



Quick Start Guide

DRAFT

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Table of Contents

Welcome.....	3
About this Manual.....	4
About REAPER.....	5
Features.....	5
System requirements.....	6
Getting REAPER.....	6
Installing REAPER.....	7
Setting up AUDIO.....	9
Selecting an Audio system.....	9
Audio system options.....	10
Kernel Streaming.....	10
Kernel Streaming setup.....	10
Direct Sound.....	11
Direct Sound setup.....	11
Wave Out.....	12
Wave Out setup.....	12
ASIO.....	13
ASIO setup.....	13
Setting up MIDI.....	14
Selecting a MIDI input.....	14
Using VSTi instruments.....	15
VSTi setup.....	15
Adding a VSTi to a REAPER track.....	15
Recording.....	16
Recording Audio.....	16
Recording MIDI.....	18
Editing.....	20
Mixing.....	21



Welcome

Thank you for using REAPER.

It makes Justin happy.



About this Manual

The REAPER Quick Start Guide is designed to get you up and running quickly with REAPER. We don't delve into the deeper features of REAPER, but we will show you how to get audio and MIDI in, out and through so you can get straight into working with REAPER.

This manual assumes that you have some basic understanding of audio and music terminology and are familiar with the Windows operating system.

For detailed information on the advanced features of REAPER, please refer to the *REAPER User Manual* (coming soon).

As REAPER is currently a work in progress, the information in this manual will date quickly (mainly the screenshots) but the general principles and procedures should remain similar.

Portions of this manual have been shamelessly copied from the REAPER website, © Cockos Incorporated - www.cockos.com

Suggestions, corrections and comments about this manual can be sent to Malcolm Jacobson at techwriter@documentwrite.com

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About REAPER

REAPER is a powerful but sensible Windows application that lets you record, arrange, edit, and render multi-track waveform audio.

REAPER provides an extensive set of features, but is a very small and lightweight application (the installer is less than 1 megabyte, and includes many effects and a sample project).

REAPER versions 0.4-0.99 are freeware, but starting with version 1.0 the license will change to very reasonably priced, uncrippled nag-free shareware (supporting unexpiring full functionality in unregistered form).

Features

Basic features:

- Supports ASIO, Kernel Streaming, WaveOut, and DirectSound for playback and recording
- Reads WAV, OGG, MP3 and MIDI files, records WAV and MIDI files
- Lets you arrange any number of items in any number of tracks
- Supports audio processing plug-ins (DirectX, VST, and Jesusonic) with automation
- Volume, pan controls and envelopes per track
- Multi-layer undo/redo support
- User creatable color themes

Advanced features:

- Unlimited send/receives per track
- Any track can act as a bus
- Folder tracks that can contain and group tracks
- Item grouping
- Markers
- Multiple takes per media item
- Auto punch-in/punch-out functionality
- Automatic record monitoring modes
- Selection length granularity options as well as grid snapping
- A UI and architecture that allows you to easily cut loops of many tracks simultaneously, without having to write them to disk
- Support for plug-in generated media (such as click tracks, etc)
- Project tempo envelopes for variable tempos in track, grid/snapping that supports variable tempos
- 64-bit floating point sample pipeline for high quality
- Advanced recording and monitoring options -- examples:
 - You can route multiple tracks (inputs and/or media items) into a bus, and record THAT mixed down version.
- You can record the input signal, or record the post-FX, post-track-rendered signal.
- You can switch recording sources on the fly, even while recording.
- You can arm/disarm tracks' inputs while playing or recording.



A sampling of qualities that makes REAPER sensible:

- Sane, human readable, backwards and forwards compatible project file format
- Options to build peaks for recorded files on the fly
- Lots of control for the user to specify where recorded files go, etc, when dealing with many projects.
- Template support to make it easy to load a project template and save it as a new project when you begin.
- Input channel name aliasing (why view your inputs as "MOTU 896: Analog 1" when you could have them be "Vocal Mic", etc).
- Options for automatically backing up project files to alternate paths, timestamped versions, etc.

Things planned for REAPER v1.0 (coming mid 2006) that are not in this release:

- More Annotations
- More fade curves
- Envelope curves
- Regions
- MIDI editing and more MIDI functionality
- Higher quality resampling modes
- Public plug-in API
- Better control surface support
- MBCS filename compatibility

Things that are planned, but lack a specific timetable:

- ASIO DM support
- Rewire support
- Multi-language support

System requirements:

REAPER is designed to work on Windows 2000 or above, and has also been reported to work on Linux using Wine.

