Multimedia Systems

Practical Class P1

FEUP 2019/2020 – António Sá Pinto 02/03/2020

P1. Software Tools

Download and Install the following Software Tools.

1. Audio Editing Tools

Audacity

https://www.audacityteam.org/download/

Sonic Visualiser (and VAMP Plugins)

https://www.sonicvisualiser.org/

Instructions

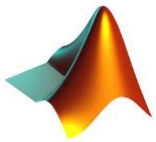
1. **Download Sonic Visualiser (last version)**
   https://www.sonicvisualiser.org/download.html

2. **Download VAMP Plugins**
   Go to http://vamp-plugins.org/download.html and download the **MIR.EDU** and **QM-VAMP (Queen Mary)** plugins.

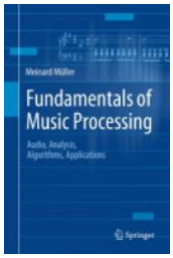
3. **Install VAMP Plugins**
   Follow the installation instructions here:
   http://vamp-plugins.org/download.html#install

2. Programming Tools

Matlab



FMP Jupyter Notebooks (Python)



Instructions

You can check the full instructions to install Fundamentals of Music Processing (FMP) Python Notebooks at https://www.audiolabs-erlangen.de/resources/MIR/FMP/B/B_GetStarted.html

1. **Download the FMP Notebooks (1.58GB)**
   https://www.audiolabs-erlangen.de/resources/MIR/FMP/FMP_0.1.1.zip.

   Unzip it to a place of your choice.

2. **Install Conda**
   The fastest way to obtain conda is to install Miniconda, a mini version of Anaconda that includes only conda and its dependencies (**NOTE: this is the recommended version for our class**). If you prefer to have conda plus over 7,500 open-source packages, install Anaconda.

   We recommend you install Anaconda for the local user, which does not require administrator permissions and is the most robust type of installation. You can also install Anaconda system wide, which does require administrator permissions. For further instructions:

   - Windows
   - MacOs
   - Linux

3. **Create the Conda Environment**

   Open the Anaconda **Prompt** on Windows or your default **shell** on Linux/macOS. Then change to the directory that contains the file environment.yml. Create the environment with the following **shell** command:

   ```
   conda env create -f environment.yml
   ```

4. **Start a Jupyter Server**

3. After creating the FMP environment, you need to activate the environment using the following command:

   ```
   conda activate FMP
   ```

4. Change to the directory containing the FMP notebooks and start the Jupyter server by using the following command:

```
jupyter notebook
```

This should open a browser, displaying the folder structure of the FMP notebooks. You then can open the overview notebook by selecting the file `C0/C0.ipynb`. You can also directly open any FMP notebook by selecting a file in any subdirectory with the file extension `.ipynb`.

NOTE: Within the Jupyter session you need to follow the **IPYNB links** to keep the code cells executable. Also note that, within the Jupyter session, you can only access files that are contained in the directory you used for launching the Jupyter server or in any **subdirectory**.

5. Browse the contents and run some notebooks

To run a cell, select it and press ENTER. (Otherwise, use the toolbar).