Simple DISSCO Project with LASSIE: Score Output

"Twinkle Twinkle Little Star"

https://cmp.ischool.illinois.edu/software/dissco/index.php
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0. **If you do not have DISSCO**, check it out in Terminal using the command:

    git clone https://github.com/tipei/DISSCO-2.1.0.git

    (be patient, it might take a while – there are many files)

1. Enter the following, pressing Enter after each line:

    cd DISSCO-2.1.0

    premake4 clean

    premake4 make

    make

    (again, be patient, it will take a while to compile the program)

2. Create a new project in LASSIE   **(if you already downloaded and compiled DISSCO start here)**

- Type ./lassie
- Click the **Create a new project** button in the toolbar
- Choose a folder, name your project *scoretutorial,* and click Open

(NOTE: Once you choose a folder for your project, do not change it later – DISSCO will not be able to find it at the changed location)

- A new window, **Project Properties**, will appear
  - only check the boxes **Score Printing** and **Output Particel**
  - set **Piece Duration** to *30* and click OK

(the default name of the newly created Top object is *0*)

3. Build a Top event – <u>this is your piece and the root node of the structure</u>

- Click the wedge next to **Folder Top** then double click **Top 0**
- Set **Number of Children to Create** to *1*
- Enter *0* for **Child Start Time** and select **EDU** beneath it
  (NOTE: Refer to the manual for more information about EDU)
- Set **Child Type** to *0*
- Set **Child Duration** to *180* **EDU** and **Max Child Duration** to *30*
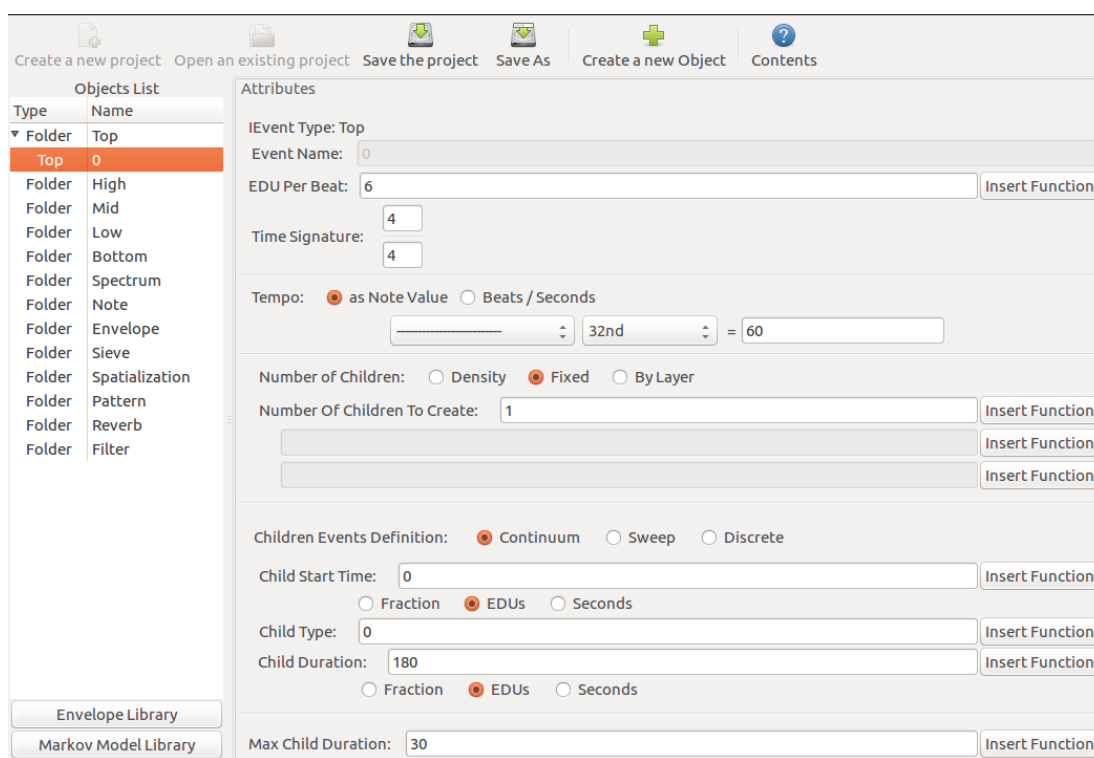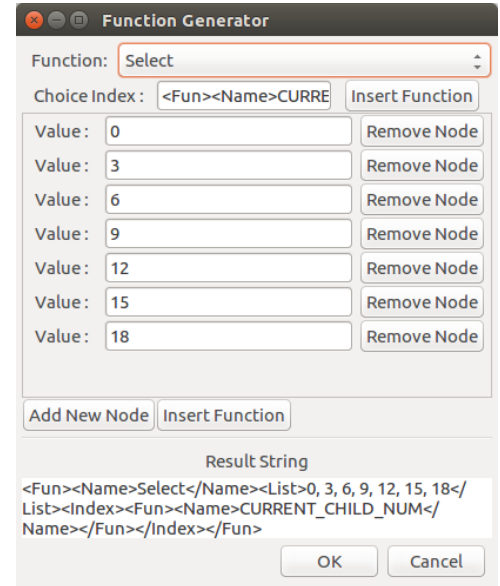

