Synthesizer Effects

The Synthesizer Effects allows you to control reverberation, chorus and variation effects on XG synthesizer. The option of Sondius-XG is supported only when Virtual Acoustic Modules are installed.

* Sondius-XG (http://www.sondius-xg.com) is a trademark jointly held by Stanford University in the United States and YAMAHA Corporation.
* XG is a trademark of Yamaha Corporation.

The Reverberation option adds a resounding effect to the acoustic sound and provides concert hall ambience to the echo-back sound.

The Chorus feature provides a chorale effect to the musical sound.

Variation allows different sound effects defined by XG format such as distortion, equalizer and pitch change to be added to the sound. Reverberation and Chorus can be adjusted by using Variation.

The Sondius-XG produces acoustic sound outputs by running a virtual simulation of the actual acoustic instrument operation. Since Sondius XG does not use the processed acoustic sound recordings generated by the Wavetable sound generator, the sound can be heard as real as presenting in a concert hall.
The DS-XG supports a single virtual acoustic sound source by combining the virtual acoustic sound signals with MIDI data. The Sondius-XG only runs on PCs with Pentium II 233MHz or higher.

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The Reverberation makes the sound as to be experienced in a concert hall.

The MIC Echo applies an echo effect to the microphone input and can change the settings of the current Mic echo. Note that recording will be disabled while Mic echo is in use and will not be enabled until Mic echo is turned off. To control the volume of MIC, go to the standard Windows Volume Control and adjust the microphone-input level.

When this option is selected, the Mic echo sound effect will be enabled to the microphone input. (It will be disabled when Windows is re-started.)

The Delay Time function allows you to set a cycle period for Mic echo to repeat. To lengthen the cycle period, move the slider towards the right.

The Feedback Gain function allows you to set the duration period for Mic echo. To lengthen the duration period, move the slider towards the right.

DS-XG supports DOS applications for running on the Windows DOS-BOX. The settings for running DOS applications are shown here, but cannot be changed.

In this option, you can select either the external MIDI port or the internal XG synthesizer to output the MIDI data that MPU401 receives from DOS application.

When this option is selected, the MIDI data that MPU401 receives from DOS application will be output to the external MIDI port via DS-XG MIDI port.

This option enables the MIDI data that MPU401 receives from DOS application to be output to DS-XG's internal XG synthesizer. With this feature, DS-XG can generate acoustic sounds via XG Synthesizer on Windows DOS BOX.

DS-XG supports the 3D positional stereo audio mode based on the "Sensaura" technology developed by Central Research Laboratories Limited in England. When the 3D Sound mode is effective, sound can be experienced from all positions from 360 degrees via stereo speakers or headphones. In general, the DirectSound 3D application defines whether the output should be routed to the stereo speakers or headphones. If a 3D application does not decide where to route the sound output, then DS-XG will take over the decision to force the 3D sound output. The option of 4-channel output of the Output Channel in the Analog Out tab is only supported when 4 channels are available in the system.

* Sensaura is a trademark of Central Research Laboratories Limited.

This will force the 3D sound mode to changeover to the optimal for the headphone. Note that the settings of output routing changeover in the DirectSound 3D mode will be ignored.

This will force the 3D sound mode to changeover to the optimal for the stereo speakers. Note that the settings of output routing changeover in the DirectSound 3D mode will be ignored.

This will follow the settings of output routing changeover under the DirectSound 3D mode.

This will enable the sound output to 4-channel speakers. Check on this option before starting the DirectSound application.

Select either software or hardware to handle DirectSound output.
When H/W Accelerator is selected to handle the DirectSound output, CPU utilization will be minimized. However, it might cause the hardware accelerator and the DirectSound application function improperly. In this case, click on the option to avoid the problem. Comparing to hardware selection, selecting software for processing DirectSound output will increase CPU load; however, the improper function caused by the combination of hardware accelerator and the DirectSound application can be avoided. DO NOT click on the checkbox while the application is running.

When playing DirectSound game "NHL97", noises occur occasionally. Check on this option to avoid the noise problem. Do not turn on this option when you are not playing NHL97.

This will enable the H/W accelerator.

When this option is checked, it will disable H/W accelerator and enable to follow the DirectSound application.

This will disable the 3D H/W accelerator.

This will enable DS-XG to support Digital Output.

Supported digital outputs are PCM Output, Dolby Digital Output and Direct Digital output of IEC958-compliant digital input. PCM data of Wave and MIDI are output via PCM Output. The Elementary Stream of Dolby Digital from Soft DVD player is output via Dolby Digital Output. IEC958-compliant digital inputs are directly output by Digital Output. The option should be set up before the application is started.

Since the volume of Digital Output is fixed and independent from Windows standard volume control, you will need to adjust the volume via an external amplifier.

Note: When 4-channel output is supported by the system and selected as the output channel in the Analog Output Tab, Dolby Digital will become unavailable.

This will disable all digital outputs. Acoustic sound will be output via analog signal pins.

This will only output the digital sources of Wave and MIDI data.
External inputs such as Microphone and Line will not be output. When Mic Echo is in use, only echo will be output.
For analog outputs, all sounds will be output.

This will output all sound sources via digital output. Analog outputs will become muted. Besides, during recording or when Mic Echo is in use, external inputs from Mic and Line cannot be output. When 2 audio codecs are connected in the system and "BOTH" option of the Docking Output in the Analog Output Tab is selectable, analog outputs will be also available for the sound output.

This will directly output the digital inputs. When this option is on, other sound sources are disabled for digital output.

The Elementary Stream Output of Dolby Digital will be enabled.
When this is on, only Dolby Digital output is available.

Prefer Dolby Digital Output.

The Elementary Stream data of Dolby Digital will be output first.

DS-XG supports 2-channel speaker output as well as 4-channel speaker output when it is supported by the system. The number of output channels requires to be set up before the application is started. When Output Channel is set to 4 channels, Dolby Digital will not be available.

This will enable 2-channel speaker output.

This will enable 4-channel speaker output.

The stereo and monaural sources of Wave, MIDI and Direct Sound can be re-arranged to 4-channel-like sound outputs and sent to 4 speakers.

This option allows for setting up the output destination of a docking-station system supported in some Note PCs.

This will enable sound output on the main computer (Note PC).

The will enable sound output on the docking station.

This will enable sound output on both the main computer and the docking station.

When the sampling rate is 44.1kHz, the WaveOut feature can use software SRC to change THD Audio Quality (Total Harmonic Distortion) to higher quality.

Turning on HiFi mode can enable the Software SRC feature.

Initialize DS-XG Configuration to the default value.

Display DS-XG driver version number.

When IEC958-compliant digital input data are supported in the system, this option will display the channel status and the recording status of the digital input data.

This displays the sampling rate of the digital input data.

This displays the data format of the digital input data.

Copyright information of the digital input data. Depending on systems, when data copyrights are reserved originally, recording of the data might only get silent sound data.

This displays the recording status of the digital input data. For direct recording, DS-XG will directly record the digital input data without performing sampling rate conversion.

When ZV Port is supported in the system, this will display the input status of ZV port.

This displays the sampling rate of ZV port data.