

## **Exercise 0 — Installing Tools and Data – Last modified on 4/6/2017**

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Within this document, the term NHDPlus is used when referring to NHDPlus Version 2.1 (unless otherwise noted).

In addition to this, exercise 0, there are seven NHDPlus exercises:

- Exercise 1 – Setting Up NHDPlus Data
- Exercise 2 – Linking Data to NHDPlus
- Exercise 3 – Navigating with Geometry
- Exercise 4 – Navigating with the Flow Table and with the VAAs
- Exercise 5 – Network Analysis
- Exercise 6 – Raster Datasets
- Exercise 7 – Watershed Delineation

The NHDPlus exercises assume a working knowledge of ArcCatalog, ArcMap and ArcToolbox. All exercises are designed to be performed in ArcGIS 10.

Note: The person who installs the tools listed below will most likely require “Administrator” privileges.

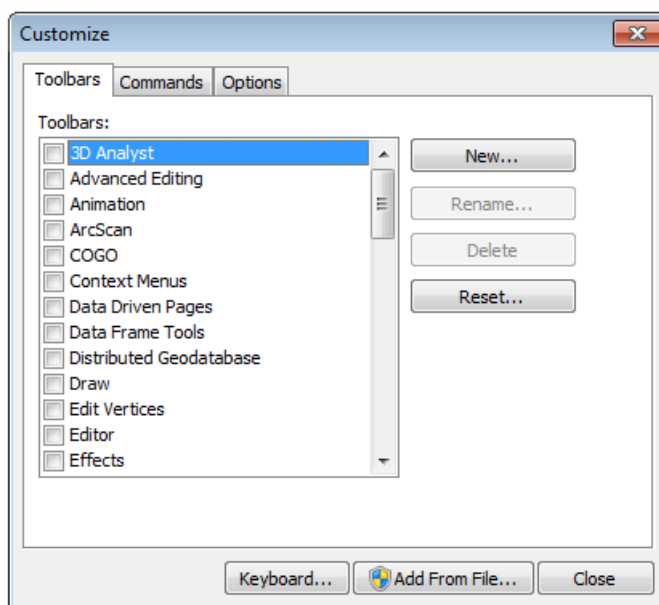
### **NHDPlusV2.1 Toolbox Installation to ArcToolBox**

Download NHDPlusV2.1 Toolbox from the NHDPlusV2 tools page - <https://www.epa.gov/waterdata/nhdplus-national-hydrography-dataset-plus>. Unzip the install package. Create an \NHDPlusV21Tools folder. Create an \NHDPlusV21Tools\NHDPlusV21Toolbox folder. From the unzipped install package, copy the .tbx and .py files into the \NHDPlusV21Tools\NHDPlusV21Toolbox\ folder. Open ArcCatalog and ArcToolbox. Right click on “ArcToolbox” at the top of the toolbox menu and select “Add Toolbox”. Navigate to the \NHDPlusV21Tools\NHDPlusV21Toolbox\ folder and select the .tbx, then click “Open”. The NHDPlusV2.1 Toolbox should appear in the list of toolboxes.

Note: Certain tools can make opening ArcToolbox extremely slow. This can make opening ArcMap or ArcCatalog slow as well, when the ArcToolbox tab was open when the application was closed last. (ArcHydro Tools is a common example of a set of tools that makes ArcToolbox slow.) If you have problems with ArcToolbox opening slowly, you can keep the ArcToolbox closed, and simply navigate to any tool folder in ArcCatalog, or in the ArcCatalog tab within ArcMap, open the toolbox, and run the tool from there. Note that you may need to establish an ArcCatalog connection to the folder or to one above it first, before you can navigate to the folder.

