

# THE WERSI OAS TECHNOLOGY UPGRADE PROJECT

## Part 2 – Setting up the Wersi MIDI and Audio System

The Wersi external MIDI system is set up on two related menus, the *Edit MIDI-Settings* menu and the *MIDI-Sound Programming* menu.

### The Edit MIDI-Settings Menu

This is activated from the main OAS menu by selecting **Settings – MIDI Settings**. It enables the MIDI channel numbers for the instrument’s external MIDI Out system to be set for each of the two external MIDI outputs (Ext1 and Ext2). There are setup menus for the Manuals, Accompaniment Unit and MIDI Sequencer channels, and also the MIDI Continuous Controllers (CC). Choose which one of the two external MIDI outputs you wish to use. The MIDI connectors for these are located at the back of the amplifier casing inside the console and are labelled MIDI-1 and MIDI-2 for the Ext1 and Ext2 outputs respectively. The following examples are for MIDI-2, which is referred to on the menus as Ext2.

### Configuring the Manuals Menu

The Manuals Menu can be opened by selecting the **Man Out Ext2** button and is shown below.

The screenshot shows the 'Edit MIDI-Settings' menu with a 'Back' button in the top right. Below the title bar are several control buttons: 'MIDI In', 'Man Out Ext1', 'Man Out Ext2', 'Acc Out Ext1', 'Acc Out Ext2', 'Seq Out Ext1', 'Seq Out Ext2', 'Reset Ext1', 'Reset Ext2', 'Filter Ext1', and 'Filter Ext2'. The 'Man Out Ext2' button is highlighted in black.

The main content area is titled 'MIDI Out Manual' and 'Extern 2'. It contains two columns of settings. The left column is for 'MIDI Out Manual' and the right column is for 'Extern 2'. Each column has two sub-columns: 'Standard' and 'Sound'. The 'Standard' column contains 'OFF' buttons, and the 'Sound' column contains numeric channel numbers.

MIDI Out Manual			Extern 2		
	Standard	Sound		Standard	Sound
Upper 1	OFF	1	Lower 1	OFF	5
Upper 2	OFF	2	Lower 2	OFF	6
Upper 3	OFF	3	Lower 3	OFF	7
Upper 4	OFF	4	Pedal 1	OFF	8
Solo	OFF	OFF	Pedal 2	OFF	9
W-Chord	OFF	3			

*Upper 1* corresponds to Selector 1 of the upper manual, *Lower 1* to Selector 1 of the lower manual, *Pedal 1* to Selector 1 of the pedalboard etc.

There are two options for entering the channel numbers, namely *Standard* and *Sound*. There is an important difference between these two. With the *Standard* option, MIDI data will **always** be transmitted to an external device when its corresponding selector is activated. With the *Sound* option, MIDI data will **only** be transmitted when its corresponding selector contains an external MIDI sound. So with the *Standard* option, any OAS sound placed in a selector may also activate a sound on an external device. To avoid this happening we use the *Sound* option to ensure that an external device only sounds when an external sound is selected. In this way we can safely mix OAS and external sounds in our Total Preset selectors.

The MIDI channel numbers can be assigned in any order, but it is recommended that you allocate them in the sequence shown above. The example shown is for the Scala model. If you have a different model the channel assignments will need to be allocated according to how many selectors you have available. For consistency, set the Wersi-Chord entry to channel 3 so that it corresponds with Selector 3 of the upper manual.

### Configuring the Accompaniment Unit Menu

This can be opened by selecting the **Acc Out Ext2** button and is shown below.



The channel numbers here should correspond with those used by the Accompaniment Unit and are as shown above. In this way you can easily substitute an external sound for an OAS sound on any track in an accompaniment. Note that channel 10 is the main drum channel, but Wersi also allocate channel 11 for special percussion effects. As this channel is seldom used however, switching it off enables us to allocate MIDI codes to all the other accompaniment tracks.

### Configuring the MIDI Sequencer Menu

This can be opened by selecting the **Seq Out Ext2** button and is shown below.

The MIDI sequencer plays any MIDI files that you have installed on the instrument and also any MIDI sequences that you may have created yourself using the MIDI Sequencer Editor.



The channel numbers here relate to the 16 tracks available in the MIDI Sequencer. For compatibility with existing MIDI files it is recommended that you assign the channel numbers as shown above. In this way you can easily substitute an external sound for an OAS sound on any track in a MIDI sequence. Note that on a single port MIDI interface unit there are only 16 MIDI channels available, so if you wish to use the MIDI sequencer concurrently with the Accompaniment Unit and/or the manuals, you will need to connect both the external MIDI outputs to a two port MIDI interface unit. In this way you can allocate the channels of one port to the MIDI sequencer and the channels of other port to the Accompaniment Unit and manuals.

