Operation Manual

SEQUEL 3

Music Creation And Performance

steinberg

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Welcome

Welcome and congratulations on purchasing Sequel 3. With Steinberg's latest version of Sequel you are now able to create, record, mix, and perform your own musical ideas within one powerful music production center – in the most intuitive way.

It's your idea. Let's hear it! Sequel 3 is designed to support you in turning your ideas into reality. Whether it's a melody stuck in your head, a rhythm that will not let you go or a synth sound that keeps you up at night, Sequel is the perfect tool to capture your ideas and make them last. And you don't necessarily need to have musical skills or play an instrument. You are now equipped with thousands of pre-recorded loops, hundreds of instruments sounds, and a massive load of effects and tools to make your creative ideas come true and add your own sound to your mix.

You'll be surprised how easily you'll earn your first achievements and create tracks that feel and sound just like you want them to – there are no boundaries to your creativity. Combine different styles from rock to R'n'B, techno and hip hop or electro and jazz, and develop your own sound by experimenting with the included sound library.

Sequel 3 is the perfect tool to record your instrument or vocals. Plug in your guitar or microphone and start your recording session instantly. With the technology of a professional recording system built on the same engine as the award-winning Cubase audio production system, Sequel meets the highest requirements for modern music production.

And Sequel takes it a step further by breaking the barrier between creation and performance and building the bridge from music production to live experience. Let your ideas be heard and perform your tracks live with the included performance mode.

After you have registered Sequel 3 online, take some time to explore the community section at www.steinberg.net/forum. You will find lots of useful information and get to know other users in our discussion forums. Registering at www.steinberg.net/mysteinberg also gives you access to special offers from Steinberg in the future.

Have fun making your ideas come true.

The Steinberg Sequel Team

Key Command Conventions

Many of the default key commands in Sequel use modifier keys, some of which are different depending on the operating system. For example, the default key command for Undo is [Ctrl]-[Z] under Windows and [Command]-[Z] under Mac OS X.

When key commands with modifier keys are described in this manual, they are shown with the Windows modifier key first:

[Win modifier key]/[Mac modifier key]-[key]

For example, [Ctrl]/[Command]-[Z] means "press [Ctrl] under Windows or [Command] under Mac OS X, then press [Z]". Similarly, [Alt]/[Option]-[X] means "press [Alt] under Windows or [Option] under Mac OS X, then press [X]".

System Requirements and Installation

About this Chapter

This chapter describes the requirements and installation procedures for Sequel.

Minimum Requirements

To use Sequel, your computer must meet the following minimum requirements:

Windows

- Windows 7
- Intel or AMD Dual Core CPU
- 2 GB RAM
- 9 GB of free hard disk space
- Windows compatible audio hardware; ASIO compatible audio hardware recommended for low latency performance.
- Display resolution of 1280x800 pixels
- DVD ROM drive required for installation
- Internet connection required for license activation

Macintosh

- Mac OS X 10.6 or 10.7
- Intel Dual Core CPU
- 2 GB RAM
- 9 GB of free hard disk space
- Display resolution of 1280x800 pixels
- CoreAudio compatible audio hardware
- DVD ROM drive required for installation
- Internet connection required for license activation

Installing Sequel

Depending on your system, the Start Center program on the DVD may start automatically. If no interactive start center appears, open the DVD and double-click the file "Start_Center.exe" (Win) or "Start_Center.app" (Mac). From the Start Center you can initiate the installation of Sequel and browse through the additional options and information presented there.

In case you do not want to install Sequel via the interactive Start Center, follow the procedure below.

Windows

1. Insert the Sequel DVD into the DVD drive of your computer.
2. Locate and double-click the file called "Setup.exe" on the Sequel installation DVD.
3. Follow the instructions on screen.

Macintosh

1. Insert the Sequel DVD into the DVD drive of your computer.
2. Double-click the file called "Sequel.mpkg".
3. Follow the instructions on screen.

Activating Sequel

The process for license activation is described in detail on the Steinberg web site. To open the corresponding page, follow the "Activation & Registration" link in the Start Center.

Setting Up Your System

About this Chapter

In this chapter, you will find information on the basic computer setup and on more advanced audio and MIDI system setups.

General Notes on How to Set Up Your System

⚠ On the Steinberg web site, under "Support–DAW Components", you find detailed information on what to consider when setting up a computer system dedicated to audio work.

- RAM – There is a direct relation between the amount of available RAM and the number of audio channels that you can have running.
  The amount of RAM specified in the minimum requirements is a must, but as a general rule, the more the better applies.

- Hard-disk size – The size of the hard disk determines how many minutes of audio you can record.
  Recording one minute of stereo CD quality audio requires 10 MB of hard disk space. That is, eight stereo tracks in Sequel use up at least 80 MB of disk space per recording minute.

- Hard-disk speed – The speed of the hard drive also determines the number of audio tracks you can run.
  That is the quantity of information that the disk can read, usually expressed as sustained transfer rate. Again, the more the better applies.

MIDI Requirements

If you intend to use the MIDI features of Sequel, you need the following:

- A USB MIDI keyboard or a MIDI instrument and a MIDI interface to connect external MIDI equipment to your computer.
- Any audio equipment required to listen to the sound from your MIDI devices.

Audio Hardware

Sequel runs with audio hardware that meets the following specifications:

- Stereo
- 16 bit
- Sampling rate: 44.1 kHz

Using the Built-In Audio Hardware of Macintosh Computers

All current Macintosh models provide at least built-in 16 bit stereo audio hardware. For detailed information, refer to the documentation describing your computer.

Depending on your preferences and requirements, using the built-in audio hardware may be sufficient for use with Sequel. It is always available for selection in Sequel – you do not need to install any additional drivers.

About Drivers

A driver is a piece of software that allows a program to communicate with a certain piece of hardware. In this case, the driver allows Sequel to use the audio hardware. For audio hardware, there are different cases, requiring different driver configurations.

Specific ASIO Drivers

Professional audio cards often come with an ASIO driver written especially for the card. This allows for communication directly between Sequel and the audio card. As a result, audio cards with specific ASIO drivers can provide lower latency (input-output delay). The ASIO driver may also provide special support for multiple inputs and outputs, routing, synchronization, etc.

Audio card-specific ASIO drivers are provided by the card manufacturers. Be sure to check the manufacturer's web site for the latest driver versions.

⚠ If your audio hardware comes with a specific ASIO driver we strongly recommend that you use this.

DirectX Drivers (Windows only)

DirectX is a Microsoft package for handling various types of multimedia data under Windows. Sequel supports DirectX, or to be more precise, DirectSound, which is a part of DirectX used for playing back and recording audio. This requires two types of drivers:

- A DirectX driver for the audio card, allowing it to communicate with DirectX. If the audio card supports DirectX, this driver should be supplied by the audio card manufacturer. If it is not installed with the audio card, please check the manufacturer's web site for more information.
- The ASIO DirectX Full Duplex driver, allowing Sequel to communicate with DirectX. This driver is included with Sequel, and does not require any special installation.

Generic Low Latency ASIO Driver (Windows 7 only)

On Windows systems you can use the Generic Low Latency ASIO driver. This is a generic ASIO driver that provides ASIO support for all audio cards supported by Windows 7, thus allowing for low latency. The Generic Low Latency ASIO driver provides the Windows Core Audio technology in Sequel.

⇨ This driver should be used if no specific ASIO driver is available. Although the Generic Low Latency ASIO driver supports all audio devices, you might get better results with on-board audio cards than with external USB audio interfaces.

Mac OS X Drivers (Mac only)

If you are using a Macintosh computer, make sure that you are using the latest Mac OS X drivers for your audio hardware. Follow the manufacturer's instructions to install the driver.

Testing the Audio Hardware

To make sure that the audio card works as expected, perform the following two tests:

▪ Use any software included with the audio card to make sure you can record and play back audio without problems.

▪ If the card is accessed via a standard operating system driver, try playing back audio using the computer's standard audio application.

Setting Up Audio

⚠ Make sure that all equipment is turned off before making any connections!

Connecting Audio

Exactly how to set up your system depends on many different factors, such as the kind of project you want to create, the external equipment you want to use, or the computer hardware available to you. Therefore, the following sections can only serve as examples.

How you connect your equipment, that is, whether you use digital or analog connections, also depends on your individual setup.

Stereo Input and Output – the Simplest Connection

If you only use a stereo input and output from Sequel, you can connect your audio hardware directly to the input source, and the outputs to a power amplifier and speaker.

A simple stereo audio setup
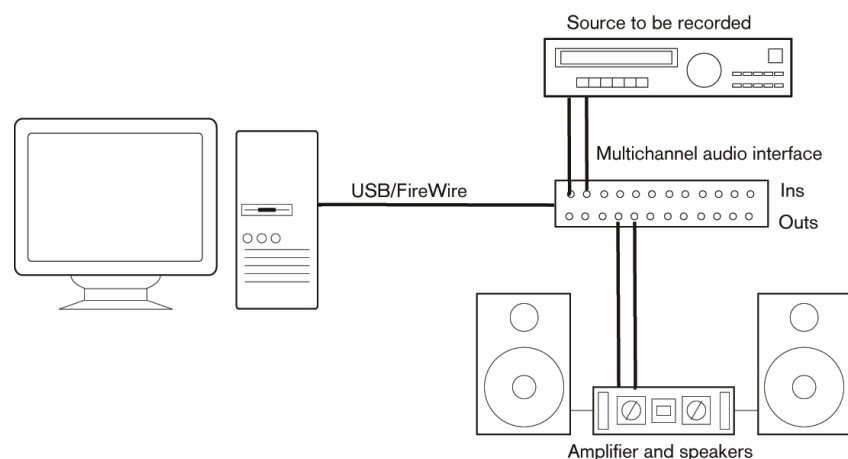
This is probably the simplest of all setups – once you have set up the internal input and output busses, you can connect your audio source, for example, a microphone, to your audio interface and start recording.

Multi-Channel Input and Output

You may have other audio equipment that you want to integrate with Sequel, using several input and output channels. Depending on the equipment available to you, there are two ways to go: either mixing using an external mixing desk, or mixing using the mixer inside Sequel.

External mixing means having a hardware mixing device with a group or bus system that can be used for feeding inputs on your audio hardware.

In the example below, four busses are used for feeding signals to the audio hardware inputs. The four outputs are connected back to the mixer for monitoring and playback. Remaining mixer inputs can be used for connecting audio sources like microphones, instruments, etc.

A multi-channel audio setup using an external mixer
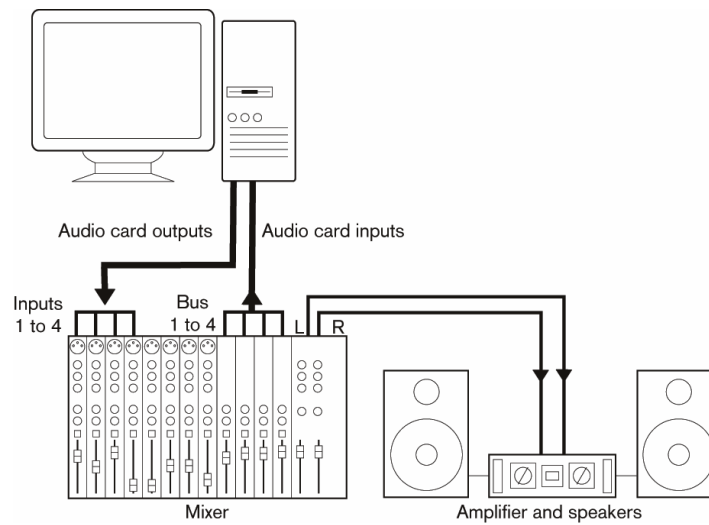
⇨ When connecting an input source (like a mixer) to the audio hardware, you should use output busses, sends, or similar that are separate from the mixer's master output to avoid recording what you are playing back. You may also have mixing hardware that can be connected via FireWire.

When using the Mixer inside Sequel, you can use the inputs on your audio hardware to connect microphones and/or external devices. Use the outputs to connect your monitoring equipment.

Mixing inside Sequel
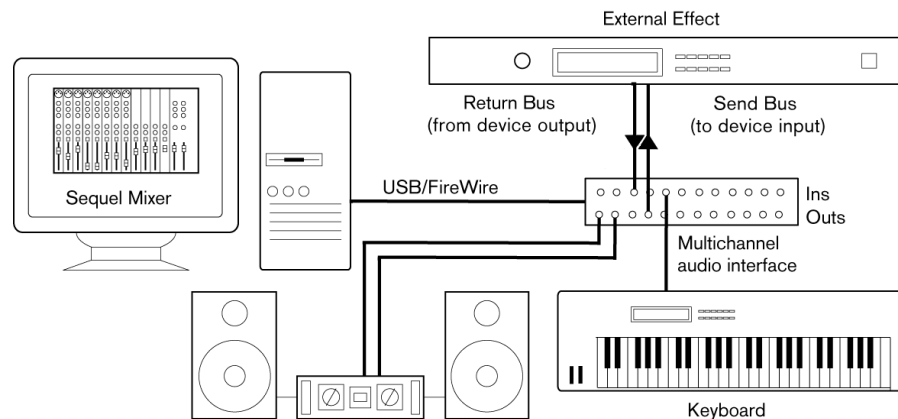
Recording from a CD Player

Most computers come with a disc drive that can also be used as a regular CD player. In some cases the CD player is internally connected to the audio hardware so that you can record the output of the CD player directly into Sequel. Refer to the audio hardware documentation if you are uncertain.

All routing and level adjustments for recording from a CD are done in the audio hardware setup application.

About Recording Levels and Inputs

When you connect your equipment, you should make sure that the impedance and levels of the audio sources and inputs match. Typically, different inputs may be designed for use with microphones, consumer line level (-10 dBV), or professional line level (+4 dBV), or you may be able to adjust input characteristics on the audio interface or in its control panel. Refer to the audio hardware documentation for details.

⚠ Using the correct types of input is important to avoid distortion or noisy recordings.

⇨ Sequel does not provide any input level adjustments for the signals coming in to your audio hardware, since these are handled differently for each card. Adjusting input levels is either done in a special application included with the hardware or from its control panel.

Making Settings for the Audio Hardware

Most audio cards come with one or more small applications that allow you to configure the inputs of the hardware to your liking. This includes:

- Selecting which inputs/outputs are active.
- Setting up word clock synchronization (if available).
- Setting levels for each input. This is very important!
- Setting levels for the outputs, so that they match the equipment you use for monitoring.
- Selecting digital input and output formats.
- Making settings for the audio buffers.

In many cases all available settings for the audio hardware are gathered in a control panel, that can be opened from within Sequel as described below. If Sequel is not running, the control panel can also be opened separately. In some cases, there may be several different applications and panels. Refer to the audio hardware documentation for details.

Selecting a Driver and Making Audio Settings in Sequel

The first thing you need to do is select the correct driver in Sequel to make sure that the program can communicate with the audio hardware:

1. Launch Sequel.

2. Open the Settings Page in the Multi Zone.
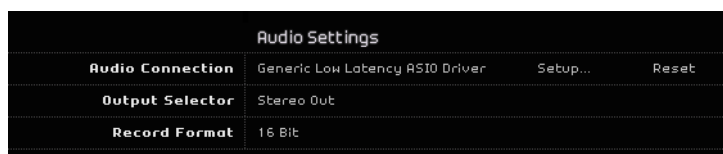
3. In the Audio Settings section, click on the "Audio Connection" field, and select your audio hardware driver.

4. Bring up the control panel for the audio hardware and adjust the settings as recommended by the audio hardware manufacturer.

