Install PureData 0.56-2 for macOS (Yosemite & later) & Windows 11

1. Download PureData 0.56-2 from Miller Puckette's Web site. Use the compiled versions for macOS 10.10 and later, or Windows 64 bit.

> http://msp.ucsd.edu/software.html

2. macOS: Open the zip archive and then the resulting dmg file. Copy the application, Pd-0.56-2.app, to the Applications folder. On newer Mac systems, you will need to grant permission to run "an app downloaded from the internet"; you can also right click (control-click) on the application, choose "Open" and then "Open" again from the pop-up warning windows. Windows has an installer.

3. When Pd first runs, it may ask about making a folder in your Documents folder. Say, "yes". It will create a Pd folder, as well as a subfolder called "externals".

4. From the Pd Help menu navigate to "Find externals". Pd and Max use the term 'externals' for what most programming environments call 'libraries'. It installs these with a utility called 'deken'.

Externals that you need to install in order to run class examples are:

> comport, cyclone, else, Gem, hid

Consider these additional ones, especially for sound or unusual USB controllers – ggee, and vstplugin~. Note: Some features of these may not work on newer versions of macOS and hardware.

Note: Gem is an external written for PureData that enables you to play videos, analyze a video signal, use a camera, and use OpenGL 3D graphics; comport allows Pd to exchange data with an Arduino.

Search for these from the "Find externals" under the Help menu, and for each, install the one with the newest date, uppermost in the display window. On some machines, the current version of Cyclone, 0.9.x, does not work, use version 0.8.1 instead. Apple macOS users will need to install a special library in order to use Gen on Macs with Apple 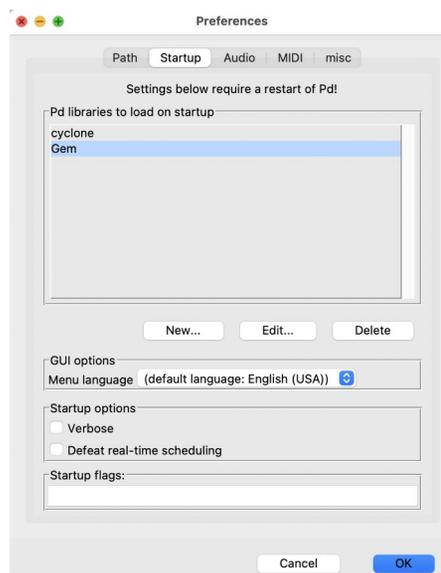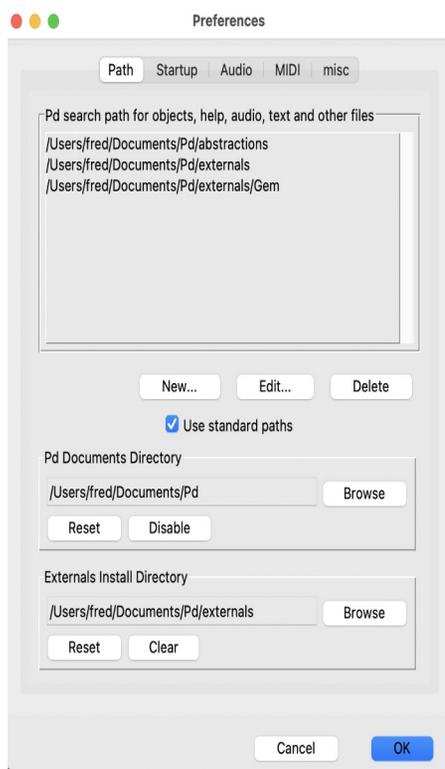Silicon (M1, etc.). Run the NDI installer: libNDI_for_Mac.pkg. It's included in this zip archive, but can also be downloaded here: libNDI_for_Mac.pkg on Google Drive
(https://drive.google.com/file/d/1p4q0mx8K2MGsNHo8A6u9FFIFYVuz78ZZ/view)

5. Some externals should activate when Pd starts. Open Pd Menu→Preferences→Edit Preferences...

Click the "Path" tab and ensure there's an entry for your externals (see screen shot). Select the "Startup" tab and type "Gem" and "cyclone" to activate when Pd loads.

6. Optional: In your Pd folder, create a new folder called "abstractions". This is a handy place to put objects built from other Pd objects that you use often. To add it to your search path, open the Pd Preferences: (Pd Menu→Preferences→Edit Preferences...). Click the "Path" tab. Click the button labelled "New…". A pop up window will appear allowing you to navigate to the appropriate folder, in this case, "abstractions".

Two fun ones are wahwah~ and spigot~ (a gate that switches an audio signal between two outlets). Unzip abstractions.zip and copy the objects to your newly created abstractions folder. Abstractions is a separate download.

7. Note: Pd is an open source project with a lot of contributors and history, and is in a constant state of revision. While Miller Puckette maintains the core program, externals are labors of love by various people throughout the world. Some externals, that were once bundled with Pd, no longer work. Be especially wary when searching the internet for Pd code that references "Pd Extended". You will often find objects – indicated by dotted lines – that don't work. Welcome to the world of FLOSS (https://www.gnu.org/philosophy/floss-and-foss.en.html). Ignore these and look for another solution; there usually is one.

8. Final Note: under Windows, you will likely need to install a MIDI manager. Additionally, in order for Windows machines to handle some video formats under Gem, you may also need to install a collection of CODECs to render video formats. We like the K-Lite Codec pack, currently at version 18.8 (https://codecguide.com).