REAPER works best with a soundcard that supports ASIO drivers. If your soundcard does not come with ASIO drivers, you might try using the ASIO4ALL driver, available from www.asio4all.com

Getting REAPER

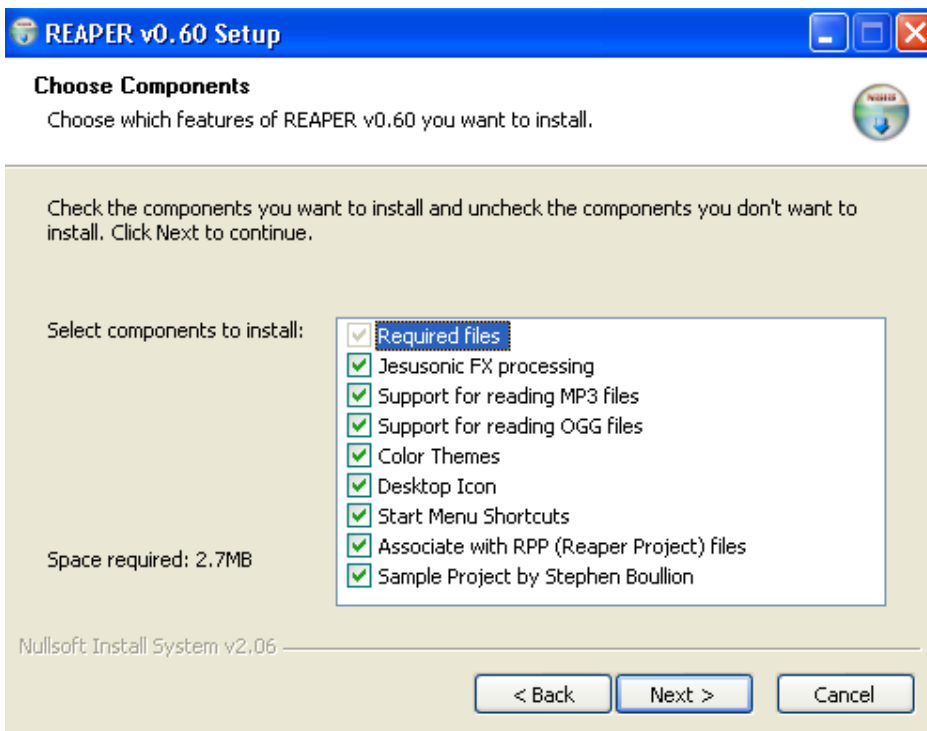
The latest version of REAPER is always available from

<http://www.cockos.com/reaper/download.php>



Installing REAPER

1. Make sure you are logged in as an "Administrator" on your machine.
2. Double-click on the file reaperXXX-install.exe - where XXX is the REAPER version number.
3. Read through the REAPER SOFTWARE LICENSE AGREEMENT. If you do not agree with the license, click on the "Cancel" button, and REAPER will not be installed on your machine.
4. If you agree to the license, click on the "I Agree" button to continue the installation of REAPER.
5. You will now be able to specify which components of REAPER you would like to install:



- Jesusonic FX processing
Select this option to install the Jesusonic FX processor. More information about Jesusonic can be found at www.jesusonic.com
- Support for reading MP3 files
Select this option if you want to be able to read and import MP3 files.
- Support for reading OGG files
Select this option if you want to be able to read and import OGG files.
- Color Themes
Select this option if you would like to create and install custom themes.
- Desktop Icon



Select this option if you want REAPER to place a shortcut on your desktop.

- Start Menu Shortcuts

Select this option if you want REAPER to place a shortcut in the Start Menu.