### Configuring the MIDI Continuous Controller Menu

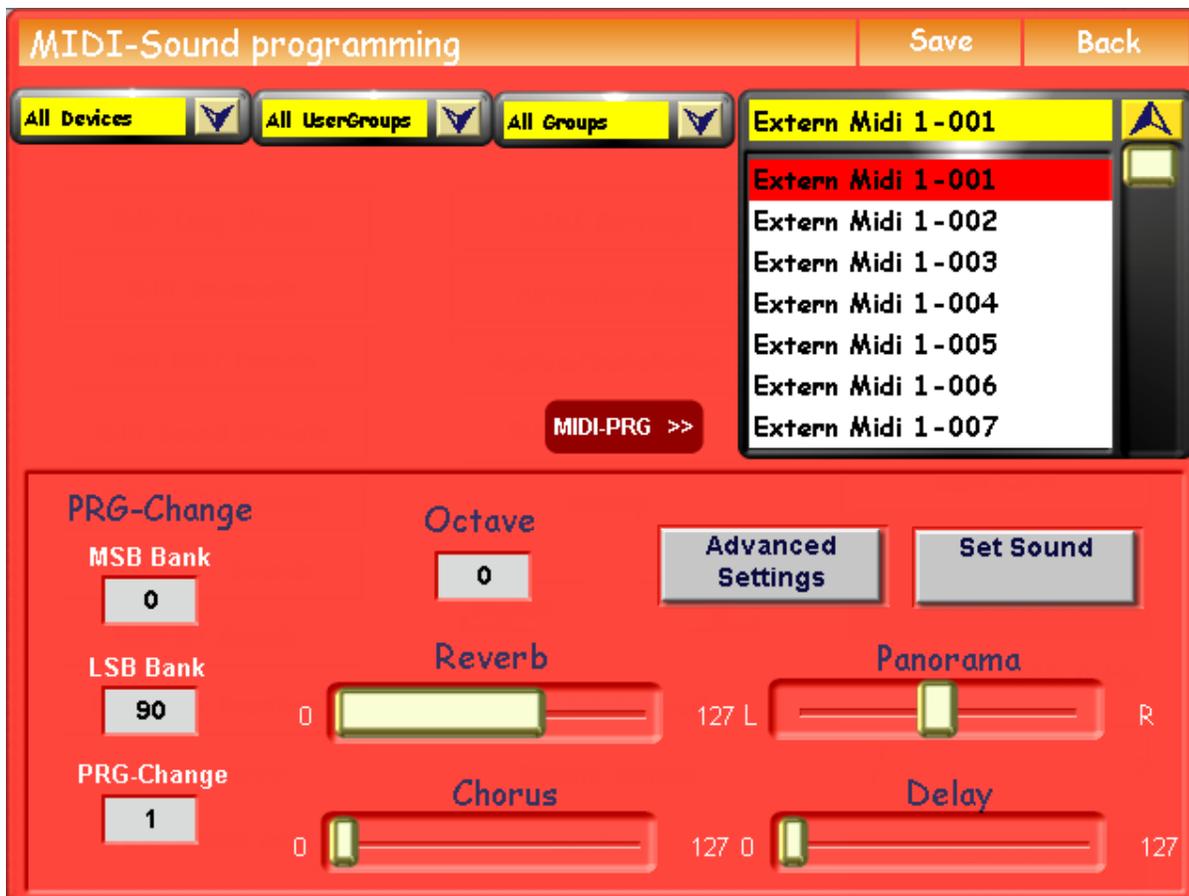
This can be opened by selecting the bottom **Filter Ext 1** button and is shown below. Note that this is incorrectly labelled and should actually read **Filter Ext 2**.

MIDI Continuous Controllers are the adjustable controls on the instrument. These include the expression pedal, manual and accompaniment volume controls, panorama, octave shift, transposer, dynamic, aftertouch and the tempo, pitch bend and modulation wheels. The number and type of controllers used by different external software packages varies so it's recommended that all the controllers on this menu are for now left activated.



### The MIDI-Sound Programming Menu

This is activated from the main OAS menu by **Settings – Edit MIDI Sounds** as shown below.



The MIDI-Sound Programming menu lists all the external MIDI sounds that are available on the instrument. There are 128 sounds assigned to the Ext1 output (Extern Midi 1), and 128 sounds assigned to the Ext2 output (Extern Midi 2).

Each of these sounds has a default Program Change number (PRG-Change) consisting of three bytes, the MSB (Most Significant Byte) Bank number, the LSB (Least Significant Byte) Bank number and the PRG-Change number. For the purpose of linking with external software only the PRG-Change number is relevant, the other two are ignored. The PRG-Change numbers are numbered sequentially to correspond with the *Extern Midi* numbers in the list, but can be changed if desired. It is recommended however that they are left at their default settings.

The **Save** option on this menu enables any external sound from either the Extern Midi 1 or Extern Midi 2 sound set, depending on your chosen external output, to be saved in the OAS database with a user defined name. This can then be recalled and used in the Total Presets, Sound Maps, Accompaniments and MIDI Sequences.

The example below shows an Extern Midi 2 sound that has been saved with the name *Steinway Piano* and loaded into a Total Preset selector.



## Configuring the Input Mixer

The Input Mixer now needs to be configured so that the stereo audio signal from the MIDI/Audio Interface unit can be passed to the organ's amplifier and mixed with the other audio signals of the instrument.

Select **Mixer** from the main menu to display the Input Mixer as shown below.



The Input Mixer contains a number of vertical strips that contain volume control sliders for each of the audio inputs on the instrument. The external inputs are controlled by the Audio1 and Audio2 sliders respectively.

Locate the strip for the external input you are NOT using and activate its **Mute** button. This stops any spurious noise from entering the amplifier from this input. The screen shot above shows the Audio1 input muted.

Now on the strip for the audio input you are using select the **Edit** button to display a panel of adjustable audio parameters as shown below.



It is suggested that for the moment you select only **Main** from the Outputs section, keep the Panorama setting at **Centre** and leave the Equaliser and Aux units switched **Off**.

Set the Volume level to **0 dB** and the Gain to **-20 dB**.

All of these parameters can be adjusted later to your own particular preferences when the system is being tested.

### Coming Next

Part 3 of this series will cover the installation and testing of the upgrade hardware.

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