▪ Under Windows, you open the control panel by clicking the "Setup…" button.
The control panel that opens is provided by the audio hardware manufacturer and not Sequel. Hence it is different for each audio card brand and model.
The control panel for the ASIO DirectX driver is an exception, as it is provided by Steinberg. It is described in the dialog help, opened by clicking the Help button.

▪ Under Mac OS X, you can open the control panel for your audio hardware from the System Preferences, opened from the Apple menu or from the Dock.

   If you are using the built-in audio hardware of the Macintosh, you use the Sound control panel in the System Preferences to set levels, balance, etc. If you are using ASIO audio hardware, you can click the "Control Panel" button to bring up its panel.

If you are Using Audio Hardware with a DirectX Driver (Windows only)

⚠ If your Windows audio hardware does not have a specific ASIO driver, a DirectX driver is the next best option.

Sequel comes with a driver called ASIO DirectX Full Duplex Driver available for selection on the Audio Connection pop-up menu on the Settings Page.

⇨ To take full advantage of DirectX Full Duplex, the audio hardware must support WDM (Windows Driver Model) in combination with DirectX version 8.1 or higher.

In all other cases, the audio inputs are emulated by DirectX. See the dialog help for the ASIO DirectX Full Duplex Setup dialog for details about how this is reported.

Setting Up the Input and Output Ports

Setting up the inputs and outputs primarily depends on the configuration settings of your audio card. You can check the configuration by clicking "Setup…" on the Settings Page.

If you have a stereo in/out audio card, this is most likely set up automatically.

Inputs

Setting up the recording input for Sequel is described in

Outputs

Audio outputs can be selected on the Settings Page from the "Output Selector" pop-up menu.

Retrieving Channel Names (Mac only)

For some audio cards, it is possible to automatically retrieve the ASIO channel names for the ports of your audio hardware:

1. Open the Settings Page in the Multi Zone.

2. In the Audio Settings section, select your audio card from the "Audio Connection" pop up menu.

3. Open the control panel for your audio hardware.

4. Activate the "Use CoreAudio Channel Names" option.

   When you now open the "Output Selector" pop-up menu in the Audio Settings section or the Input pop-up menu in the track list for audio tracks, you will find that the port names correspond to the names that are used by the CoreAudio driver.

Port Selection and Activation (Mac only)

On the settings page for your audio card, you can specify which input and which output port are active. For example, this allows you to use the microphone input instead of the line input or even to deactivate the audio card input or output completely, if required.

⇨ This function is only available for built-in audio, standard USB audio devices, and a certain number of other audio cards.

About Monitoring

In Sequel, monitoring means listening to the input signal while preparing to record or while recording. Sequel always monitors the signal in realtime.

The audio passes from the input into Sequel, possibly through Sequel effects and EQ and then back to the output. You control monitoring via settings in Sequel. This allows you to control the monitoring level from Sequel and add effects to the monitored signal only.
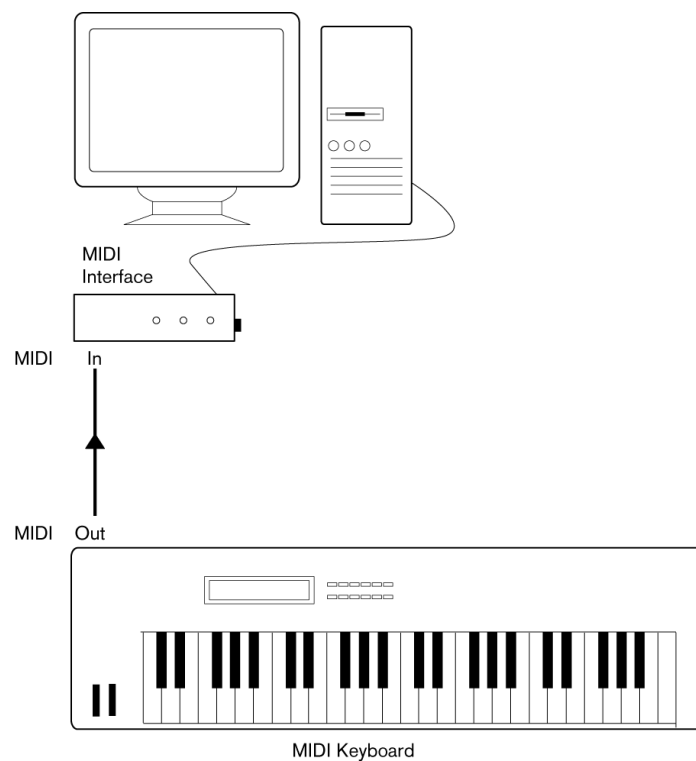
Setting Up MIDI

⚠ Make sure that all equipment is turned off before making any connections!

This section describes how to connect and set up MIDI equipment. Note that this is only an example – you might need or want to set up your equipment differently!

Connecting the MIDI Equipment

In this example we assume that you have a MIDI keyboard. The keyboard is used for feeding the computer with MIDI messages for recording. Using Sequel's automatic MIDI Thru feature you can hear the correct sound from the instrument track while playing the keyboard or recording.

A typical
MIDI Setup

Setting Up MIDI Ports in Sequel

Sequel automatically finds any MIDI devices connected to your computer and allows them to be used as MIDI inputs for recording.

Optimizing Audio Performance

This section gives you some hints and tips on how to get the most out of your Sequel system in terms of audio performance.

Two Aspects of Performance

There are two distinct aspects of performance in respect to Sequel:

Tracks and Effects

Simply put: the faster your computer, the more tracks, effects, and EQ you can play.

Short Response Times (Latency)

Another aspect of performance is response time. The term latency refers to the buffering, or temporary storing, of small chunks of audio data during various steps of the recording and playback process on a computer. The more and larger those chunks, the higher the latency.

High latency is most irritating when using software instruments and when monitoring through the computer, that is, when listening to a live audio source via the Sequel mixer and effects. However, very long latency times (several hundred milliseconds) can also affect other processes like mixing, for example, when the effect of a fader movement is heard only after a noticeable delay.
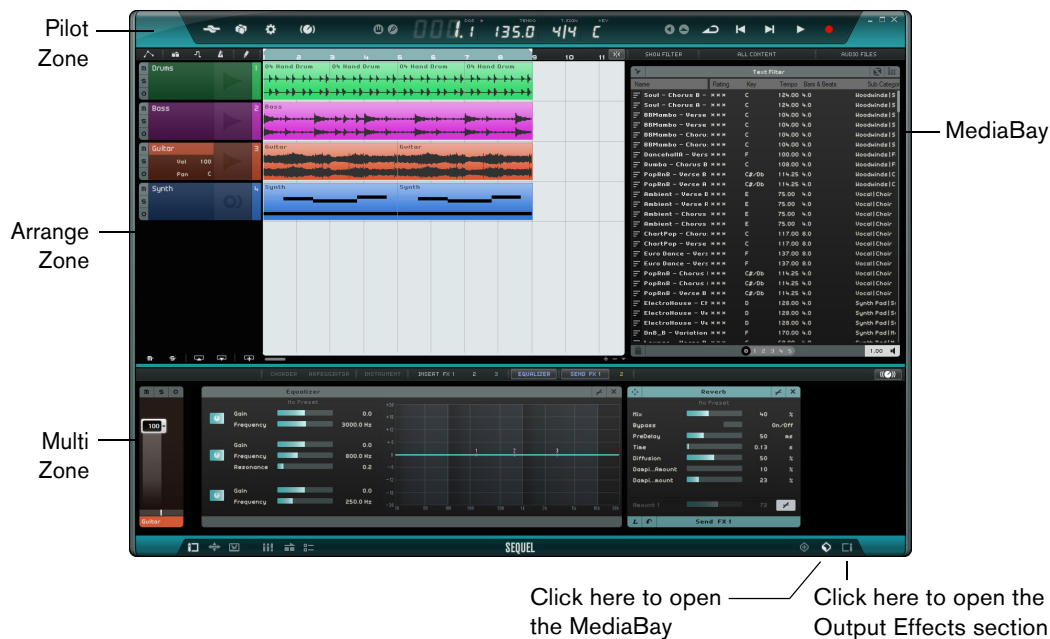
A system that responds fast is always more convenient to work with.

Depending on your audio hardware, it may be possible to trim your latency times, usually by lowering the size and the number of buffers.

The Sequel Window

Overview

The Sequel window is divided into three main sections: the Pilot Zone, the Arrange Zone, and the Multi Zone.

Pilot Zone

Arrange Zone

Multi Zone

MediaBay

Click here to open the MediaBay

Click here to open the Output Effects section

The Pilot Zone

The Pilot Zone gives you access to the Sequel menu functions. Here, you can also find the functions for remote-controlling the program, the virtual keyboard and the tuner, the Pilot Zone display, the transport controls, and the metronome.

For further information on the Pilot Zone, see the chapter "The Pilot Zone" on page 58.

The Arrange Zone

The Arrange Zone displays the instrument parts and audio events of the project along the timeline. Here, you can record, edit, and arrange your project. On the left, the track list is shown.

For further information on the Arrange Zone, see the chapter "The Arrange Zone" on page 68.

The MediaBay

The MediaBay is a browser for media files that allows you to search for media files on your computer. It can be displayed in the Arrange Zone by clicking the corresponding button in the lower right corner of the program window.

For further information on the MediaBay, see "Working with the MediaBay" on page 75.

The Output Effects

The output effects are effects that are applied to the overall output in Sequel. They can be displayed in the Arrange Zone by clicking the Output Effects button in the lower right corner of the program window.

For further information on output effects, see "Output Effects" on page 80.

The Multi Zone

In the Multi Zone, you have access to various pages where all of your project's mixing, effects processing, and advanced editing takes place.

For further information on the Multi Zone, see the chapter "The Multi Zone" on page 81.

Recording Audio

In this section, you will learn how to record a guitar line, how to add a drum loop, and play it back. Make sure that you have your audio card set up correctly, see the chapter "Setting Up Your System" on page 9.

Creating a New Project

By default, Sequel creates a new project on startup. You can change this in the Settings Page. For more information, see "The Settings Page" on page 99.

Creating a New Project if a Project is Already Open

▪ Open the Project menu and select "New Project".
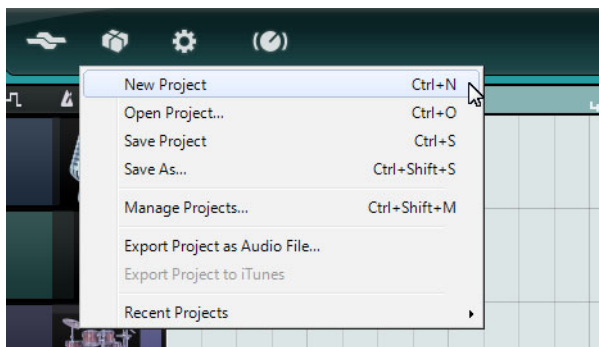
This creates a new empty project and closes the project that was open.

Setting the Save Folder

To specify where the projects are saved, proceed as follows:

1. Open the Settings Page in the Multi Zone.

2. Click in the "Project Location" field.

   A dialog opens allowing you to browse your computer and find a suitable location. During the installation process, Sequel automatically creates a location for saving projects.
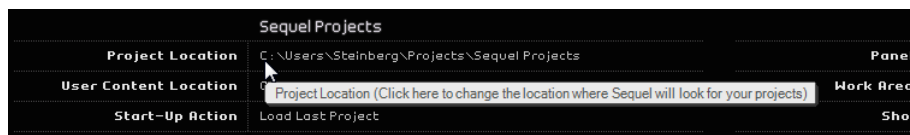
3. Select a location and click OK.

Saving a Project
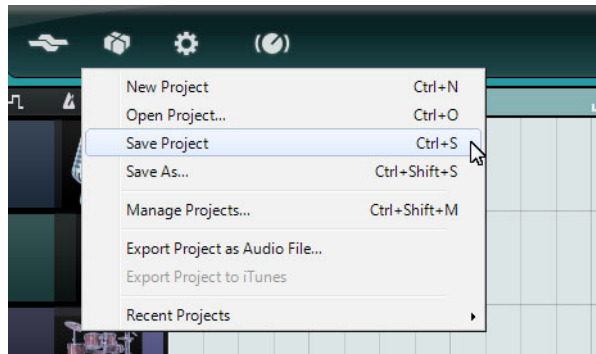
1. Open the Project menu and select "Save Project".

2. Type in a name for your project, for example "First Sequel Project".

3. Click OK.

The project is saved in the folder you specified on the Settings Page.
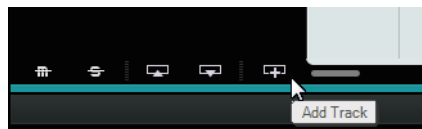
Adding an Audio Track

The following sections make reference to tutorial projects, located in the default Sequel project folder.

▪ Load the project called "Recording" found in the "Sequel Tutorial 1" folder.

You will now add an audio track to record onto. For this example, you will record a guitar. The method is the same for all instruments.

1. Click the "Add Track" button below the track list.
   The Add Track dialog opens.

2. Select the Audio option.

3. Select "empty" and click OK.
   This adds an audio track to the project.
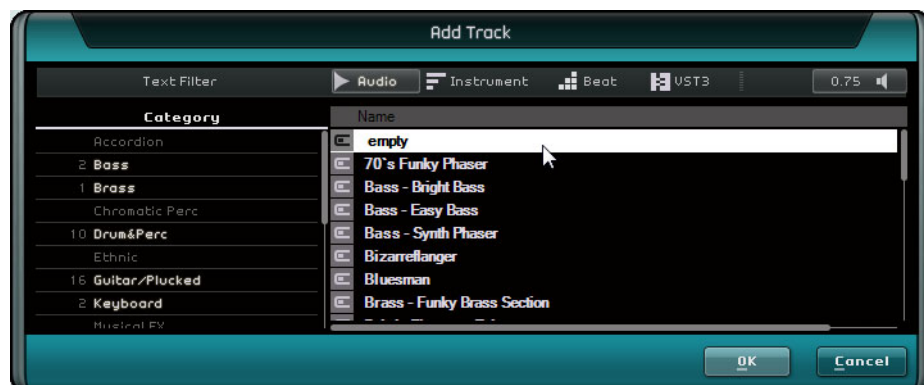
4. Double-click the track name and change it to "Guitar".

⇨ By default, the audio input for the track is set to the first input available on the "Input Selection" pop-up menu. To see the pop-up menu, you may have to increase the track height.
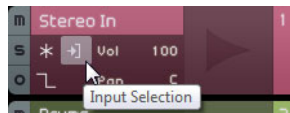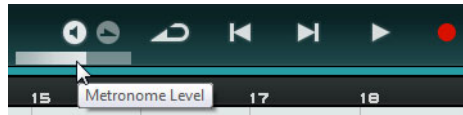
Click here to select a
different input.

Activating the Metronome Click

To align your recording with the bars and beats displayed in the ruler, you can activate
a click or metronome.

- Activate the Metronome button in the Pilot Zone.

- Adjust the metronome volume using the slider.

The metronome is automatically set to add a two-bar precount before recording starts.

You can now specify the project tempo in the Tempo field, see "The Tempo (TEMPO)"
on page 64 for more information. This affects the speed of the metronome click. The
default setting is 120 which means 120 BPM or beats per minute.

Adding a Drum Loop

Now, add some drums to the project.

Adding a drum loop to your project is also useful for supporting the metronome when
you are recording bass or guitar.

