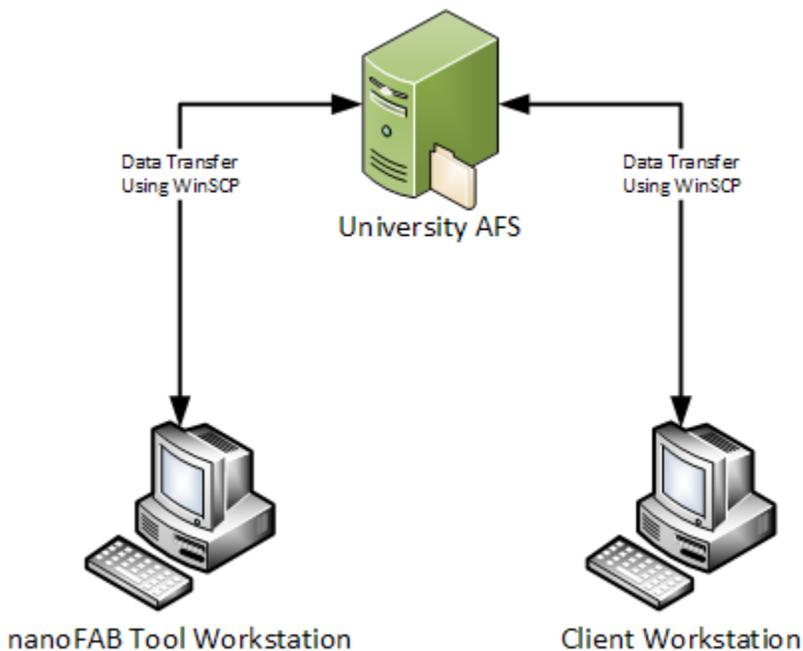
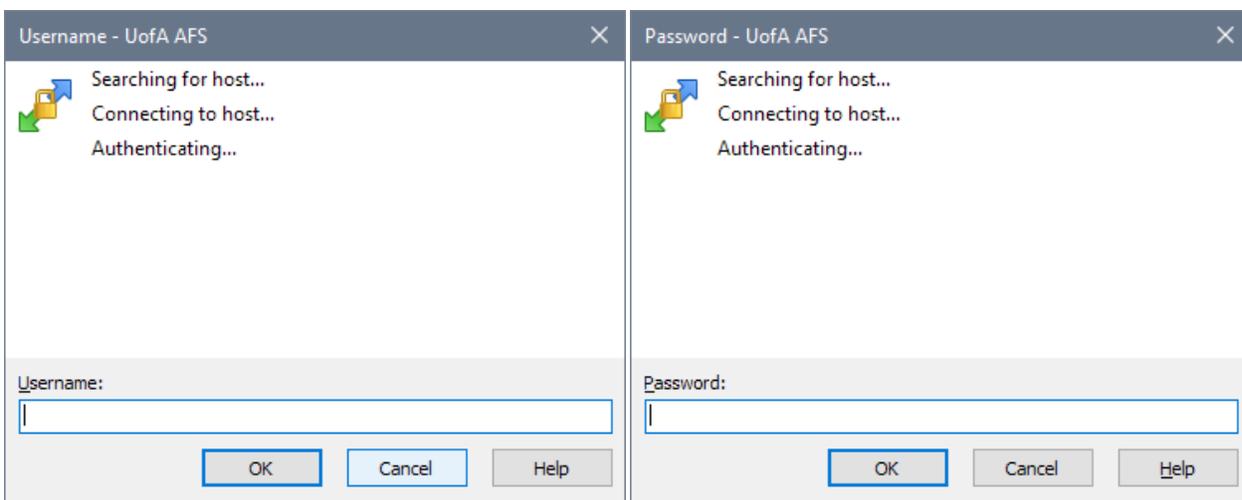## Connecting to University AFS Storage

The nanoFAB provides a copy of WinSCP pre-installed on all Tool and Public workstations.

To connect:

1. Double click on *UofA AFS Storage* desktop icon

2. Follow the login prompts, authenticate using your CCID username and password.

> ⚠ Since you are using WinSCP on a public computer, please ensure to leave the *Remember password for this session* check box unchecked.

3. Once logged in you will see two panes. The left side is the local computer, and the right side is the University of Alberta AFS store. You can copy /paste your data into the right side of the window to upload to AFS.
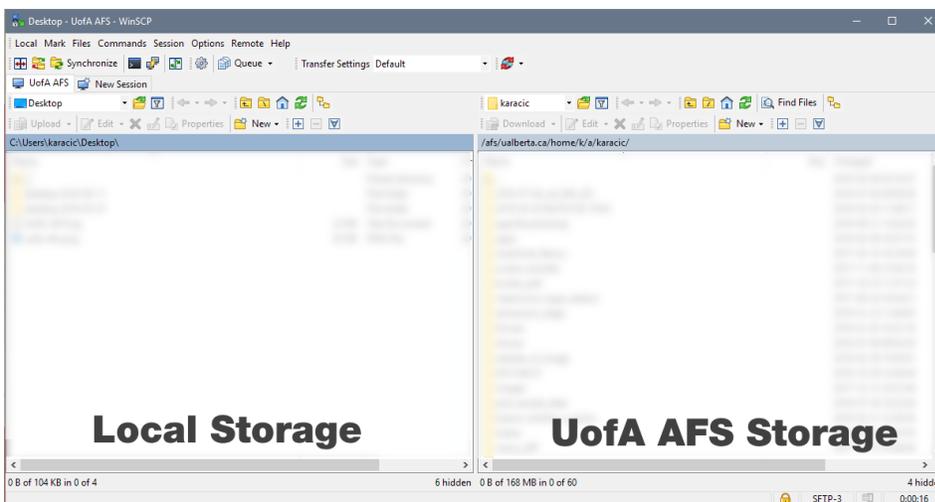
4. Once you've uploaded your data, exit the application. This will log you out of AFS.
5. See *Accessing data using WinSCP* portion of this document on how to access your data from your own or nanoFAB public workstations.

