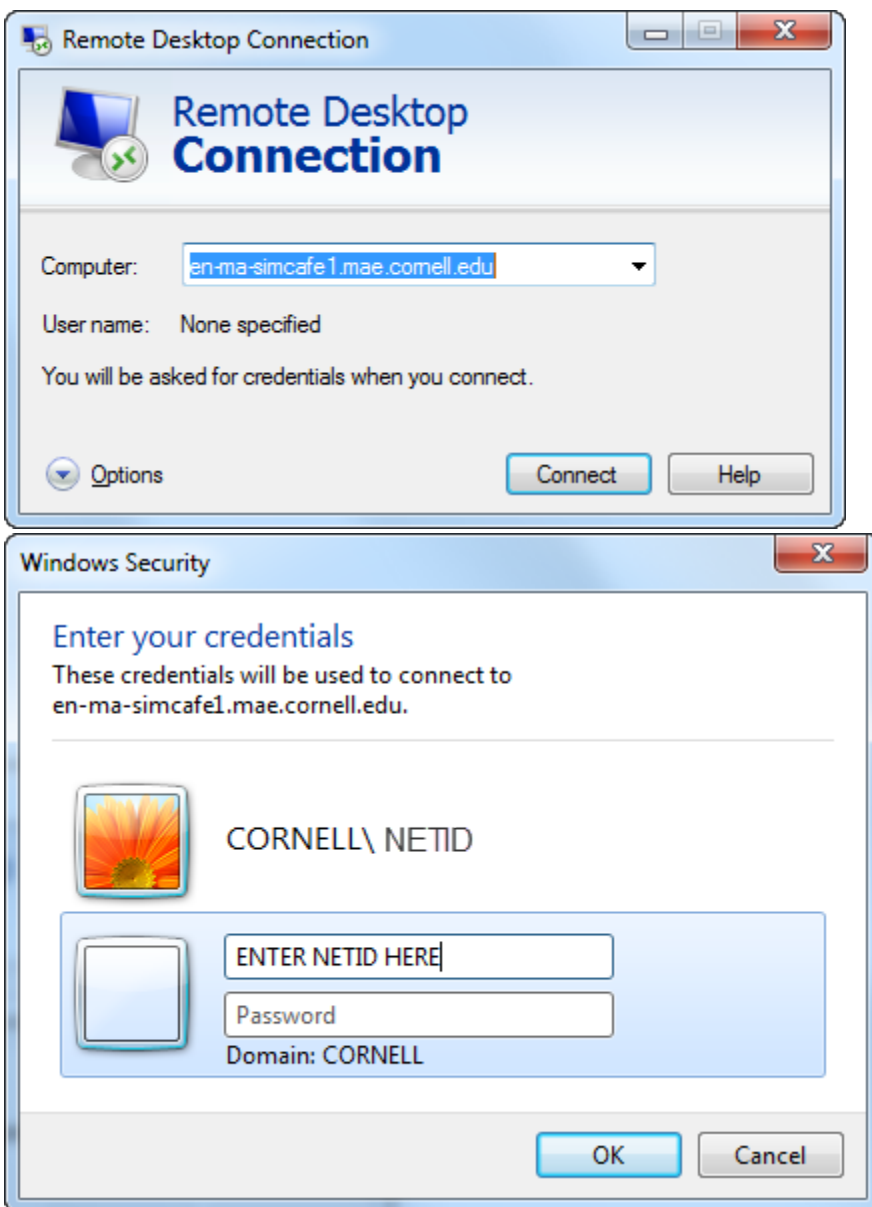


# Running Fluent on a Remote Server

If your simulation requires more processing power, you may need to remotely run the calculations on a larger server. This tutorial is for those who have log-in access to the SimCafe1 server on Cornell University's Ithaca campus. The procedure for running FLUENT on other servers will be similar.

## Method 1: Remote Desktop Connection

1. If you are connecting to the server outside of the campus, first establish a VPN connection to the Cornell network. For guidelines for setting up the VPN network, refer to [THIS LINK](#) and follow the given steps.
2. In the Start menu, type "Remote Desktop Connection" and hit enter. Input the information below:



3. Hit OK and you should be able to access the server smoothly.
4. You can transfer files between the remote server and your local machine through drag-and-drop by mapping a network drive. See the instructions below for mapping a network drive.

Note: Some users may find that the default Remote Desktop app in Windows does not work properly. If this happens to you, try using this [alternative](#) with the same procedure.

## Method 2: Using server as a network drive

Instructions are provided in the following video and summarized below:

**Summary of the video above:**

1. Append DNS suffix
  - a. Go to Control Panel >> Network and Sharing Center >> Local Area Connection (or Wi-Fi if you don't have a hard connection)
  - b. Click Properties in the "Status" window
  - c. Select Internet Protocol Version 4 (TCP/IPv4)
  - d. Click Properties >> Advanced
  - e. Go to the "DNS" tab and under the window "Append these DNS suffixes", click Add
  - f. In the "TCP/IP Domain Suffix" window, type in: mae.cornell.edu
  - g. Hit "OK" and "Close" until you return to your desktop
2. Map Network drive
  - a. Go to "My Computer" and select "Map network drive" on the top bar
  - b. For "Folder", type in: \\en-ma-simcafe1\workspace
  - c. Click "Finish" and make note of the drive letter used (e.g., 'Z:')
  - d. If it prompts you for login information, use your [netID@cornell.edu](mailto:netID@cornell.edu) and password.
3. Set up FLUENT
  - a. Select "Parallel"
  - b. Select "Use Job Scheduler"
  - c. Choose # of processes. (Note that the academic version of FLUENT is limited to 2 processes.)
  - d. Under "More Options" in the "General Options" tab
    - i. For working directory, type in the name of mapped drive (e.g., 'Z:\')
      1. If this is grayed out and does not have the correct drive, follow these instructions:
        - a. Find the Workbench shortcut (or the Fluent shortcut if you run Fluent directly instead of through Workbench)
        - b. Right-click and select "Properties"
        - c. Change "Start In" to the location of the mapped drive
      - ii. For "Fluent Root Path", enter: \\en-ma-simcafe1\fluent
    - e. Under the "Scheduler" tab
      - i. For Computer Cluster Head Node Name, enter: en-ma-simcafe1.mae.cornell.edu
    - f. If you are using a UDF, check "Setup Compilation Environment for UDF" under the "Environment" tab
    - g. Click OK to run FLUENT
    - h. In the print-out console, make sure all licenses are available and simulation is running
  4. Check progress of Fluent solver
    - a. Check that HPC Cluster Manager is installed on the computer
    - b. Run HPC Job Manager
    - c. Select "active" on the left tab to view active jobs