1. Click the MediaBay button in the lower right corner of the Multi Zone.

2. In the MediaBay, click the "Show Filter" button to open the filter section.

3. Set the Category column to "Drum&Perc" and the Sub Category column to
   "Beats".

4. In the Style column, select a style that suits the guitar line you want to record.

5. Make sure the Preview button is activated and step through the list on the right until you find a suitable loop.

6. Drag the selected drum loop into the Arrange Zone and line it up with bar 1, just below the guitar track.

7. Click in the middle of the right edge of the event and drag to the right up to the beginning of bar 5 to make the loop 4 bars long.


8. Rename the track "Drums".

⇨ The tempo of the project has changed to match the drum loop. When you drag a file into an empty project, its tempo defines the project tempo. Read more about defining or changing the project tempo in the section "The Tempo (TEMPO)" on page 64.

Setting Levels

In this example, a guitar plays through an amplifier with a microphone in front of the amplifier's speaker. This microphone is plugged directly into the Steinberg CI1 microphone input. You have set the level so that you have enough volume without clipping.

1. Activate the Record Ready button to hear the guitar.
   You should see the audio coming in to the right of the track.
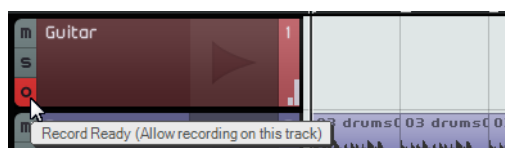
2. Do the best you can to send the maximum amount of volume to the audio inputs of your audio card before you hear any distortion.
   Most audio cards show some kind of level or volume indication.

Tuning your Instrument

Sequel features a built-in tuner for tuning guitar or bass, for example.

1. Make sure the guitar track is selected and the Record Ready button is activated so that you hear the input.

2. Activate the Tuner in the Pilot Zone.

Tuning indicator   Note and octave
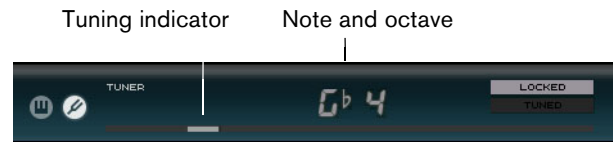
3. Pluck a string on your guitar or bass.

The Tuner automatically detects which string you are hitting as long as it is in fairly close proximity to the right tuning. The tuning indicator moves left or right. If it moves to the left, the string is flat. If it moves to the right, the string is sharp.

The Tuner also displays the current note and octave that your string is tuned to.

4. Tune each of your instrument's strings.

5. Deactivate the Tuner.

You are now ready to record!

Recording the Guitar

1. Click on the ruler at the position where you want the recording to start or click the "Jump to Previous Marker" and "Jump to Next Marker" buttons in the Pilot Zone.
   This moves the project cursor to this position.
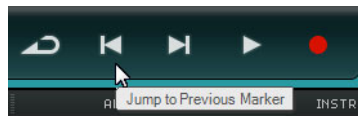
2. Make sure the Cycle button is deactivated.

3. Activate the "Record Ready" button for the track you want to record on.

4. Click the Record button to record the guitar.
   Two bars of precount are automatically added. This is indicated by a red cursor at the position where you start recording and a black cursor that jumps two bars back and advances towards the record position. This allows you to see the remaining count in time and the record start position at the same time.

⇨ The red cursor is not shown if the record start position is set to the first bar.

5. Press [Space] to stop recording.

Playback

To listen to what you have just recorded, you have to play it back.

▪ Load the project "Playback" found in the "Sequel Tutorial 1" folder.

Starting Playback

To start playback, you have the following possibilities:
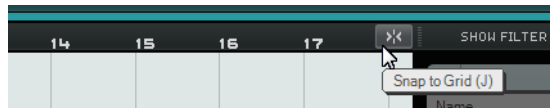
▪ Click the Play button.

▪ Press [Space] on your computer keyboard.
This toggles between start and stop.

▪ Press [Enter] on the numeric keypad.

▪ Double-click in the lower half of the ruler.

Stopping Playback

To stop playback, you have the following possibilities:

▪ Click the Play button during playback.

▪ Press [Space] on your computer keyboard.
This toggles between start and stop.

▪ Press [0] on the numeric keypad.
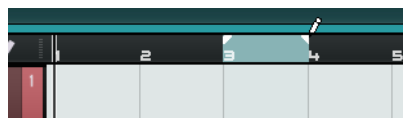
Cycle Playback

In Sequel, you can also cycle (or loop) a section of your project.

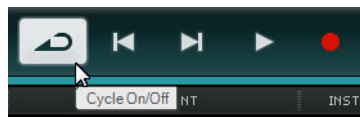To draw in a cycle region, proceed as follows:

1. Click the button on the right of the ruler to activate "Snap to Grid".
This makes it easier to create a precise region.

2. Position the mouse pointer over the top of the ruler, so that it turns into a Draw tool.

3. Click and drag from bar 3 to bar 4.

4. Activate the Cycle button.

5. Click the "Jump to Previous Marker" or "Jump to Next Marker" buttons until the project cursor is positioned at the beginning of the cycle (in this example, bar 3).

6. Start playback.
Sequel plays the cycle section over and over again until you stop playback.

## Recording Multiple Takes of your Audio

Sequel offers the possibility to record multiple takes of your performance. This allows for recording a section multiple times and then selecting the best take, or assembling a perfect take from the different takes. Proceed as follows:

1. Draw in a cycle region from bar 3 to 4, and set the project cursor to the beginning of the cycle.

2. Activate the Cycle button.

3. Make sure that the "Record Ready" button for the track is activated, and click the Record button to start recording.
   The project cursor jumps to a position 2 bars before the recording starts and Sequel repeats the cycle region over and over again.

4. Record as many takes as you like.
   All takes are stacked in the cycle region.

5. Press [Space] to stop recording.

Selecting a Take

When you play back what you have just recorded, you can only hear the take that is shown in the Arrange Zone. To select a different take for playback, proceed as follows:

1. Position the mouse pointer over the take and click the small triangle on the top left.

2. On the pop-up menu, select the take that you want to hear.
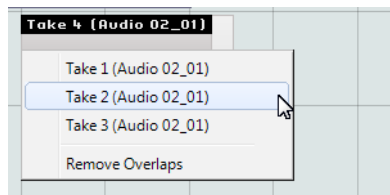
3. Listen to all your takes and select the one you like most.

4. To delete the other takes, select "Remove Overlaps" from the pop-up menu.

Assembling the Perfect Take

You can also combine segments of the recorded takes to assemble one perfect take. Proceed as follows:

1. Move the mouse pointer over the bottom of the take so that it turns into a Split tool.

2. Click at the positions where you want to split the takes.
   All stacked takes are cut at the same positions.

3. Select the segments that you want to include in the perfect take from the pop-up menu.

4. On the Edit menu, select the "Bounce Selection" command.
   A new audio event that includes all segments is created and all the unused segments are removed.

Recording Instrument Parts

In this section, you will learn how to record instrument parts on instrument tracks.

- Load the project called "Recording MIDI" found in the "Sequel Tutorial 1" folder.

Creating an Instrument Track

1. Click the "Add Track" button below the track list.
   The Add Track dialog opens.

2. Select the Instrument option.

3. Use the Category filter and select a sound for your project, for example a Synth Pad sound.
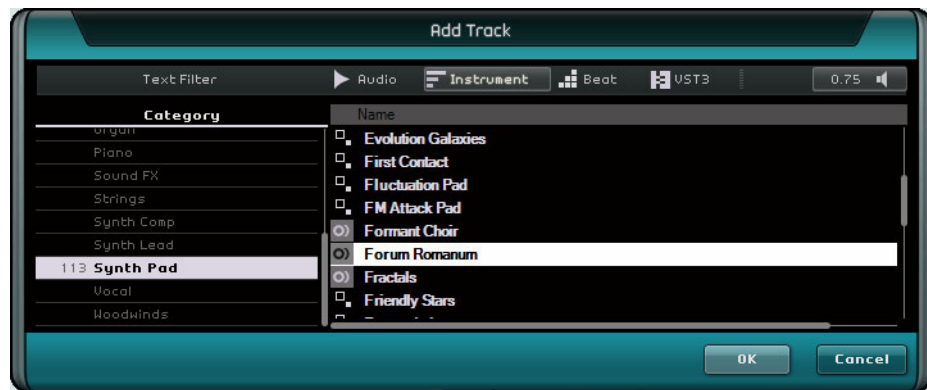
4. Rename the track according to the type of sound.

Recording an Instrument Part

Now that you have a track and a sound, you can start recording. Recording instrument parts is very similar to recording audio events.

⇨ Sequel automatically finds and uses any MIDI devices that you have on your computer.

⇨ The MIDI input of an instrument track is always set to "All Inputs".

1. Activate the "Record Ready" button for the track and press a few keys on your MIDI keyboard.
   You should hear the MIDI signals and see data coming in to the right of the track.

2. Make sure the Cycle button is deactivated.

3. Click on the ruler at the position where you want the recording to start.
   This moves the project cursor to this position.

4. Click the Record button to start recording.

5. Record 4 bars.

6. Press [Space].

7. Deactivate "Record Ready" so that you do not hear the input any more.

Congratulations! You have just recorded your first instrument part in Sequel.

8. Load the project "MIDI Playback" found in the "Sequel Tutorial 1" folder.

9. Set the project cursor to bar 1 and press [Space] to listen back.

Recording Multiple Takes of an Instrument Part

Basically, recording multiple takes of an instrument part is the same as multi-take audio recording, but there is one important difference. When it comes to MIDI multi-take recording, you can choose between two recording methods:

Recording method	Description
Take	This is the default mode where all recorded MIDI takes are stacked in the cycle region. As with audio takes, you can select the take that you like most or assemble a perfect take, see "Recording Multiple Takes of your Audio" on page 25. This is useful if you want to record different versions of an instrument part, for example a piano performance.
Mixed	In this mode, all notes that you record during the cycles are recorded into the same instrument part. This is useful for drum recordings, for example. You can record the kick drum in the first cycle, the snare in the second cycle, and so on.

You can select the recording method from the MIDI Recording pop-up menu on the Settings Page in the Multi Zone.

Editing

Introduction

In this chapter, the basic editing methods are described.

- The following sections make reference to tutorial projects, located in the default Sequel project folder.

Importing

You can import audio files, instrument sounds, pattern banks, or MIDI loops by simply dragging them from the MediaBay or your desktop and dropping them in the Arrange Zone.

Common Editing Functions

In this section, you will learn how to edit audio events. This includes renaming, resizing, splitting, moving, muting, copying, repeating, deleting, and creating a new file from selected audio events. You can also apply all these functions to instrument and beat pattern parts.

- Load the project "Event Operations" found in the "Sequel Tutorial 2" folder.

Renaming

Consistency in the naming of your audio files helps to keep your project clean and organized. Therefore, rename the audio event on the drum track "Drums":

1. Double-click the name field on the event.

2. Type in "Drums" and press [Return].
   The name changes to "Drums".
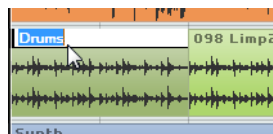
Resizing

In the bottom left and right corners of an event, the resize handles are shown. Click and hold either one of them and drag left or right to lengthen or shorten the event.

For this example, resize the Guitar and Synth events.

- Position the mouse pointer over one of the triangles at the lower left or right of the event. Click and adjust the Guitar and Synth events.

Resize handles
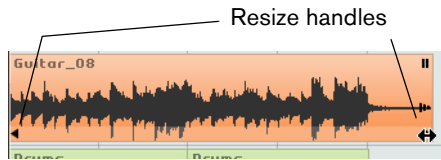
When you resize an event, the tooltip beside the mouse pointer displays the bar position and length of the event.

5.3.4.74 (Length: 4.2.3.74)

⇨ Audio events cannot be made any longer than they were when they were created.

Splitting

You can split an event at any given position or you can split them evenly at positions defined by the bars and beats position grid displayed in the Arrange Zone.
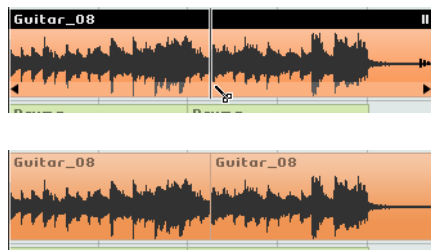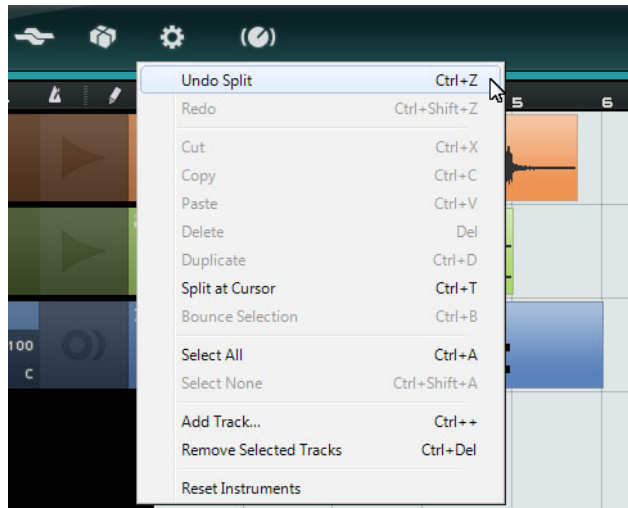

Splitting without Snap to Grid

Splitting without "Snap to Grid" allows you to cut the event anywhere you like.
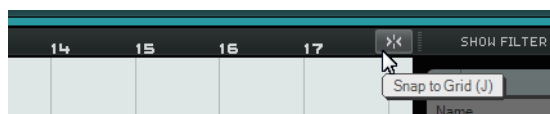
1. Make sure that "Snap to Grid" is deactivated.
   You can now split the event anywhere you like.
2. Select the Synth event.
3. Point the mouse at the bottom of the event so that it turns into the Split tool.
4. Click anywhere along the bottom of the event to split it. Create as many splits as you like.

5. Undo your actions by selecting "Undo Split" from the Edit menu.

Splitting with Snap to Grid

Having "Snap to Grid" activated allows you to split with precision, directly on bars or beats.

1. Make sure that "Snap to Grid" is activated.

2. Split the Drums event on the third beat of every bar.
If you cannot see beats in the grid, zoom in using the [H] key on your keyboard until you can see them.

3. Cut on bar 1 beat 3, bar 2 beat 3, bar 3 beat 3, and bar 4 beat 3.

4. Undo your actions by selecting "Undo Split" from the Edit menu.

Moving

Now, move the events in the project so that all the events on all tracks line up with bar 2.

1. Make sure that "Snap to Grid" is activated.

2. Click and hold the mouse in an empty area of the Arrange Zone. Drag to create a selection of all the events.
When you release the mouse button, all events are selected.
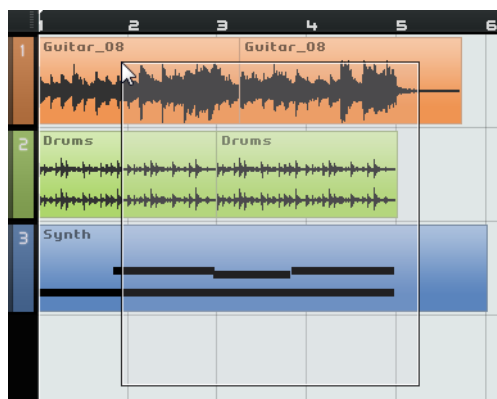
3. With all of the events selected, click and drag them so that the events line up with bar 2.