- Associate with RPP (Reaper Project) files

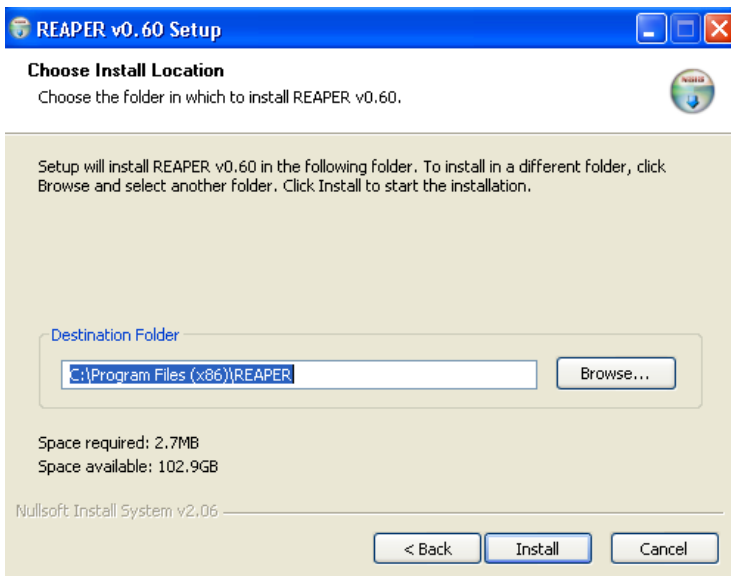
Select this option to allow Windows to recognise REAPER project files

- Sample Project by Stephen Boullion

Select this option to install a small sample project.

6. After you have chosen which components you would like to install, click on the "Next" button to continue installing REAPER.

7. You can now specify where you would like REAPER to be installed on your computer:



To choose a directory other than the default, click on the "Browse" button, otherwise, click on the "Install" button to finish installing REAPER.

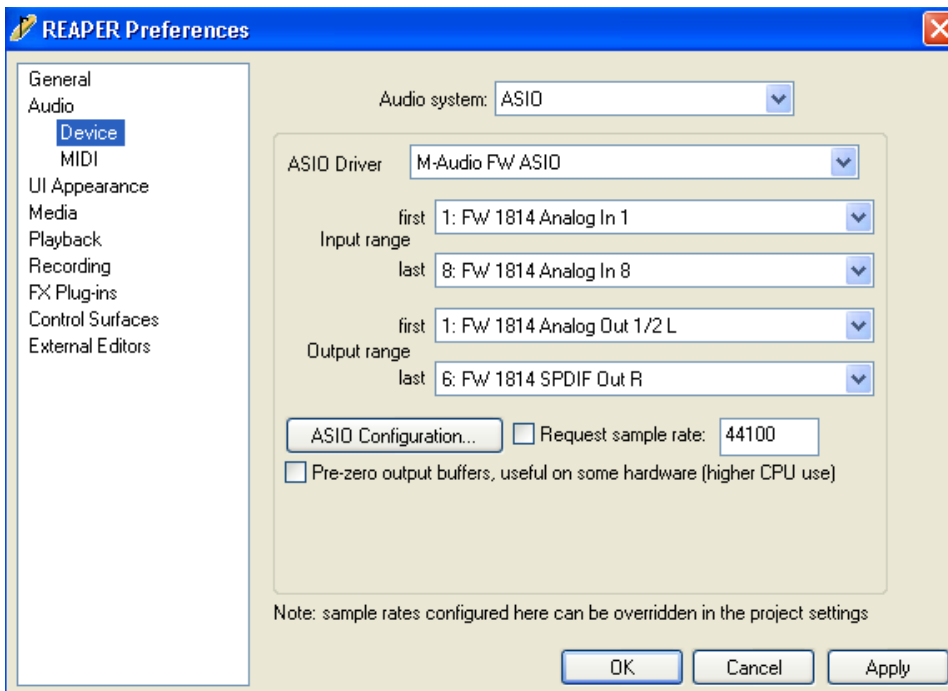
8. Click on the "Close" button to exit the installer.

9. You will now be given the option to run REAPER. Click on the "Yes" button to run REAPER, or the "No" button if you wish to run REAPER at a later stage. The installation of REAPER is now complete.

Setting up AUDIO

Selecting an Audio system

To select an audio system, select Options > Preferences (Ctrl+P) > Audio > Device.



This screen allows you to setup your audio system, Input and Output mapping, Sample rate and buffer sizes.

Note: The Sample rate you set in this section can be overridden by the *Project sample rate*
File > Project settings (Alt+Enter).

There are four Audio system options available in REAPER.

By default, REAPER uses WAVE Out.

To setup Audio in REAPER choose an Audio System first, then select the Input, Output, Sample format and Sample rate for that system.