Connecting to third party SFTP services

If you would like to allow connectivity to a SFTP server other than University AFS, please follow the following procedure:

> ⓘ The nanoFAB supports connectivity from network restricted workstations to an external storage using SFTP protocol *only*. Other storage services such as Dropbox, OneDrive, Google Drive, and similar will not be accommodated.

1. Submit a "Network & IT" request in LMACS outlining:
   a. A business reason for providing access.
   b. Connection details for your SFTP server.
   c. Contact information for the individual administering your SFTP service.
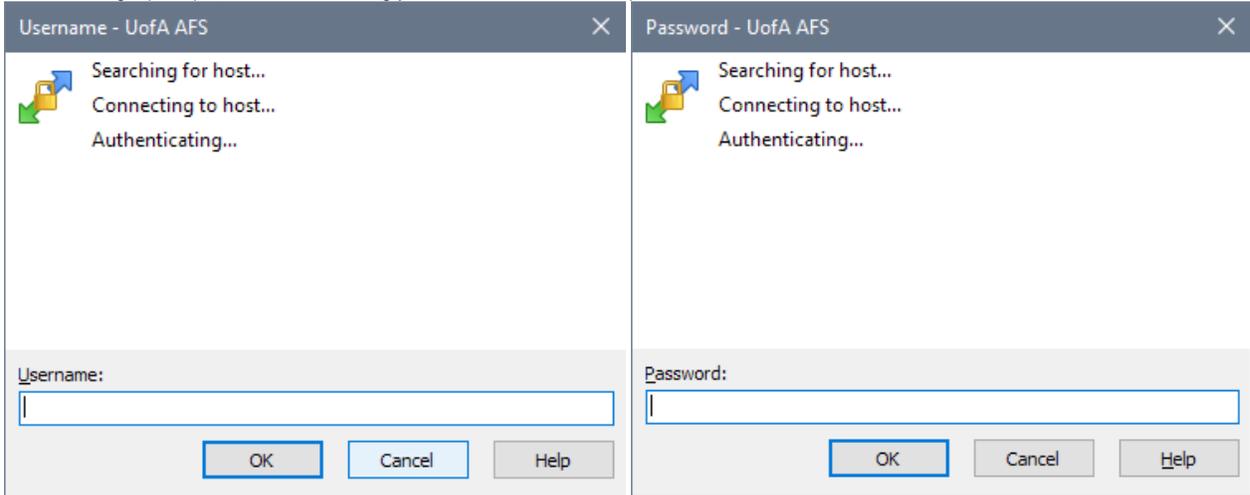
Accessing data using WinSCP

nanoFAB Workstations

nanoFAB provides pre-configured WinSCP on all workstations in Computational Space. To access files stored on your UofA AFS file storage:
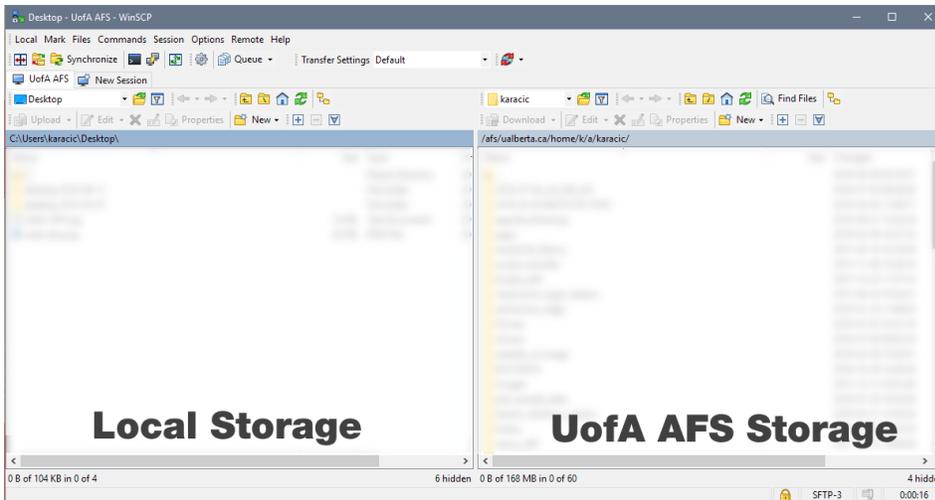
1. Double click on *UofA AFS Storage* desktop icon

2. Follow the login prompts, authenticate using your CCID username and password.

3. Once logged in you will see two panes. The left side is the local computer, and the right side is the University of Alberta AFS store. Transfer your data from right pane (AFS) to an appropriate location in left pane (local computer).

Personal, non-nanoFAB, or other Workstations

To access your University AFS storage from a personal computer, lab workstation not managed through nanoFAB, or other devices:

Please refer to following IST Knowledge Base articles: **Use WinSCP**

ⓘ Access to WinSCP is available from University of Alberta networks only. If you would like to access your AFS storage from outside of University, please refer to IST Knowledge Base article Access the University of Alberta VPN

Please note: UofA IST no longer provides Samba access to AFS share. Refer to Samba Retirement - User Options KB article for alternatives.

Related articles

- Request after-hours building access
- Use WinSCP file transfer
- Submit a file for photomask fabrication
- Submit a GDSII file over 50 MB
- Sign out precious metals for deposition tools