

## Enhancing the Tutorial Project I

Using your tutorial1 project:

### 1. Envelopes - Creating percussive sounds:

- Click **Envelope Library** button at bottom-left of the screen and follow the Tutorial instructions to create new envelopes.
- Create an envelope with the following coordinates:
  - x=0, y=0;
  - x=0.08, y=1.00;            set new segment to EXPONENTIAL (red) and FLEXIBLE
  - x=0.15, y=0.28;
  - x=1.00, y=0;                set new segment to EXPONENTIAL and FLEXIBLE

### 2. Spectrum:

- Click on the **Folder Spectrum** to create a new object, sp2
- Click on Spectrum sp2
- Set Deviation to 0.8
  - For Partial 1, Insert Function and choose EnvLib
  - Select Envelope 2 and scale 1
- Add 3 more partials and scale them, respectively, to 0.7, 0.45, and 0,15

### 3. Click on Bottom s1:

- Drag Spectrum sp2 into the white box where it says Child Type | Class |Name underneath sp1
- Raise Number of Children to Create to 35
- Leave Child Start Time Random between 0 and 25
- Click on Child Type - Insert Function
  - Choose Select
    - For Choice index, Insert Function, choose RandomInt Lower Bound=0, Higher=1
    - Add 2 nodes: enter 0 in the first box and 1 in the second box
- Click on Child Duration – Insert Function
  - Choose Select
    - For Choice index, Insert Function, choose CURRENT\_TYPE
    - Add 2 nodes: enter 3 in the first box and 0.2 in the second box
- Click on Reverb – Insert Function
  - Choose REV\_Simple
  - Room Size – Insert Function
  - Choose Select
    - For Choice index, Insert Function, choose CURRENT\_TYPE
    - Add 2 nodes: enter 0.7 in the first box and 0.01 in the second box

### 4. Save Project

### 5. Click on Project:

- Run

Change the seed of your random number generator and produce another/more version(s).

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How can you make the difference between sustained and percussive sounds more obvious ?

*HINT: in this case, percussive sounds sound better if their frequency is low (but still in that range) and if they are louder than the sustained sounds.*

**EXPERIMENT**