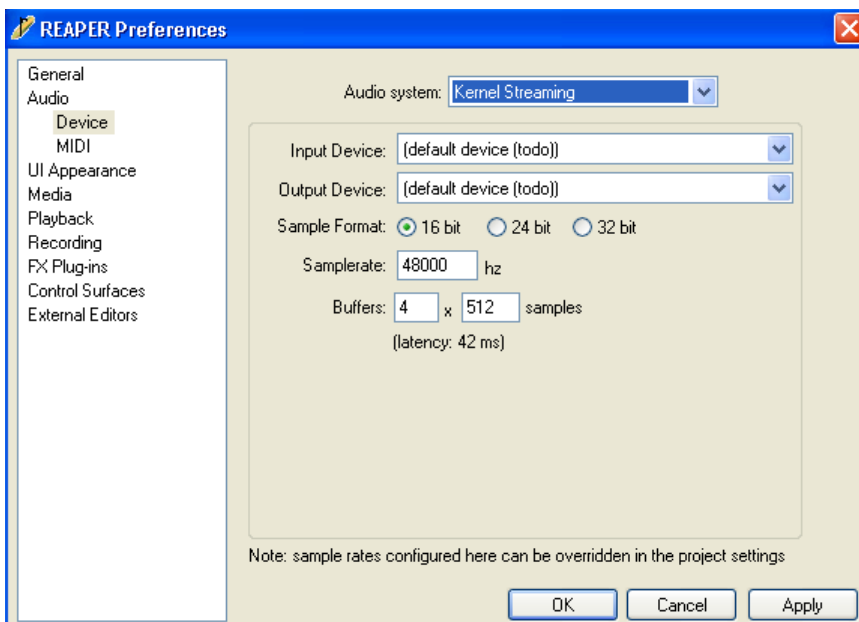


Audio system options

Kernel Streaming

Kernel Streaming is a low latency way of accessing most audio devices on Windows 2000 and XP. It can often provide comparable latency to ASIO, but doesn't provide many of the features of ASIO. If you want low latency audio and ASIO is not available, Kernel Streaming is worth a try. If Kernel Streaming does not work for you, you may wish to give the DirectSound and WaveOut modes a try, as they are more compatible.

Kernel Streaming setup



Input

This option is currently unavailable for Kernel Streaming in REAPER.

Output

This option is currently unavailable for Kernel Streaming in REAPER.

Sample format

Select which sample format you wish to use - either 16, 24 or 32 bit.

Sample rate

Type in the sample rate you wish to use - e.g. 44100 for a sample rate of 44.1kHz.

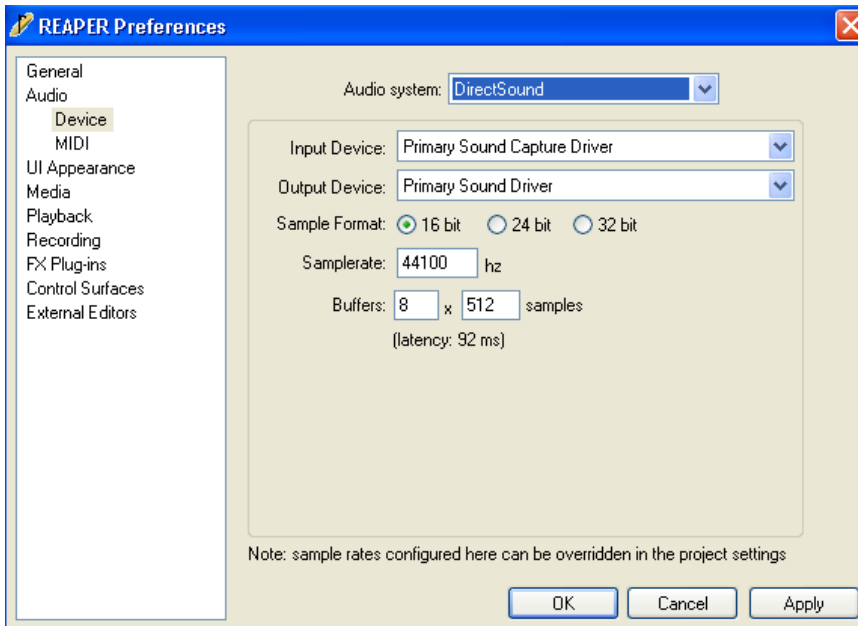
Buffers

This section allows you to alter the buffer settings for REAPER. A larger buffer will give more stable performance on some systems, at the expense of latency. It is best to start with the default settings first and only alter these settings if you encounter problems.

Direct Sound

Direct Sound is the underlying audio system on most Windows PC's. This option will access the Primary Sound drivers that are set in the Windows Control Panel application. Performance will be determined by the audio hardware installed on your system.

