Using Hauptwerk 8's Rank Routing/Voicing Presets

I wanted to use the *rank routing/voicing presets* to implement a way of switching between listening to the organs on the loudspeakers and on headphones.

Summary of basic concepts around rank routing/voicing presets

Before we start, it is worth noting how the various presets interrelate.

1. There are 128 *audio mixer presets* (just as there were in version 7); these can each be given a name (new in version 8). These are global across all sample sets and a sample set (virtual organ) may be configured to use any of them.
   In version 7 an organ could only be configured to use one of the 128 *audio mixer presets*.
2. In version 7 for each organ, voicing changes could be made using the voicing window, and sample ranks routed to *mixer groups* in the chosen *audio mixer preset*.
   (In version 8 ranks that are only to use one stereo speaker pair may be additionally routed directly to a *primary mixer bus.)*
3. When an organ was played in version 7 the *mixer preset* configured and the rank routing and voicing set up for the organ were used.
4. Version 8 provides each virtual organ (sample set) with four ***rank routing/voicing presets***, (1, 2, 3 and 4). (See the Audio mixer, routing, voicing/panning settings large control panel.).

5. Each of the four *rank routing/voicing preset* consists of two parts: rank routing settings and voicing settings. The rank routing and voicing control panels in version 8 have expandable nodes for each of the four presents (1-4) (just like the *audio mixer preset* screen). When the node is expanded, by a left click on the node name, the settings for that preset are shown and may be changed. Rank assignment and voicing is very similar to version 7. When a particular *rank routing/voicing preset* is selected the voicing and rank routing specified for that preset are used. The *rank routing/voicing preset* can be named by right clicking on the name in either the routing or voicing screen (up to 16 characters).
   For each installed organ, the upgrade to version 8 migrated the voicing and routing from earlier releases to *rank routing/voicing preset* 1.
6. An *audio mixer preset* (1-128) is associated with each *rank routing/voicing preset*. When a *rank routing/voicing preset* is selected the chosen *rank routing/voicing preset* and the associated audio *mixer preset* are used. The upgrade to version 8 migrated the *rank routing/voicing preset* 1 to the audio *mixer preset* configured for each organ in the earlier version.

7. This enables each organ to have up to four separate (and distinct) voicing and audio setups within the same Hauptwerk configuration; the player can select which of these is to be used without reloading the instrument being used.

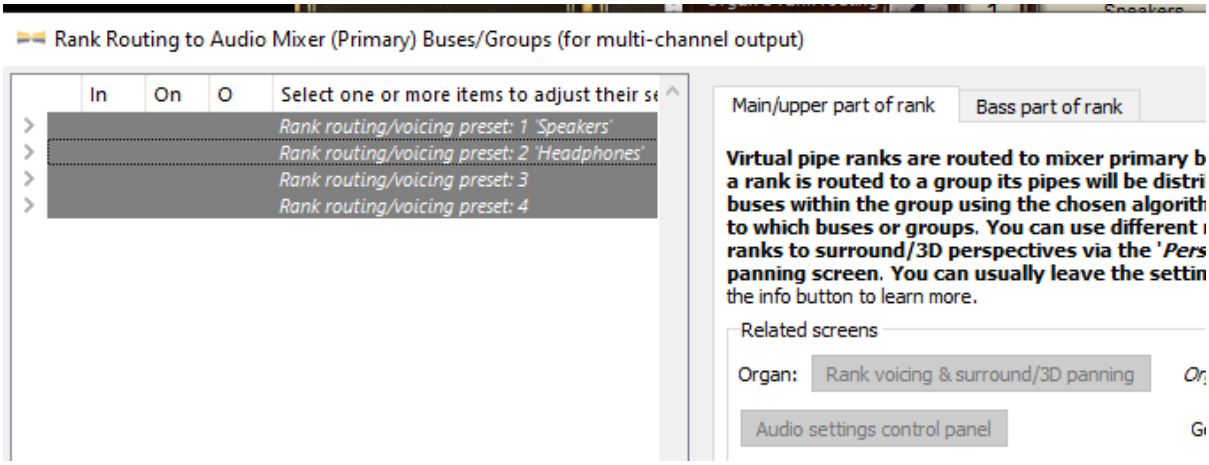
Headphones / Speaker switching.

