

## Installing the GeoMx NGS Pipeline (DND)

### Installing on Mac

If you are running MacOS, you will install the Pipeline graphical user interface (GUI) on your computer. You may install the Pipeline software on your computer as well, but this requires Docker to be installed locally (see step 1, below) and may limit the computing power and processing speed of your process. Most users will choose to install the Pipeline software on a server for increased processing power and speed (see step 5, below).

1. If you will be running the GeoMx NGS Pipeline (DND) locally, you will need to **download and install Docker Desktop** MacOS from the Docker website: <https://docs.docker.com/docker-for-mac/install/>. If you will be running the GeoMx NGS Pipeline (DND) on a server, proceed to step 2.
2. **Download the zipped GeoMx NGS Pipeline (DND) installation file.** Right-click and **Extract All** to unzip it. The folder contains a zipped Mac installer and instructions for installation on all platforms.
  - Give access to Docker for I/O operations on preferred drive. After starting docker, check Settings (right-click tray icon) > Resources > File Sharing.

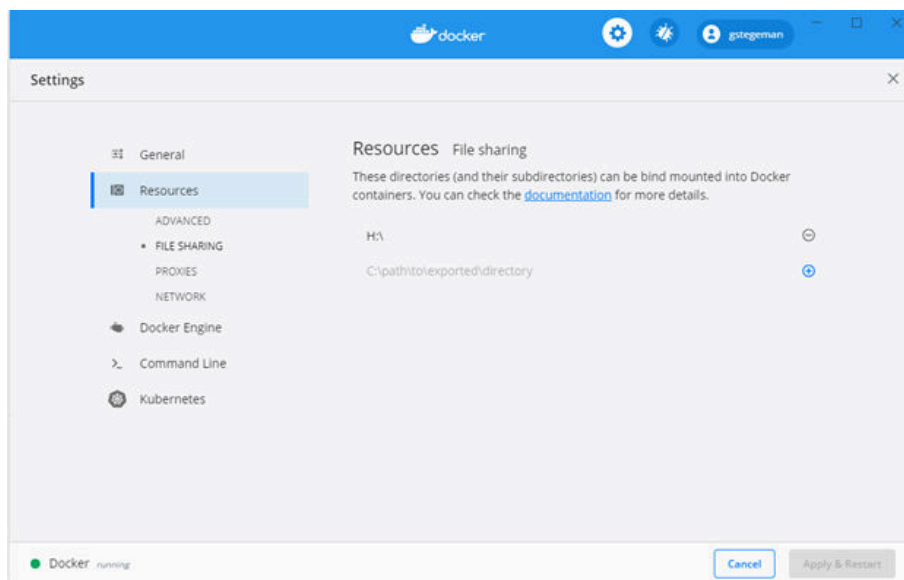


Figure 1: Docker Resources

3. Unzip the Mac installer folder and double-click on the **Mac installer application**, *dnd-*

*macOS-installer-1.0.0.57.dmg* (or similar). Follow the instructions in the Wizard to install the GeoMx NGS Pipeline (DND) software.

- You may receive a warning that the DND installer is from an unidentified developer. If this occurs, in order to complete installation, you will need to open System Preferences app, then your security & privacy settings and select **Open Anyway**.

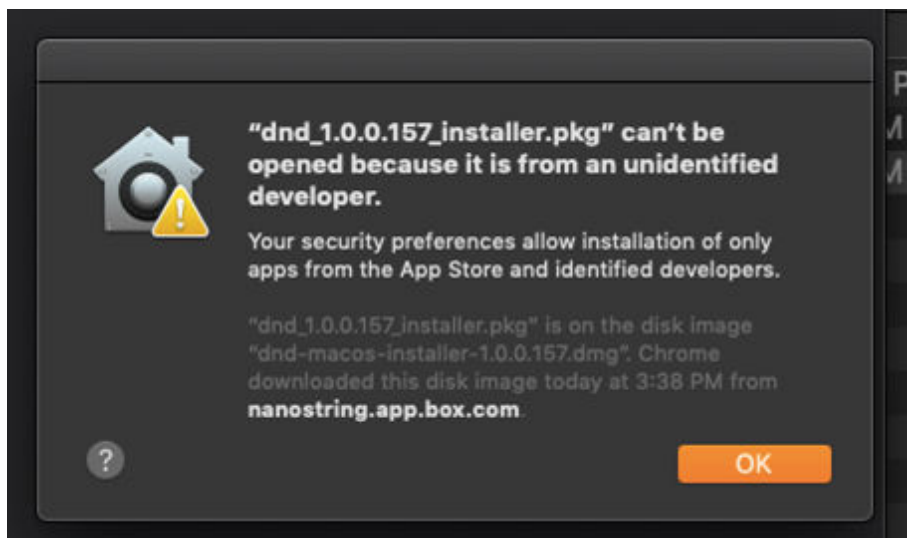


Figure 2: DND warning on Mac

- If you plan on using command line interface, keep box **DND CLI** checked.
4. Once the GeoMx NGS Pipeline (DND) software has been installed, **open the application**.
    - If using the **GUI**, open the application.
      - (Optional) Copy the DND app to the Applications folder.
      - Read and accept the terms of GeoMx NGS Pipeline (DND).
      - Wait until GeoMx NGS Pipeline (DND) sets up the environment (it may take some time to pull the image from Docker Hub).
    - If using **command line interface**, open terminal.
      - Run `dnd --help` inside the terminal.
      - Type `y` to read and accept the terms.
      - Wait until GeoMx NGS Pipeline (DND) sets up the environment (it may take some time to pull the image from Docker Hub).

5. (Optional) If you plan on using a **remote server** for processing, you will first need to **install GeoMx NGS Pipeline (DND) on your server.**

- Once installed, add the server in the GUI by clicking on the **gear icon**, then clicking **Add server.**

- Enter **API server address**, including port (insert your server name in lieu of the red text): `http:// <remote server address>:5000`

- Consult with your system administrator on what **memory upper limit** (default is 4) and **# parallel processing jobs** (default is 1) is appropriate.

- Click **Save.**

- In the main GeoMx NGS Pipeline (DND) menu, ensure the toggle **Run locally** is switched to **Run on server**, and the server you saved is selected from the adjacent dropdown menu (if not already by default)

- For all GeoMx NGS Pipeline (DND) runs moving forward, you can click the gear icon and select the server from server address drop down, click save, then move slider and run on the server.

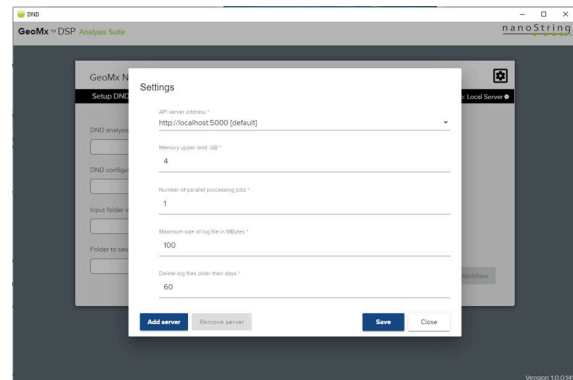


Figure 3: Adding a server