Direct Sound setup



Input

The Input Device selection box allows you to choose the input you wish to use with Direct Sound. The default is Primary Sound Capture Driver.

Output

The Output Device selection box allows you to choose the output you wish to use with Direct Sound. The default is Primary Sound Driver.

Sample format

Select which sample format you wish to use - either 16, 24 or 32 bit.

Sample rate

Type in the sample rate you wish to use - e.g. 44100 for a sample rate of 44.1kHz.

Buffers

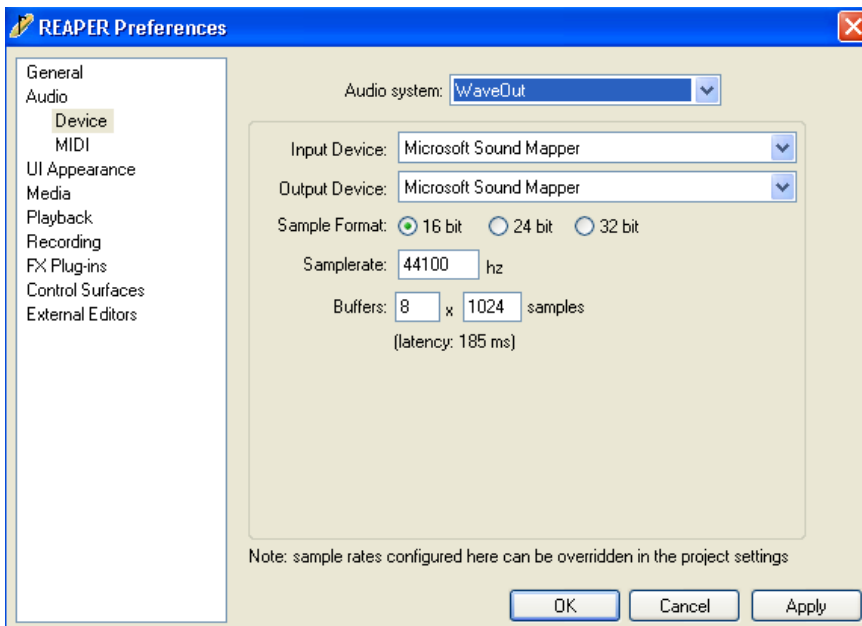
This section allows you to alter the buffer settings for REAPER. A larger buffer will give more stable performance on some systems, at the expense of latency. It is best to start with the default settings first and only alter these settings if you encounter problems.



Wave Out

This is the default audio driver for REAPER. It is compatible with most Windows audio systems, including laptop and motherboard audio devices.

Wave Out setup



Input

The Input Device selection box allows you to choose the input you wish to use with Wave Out. The default is Microsoft Sound Mapper.

Output

The Output Device selection box allows you to choose the output you wish to use with Wave Out. The default is Microsoft Sound Mapper.

Sample format

Select which sample format you wish to use - either 16, 24 or 32 bit.

Sample rate

Type in the sample rate you wish to use - e.g. 44100 for a sample rate of 44.1kHz.

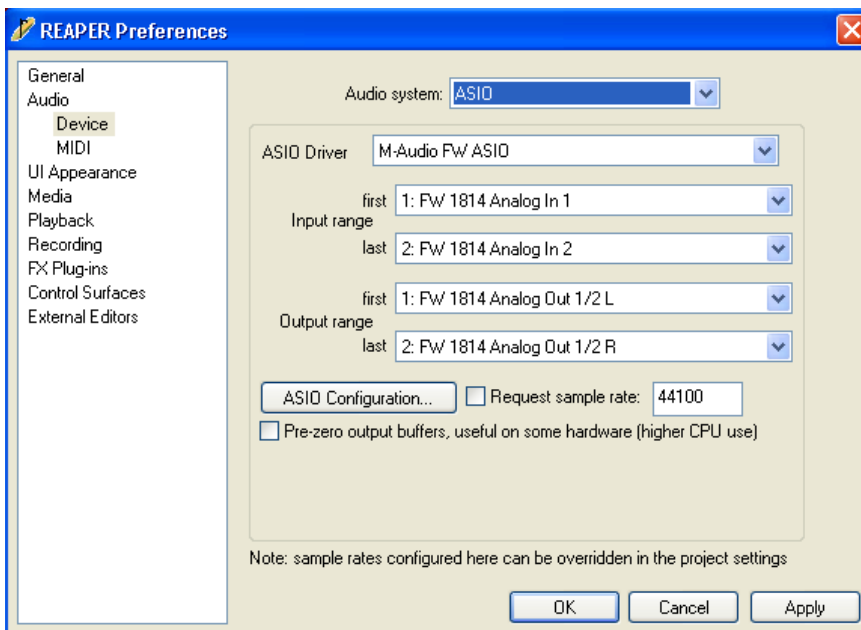
Buffers

This section allows you to alter the buffer settings for REAPER. A larger buffer will give more stable performance on some systems, at the expense of latency. It is best to start with the default settings first and only alter these settings if you encounter problems.

