

00_konnektCtrl_server_configuration_window.png

The server configuration and recording support window.

This window configured the memory size, processing block size, sample rate and other important hardware and software settings that affect the capacity of the audio synthesis server. Further, recording support settings like number of channels to capture, file format, file naming and recording directory can be set.

01_KonnektCtrl_main_window_global_controls.png

This is the main editor window. The window is divided into three basic zones.

The global navigation zone is across the topmost portion of the screen. Use this to navigate between different editors.

The editor navigation is just under the global navigation. For the selected editor, basic setting/selection for the are done here. Depending on the level of detail needed for the editor, further navigation tabs will select the worksheet displayed.

The editor worksheet is below the the editor navigation. This window displays the editors worksheets.

02_konnektCtrl_ctrldef_editor_graph_tab.png

In this screenshot, we see that CtrlDef Editor is selected in the Global navigation menu. The CtrlDef editor is displaying the CtrlDef “white” in the editor. The pattern match text field displays “k_q” indicating that this CtrlDef will be activated in response this symbol on the CtrlBuss.

The GraphDef tab is selected and the worksheet for associating graphDefs is displayed. In this example. “white_FF” has been associated with the CtrlDef and the default settings can be edited in the text field. By clicking the “def” button, the GraphDef Editor window is opened where the graphDef function can be edited directly.

03_konnektCtrl_ctrldef_editor_map_tab.png

Here we see the MapDef tab of the CtrlDef Editor. On this tab, the worksheet allows us to add/remove, define and edit MapDef mappings associated with the CtrlDef. Data from the input is scaled by the map function and sent to the output name of the EventDefs memory and used immediately in any running process.

04_konnektCtrl_ctrldef_editor_buffer_tab.png

This is the Buffer tab of the CtrlDef window. Here a buffer can be created and associated with the CtrlDef. Either an empty buffer can be created for use by some process in the CtrlDef or a buffer can be created directly from a sound file. Buffers added to this tab are automatically available in GraphDefs associated to this CtrlDef.

05_konnektCtrl_ctrldef_editor_startFunc_tab.png

Here we see the StartFunc tab of the CtrlDef Editor. This window allows the user to customize the CtrlDef execution using code. This function is executed at the onset of a CtrlDef and can algorithmically modify data from mappings and/or set values in the local environment - thereby allowing data to be set for sounds or other outputs.

06_konnektCtrl_ctrldef_editor_task_tab.png

The task tab of the CtrlDef editor allows editing and customization of repeated function calls during the execution of a CtrlDef. The top portion of the editor allow the user to code a function that will be executed at each interonset. The lower textfield specifies the function that will be executed after the last step. Here we can see that this function will execute with an "interonset" of 0.1 seconds and will repeat a maximum of four times. The function will repeat only while the CtrlDef is active and until the main function is related "num" times. If the CtrlDef becomes inactive for "num" has been reached, then the repeated calls will stop.

07_konnektCtrl_ctrldef_editor_keywindow.png

The upper right hand corner of the main window has a section dedicated to specifying and opening a key window. Swiss and USEnglish key maps, key behavior (press/toggle) and number of keyboard layers are selecteable. Press the show keyboard to generate the window. These keys will generate symbols like "k_a" for keypress "a" and "k_t" for keypress "t" on the CtrlBuss. Any CtrlDef with a matching pattern will automatically turn on and off. In this window, we see that the currently selected CtrlDef has a pattern of "k_a". By pressing the "a" key on the keyboard, you can start/stop that CtrlDef.

08_konnektCtrl_graphdef_editor_wrapper_example.png

This is the GraphDef Editor window. This is the place to define sound making processes. There are three types of function created in this window: “default”, “wrapper” and “graph”. Each type of function results in the creation of some part or all of a SynthDef for the synthesis engine. A “default” is a standard SynthDef and the user must define all aspects of the function for the synthDef. The “wrapper” type is a special case for factory style creation of SynthDefs where this is the global component that interfaces directly to mapping features of a CtrlDef. The “graph” type of function is the kernel of a synthesis process and is contained within a “wrapper” to make a complete SynthDef.

In this example, we see the code for a “wrapper” style graphdef element. This is the code used to connect any number of “graph” elements to a CtrlDef in the same way. Of note, the piece of code `/**sig = _GRAPHDEF_;**/` is the container for the “graph” elements. In other words, a “graph” element will take the place of that code when the “wrapper” and “graph” are compiled together to make a completed SynthDef.

09_konnektCtrl_graphdef_editor_graph_example.png

In this example, we see the GraphDef editor window displaying a “graph” element of a Synthdef that will be used with the “wrapper” named “default”. This window is a text editor where users can customize the sound generation / audio processing code for a GraphDef that can later be associated with a CtrlDef.