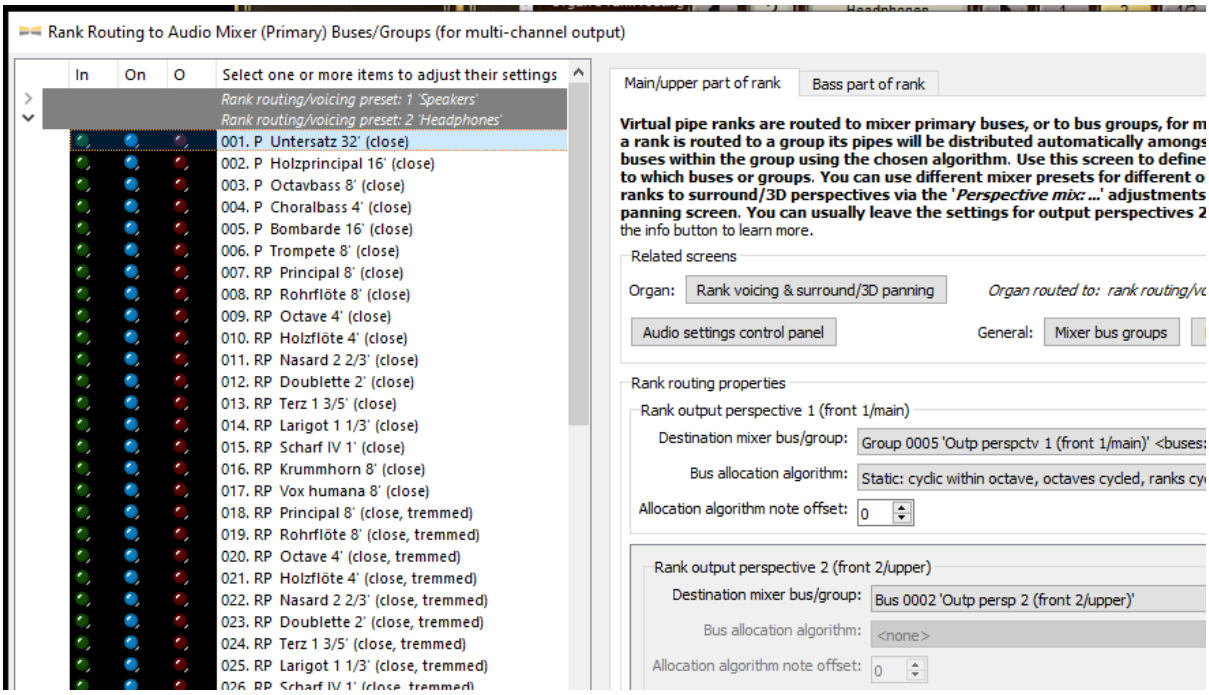
Now back to setting up the headphones. The paragraphs marked with 🌀 indicate what to do; the others provide some supporting information.