ASIO

ASIO is the preferred audio device for REAPER. It provides the best latency and stability for recording and playback. Most professional and semi-professional soundcards now ship with ASIO drivers. If your soundcard does not come with ASIO drivers, you might try using the ASIO4ALL driver, available from www.asio4all.com

ASIO setup



Input

The Input range section allows you to choose which ASIO input you wish to use as the first input, and which ASIO input you wish to use as the last input. For example, if your ASIO soundcard has ten inputs, you could set input 1 as the first input and input 4 as the last input, allowing you to access the first four inputs within REAPER, or alternatively input 1 as the first input and input 10 as the last input, allowing you access to all ASIO inputs within REAPER.

Output

The Output range section operates in the same way as the input range section, allowing you to choose which ASIO outputs you wish to use within REAPER.

ASIO Configuration

This button provides access to the driver interface for your ASIO soundcard.

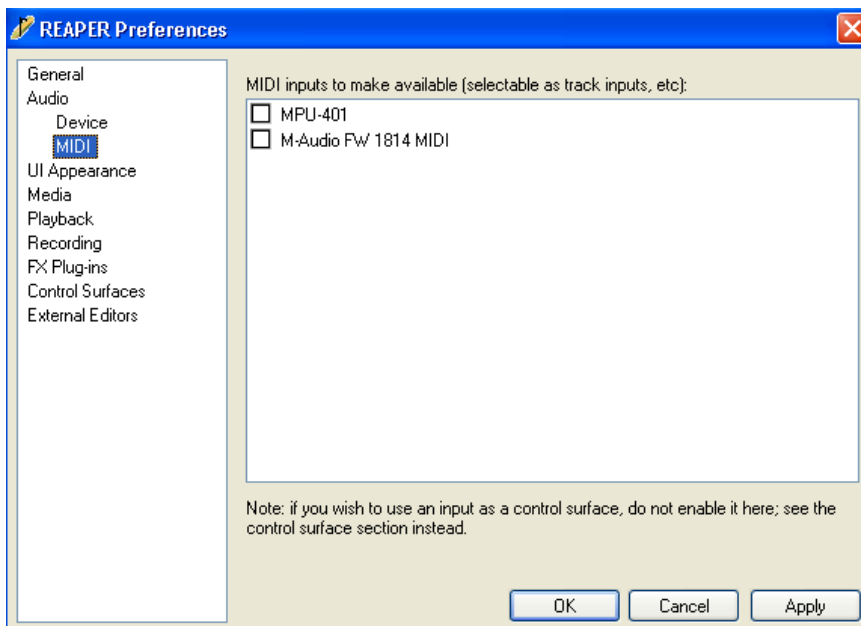
Request sample rate

Checking this box will allow REAPER to set the sample rate of your ASIO soundcard. Type the selected sample rate into the text box - e.g. 44100 for a sample rate of 44.1kHz.

Setting up MIDI

Selecting a MIDI input

To select a MIDI input, select Options > Preferences (Ctrl+P) > Audio > MIDI.



Select the checkbox next to the MIDI input you wish to use, then click on "Apply".

The selected MIDI input will now be available for selection as a track input.

Note: This section is for selecting a MIDI input for use with VSTi instruments. Hardware controllers (e.g. an external mixing interface) should be setup in the "External Editors" section of the REAPER preferences.