All of the events move together, maintaining their relative positions.
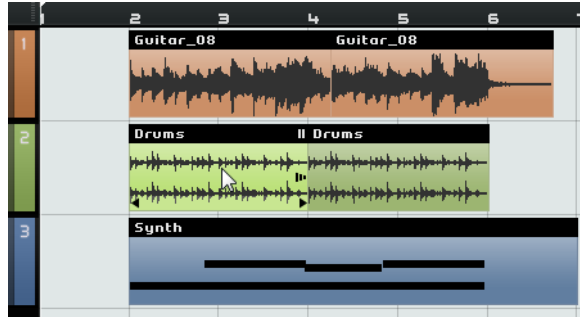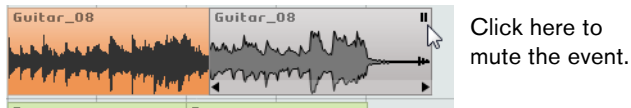

Muting

Muting an event stops you from hearing just that event. You can mute events on a track so that the track continues to play back except for the muted events.

⇨ This is different from muting a track.

- To mute an event, click the Pause button in the top right corner of the event. The event turns gray. Click again to unmute it.
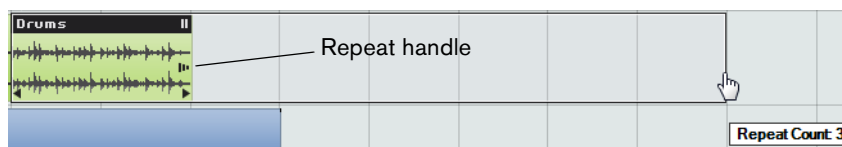

Click here to mute the event.

Repeating

The Repeat function is great for repeating events over and over. This function is built right into events in Sequel.

- To repeat the Drums event, click the repeat handle below the Mute button and drag until the Repeat Count is three.

You now have five Drums events. Two original ones and three repeats.

Repeat handle

Repeat Count 3

Copying

You can copy an event to another area in the Arrange Zone.

Using Copy and Paste

1. Click the event, and select Copy from the Edit menu. For this example, copy the Guitar event.

2. Position the cursor at the position in the project where you want the copy to be made, for example at beat 2 of bar 5.

3. Select the track that you want the event to be copied to by clicking on it in the track list.

4. Select Paste from the Edit menu.

You now have two Guitar events.

Copying using the [Ctrl]/[Command] Key

1. Place the cursor in the center of the Synth event and hold down [Ctrl]/[Command].

2. Click and hold the selected event and drag to the position where you want the copy to be made. In this case, drag until the copy is lined up with bar 5.

3. Release the mouse button.
   You now have two Synth events.

Deleting

1. Select an event to delete.

2. Press [Delete] or [Backspace] or select the Delete option on the Edit menu.

Creating a New File from Selected Events

When you have edited events, it is often useful to create a new file from the events. For example, you may have split an event into several events, reordered them, and want to further edit the entire audio in the Sample Editor. Proceed as follows:

1. Hold down [Ctrl]/[Command] and select the audio events that you want to combine in a new file.

2. Open the Edit menu and select "Bounce Selection".
   All selected events are combined in a new event.

The Draw Tool

At the top of the track list, you have access to the Draw tool.
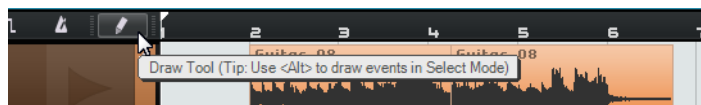
- You can use the Draw tool to draw in elements in the Arrange Zone.

- You can also press [Alt]/[Option] to toggle the Draw tool in Select mode.

You can draw in the following elements in the Arrange Zone:

- Instrument parts on instrument tracks
- Pattern parts on beat tracks, see "The Beat Page" on page 53
- Performance parts on the performance track, see "Performance Parts" on page 96
- Tempo changes on the tempo track, see "Adding Tempo Changes" on page 37
- Automation events on the automation track, see "Adding Automation" on page 44
- Transpose changes on the transpose track, see "Show Transpose Track" on page 69

The Sample Editor

The Sample Editor is used for detailed audio editing.

These features are described in the chapter "Advanced Features" on page 101.

▪ To open the Sample Editor, select an audio event and then open the Editor Page in the Multi Zone.

▪ You can also double-click the event in the Arrange Zone to open it in the Sample Editor.
The selected audio event is displayed in the center of the Editor Page. Here you can see a detailed waveform rendering of the audio file.

The Key Editor

The Key Editor is where you can make changes to the instrument data on instrument tracks.

▪ Load the project "Key Editor" found in the "Sequel Tutorial 2" folder.

Select the Synth part and open the Editor Page in the Multi Zone to view the Key Editor. Here, you can see the synth notes lined up with a keyboard display on the left. At the bottom, the velocity of each of the notes is shown and at the top, you can see the time ruler.

Deleting Notes

To delete all the notes in bar 1, proceed as follows:
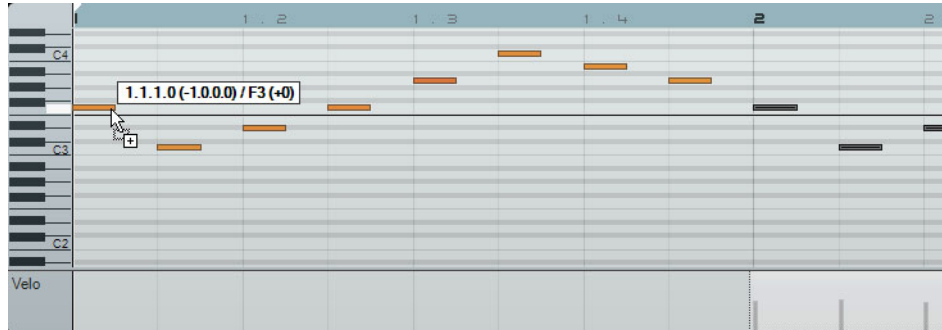
1. Drag a selection rectangle over the first bar.
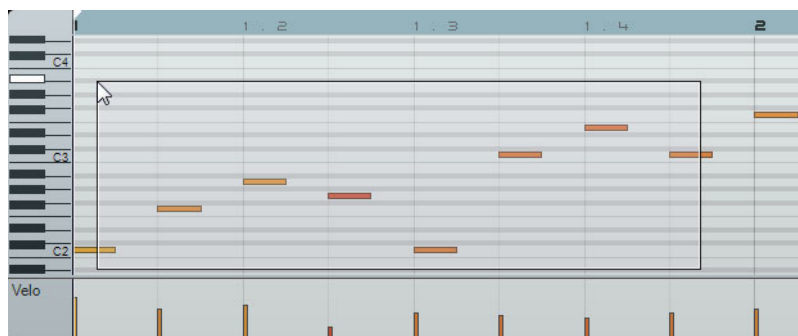
2. Press [Delete] or [Backspace].

Copying Notes

Now, copy all notes from the second bar into the first bar.

1. Select the notes in bar 2.

**2.** Hold down [Ctrl]/[Command] and drag the notes from bar 2 to bar 1.

Resizing Notes

You can shorten or lengthen notes in the Key Editor. For example, to change all the eighth notes in the first two bars into quarter notes, proceed as follows:

1. Select all the notes in the first two bars.

2. Position the mouse pointer at the end of any of the selected notes.
It changes into a double arrow.
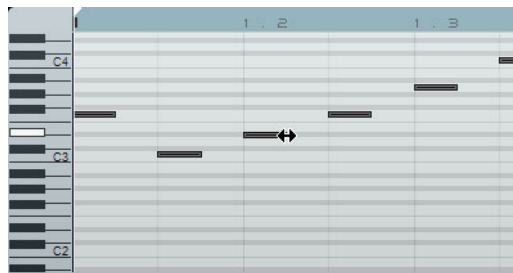
3. Click and drag right to resize all the notes.
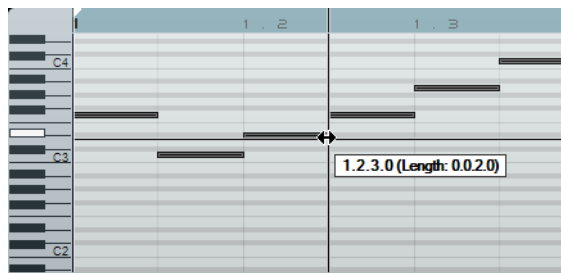

Creating or Drawing in Notes

You can use the Key Editor to draw in notes. This is great for creating instrument arrangements that you are having trouble playing in yourself.

To add some notes to the first two bars of the project, proceed as follows:

1. Make the Key Editor larger by clicking on the bar along the top of the Multi Zone and dragging upwards.

2. Zoom in on the notes in the Key Editor by clicking the "+" symbol at the bottom right of the Key Editor.

3. Draw in a G above the first C in bar 1 so that two notes are played instead of one. Hold down [Alt]/[Option] to toggle the Draw tool.

4. Click and drag to draw in an eighth note G.

5. Draw in notes above the rest of the notes in bar 1 and 2.
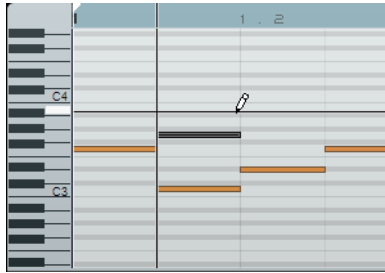
The Controller Lane

The controller lane allows you to add or modify instrument data such as velocity and controller information. The most common use for this is to edit velocity or pitch bend. If you find that the velocity is too strong or too weak on certain notes, you can view and edit them at the bottom of the Key Editor.
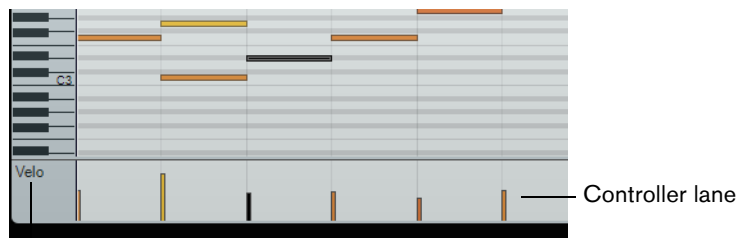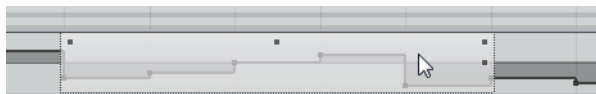

Controller lane

Controller pop-up menu

1. On the controller pop-up menu, select the information that you want to view or change; in this example, select Velocity.

In the controller lane, you can now see the velocity for each note contained in the instrument part. When you move the mouse pointer to the controller lane, it turns into a Draw tool.

2. Click and drag to change the velocity information for a note.

Working with Selection Ranges on the Controller Lane

The controller lane editor allows you to perform additional scaling operations for selection ranges on existing controller curves.

▪ To open the controller lane editor, create a selection rectangle on the controller lane, encompassing the controller events that you want to edit.

For Velocity lanes, you have to press [Alt]/[Option] to enter Select mode.

In the controller lane editor, so called smart spots appear on the borders of the editor. These smart spots allow you to activate a specific editing mode:

Editing mode	To activate this mode…	Description
Move Vertically	Click in an empty area on the upper border of the editor.	This mode allows you to move the entire curve up or down, which is useful to boost or attenuate an otherwise perfect curve.
Scale Vertically	Click the smart spot in the middle of the upper border of the editor.	Use this mode to relatively scale the curve, i.e. to raise or lower the values in percent (not by absolute amounts).
Tilt the left/right part of the curve	Click the smart spot in the upper left/right corner of the editor.	These modes allow you to tilt the left or the right part of the curve, respectively. This is useful if the curve form is exactly the way you want it, but the start or end needs to be boosted or attenuated a bit.
Compress the left/right part of the curve	[Alt]/[Option]-click the smart spot in the upper left/right corner of the editor.	These modes allow you to compress the left or the right part of the curve.
Scale Around Absolute Center	Click the smart spot in the middle of the right border of the editor.	This mode allows you to scale the curve around the absolute center, i.e. horizontally around the center of the editor.
Scale Around Relative Center	[Alt]/[Option]-click the smart spot in the middle of the right border of the editor.	This mode allows you to scale the curve relative to its center.
Stretch	Click and drag in the lower part of the editor (not available for Velocity lanes).	This allows you to stretch the selected controller events.

▪ To move the whole selection up/down or left/right, click on a controller event inside the editor and drag the curve.

▪ By pressing [Ctrl]/[Command] when clicking and dragging, you can restrict the direction to horizontal or vertical movement, depending on the direction in which you start dragging.

The Beat Page

The Beat Page is where you can make changes to the data on beat tracks. You can draw in steps, set velocity values, and specify the sounds, for example.

The steps are shown in the step display, each step representing a beat position in the pattern. By default, 16 steps are shown per lane.
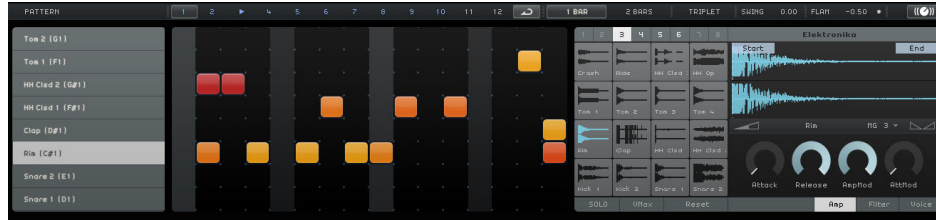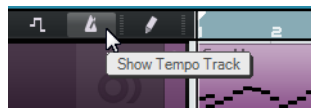

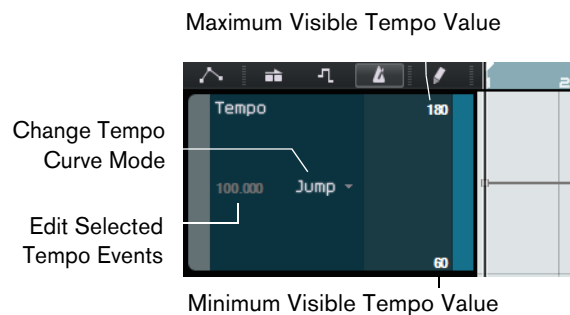The Beat Page is described in detail in the section .

Adding Tempo Changes

In this section, you will learn how to add tempo changes to your project.

▪ In the Arrange Zone, click the "Show Tempo Track" button.

The tempo track is displayed at the top of the project. In the event display, a horizontal line shows the current tempo. By adding curve points to this line, you can vary the tempo within the project. The curve points represent the tempo changes. In the track list, there are two controls for the tempo track.

Maximum Visible Tempo Value

Change Tempo Curve Mode

Edit Selected Tempo Events

Minimum Visible Tempo Value

Add some tempo changes:

1. Select the Draw tool and click at the positions in your project where you want the tempo to change.
   The tempo display in the track list displays the tempo according to the position of the mouse pointer.

2. Listen to your project to hear how it sounds with tempo changes.

If necessary, you can edit the tempo curve as follows:

▪ To modify the inserted tempo changes, click and drag the tempo curve points.

▪ To enter a specific tempo for the tempo curve point, select the curve point and double-click the tempo display in the track list.

▪ To change the tempo gradually from one curve point to the next one, open the "Change Tempo Curve Mode" pop-up menu in the track list and select Ramp.
   The default setting is Jump, where the tempo changes instantly to the new value.

- To delete a tempo change, select the corresponding tempo curve point and press [Delete] or [Backspace].

- To change the maximum and minimum tempo values that are shown in the curve display, click the values and drag up or down or double-click the values and enter a specific value.

⇨ If you use the Tap Tempo function in the Pilot Zone tempo display, the current tempo curve is removed and the tapped tempo is used as a single constant tempo, see "Using Tap Tempo" on page 65.

