Revoicen with voice effects
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The voices set on the keyboard with the voice keys are linked to sound effects, called voice sets, specified by Yamaha for live playing. Many voices, especially the WahWah guitars and Organ Flute Voices, get their specific sound from the Voice Sets. When a midifile is played on the keyboard, the MIDI events of the voice set are inserted into the file.

The voice set assigned to a voice by default can be changed by the user by creating a so-called User Voice. The procedure is described in the keyboard manuals. A User Voice is a file that contains the MIDI events of the Voice Set in addition to the definition of the basic voice via MSB, LSB and PRG (Controller 0, 32 and Program Change). When a user voice is selected on the keyboard, the base voice and the modified voice set are set.

Revoicing midifiles taking into account the voice sets with the SongCreator of the keyboard as well as with sequencers is not possible, since only the basic voices, i.e. the parameters MSB, LSB and PRG, are adjusted here. The respective voice set is not taken into account. This procedure can have negative effects. For example, when revoicing a distortion guitar with a trumpet, the effect events of the guitar are neither deleted nor replaced by the effects assigned to the trumpet. When revoicing a piano with an organ-flute organ, the specific sound of the organ is not used.

With the **Voicefile-Revoicing** PSRUTI provides a simple procedure to revoice voices considering the voice set.

The "voicefiles" used in PSRUTI are nothing else than the uservoices created on the keyboard with the standard voice sets. The PSRUTI manual describes how to create these files by copying the panelvoices. Of course, voicefile-revoicing also works if you use a uservoice with a modified voice set.

The practical approach:

1. create uservoice on the keyboard with suitable effects and EQ and test it live on the keyboard
2. copy this uservoice into a new PC folder (e.g.) "Uservoices" to be created.
3. click with PSRUTI under Voicefile-Revoicing Button R for the channel to be revoked.
4. select the new folder "Uservoices" under "Voicefile path" in the new window. -> OK.
5. the copied user voice becomes visible. Click on it and activate DSP effects if necessary
 (block number =   DSP-1). -> OK.
6. decide whether the controllers set in the uservoice are also adopted.
 With Test a sequence   of notes is played. -> OK.
7. after that you can still decide whether the intensity of the effects should be changed.
 But this can also be done later.

The result is a cleanly structured midifile of type SMF0, where all events are effectively ordered in the initial clock 1 and stored with the required tick intervals.

At http://www.heikoplate.de/midis/voicefile_demo.zip I have stored a midifile, where different voices with and without standard voice sets and the standard DSP effects stored in the voice sets are played one after the other. The different situations are explained by lyrics. Revoicing with the sequencer and at the keyboard as well as the "Standard Revoicing" of PSRUTI ignore the effects of the VoiceSets. With "Voicefile Revoicing" all effects of the old voice are replaced by the effects of the voice set.

As you can see when playing the midifile, the sound differences with/without VoiceSet and DSP effects (except for the WahGuitar) are not very big. Of course, even more can be achieved by using self-programmed uservoices.

In the Midifile two different OrganFlute organs are also played. All organ flutes are on MSB/LSB/PRG = 0/126/16 and only differ by the VoiceSet; especially by the SysEx "Organ Flutes data Bulk Dump". With a sequencer or a keyboard it is practically impossible to revoice an OrganFlute organ.

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