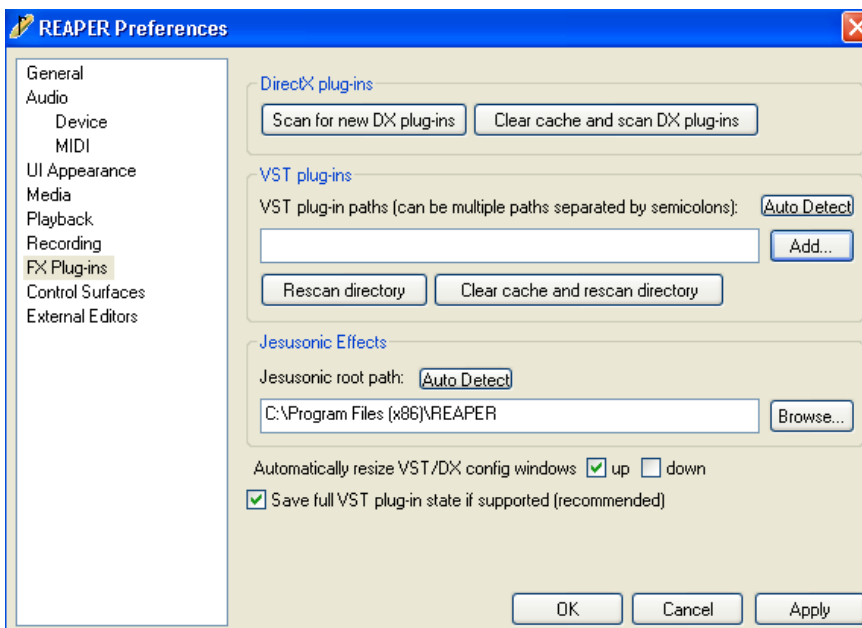
Using VSTi instruments

VSTi instruments can be used within REAPER by adding them to the FX chain of any track.

VSTi setup

In order for REAPER to locate the VSTi plug-ins installed on your system, you must specify the directory/s that contain your plug-ins in the REAPER Preferences.

Open the FX Plug-ins Preferences page by selecting Options > Preferences (Ctrl+P) > FX Plug-ins.



From here you can scan for DX plug-ins, VST plug-ins and Jesusonic Effects. You can also specify multiple directories to search for VST plug-ins, or choose "Auto Detect" if you want REAPER to scan your entire system.

Adding a VSTi to a REAPER track

1. Click on "fx" to open the FX window.
2. Click on "Add". REAPER will scan the VST directory listed in Preferences (Ctrl+P) > FX Plug-ins > VST plug-ins and display a list of the available plug-ins.
3. Select a plug-in and click "OK". REAPER will load the selected plug-in into the FX chain. The VSTi can now be accessed by following the procedure described on page 18, *Recording MIDI*.

Recording

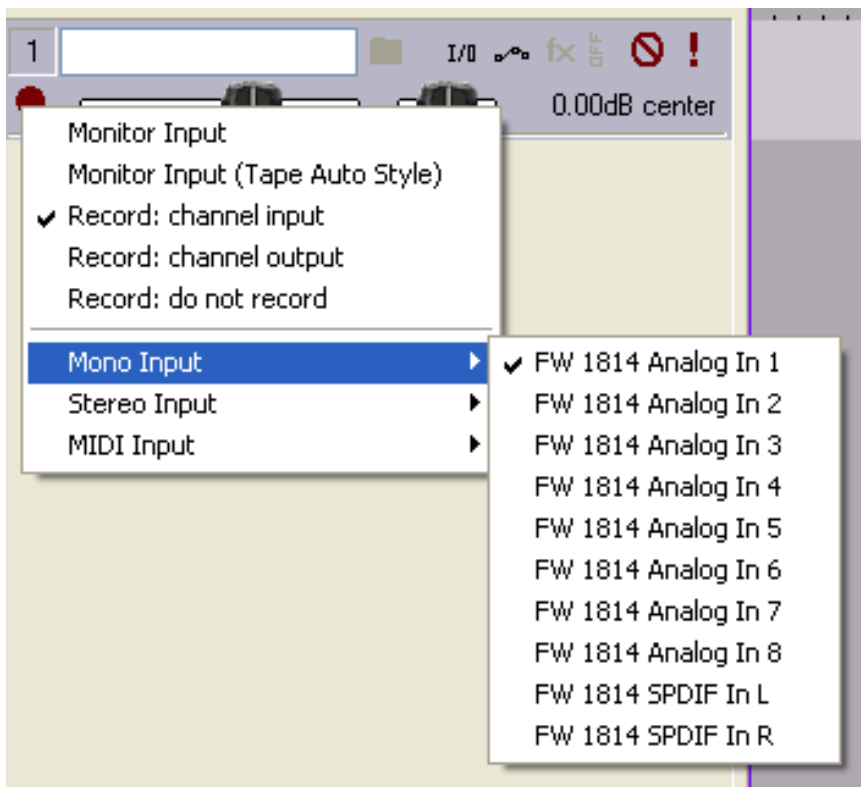


Recording Audio

1. Create a new track by selecting Track > Add new track (Ctrl+T).
2. Select an input by right-clicking on the Arm/Disarm Record button

The Arm/Disarm Record button

and selecting an audio input.