Introduction

In this chapter, you will learn how to create a mix ready with proper levels, EQs, and effects. You will also add automation and export the audio.

⇨ The following sections make reference to tutorial projects, located in the default Sequel project folder.

Setting Levels

The first thing that you need to do is to set the levels for the project so that you can add EQ and effects later.
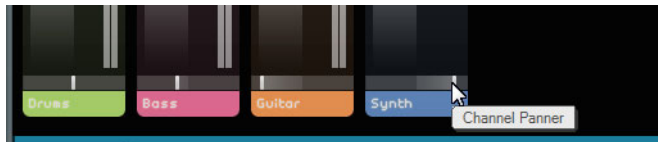
▪ Load the project "Mixing 1" found in the "Sequel Tutorial 3" folder.

1. Open the Mixer Page in the Multi Zone.

2. Press [Space] to start playing back the project and listen to your mix.

3. Move the faders on each track so that you hear everything the way you like it.

⚠ Be careful how high you raise the faders. Make sure that everything is at a good volume without clipping, distortion, or any other unpleasant sounds. If the Master fader area turns red, your tracks are too loud. If this happens, lower the levels.

Setting Pan

- Load the project "Mixing 2" found in the "Sequel Tutorial 3" folder.

- Setting the pan for each track moves its position in the stereo mix. You can either keep the signal balanced in the middle of the left and right speaker, slightly to the left or right, or be completely in the left or right speaker.

- Keep the Drums track in the middle. Move the bass track slightly to the left and move the guitar track almost all the way left and the synth track almost all the way to the right. This gives the mix a little bit more of a feeling of space.
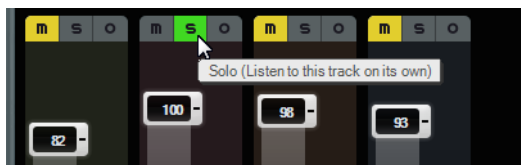

- To get the panner back to the center, [Ctrl]/[Command]-click directly in the panner area.

Mute and Solo

- Load the project "Mixing 3" found in the "Sequel Tutorial 3" folder.

For each track, there are buttons for mute and solo. Mute prevents you from hearing the track, and solo only plays that track or tracks that have solo enabled.

- You can mute or solo several tracks simultaneously.

- When you solo a track, the other tracks are muted.

- To disable a solo or mute state, click the button again.

- To simultaneously mute a track that is soloed and solo another track, [Ctrl]/[Command]-click the Solo button of the track that you want to solo.

That's it for solo and mute. Let's move on to adding EQ.

Adding EQ

- Load the project "Mixing 4" found in the "Sequel Tutorial 3" folder.

EQ, or equalization, adds or subtracts frequencies, so that you can place each instrument correctly in the mix. EQ is subjective and can be influenced by the kind of music you are mixing or the kind of music that you like to listen to.

We are going to run through the EQ features that Sequel has to offer, but feel free to experiment and try the different presets on your mix.

1. Select the Drums track in the Arrange Zone.

2. Solo the Drums track, and open the Track Inspector Page in the Multi Zone.

3. Open the Equalizer panel.

4. Play back a part on the Drums track so that you can hear your EQ changes.

The low band allows you to modify the low-frequency portion of the signal (bass), the middle band the mid frequencies, and the high band the high frequencies (treble).

▪ To adjust the frequency of a band, drag the corresponding frequency slider to the left or right.

The exact frequency range is displayed in the EQ settings display.
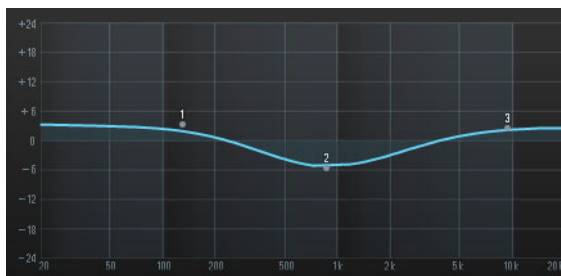
The middle EQ is a parametric EQ. You can adjust its frequency range by dragging the Resonance slider. Drag the slider to the right to widen the range and to the left to shorten it.
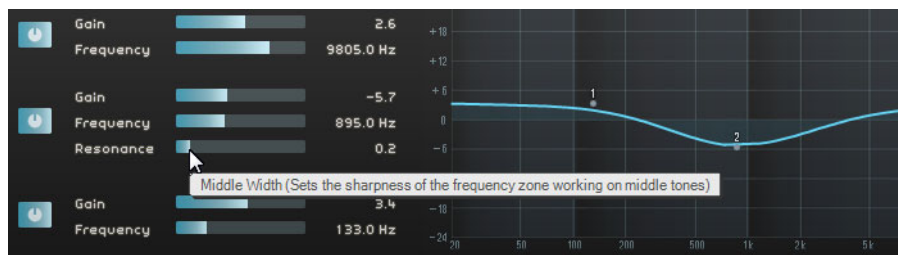
5. Adjust the EQ level by dragging the Gain sliders in the Low, Mid, or High section to the left or right.

▪ To bypass the EQ, click the Bypass button.
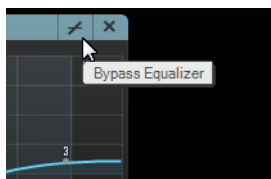
▪ You can reset any slider by [Ctrl]/[Command]-clicking it. You can also reset the EQ from the EQ Presets pop-up menu by clicking in the EQ Presets field and selecting "RESET".

6. Experiment with the EQs on all your tracks.

▪ Listen to, and see the EQ changes by loading the project "Mixing 5" found in the "Sequel Tutorial 3" folder.

Audio Effects

▪ Load the project "Mixing 6" found in the "Sequel Tutorial 3" folder.

You will now add some effects to the project. In Sequel, there are three types of effects:

- Insert effects
- Send effects
- Output effects

For details on each effect and its parameters, see the chapter "Effects and Instruments Reference" on page 119.

You can also add effects to instrument parts. This is described in the section "Panels for Instrument Tracks" on page 83.

Insert Effects

Insert effects are inserted into the signal flow. To set up an inset effect, proceed as follows:

1. Select the Bass track.

2. Open the Track Inspector Page, and make sure that the Insert FX 1 panel is visible.
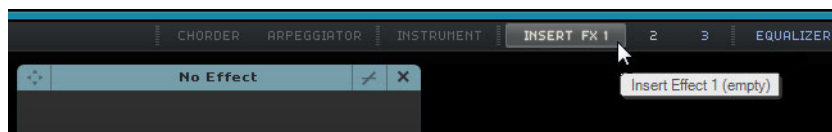
3. Begin playback and cycle (or loop) a section of music.

▪ Use the Compressor effect to smooth out the Bass track.

4. Adjust the Threshold slider until the bass sounds smoother and the difference between the notes that were played quieter versus the notes that were played a little louder gets smaller.

5. Raise the Channel Level setting to compensate for the reduction in gain that the compression has caused on the Bass track.
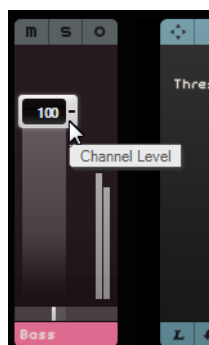
6. Add a flanger to the Synth track to make it stand out a little bit more. Select the Synth track in the Arrange Zone.

7. Open the first insert slot, and choose Flanger from the Modulation submenu.
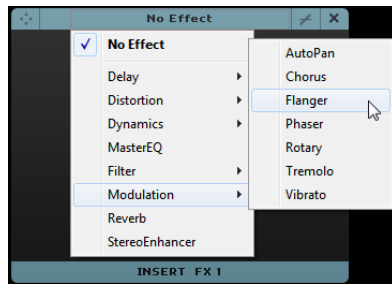
8. Make changes to the effect manually, or select a preset from the Preset pop-up menu.

Effect Preset menu

For details on each effect and its parameters, see the chapter "Effects and Instruments Reference" on page 119.

At the end of this section, you can load the next tutorial that contains all changes you have made.

Send Effects

- Load the project "Mixing 7" found in the "Sequel Tutorial 3" folder.

Each project can have two send effects.

1. Make sure you have the Track Inspector Page selected and open the Send Effects panels.

Reverb and StereoDelay are set as the default send effects. You can change them if you like, but remember you only have two slots that are used for all tracks.

Add some reverb to the drums:

2. Select the Drums track and make sure "Amount 1" is enabled. This sends the drums to the Reverb effect.

Amount 1 enabled   Send effect 1   Send effect 2

3. Move the "Amount 1" slider until you are satisfied with the sound.

For details on each effect and its parameters, see the chapter "Effects and Instruments Reference" on page 119.

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Mixing

Output Effects

Output effects are like insert effects, but are applied to the Master channel. Open the "Output Effects" section by clicking the button in the lower right of the Multi Zone.

The Output Effects section features three assignable effects and a fixed Maximizer effect. The effects are controlled via sliders and a Bypass button.

▪ Use the Maximizer to raise the overall volume of the project.
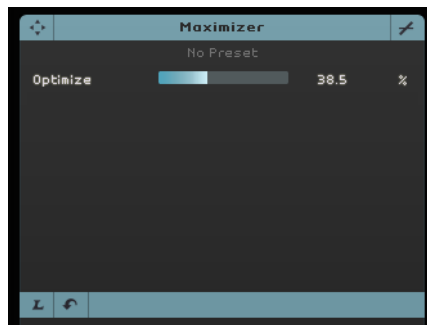
1. Move the Optimize slider until the effect is at a suitable level.

2. You can bypass the effect by clicking the Bypass button.

For details on each effect and its parameters, see the chapter "Effects and Instruments Reference" on page 119.

Adding Automation

⚠ Any automation you have created is always reproduced during playback, even if the automation data is not shown. If you do not want the automation to be reproduced, delete all automation data you recorded on your tracks.

You can use an automation to adjust faders, pan, knobs, and effects automatically. This is very handy, especially when you have a lot of tracks in your project. Any changes you make are remembered and occur again automatically.

▪ Load the project "Mixing 8" found in the "Sequel Tutorial 3" folder.

Now, make the whole project fade out by changing the volume automation on the Master track.

1. Click the "Toggle Automation Mode" button in the Pilot Zone.

   Edit mode is activated and the Master track is shown in the Arrange Zone.

Toggle Automation Mode
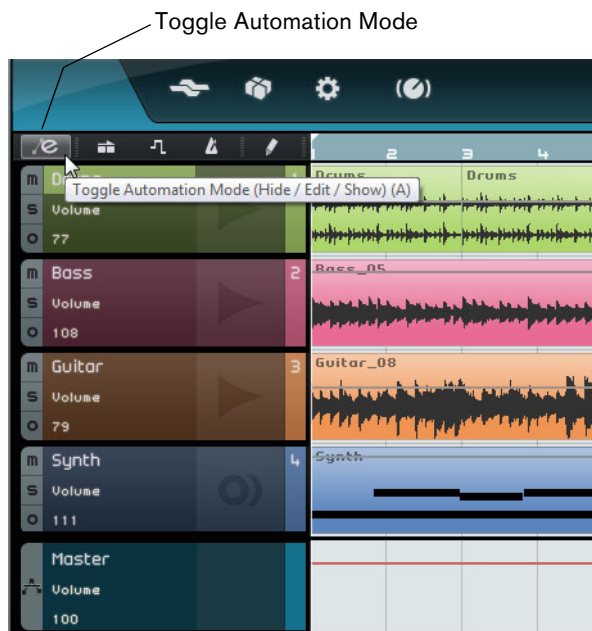
2. Make sure that Volume is selected on the automation pop-up menu of the Master track.

3. Create two anchor points by clicking on the volume automation line – one at the beginning of the last bar and one at the end of the last bar.

   ▪ To delete an anchor point, select it and press [Delete] or [Backspace].

4. Drag the anchor point at the end of the project down until you cannot drag it any further.
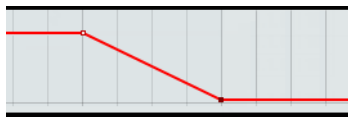

5. Listen to the fade out automation you have created.

⇨ You can also create automation during playback or recording, simply by moving a fader or knob.

Now, select a different parameter to automate. In this case, use the Panner on the Synth track.

1. Make sure that the "Toggle Automation Mode" button is set to Edit mode.

2. From the automation pop-up menu on the Synth track, select "Panner - Left-Right" so that you can see how the automation is written to the track.
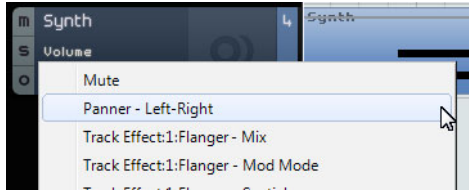
3. Press [Space] to start playback, click in the panner value field, and drag up and down to pan the signal left or right.
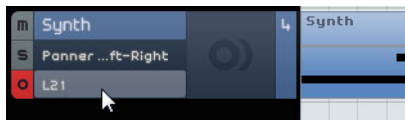
4. Stop playback when you are done.

⇨ Sequel automatically smoothes out the automation.

Editing Automation Data

By creating a selection range on an automation track, the automation editor becomes available. This editor offers additional controls for editing selection ranges. These controls are identical with the so-called smart spots in the controller lane editor. For a detailed description, see "Working with Selection Ranges on the Controller Lane" on page 35.

Removing and Disabling Automation

To remove and disable automation, you have the following possibilities:

▪ To remove the track automation for the current parameter, select the first option from the lower part of the automation pop-up menu (for example, "Remove Volume Automation").
Note that this also deletes any automation events for this parameter.

▪ To remove all automation data from the selected track, select "Remove all Automation of Track" from the automation pop-up menu.

▪ To remove all effect automation data from the selected track, select "Remove Effect Automation" from the automation pop-up menu.

▪ To remove all EQ automation data from the selected track, select "Remove EQ Automation" from the automation pop-up menu.

▪ To enable/disable the master automation, click the "Disable Automation" button on the master track or in the Master channel of the mixer.
The Read and Write functions as well as all automation on the Master track are disabled. The initial automation value is used as a fixed value for the whole project. You can still modify this value using the master automation controls in the track list. If you deactivate the button, the master automation is enabled again.
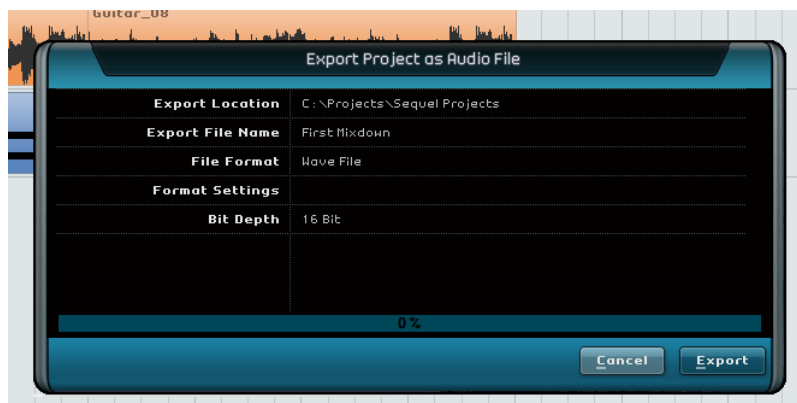
Exporting

Now that you have your project mixed, you can export it so that you can send it to others, burn it to a CD, or listen to it on your iPod.

- Load the project "Mixing 9" found in the "Sequel Tutorial 3" folder.

Exporting Audio Files

1. To export your project in a different format, open the Project menu and select "Export Project as Audio File".

2. A dialog opens, where you can choose an export location and a file name. Click in the field to the right, select a destination, and name the file "First Mixdown".
   Choosing the project folder is recommended so that your file is not erased or lost accidentally.