1. 🌀 I loaded the Duren organ (It is a multi-channel instrument with front, close and rear samples). It is configured to use *audio mixer preset* 1. This setting was migrated to version 8 as the *audio mixer preset* for *rank routing/voicing preset* 1.
2. *Audio mixer preset* 1 is configured to support a group called “main” that uses the front speakers (5 stereo pairs) and a sub-woofer, and a second group, “rear” which uses the rear speakers (1 pair). The two groups are combined to provide a recording output.
3. In the organ’s rank routing for *rank routing/voicing preset* 1, (migrated from version 7) the ranks of the sample set are routed to the two groups: “front” and “close” samples are routed to “main” and “rear” samples to the group ”rear”. The routing only uses perspective 1, the other 3 perspectives are routed to a dummy group, “none” and their output level left at the default of 0% in *voicing preset* 1.
   The voicing settings from version 7 were migrated to the rank voicing for *rank routing/voicing preset* 1.
4. I checked that the *rank routing/voicing preset* 1 was set to use audio mixer preset 1 on the audio mixer, routing, voicing/panning settings control panel. This was set as a part of the migration from Hauptwerk 7.
5. 🌀I configured a new *mixer preset*, 10, with the headphones as the only output device and used master mix bus 2 (the default) for the headphones. I used the default settings for the *mixer preset* only adding the audio device for the headphones to *master mix bus* 2 and setting *master mix bus* 1 to no device. *Primary mixer bus* 5 is configured, by default, to send the output it receives to *master mix buses* 1 (for recording) and 2 (for headphones); the other sends from *primary bus* 5 are not of interest here. So, any audio sent to *primary mixer bus* 5 will be recorded and sound only through the headphones.
6. 🌀I selected r*ank routing/voicing preset* 2 as the current preset and set *audio mixer preset* 10 as its *audio mixer preset*.

7. By default, perspective 1 of each of the organ’s ranks are routed to audio *group* 5 for the selected *audio mixer preset*. In audio *mixer preset* 10, *group* 5 is routed to *primary bus* 5 (any other default routings are not of interest here). Sounds from the sample set will be sent to audio *group*

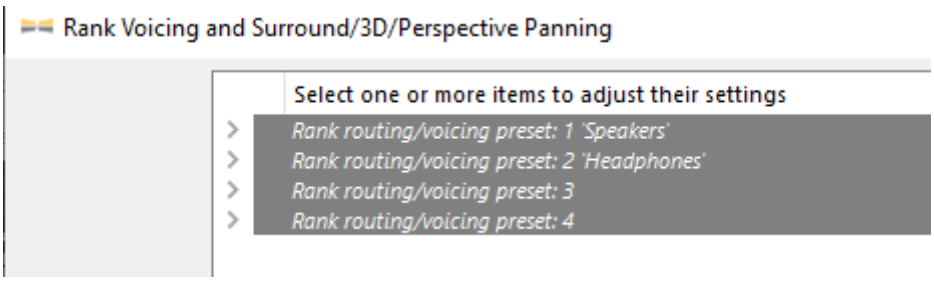
5 for audio *mixer preset* 10, and so to primary bus 5 for preset 10 and thence to the recording (file) and headphones. I checked that the rank routing for preset 2 was configured with these defaults.