3. Record-arm the track by clicking once on the Arm/Disarm Record button.
4. Click once on the monitor button to activate input monitoring.




The monitor button in input monitoring mode

You should now be able to hear the input signal for this track.

5. Set the input level to REAPER by adjusting the input level on your soundcard.
6. To begin recording, press the Record button on the transport.
7. To stop recording, press the Record button again. Your recorded audio will now appear in the track.



8. Dis-arm  the track by pressing the Arm/Disarm Record button again.
9. To listen to your recording, press the Play button.

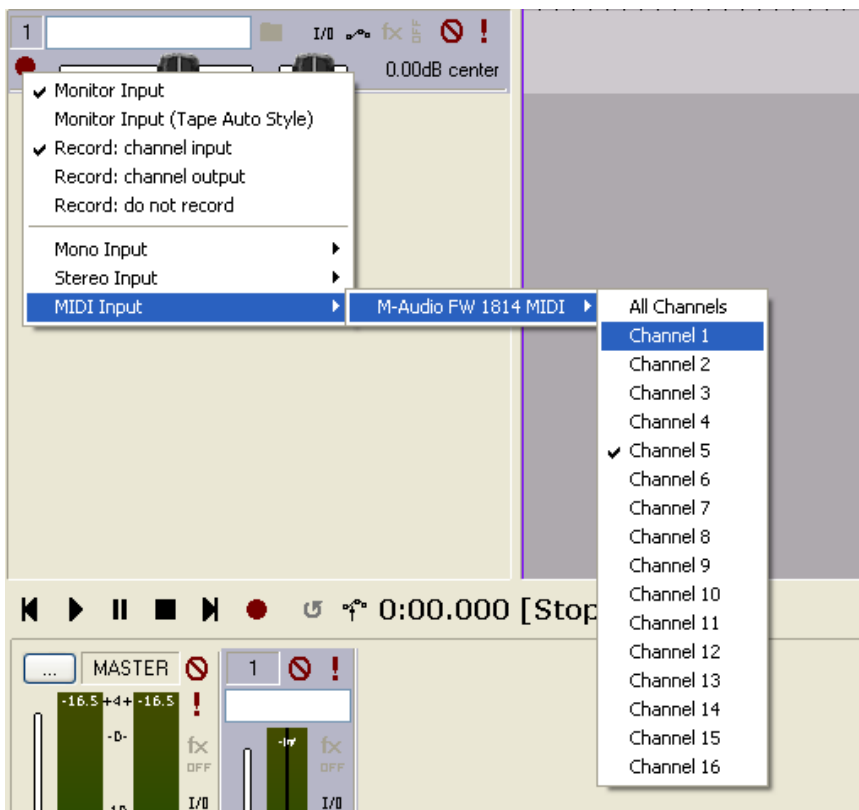
Recording MIDI

1. Create a new track by selecting Track > Add new track (Ctrl+T).
2. Click on "fx" to open the FX window.
3. Click on "Add". REAPER will scan the VST directory listed in Preferences (Ctrl+P) > FX Plug-ins > VST plug-ins and display a list of the available plug-ins.
4. Select a plug-in and click "OK". REAPER will load the selected plug-in into the FX chain.
5. Close the FX window.
6. Select an input by right-clicking on the Arm/Disarm Record button



The Arm/Disarm Record button

and selecting a MIDI input.



7. Record-arm the track by clicking once on the Arm/Disarm Record button.



8. Click once on the monitor button to activate input monitoring.



The monitor button in input monitoring mode

You should now be able to hear the input signal for this track.

9. Play something from your MIDI keyboard to make sure you are receiving MIDI correctly.

10. Press the Record button on the transport to start recording.

11. When you have finished recording, press the Stop button. A window will pop-up asking if you wish to save or delete the recording.

12. Assuming you've just recorded an awesome take, select "Save all".

13. Click the Record button to dis-arm the track.

14. Press Play to listen to your recording.

15. Repeat at will.



Editing



Mixing