Plumid

A midi software interface for Neural DSP's Archetype Plini
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Testing Plan
October 1st, 2019

- **Purpose**: I'm creating a software called Plumid that can receive MIDI messages from any MIDI controller and control the GUI of the Archetype Plini plugin to change presets and edit parameters within presets. This will give the plugin the capability of being used in a live setting for guitar tones and hence bring studio quality tones to a live setting.

- **Features to be tested**:
  - Plumid is able to recognize any connected MIDI device
  - Plumid can receive/read MIDI messages
  - Plumid automates the mouse to move to specific points within the plugin to change presets according to the received MIDI input.
  - Plumid changes tempo of delay according to the received MIDI messages' time intervals.
  - Hopefully turn the python code into an executable with a GUI that runs in the background while using the plugin.

- **Test Plan:**
  - *T1* – Ensure that Plumid can recognize multiple MIDI devices.
    - *Input*: Connect MIDI controller to PC and run software
    - *Output*: Displays Device ID and port number on starting the software.
    - *Behavior*: None
  - *T2* – Ensure that Plumid reads MIDI messages accurately
    - *Input*: Press button/footswitch on MIDI controller.
    - *Output*: Displays received MIDI message.
    - *Behavior*: Calls function to automate mouse based on received MIDI message.
  - *T3* – Ensure that Plumid automates mouse correctly based on MIDI input
    - *Input*: MIDI cc number extracted from message
    - *Output*: None at the console
    - *Behavior*: Pygame moves the mouse to the specific part of the plugin GUI and interacts with it as necessary.
  - *T4* – Ensure that Plumid changes tap tempo time correctly
    - *Input*: consistent footswitch presses to trigger MIDI input
    - *Output*: None at console
    - *Behavior:* Mouse clicks the tap tempo button as soon as input is received to accurately set the delay time.

- - - *Potential errors*: Plugin has a bug where the audio gets detuned while using the tap tempo button in real-time.
  - ○ *T5* – Turn python code into executable with GUI
    - ■ *Input*: python code
    - ■ *Output*: GUI output based on interaction.
    - ■ *Behavior:* Runs software in background

- ● **Schedule:**
  - ○ T1-T3 by October 9, 2019
  - ○ T4 by October 16, 2019
  - ○ T5 by October 23rd, 2019