⇨ Normally you will save your exported file as a Wave file. This is the most universally compatible file type for audio. If the application you need the file for demands a different format, you can choose one from the pop-up menu.

3. Use a bit depth of 16 bit, common for CD burning.
   24 bit give a higher audio quality, but the file also uses up more hard-disk space.

4. When you are finished selecting all of your settings, click Export to begin exporting the file.
   The progress bar along the bottom shows the progress.

- Load the project "Mixing 10" found in the "Sequel Tutorial 3" folder.

Exporting MP3 Files

Using advanced audio compression algorithms, MP3 files can be made very small, yet maintaining good audio quality.

Sequel provides a function for exporting your projects as MP3 files. This function is limited to 20 trial encodings or a period of 30 trial days from the installation date, whichever comes first. After this period, the function is disabled until you purchase the MP3 encoder for Sequel.

When the MP3 format is selected, and you click the Export button, a window opens showing you how many trial encodings you have left. You can upgrade to an unlimited MP3 export function by clicking the "Go to Online Shop" button in the dialog. This takes you to Steinberg's online shop where you can purchase the upgrade. Note that a working internet connection is required.

- In the Export Project as Audio File dialog, specify the export location and the file name in the corresponding fields, and activate/deactivate the following options for MP3 files:

Option	Description
Bit Rate	In this field, you can select a bit rate for the MP3 file. As a rule, the higher the bit rate, the better the audio quality and the larger the file. For stereo audio, 128kBit/s is often considered to result in good audio quality.
Sample Rate	Determines the frequency range of the audio – the lower the sample rate, the lower the highest audible frequency in the audio.
High Quality Mode	When activated, the encoder uses a different resampling mode, which can give better results depending on your settings. In this mode, you cannot specify the sample rate, but only the bit rate for the MP3 file.
Insert ID3 Tag	When you activate this option, the ID3 tags that you specified in the ID3 Tag dialog are included in the file.
Edit ID3 Tag button	When you click this button, the ID3 Tag dialog opens, where you can enter information about the file. These text strings (tags) can be displayed in most MP3 playback applications.

Exporting to iTunes

⇨ This function is only available if iTunes is installed on your computer.

- To export your project directly to iTunes, open the Project menu and select "Export Project to iTunes".

Your project is exported from start to finish in the default file format of iTunes. iTunes is launched and your exported project is already part of your library for easy transfer to your iPod. In iTunes, the project name is shown as the title and your computer user name as artist name.

Audio Mixdown of Selected Tracks (Bouncing)

Sometimes it can become necessary to combine multiple tracks of a project into one or to convert CPU-hungry instrument tracks to audio. This is called bouncing tracks. Proceed as follows:

1. Activate solo on the tracks you want to bounce. Bypass any send or output effects. You can add them again later.

2. On the Project menu, select "Export Project as Audio File…" and specify a name and format.

3. Locate the created audio file and drag it into the open project onto the empty space below the last track.
   A new track is created containing the bounced file. You can now mute or delete the original tracks and adjust your mix.

Live Pads and Chain Play Mode

Introduction

In this chapter, you will learn how to use Sequel to make live performances fun and easy.

The following sections make reference to tutorial projects, located in the default Sequel project folder.
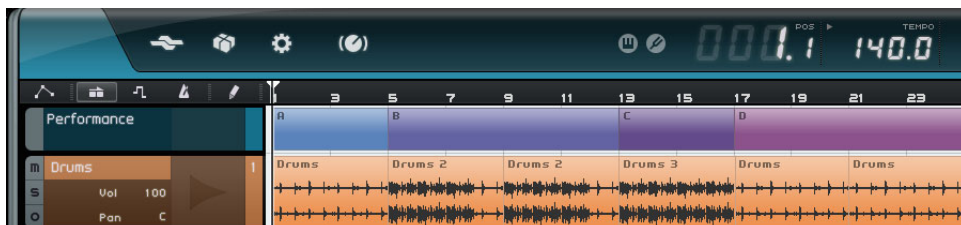
Performance Parts

▪ Load the project "Live Mode 1" found in the "Sequel Tutorial 4" folder.

In the following example you will use performance parts to separate intro, verse, chorus, and extro into different sections.

1. Activate the "Show Performance Track" button above the track list.
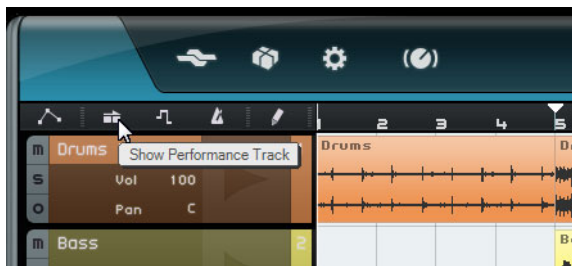
2. Activate the Draw tool above the track list and move the mouse over the Arrange Zone for the performance track.
   The mouse pointer turns into a pencil.

3. Click and drag to create a performance part from bar 1 to bar 5.

4. Create three more parts from bar 5 to 13, 13 to 17, and 17 to 25.
   The parts are labeled alphabetically.

Live Record Mode

- Load the project "Live Mode 2" found in the "Sequel Tutorial 4" folder.

If you want to create spontaneous performances, the live record mode allows you to create and record your performances on-the-fly.

To record your performance, proceed as follows:

1. In the Multi Zone, open the Performance page and click the "Record Performance" button.
   The record button starts blinking.
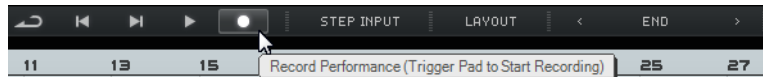
2. Open the "Define Jump Grid" pop-up menu, and select a grid resolution.
   The grid resolution determines for how long the selected pad is played and when Sequel switches to the next pad. You can always change this during your performance.
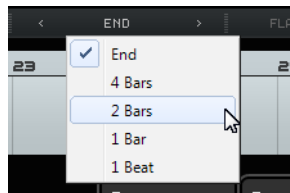
3. Click a pad to start playback of the corresponding performance part.
   The performance part in the Arrange Zone is played back and a new part is created on the performance timeline. The part is named after the performance part in the Arrange Zone, and its length is determined by the Jump Grid setting. If the recorded part on the timeline is longer than the original performance part in the Arrange Zone, the performance part is retriggered.

4. Click as many pads as you want.

5. Click the Stop pad.

6. Start playback to listen to the new performance.
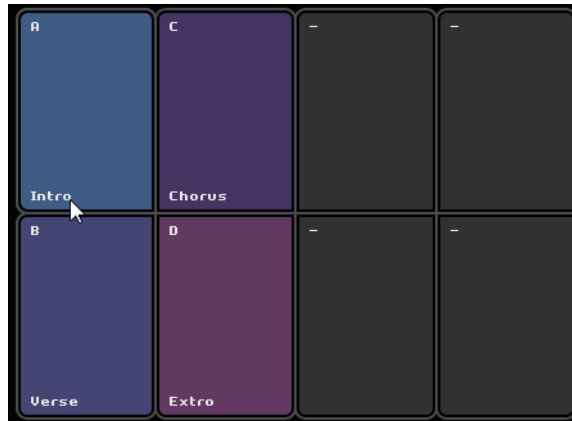
Playback Mode

- Load the project "Live Mode 2" found in the "Sequel Tutorial 4" folder.

Playback mode allows you to click a pad at any time to play back the assigned performance part in a loop. The part is played back until you click another pad or hit stop.

Proceed as follows:

1. In the Multi Zone, open the Performance Page.

2. Open the "Define Jump Grid" pop-up menu, and select the End option.
   The grid resolution determines for how long the selected pad is played and when Sequel switches to the next pad.

3. Click pad A to play back the intro in a loop.
   Pad A is highlighted, indicating that this pad is currently playing back or active.

4. Click pad B to play back the verse in a loop.
   Pad B starts flashing, indicating that this pad is next in line to be played back.

5. [Alt]/[Option]-click in the lower section of pad A and name it "Intro".
Do the same for pad B (Verse), pad C (Chorus), and pad D (Extro).

6. Click the Stop pad.

This way you can queue up the pads in the order you want for live playback.

Experiment with the Jump modes and have fun creating different arrangements with your project.

⇨ Using remote controllers together with this mode gives you even more flexibility, see "Remote-controlling Sequel" on page 110.

Step Input Mode

- Load the project "Live Mode 3" found in the "Sequel Tutorial 4" folder.

In Step Input mode, you can click the pads in the order you want to play them. This adds the parts to the performance timeline displayed above the pads.

1. At the top of the Performance Page, activate the "Step Input" button.

2. Click pad A.
A part labeled A appears on the performance timeline.

Performance timeline
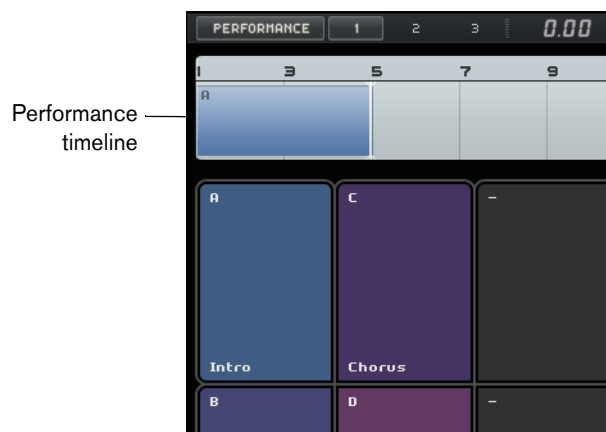
3. Click pads B, C, and D to create the corresponding parts on the performance timeline.

4. Press [Space] to start playback.
Your new performance is played back.

Right now, the performance timeline plays back the project in its original arrangement, so let's change things a bit.

5. Stop playback.

6. Delete all performance parts on the performance timeline by selecting them and pressing [Delete] or [Backspace].

7. Create a new performance as described above, but use a new sequence, for example, A, B, C, C, B, C, C, D.

8. Start playback to listen to the new performance.
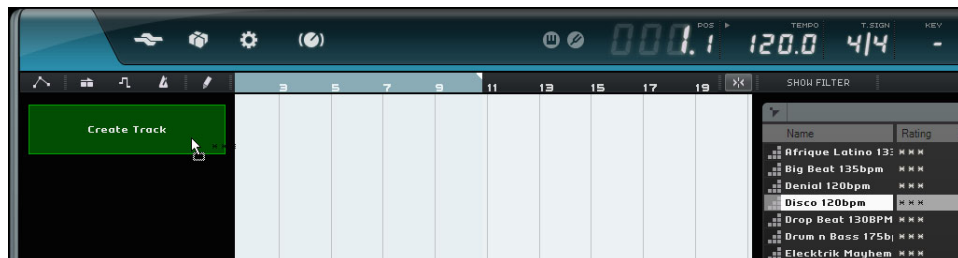
The Beat Page

Introduction

In this chapter, you will learn how to create rhythm patterns and pattern parts and how to make editings on the Beat Page.

Adding Pattern Banks

Sequel comes with a large number of pre-configured pattern banks. You can drag a pattern bank from the MediaBay into the Arrange Zone to add the pattern to your project. Proceed as follows:

1. Click the MediaBay button in the bottom right corner of the Multi Zone to open the MediaBay.

2. Set the Browse Location to "Factory Content".

3. Open the "Select Media Type" pop-up menu and select "Pattern Banks".
   This shows the available pattern banks in the results list.

4. Select the different entries and preview them.

5. When you found a pattern bank that suits you, drag it from the MediaBay, and drop it on the track list.
   As you drag, an indicator lights up in the track list to show you where you can drop your pattern bank.

A beat track is created in the Arrange Zone and the Beat Page is shown in the Multi Zone.
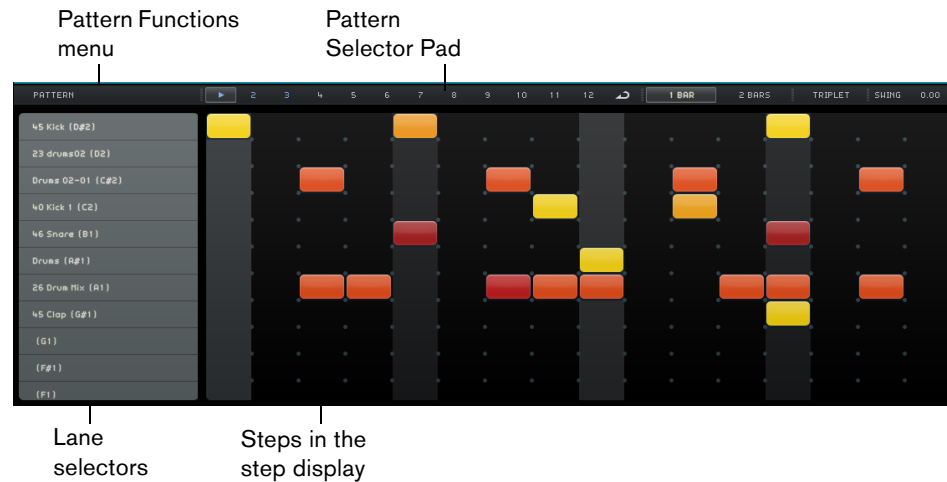
See "The Beat Page" on for further details.

Editing Patterns on the Beat Page

Creating a Pattern

You can now preview the beat patterns and edit them on the Beat Page.

1. Start playback.
   The beat pattern shown in the Beat Page step display is played back.

Pattern Functions
menu

Pattern
Selector Pad

Lane
selectors

Steps in the
step display

2. Click the lane selector for a drum sound.
   The corresponding lane is highlighted in the step display.

3. Click the highlighted lane to enter a step.
   The drum sound is triggered.

   ▪ To delete a step, click on it again.

4. Enter more steps or remove them until you are satisfied with your pattern.
   Your beat pattern is automatically stored on the selected pattern selector pad, by default the first one.

Editing Steps and Lanes

You can edit steps and lanes on the Beat Page in the following ways:

▪ You can draw in a step by clicking in the step display.

▪ You can add a flam, that is, two beats played almost simultaneously, by activating the Flam tool and clicking.
  See "Flam" on page 91 for details.

▪ You can move all steps on a lane by holding down [Shift], clicking on the lane and dragging to the left or right.

▪ You can invert a lane, that is to say reverse the order of the steps, by holding down [Alt]/[Option] and dragging the mouse over the lane.
  This lets you create unusual rhythmic patterns.

▪ You can copy the content of a lane onto another lane by clicking in the section to the left of the lane you want to copy and dragging to the new position.

▪ You can add a swing rhythm to all lanes using the Swing slider.
  See "Swing" on page 90 for details.

▪ You can offset a whole lane using the Offset slider.
  See "Lane Offset" on page 91 for details.

Editing the Velocity

You can edit the velocity in the following ways:

- Fine-tune the velocity for a step by clicking it and dragging up or down.
  The current velocity value is shown while you drag, allowing you to find the corresponding setting easily.

- Fine-tune the velocity for a range of steps by clicking the first step, dragging up or down while holding the mouse button pressed to enter into velocity edit mode, and then dragging sideways and up or down to modify the velocity for all the steps.

- Change the velocity for all steps on a lane by holding down [Shift] while dragging up or down.
  The velocity for the steps is increased or decreased by the same amount. The relative velocity differences of the steps are kept for as long as possible, that is, until the minimum or maximum setting is reached.

