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 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.

The 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. Sondius-XG only runs on PCs with Pentium II 233MHz or higher.

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 will output the MIDI data that MPU401 receives from DOS application 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.

* Sensaura is a trademark of Central Research Laboratories Limited.

This will ignore the mode changeover routine in the DirectSound 3D mode and force to changeover to the optimal output for the headphone.

This will ignore the mode changeover routine in the DirectSound 3D mode and force to changeover to the optimal output for the stereo speakers.

This will enable to follow the mode changeover routine in the DirectSound3D application.

This will enable 4-channel speaker output. Check on this option before starting the DirectSound application. This option is supported only when the option of 4-channel output of Analog Output in the Output tab is selected.

When Headphone is selected, it will ignore the mode changeover routine in the DirectSound3D and force to change from the 3D mode to the optimal output for headphones. When Speaker is selected, it will ignore the mode changeover routine in the DirectSound3D and force to change from the 3D mode to the optimal output for speakers. When Application is selected, it will enable to follow the mode changeover routine in the DirectSound3D application.

* Sensaura is a trademark of Central Research Laboratories Limited.

When Headphone is selected, it will ignore the mode changeover routine in the DirectSound3D and force to change from the 3D mode to the optimal output for headphones. When Speaker is selected, it will ignore the mode changeover routine in the DirectSound3D and force to change from the 3D mode to the optimal output for speakers. When Application is selected, it will enable to follow the mode changeover routine in the DirectSound3D application. The option of 4-channel speaker is selectable only when 4-channel output is selected for the analog output in the Output tab. 4-channel speaker output will be executed when the option of 4-channel speaker is selected. The option should be set up before the application is started.

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 DirectSound 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 settings of the DirectSound application.

This will disable the 3D H/W accelerator.

You can sets up 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.

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. However, if 2 audio codecs are connected in the system, depending on the connected CODEC, sound can be output from the analog output.
When Mic Echo is in use, only echo will be output. As for analog outputs, all sounds will be output.

This will output all sound sources via digital output. Analog outputs will become mute. Besides, during recording or when Mic Echo is in use, external inputs from Mic and Line cannot be output. However, if 2 audio codecs are connected in the system, depending on the connected CODEC, sound can be output from the analog output.

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

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

Prefer Dolby Digital Output.

The Elementary Stream data of Dolby Digital will be prior to output.

In addition to 2-channel speaker output, DS-XG alternatively supports 4-channel speaker output when it is supported in the system. The number of output channels requires to be set up before the application is started. When the 4-channel output and Dolby Digital are both selected, the output from rear speakers will become mute.

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 sets up the output destination when the docking-station is supported in the system.

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

The will enable the sound output from the docking station.

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

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

Turning on HiFi mode can enable the Software SRC feature.

Initialize DS-XG Configuration to the default value.

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.