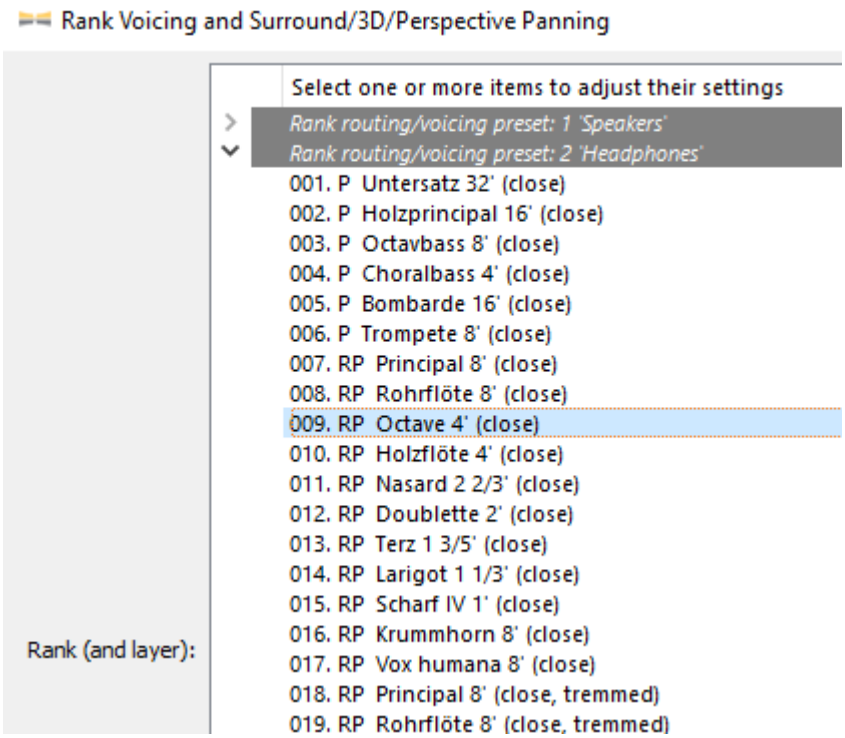




8. When *rank routing/voicing preset* 1 is selected the organ plays through *mixer preset* 1, the speakers. When *rank routing/voicing preset* 2 is selected the organ plays through *mixer preset* 10, the headphones.

9. I had made a few voicing adjustments to this organ under version 7 which were preserved under the voicing for rank routing/voicing preset 1 for this organ during the migration to version 8. I made corresponding adjustments in the voicing for rank routing/voicing preset 2.





10. The control **1 / 2** on the audio mixer, routing, voicing/panning settings larger control panel toggles between *rank routing/voicing preset 1 and 2*, and so toggles between my speaker and headphone only output.
11. I used autodetect to assign this 1 / 2 control to a midi piston on the console. Pressing the assigned piston toggles the output between the speakers and the headphones. My console's pistons are not illuminated pistons. However, when using a Launchpad button instead of a piston, the Launchpad button is lit to display the state of the current selection and is kept synchronised should the 1 / 2 control be changed by other means (e.g. from the control panel).
12. I used the version 8 function to name the audio *mixer presets* 1 (Speakers MCh.) and 11 (Headphones MCh) and the *rank/voicing presets* 1 (Speakers) and 2 (Headphones). Names can be up to 16 characters long.
13. I setup one of the LCD displays to show the names of *audio mixer preset* and the *rank routing/voicing preset*.

Note of caution: Always check that the voicing or routing settings you are viewing or changing correspond to the rank routing/voicing preset you are working with. Similarly, check you are working with the expected audio mixer, audio group preset.

Comments

1. It is much easier to do this than it may seem from reading the text! (indicates things to do…)
2. The new Touch Menu helps find the various places to make the settings quite quickly.
3. The same settings may be used for instruments with similar audio arrangements. You need to set them up in the organs *rank routing/voicing presets*.
4. Appropriate configurations can also be set up for instruments which require different audio set ups (for example including reverberation).
5. The *rank routing/voicing presets* facility also allows simpler testing of trying new audio arrangements and allows different arrangements to be compared "at the press of a button".

Key points (with Hauptwerk 8)

Each sample set has with four different voicing, rank routing and audio settings (within the one Hauptwerk configuration).

1. Each sample set has 4 distinct *rank routing / voicing presets*. One of the 128 *audio mixer presets* is configured for each of the sample set's rank routing/voicing presets.
2. The player may select any one of the *rank routing / voicing presets* (identified by the integers 1, 2, 3 and 4) for the currently loaded sample set. The sample set does not need to be reloaded to change the selected rank routing / voicing preset; the last used preset is used the next time the sample set is loaded.
3. When a *rank routing / voicing preset* is selected (or the sample set load), the voicing and rank routing configured for that preset are used and the *audio mixer preset* associated with the preset is used.
4. Rank routing and voicing adjustments and selection of audio mixer preset affect the currently selected rank routing/ voicing preset.
5. There are new and enhanced control panels and menus (including the Touch Menu) that allow the player to adjust and configure these presets. Appropriate controls from these enhanced control panels may be auto detected to operate from a midi control.

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