

1 Introduction

The Jack Audio Connection Kit opens the door for MuseScore to connect with other MIDI and Audio devices. It is well recognised as a Linux Audio application, but it is also very easy to use in Windows, enabling MuseScore to interface with a wide range of audio and MIDI applications, both open source and proprietary. Unfortunately the Windows incarnation suffers from lack of documentation and out of date and broken web-links, a state which I am partially attempting to address here.

This video link shows MuseScore 2 beta supplying the MIDI stream to drive a VST plugin in Cakewalk Sonar X2 Studio.

1.a What you need

In order to achieve integration of MuseScore with all audio and MIDI applications there are a number of utilities you need to download and install. These are all either open source or freeware.

- i. Jack Audio Connection Kit is obviously the first on the list - download from <http://jackaudio.org/downloads/>
- ii. A virtual MIDI cable utility. I recommend LoopMIDI for reasons you will see later, but you can also use LoopBE: download from <http://www.tobias-erichsen.de/software/loopmidi.html> or <http://www.nerds.de/en/loopbe1.html>
- iii. Virtual Hi-Fi Cable And ASIO Bridge. This enables the routing of audio streams otherwise unable to route to Jack via the Jack Asio connection. Download from <http://vb-audio.pagesperso-orange.fr/Cable/index.htm>

We shall be looking at all these in more depth later.

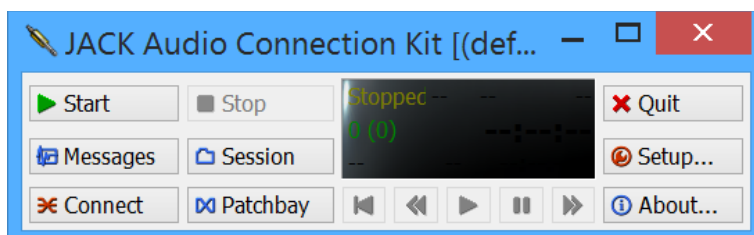
2 Installation & Setup

2.a Installing JACK

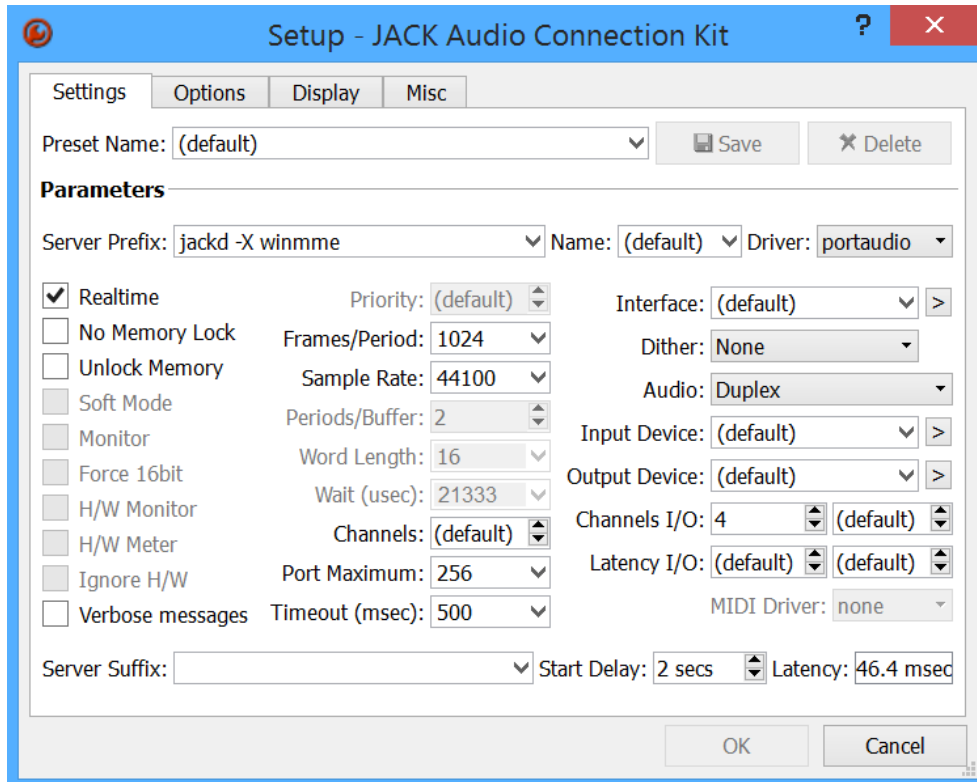
Installation of JACK on Windows follows the same procedure as for any other application by double-clicking the installer program and following the steps through as usual. Once you have done this **do not follow the instructions for Windows users on the JACK website**. This is very important as doing so will lead to problems with MIDI setup later on.

2.b JACK Setup

1. First of all locate and run Jack Control in the Programs menu. If you are running Windows 8/8.1 then you will find it in the All Programs section entered by clicking the arrow at the bottom of the Start Screen, and may find it convenient to pin it to the Start Screen or Task Bar.
2. You will now see the Jack Control Panel on the screen:



- Click the Setup button, and after choosing the Portaudio option from the Driver menu ensure that the rest of the options are as in the screenshot:-



- After clicking OK, JACK setup is complete, unless you are running a 64 bit version of Windows..
- Windows 64 bit version users have to register the 64 bit JackRouter dll manually as the 32 bit version is installed by default. This is necessary to gain JACK's ASIO support. This is done with the following procedure in Windows 8:

- In Windows Explorer navigate to JACK's installation folder at C:\Program Files (x86)\Jack\64 bits\
- Open an Administrator Command Prompt from the File menu
- Type the command `regsvr32 JackRouter.dll`
- A confirmation message will appear.

The procedure is a little more complicated in Windows 7

- Open an administrator command prompt (type `cmd` into the program search box then right-click the program and choose Run As Administrator)
- Verify the JACK installation folder (this should be the same as the one in the Windows 8 instructions).
- Enter this command into the Command Prompt (changing the path to the JACK folder if necessary):

```
regsvr32 C:\Program Files (x86)\Jack\64bits\JackRouter.dll
```
- A confirmation message will appear.

- You can now start the Jack server by clicking the Start button.