(we will complete the Top event in step 7)

4. Create a Bottom event - <u>this event creates start times, durations, pitches, and dynamics</u>
<u>of notes</u>

- Click **Folder Bottom**
- Click the **Create a new Object** button in the toolbar
- Name it *n1* and click OK
  (NOTE: Bottom names must begin with a lower-case n !)

- Click the wedge next to the **Folder Bottom** and double-click **Bottom n1**
- Set **Number of Children to Create** to *7*   -these will be your sounds
- Click **Insert Function** next to **Child Start Time** and choose **Select** - we are selecting the starting times (EDUs) for our 7 children (notes)
  - Click **Insert Function** next to **Choice Index** and choose **CURRENT_CHILD_NUM**, hit OK
  - Click **Add New Node** *7* times and put the individual node values as 0, 3, 6, 9, 12, 15, and 18
  - Hit OK

- Select **EDU** beneath **Child Start Time**
- Click **Insert Function** next to **Child Type** and choose **RandInt** - allows us to randomly choose between 2 note types which we create in the next step
  - keep **Lower Bound** at *0*
  - set **Higher Bound** to *1*, hit OK
- Set **Child Duration** to *3 EDUs*
- Set **Max Child Duration** to *30*

(we will complete the Bottom event in step 6)

5. Create Note events - we are creating the types of notes we randomly want to appear
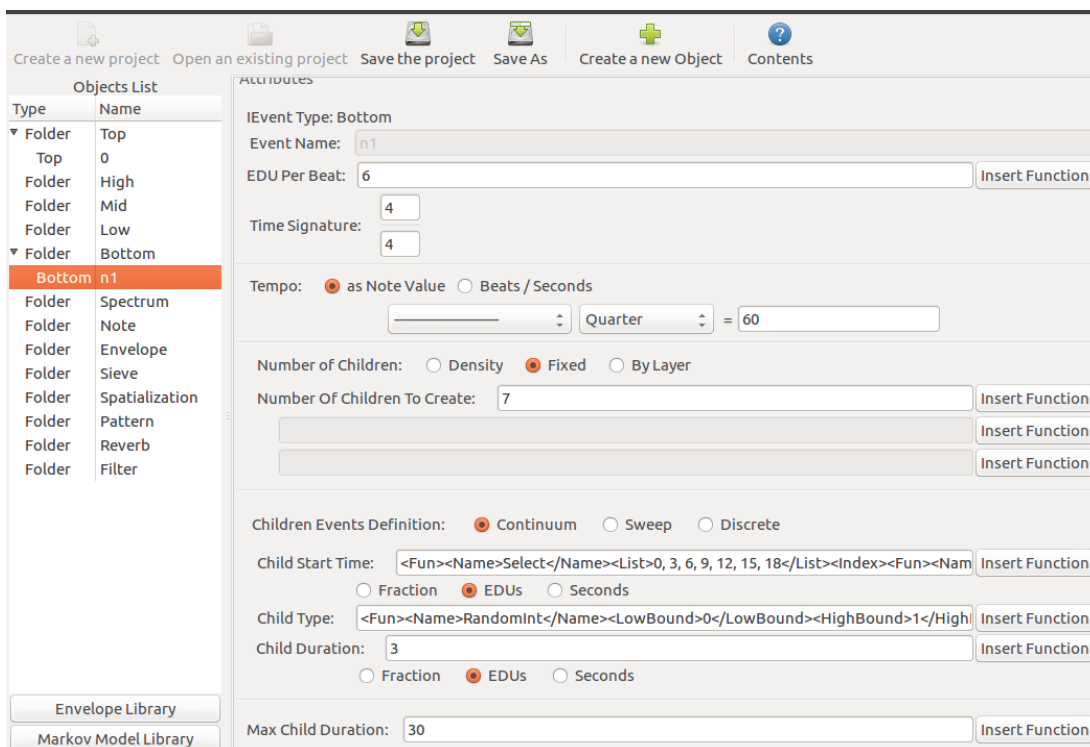
- Click **Folder Note**
- Click the **Create a new Object** button in the toolbar
- Name it *no1* and click OK
- Click the **Create a new Object** button in the toolbar
- Name it *no2* and click OK
- Click the wedge next to the **Folder Note** and double-click **Note note1**
- Set **Staff Number** to 0
- Check the **null** box (Note: this is a note with no notation)
- Click the wedge next to the **Folder Note** and double-click **Note note2**
- Set **Staff Number** to 0
- Check the **accent** box
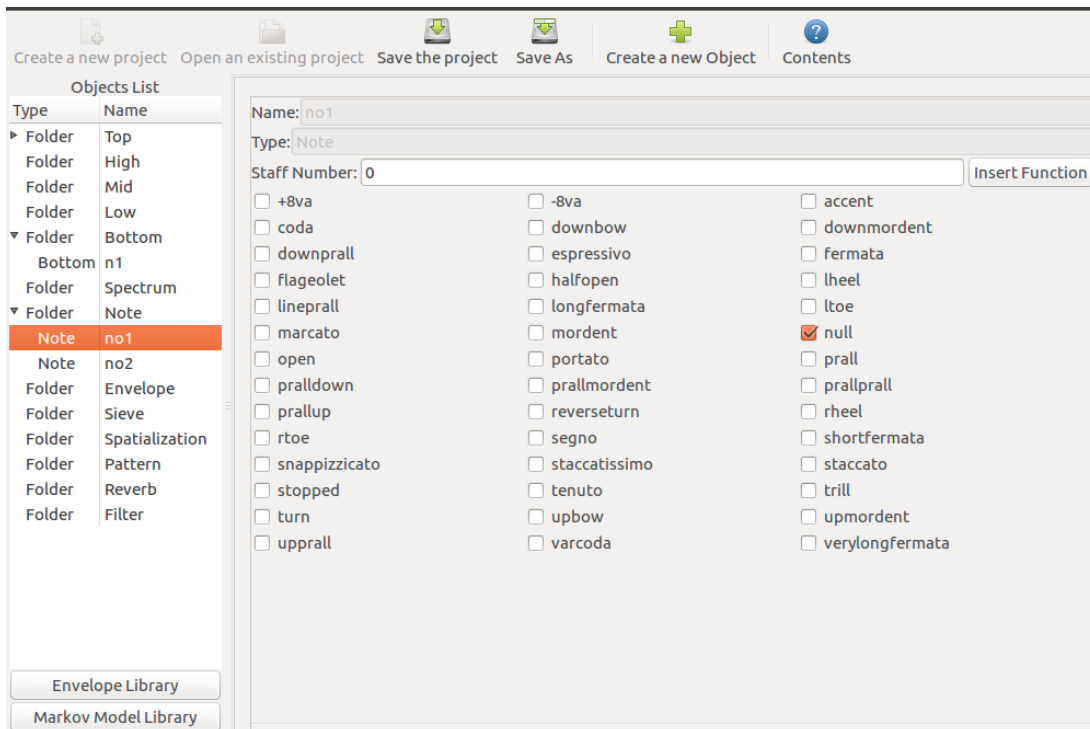
6. Complete the Bottom event - <u>we are setting the bottom event's children (note types),</u>
<u>pitches, and dynamic</u>
- Double click on the **Bottom n1** event to bring it back
- Scrolling down, drag your **Note no1** and **Note no2** into the white box underneath where it says **Child Type | Class | Name**
- Click **Insert Function** in the **Value** field below **Frequency** and choose **Select**