- Create a crescendo or decrescendo for a range of steps by holding down [Alt]/[Option], clicking the first step, dragging up or down and then dragging to the left or right while keeping the mouse button pressed.
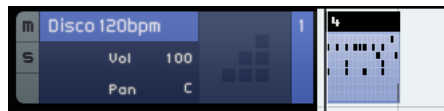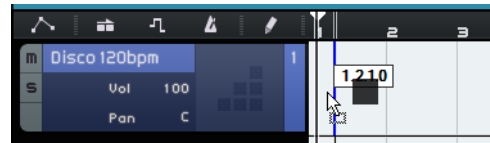
Editing Pattern Parts

Creating Pattern Parts

To create a pattern part, proceed as follows:

1. Drag a pattern selector pad and drop it on a beat track.

Drop a pattern selector pad on a beat track…

…to create a pattern part.

2. On the Beat Page, click the second pattern selector pad and set up a new pattern in the step display.

3. Create more patterns and drag them onto your beat track.
   You can create up to 12 beat patterns. These are automatically stored on the selected selector pad.

Selecting Pattern Parts

If you create a pattern part on the beat track, pattern 1 is used by default. To change this, click the little arrow in the upper left corner of the pattern part to open a pop-up menu and select another pattern.
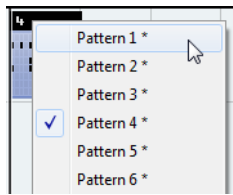

An asterisk behind the pattern name indicates that this pattern has steps assigned.

▪ If you select several pattern parts in the Arrange Zone, only the first one is displayed on the Beat Page.
  See "The Beat Page" on page 89 for details.

▪ If no pattern part is selected in the Arrange Zone, the currently played pattern part of the selected beat track is shown.

Assigning Audio Samples to Pads

You can assemble your own drum kits by assigning audio samples to the pads in the pad display.
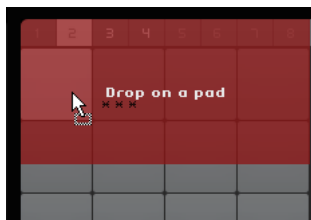

Dropping an audio sample on the pad display

Proceed as follows:

1. Double-click in the track list.
   The Add Track dialog opens.

2. Select the Beat option.

3. Select "empty" and click OK.
   This adds an empty beat track to the project.

4. In the MediaBay open the "Select Browse Location" pop-up menu, open the "Content Libraries" submenu, and select "Groove Agent ONE Content".

5. Open the "Select Media Type" pop-up menu to the right and select "Audio Files".

⇨ You can also set up an attribute filter to search for certain sounds (kick, hi-hat, etc.). This makes your search much more comfortable. For more information, see "Filtering Media Files" on page 76.

6. Select the different entries and preview them.

7. Select an audio sample that suits you, drag it from the MediaBay, and drop it on a pad in the pad display.
   As you drag, an indicator shows you where you can drop the audio file.

The audio file is now assigned to the pad. The corresponding step display lane is highlighted and indicates where you can enter the steps that trigger the sample sound.

Selecting a pad in the pad display highlights the corresponding lane.
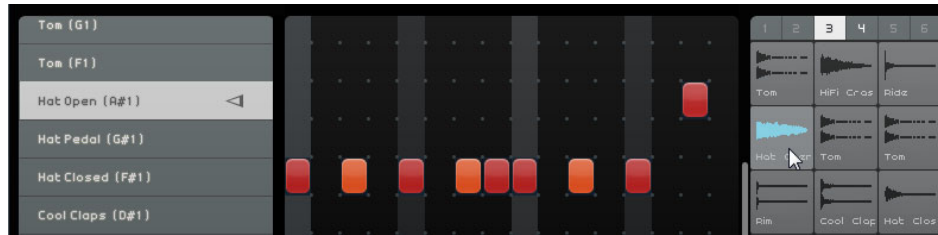
8. Enter some steps on the highlighted lane.

9. Assign further audio files to the empty pads as described above until you have set up all drum sounds you want to assign to your drum kit.
   You can assign up to 16 drum sounds per group.

If you are not satisfied with a determined pad sound, you can replace it by dropping a new audio file.

You can also edit the audio files on the pads. See "Sample Display" on page 92 for further details.

Saving your Pattern Bank

If you want to use your patterns and drum kits in other projects, you can save them as a pattern bank.
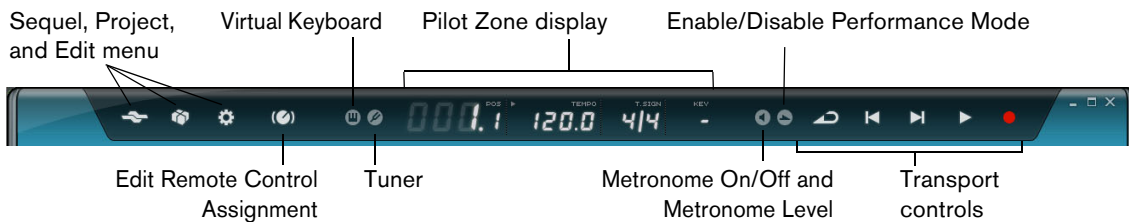
Proceed as follows:

1. Set up all patterns and kits to your liking, drag the corresponding beat track and drop it on the MediaBay.
   A dialog opens.

2. In the Save Pattern Bank dialog, click in the value column and select a value from the pop-up menu.
   This sets the selected attribute to the file. Attributes make it easier for you to organize your content.

3. Enter a name in the text field at the bottom of the window and click OK to close the dialog.
   Your pattern bank is added to your user content.

⇨ You can also drag a pattern selector pad to the MediaBay. This saves all pads.

The Pilot Zone

Introduction

In this chapter, you will learn more about the layout and functions of the Pilot Zone.

Sequel, Project, and Edit menu — Virtual Keyboard — Pilot Zone display — Enable/Disable Performance Mode

Edit Remote Control Assignment — Tuner — Metronome On/Off and Metronome Level — Transport controls

The Sequel Menu

Help

Selecting this option opens the manual.

About Sequel

This option allows you to view the exact version of Sequel that you have installed and also take a look at some of the people involved in putting it together.

Credits and Copyrights

Lists credits and copyright information. This menu also contains links to the Steinberg web site.

User Registration…

Selecting this option opens your standard web browser and takes you to Steinberg's online registration service. We encourage you to register your software! By doing so, you are entitled to technical support and being kept aware of updates and other news regarding Sequel.

Quit

Selecting this option exits the program.

The Project Menu

The Project menu contains the following options:

New Project

Selecting this option creates a new empty project.

Open Project…

Selecting this option allows you to open an existing project.
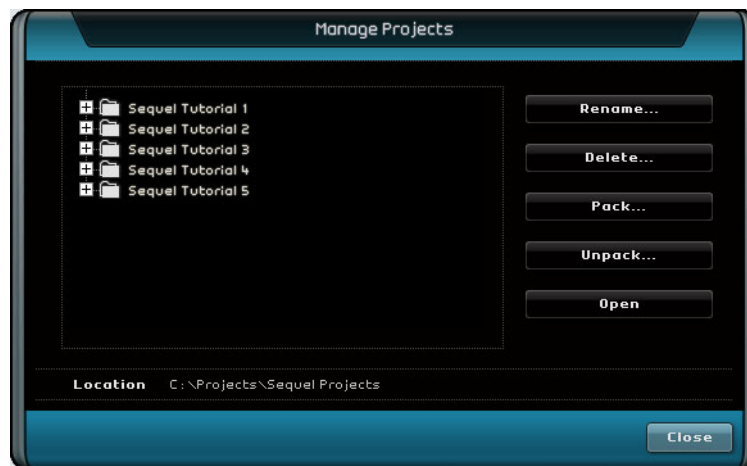
Save Project

Selecting this option allows you to save your project.

Save As…

Selecting this option allows you to save your project under a different name.

Manage Projects…

Selecting this option opens a dialog that allows you to manage all your Sequel projects.

The pop-up menu at the bottom of the dialog allows you to select the location of your projects. Any projects located within that location appear in the list on the left side of the dialog. You can click on a project to select it and perform the following functions:

Option	Description
Rename…	Allows you to change the name of a project.
Delete…	Allows you to permanently remove a project from the specified location.
Pack…	Allows you to compress all components of your project into one file for transfer or backup.
Unpack…	Opens packed files and restores file and directory structure for editing.
Open	Opens the selected project.

Export Project as Audio File…

Selecting this option opens a dialog that allows you to export your project, for example, to burn a CD. You can specify file name, path, file format, and bit depth. See also "Exporting Audio Files" on page 47.
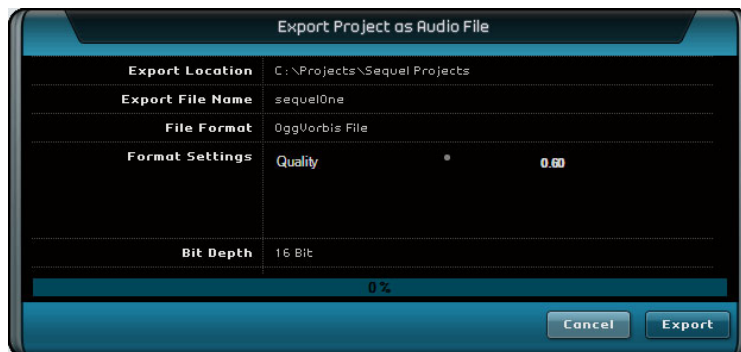
⇨ To burn a CD, you need the appropriate software on your computer.

Export Project to iTunes

Selecting this option allows you to export your project to an iTunes compatible format for easy uploading to your iPod, see "Exporting to iTunes" on page 48.

Recent Projects

This allows you to quickly access the projects you recently worked on.

The Edit Menu

The Edit menu contains the following editing functions:

Undo

This option allows you to undo your actions.

Redo

This option allows you to redo any undone action. When there is nothing left to redo, the option is grayed out.

Cut

This option allows you to cut an event or a group of events from the Arrange Zone so that you can paste it to another area in the Arrange Zone.

Copy

This option allows you to copy an event or a group of events.

Paste

This option allows you to paste cut or copied material at the new location.

Delete

This option allows you to remove an event or a group of events from your project.

Duplicate

This option allows you to create copies of an event that are aligned directly behind the selected event in the Arrange Zone.

Split at Cursor

This option allows you to split the selected event at the cursor. If no event is selected, all events that are intersected by the project cursor are split.

Bounce Selection

This option allows you to combine various selected audio events or instrument parts into one audio event or instrument part. For example, this is useful if you have recorded several takes in a cycle recording and want to combine the best pieces of your recording in one take, see "Recording Multiple Takes of your Audio" on page 25 and "Recording Multiple Takes of an Instrument Part" on page 27.

Select All

This option selects all events and parts in the Arrange Zone. This is useful for performing large scale editing.

Select None

This option clears any selection you have made in the Arrange Zone.

Add Track…

This option opens a dialog that allows you to add tracks to your project.
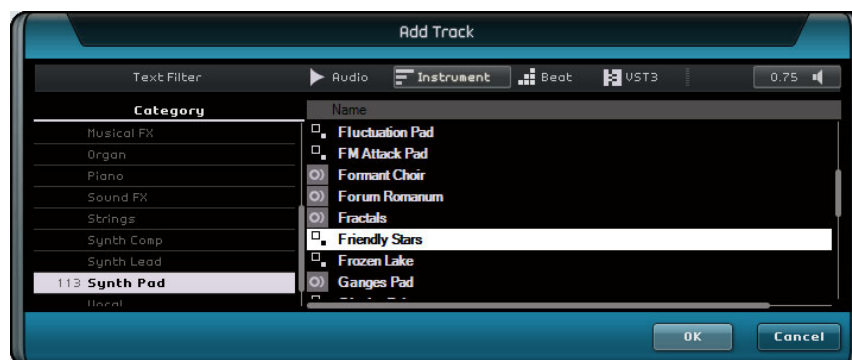
Remove Selected Tracks

This option removes any tracks that are selected in the Arrange Zone. To select multiple tracks, hold down [Ctrl]/[Command] and click on them.

Reset Instruments

This option allows you to send out note-off messages and reset controllers on all instrument channels. Use this if hanging notes or a constant vibrato occur after loading an instrument preset and hitting a key on your keyboard, for example.

## The Edit Remote Control Assignment Button

You can remote-control certain Sequel functions using external controllers. For this, you need a mixer or keyboard controller with USB or MIDI connection and the ability to send MIDI messages.

If you activate the "Edit Remote Control Assignment" button, the main user interface is dimmed. The elements that can be assigned to remote controls are indicated by green frames. Click the button again to switch back to normal mode.
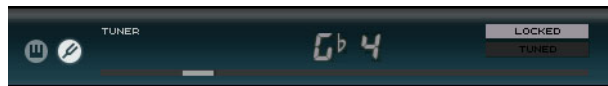
For further information, see "Remote-controlling Sequel" on page 110.

The Tuner

Sequel features a built-in tuner that can be used for tuning a guitar or a bass before recording, for example.
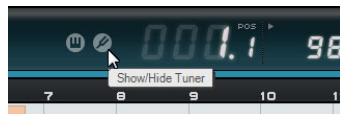
When the Tuner is activated for a track, this track is soloed. All insert effects are bypassed, and sends are disabled.

➩ See "Tuning your Instrument" on page 23 to find out how the Tuner works.

Sound Input Activity

This indicator becomes visible when any input activity of connected audio sources is detected.

Sound Input Activity indicator

Musical Keyboard Input Activity

This indicator becomes visible when any input activity of connected USB/MIDI keyboards, including controller activity, is detected.

The Musical Keyboard Input Activity indicator in the Pilot Zone
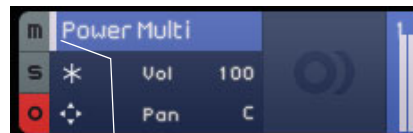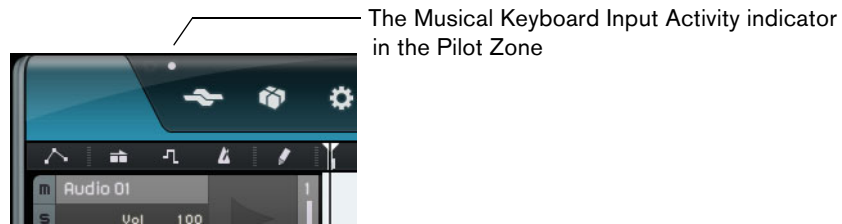
The Musical Keyboard Input Activity indicator in the track list (for instrument tracks).

The Transport Controls

Cycle   Play   Record

Jumps to previous/next marker

The transport controls are similar to those you would find on a VCR or DVD player.

The Play Button

The Play button allows you to listen to your project.

▪ To start playback, click the Play button.

▪ To stop playback, click the Play button again.

The Record Button

The Record button allows you to record audio events or instrument parts.

▪ To start recording, click the Record button at any time during playback.

▪ To stop recording, click the Record button again.

The Locate Buttons

The Locate buttons allow you to locate marker positions or to go to the beginning or end of your project.

▪ To locate the previous marker or go to the beginning of the project, click the "Jump to Previous Marker" button.

▪ To locate the next marker or go to the end of the project, click the "Jump to Next Marker" button.

The Cycle Button

Cycle mode allows you to repeat a section of your project so that you can hear it again and again. To create a cycle region, click and drag in the upper half of the ruler.

▪ Click the Cycle button to activate/deactivate Cycle mode.

The Metronome

Activate the Metronome On/Off button to add a click sound to playback and/or recording. The metronome follows the project tempo and time signature. For more information on the metronome and its settings, see "Activating the Metronome Click" on page 21.

⇨ On the Settings Page, you can specify if you want to hear the click during playback or recording, see "The Settings Page" on page 99.

The Performance Mode Button

By clicking the Performance Mode button, you enter a mode that allows you to create performances. For more information on the Performance mode, see "Performances" on page 97.