## NHDPlusV2 Flow Table Navigator Toolbar Installation to ArcMap

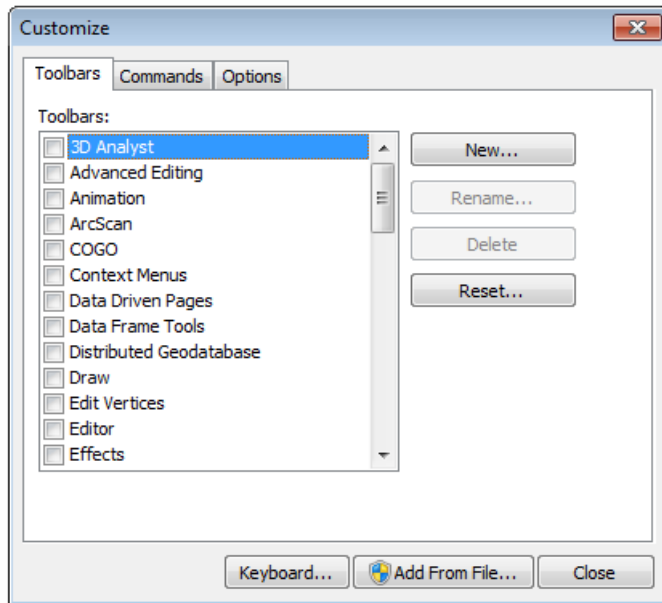
Download the NHDPlusV2 Flow Table Toolbar from the NHDPlusV2 tools page - <https://www.epa.gov/waterdata/nhdplus-national-hydrography-dataset-plus>. Unzip the install package. Right click on the NHDPlusV2FlowNavigatorToolbarSetup.exe and select “Run as Administrator”. Take note of the folder where the toolbar was installed. Start ArcMap<sup>1</sup>, right click on an empty spot in the toolbar and select “Customize” from the list of toolbars. In the “Customize” dialog shown below, select “Add from File” and navigate to folder in which the toolbar was installed and select the NHDFlowNavigationToolbar.tlb. Click “Open”.



## NHDPlusV2 VAA Navigator Toolbar Installation to ArcMap

Download the NHDPlusV2 VAA Navigator Toolbar from the NHDPlusV2 tools page - <https://www.epa.gov/waterdata/nhdplus-national-hydrography-dataset-plus>. Unzip the install package. Right click on the NHDPlusV2VaaNavigatorToolBarSetup.exe and select “Run as Administrator”. Take note of the folder where the toolbar was installed. Start ArcMap<sup>1</sup>, right click on an empty spot in the toolbar and select “Customize” from the list of toolbars. In the “Customize” dialog shown below, select “Add from File” and navigate to folder in which the toolbar was installed and select the NHDPlusV2VAANavToolbar.tlb. Click “Open”.

<sup>1</sup> When using Windows 7, it may be necessary to right-click on ArcMap and use the “Run as Administrator” option.



## NHDPlusV21 Data Installation

Detailed instructions can be found in the NHDPlusV2 User Guide - <https://www.epa.gov/waterdata/nhdplus-national-hydrography-dataset-plus>.

Create an \NHDPlusV21Data folder and install all NHDPlus data into this new folder.

While you may download data for your area of interest, some exercises require the data specifically for VPU06 which is located at <https://www.epa.gov/waterdata/nhdplus-national-hydrography-dataset-plus>.

So be certain to include VPU 06 in your data downloads. The data is distributed in a compressed format using the “7-zip” utility. Instructions for acquiring the 7-zip utility are provided at the bottom of this link.

In Windows Explorer, use the 7zip utility to uncompress the .7z files of NHDPlusV21 data into the \NHDPlusV21Data preserving the folder structure in the .7z files.

## Installation of Additional Data Required for Exercises

Several exercises require additional data. This data can be downloaded from <https://www.epa.gov/waterdata/nhdplus-national-hydrography-dataset-plus>.

After downloading this data, uncompress the zip files into a convenient location.

**Questions?**

Questions about the exercises may be directed, via email, to [nhdplus-support@epa.gov](mailto:nhdplus-support@epa.gov).