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Testing Report

The following is a testing report and change log for the Chord/Progression Generator.

First, I should clarify that I got the software to work in its entirety: Users can use the Chord Generator to generate chords of a number of qualities from a single MIDI note, and do so in the context of a key. They can also input their own chord progression into the Progression generator and hold down a key: The progression will play using the inputted MIDI note as a reference tonic. The user can even adjust the tempo of their chord progression to match what they have in their DAW. However, these functions only work when a specific set of steps are followed, as wires in the code can get crossed if something is changed or adjusted at the wrong time.

To fix these issues, I used my software and attempted to find them deliberately. Here were all of the issues:

- Individual Chord Generator
  - When Key Context is set to on, it doesn't actually activate until the key context key is changed
    - Fixed this by running the function "kcKeySelect" whenever the Key Context selection is set to on. This way, whatever value was already selected on the page gets sent into the code.
  - The Key Context function only works in one octave: Whatever their key context key's tonic is (within 60 to 71)is the start of the octave, and any note played outside of that octave pretends as if Key Context isn't on: It keeps the quality the user has selected.
    - Expanded the range of pitch values that the code is able to detect for quality change in relation to the root of a chord. It now includes everything three octaves up and two octaves down from Middle C.
  - When the Key Context function is on and the chord quality is changed, an error message is sent to the console (Because I intentionally made it run the function "null.") But, the user sees that the chord quality on the webpage has changed, even the code hasn't updated its value. So, when Key Context is turned off and a note is played, it has the quality of the last selected quality, and not the one being shown. (This is easily fixed by selecting another quality to update the value, but I felt as though I should include it.

        - Similar to the Key Context problem mentioned above, I ran the qualitySelect function when the Key Context selection is changed to off, so that the script will automatically update with the value of the chord quality that is currently on screen.
- Progression Generator
    - When the Progression Generator option is selected, it doesn't actually take effect until the input and output is changed.
        - Fixed by moving the Chord or Progression selection to the top of the page, so the user is prompted to change that first. I also made a default blank option in the Input Output dropdowns so that it does not show the first available input without actually being assigned to that value.
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    - The same thing happens with the chord dropdowns. They have to be changed first to activate (even though the menu reads "I",) or else the code will break.
        - Fixed by setting the default value to "I"
    - This happens with the tempo as well.
        - Fixed by setting the default value to "120"

After fixing these issues, my software now works well and without error. All that's left is to make it pretty and submit it.