- ○ Click **Insert Function** next to **Choice Index** and choose **CURRENT_CHILD_NUM**, hit OK
- ○ Click **Add New Node** *7* times and put the individual node values as 48, 48, 55, 55, 57, 57, and 55
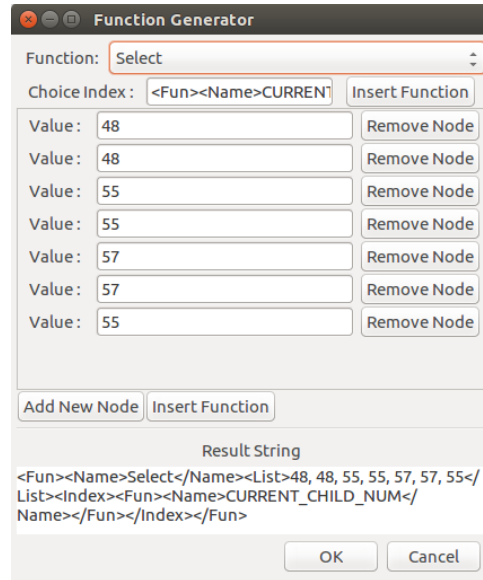

- ○ Hit OK
- Set **Loudness** to *100*

7. Return to the Top event and add Bottom as child of Top
- Double click on the **Top 0** event
- Drag **Bottom n1** into the white box underneath where it says **Child Type |Class |Name**

8. Save Project and Synthesize
- Click the **Save the project button** in the toolbar
- From the **Project** menu in the toolbar, select **run**
- Type *123* (or any sequence of letters and/or numbers) into the **Random Seed** window and click OK

- The pdf sheet music output is in the folder **ScoreFiles**, in the same folder as the
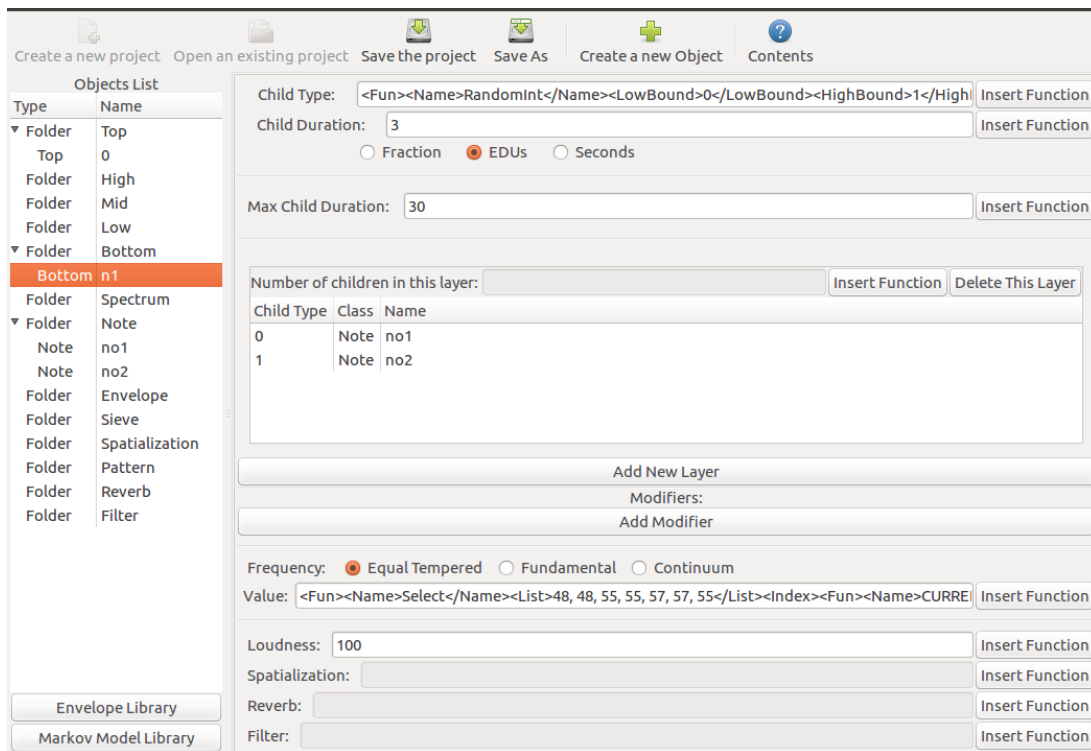
project

This tutorial only used randomness placing notation on notes. Through experimentation, it's possible to randomize pitches, start times, and durations to have unique variations of our theme and whole new pieces!