The Pilot Zone Display

The Pilot Zone display shows the project position, the tempo, the time signature, and the project root key.

The Project Position (POS)

The project position displays the current position of the cursor in bars and beats or in seconds. To set the time format, click in the top right corner of the project position field.

To change the project position, you have the following possibilities:

▪ Double-click the project position field and type in a position.

▪ Click in the project position field, keep the mouse button pressed, and drag up or down.

▪ Click in the lower half of the ruler at the new position.

The Tempo (TEMPO)

The tempo display shows the current project tempo at the cursor position.

To change the tempo, you have the following possibilities:

▪ Double-click the tempo field and type in a tempo.

▪ Click in the tempo field, keep the mouse button pressed, and drag up or down.

▪ Select a loop within your project and drag it onto the Tempo field.
This changes the project tempo to the tempo set in the loop file.

Using Tap Tempo

The Tap Tempo function allows you to specify a tempo by tapping.

1. Click the Learn button in the upper left corner of the tempo display to activate the Learn mode.
   The button turns red to indicate that you can tap the tempo.
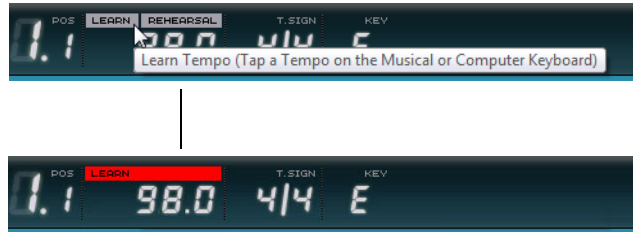
2. If you want to tap the tempo of some recorded material with unknown tempo, activate playback.

3. Tap the tempo on the space bar of the computer keyboard or on a connected MIDI keyboard.

4. When you stop tapping, the program calculates the average tempo of the taps and displays it in the Tempo field.

⇨ If the tempo track is activated, clicking the Learn button and tapping the tempo removes the existing tempo curve and sets a single constant tempo according to your tapping, see "Adding Tempo Changes" on page 37.

Using the Rehearsal Tempo

If you are recording an instrument with Sequel and you cannot keep up with the project tempo, try activating Rehearsal mode. This reduces the project tempo, making it easier for you to record even tricky parts with Sequel.

▪ To activate Rehearsal tempo, click in the top right corner of the tempo field.
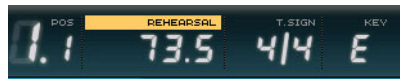
Rehearsal tempo is activated.

▪ To deactivate Rehearsal tempo and use the project tempo again, click the button again.

The Time Signature (T.SIGN)

This shows the current time signature of the project.

To change the time signature, you have the following possibilities:

▪ Double-click the Time Signature field and type in a time signature.

▪ Click in the time signature field, keep the mouse button pressed, and drag up or down.

The Project Root Key (KEY)

This shows the project root key.

To change the root key, you have the following possibilities:

- Click on the value and select a key from the pop-up menu.

- Select a loop in your project that has the key that you want to use and drag it onto the key field.
  This works only if the key information was saved with the original file.

⇨ When you create a new project, the first audio event that you drag into your project defines the key, provided that the audio event data contains key information.

The Virtual Keyboard

The virtual keyboard allows you to play and record MIDI notes using your computer keyboard or mouse. This is useful if you have no external MIDI instrument at hand and you do not want to draw in notes with the Draw tool.

1. Create or select an instrument track and activate its "Record Ready" button.
   Which type of sound is played depends on the selected preset.

2. Activate the virtual keyboard by clicking the "Activate Virtual Keyboard" button.

You can choose between two keyboard display modes: computer keyboard and piano keyboard.

- To switch between these two modes, click the "Change Virtual Keyboard Display Type" button.
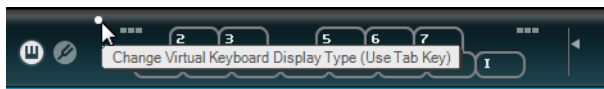
The virtual keyboard in computer keyboard display mode

The virtual keyboard in piano keyboard display mode

3. Play one key at a time to enter single notes or several keys simultaneously to enter polyphonic parts.
   The maximum number of notes that can be played at one time varies between the different operating systems and hardware configurations.

- In piano keyboard mode, you have a wider range of keys at your disposal, allowing you to enter two voices simultaneously, for example bass and lead voice or bass drums and HiHats.
  In computer keyboard mode, you can use the two rows of keys that are displayed on the virtual keyboard to enter notes. In piano keyboard mode, you can also use the two rows of keys below these.

⇨ When the virtual keyboard is active, the usual key commands are blocked. The only exceptions are: [*] ("multiply" on the numeric keypad) for recording, [Space] for start/stop, and [Home]/[Command]-[Home] to jump to the project start.
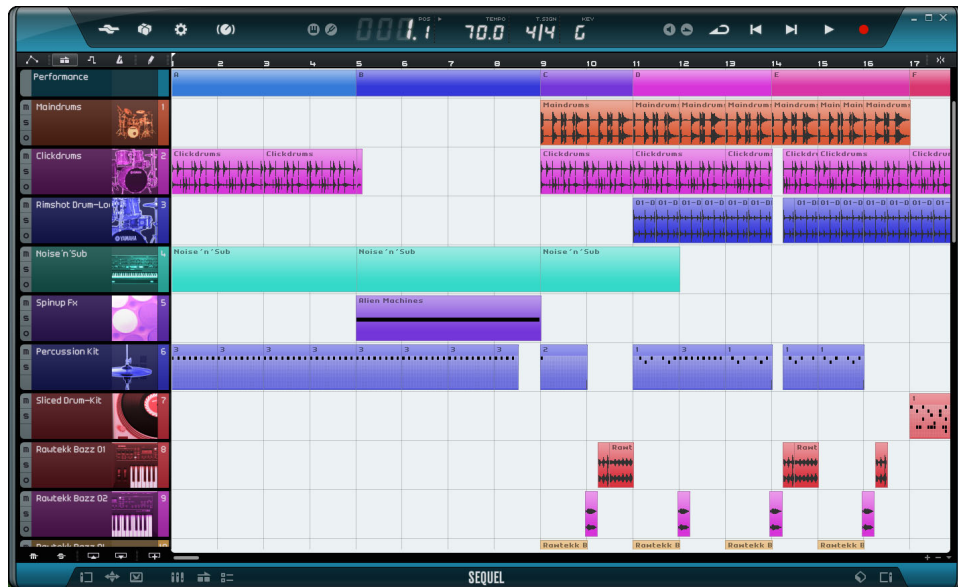
4. Use the "Note Velocity Level" fader to the right of the virtual keyboard to adjust the volume.

5. Use the "Octave Offset" icons to the left and the right of the virtual keyboard to offset the octave range of the keyboard.

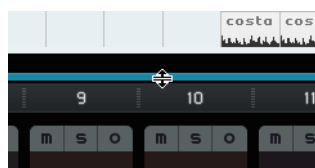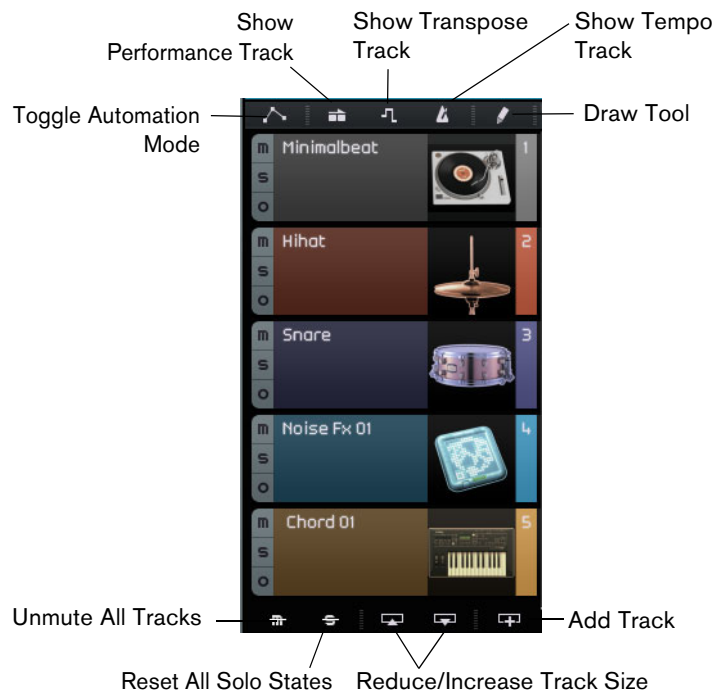⇨ You can also use the virtual keyboard to preview instrument presets in the MediaBay.

Overview

The Arrange Zone displays the parts and events of the project along the timeline. In the Arrange Zone you can record, edit, and arrange your project. On the left, the track list is shown, and on the right you can display the MediaBay or the Output Effects section.

▪ To resize the Arrange Zone, move the mouse pointer over the bar at the bottom of the Arrange Zone until it turns to a double arrow, click and drag up or down. To reset the Arrange Zone to its default size, double-click the divider.

The Track List Buttons

Show
Performance Track

Show Transpose
Track

Show Tempo
Track

Toggle Automation
Mode

Draw Tool

Unmute All Tracks

Add Track

Reset All Solo States

Reduce/Increase Track Size

Toggle Automation Mode

Clicking this button toggles between the automation modes. You can show, edit, and hide the automation for your project. For more information about automation, see "Adding Automation" on page 44.

Show Performance Track

Clicking this button shows/hides the performance track. For more information, see the chapter "Live Pads and Chain Play Mode" on page 49.

⇨ Even when hidden, the performance track affects playback.

Show Transpose Track

Clicking this button shows/hides the transpose track. The transpose track allows you to set global key changes.

- To add a global transpose change, select the Draw tool, and click on the transpose track.

- To change a transpose value, click the transpose value on the transpose part and drag up or down.

- To restore the original tuning, delete all transpose parts on the transpose track.

⇨ Even when hidden, the transpose track affects playback.

Show Tempo Track

Clicking this button shows/hides the tempo track. For more information, see "Adding Tempo Changes" on page 37.

⇨ Even when hidden, the tempo track affects playback.

Draw Tool

Clicking this button activates the Draw tool that allows you to draw elements in the Arrange Zone. For further information, see "The Draw Tool" on page 32.

Unmute All Tracks

Clicking this button unmutes all tracks in your project.

Reset All Solo States

Clicking this button deactivates all Solo buttons in your project.

Reduce/Increase Track Size

The buttons for resizing tracks allow you to reduce or increase the track height. The greater the size, the more controls are visible.

⇨ You can also resize an individual track by dragging its border in the track list up or down.

Add Track

Clicking this button opens the Add Track dialog, see "Add Track…" on page 61.

The Ruler

The ruler is located above the Arrange Zone. It displays the project timeline as numbers corresponding to the bars and beats of your project. Together with the grid, the timeline allows you to edit with precision and to lock events to time. The resolution of the grid depends on the zoom factor.
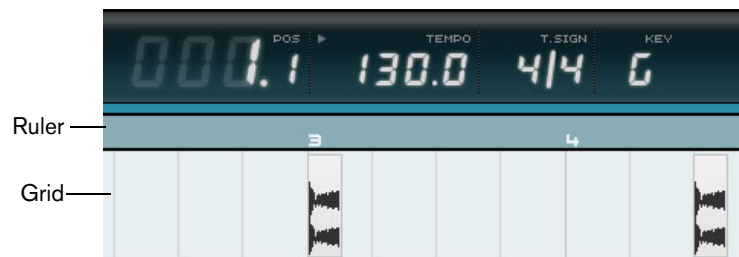
You can also use the ruler for editing:

▪ Start or stop playback by double-clicking in the lower half of the ruler.

▪ Move the cursor by clicking in the lower half of the ruler.

▪ Zoom in and out by clicking in the lower half of the ruler and dragging down or up.

▪ Create a cycle region by clicking and dragging the mouse in the upper half of the ruler.
The pointer turns into a Draw tool if you position the mouse in this ruler area.
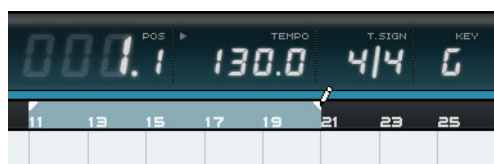
The Snap to Grid Function

The "Snap to Grid" function can be activated by clicking the button at the far right of the ruler.
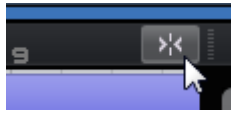
When "Snap to Grid" is activated, all editing you do snaps to the grid. The grid resolution is determined by the zoom factor.

When "Snap to Grid" is deactivated, events can be moved and performed freely without snapping to the grid.

The Zoom Commands

Clicking the "+" button zooms in, clicking the "-" button zooms out. At the bottom right you can find the "Zoom Commands" pop-up menu with three quick zoom settings:

Option	Description
Zoom Full	Zooms out so that all events in the Arrange Zone are visible.
Zoom Part	Zooms in and centers the event that you have selected in the Arrange Zone.
Zoom Last	Returns to the last zoom setting you used.

The Scrollbars

The scrollbars allow you to get to a specific position in your project.

Vertical scrollbar
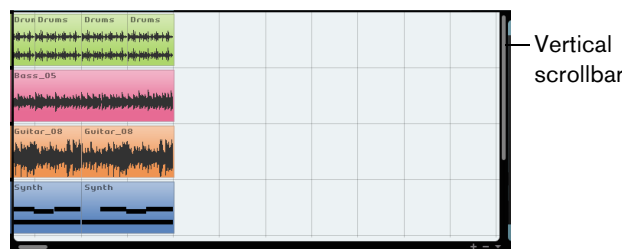
Horizontal scrollbar

- The vertical scrollbar on the right side of the Arrange Zone allows you to scroll your project up and down.

- The horizontal scrollbar at the bottom of the Arrange Zone allows you to scroll your project left and right.

⇨ You can also use your mouse wheel to scroll up and down or use [Shift]-Mouse wheel to scroll left and right.

The Track Controls

Each track includes a set of track controls. These are described in the following sections.

- ▪ To display all the available track controls, you may have to adjust the track height.

Mute

Clicking this button for a track stops the output from the corresponding track.

Solo

Clicking this button for a track stops the output from any other track.

Record Ready

Clicking this button enables recording on a track. You can record on up to 8 tracks at once.

Convert to Instrument Track (Beat Tracks Only)

Clicking this button converts the beat track into an instrument track and replaces all pattern parts with instrument parts.

This is useful if you want make finer adjustments, for example, enter 32th notes or edit the note lengths. Instrument tracks also allow you to use MIDI controllers.

Automatic Fades (Audio Tracks Only)

Clicking this button applies a short fade to the edges of all the events on the track. This is useful to eliminate pops or clicks that can occur when playing over event boundaries.

Open/Close Instrument Window (Instrument Tracks Only)

Clicking this button opens the control panel for the instrument that is assigned to the instrument track. Here, you can make settings for the instrument. For a description of the available VST instruments and their parameters, see the chapter "Effects and Instruments Reference" on page 119.

Freeze

Effect plug-ins and instrument track presets sometimes require a lot of processor power. If you are using a large number of these tracks, you may reach a point where the computer cannot play back the track properly (the Computer Usage indicator lights up, you get crackling sounds, etc.). To remedy this, you can freeze the track by clicking the Freeze button. After freezing, you hear the track play back as before, but the insert effects or instrument track presets do not have to be calculated in realtime, easing the load on the computer processor.

Typically, you freeze a track when it is finished and you do not need to edit it anymore.

When you freeze a track, the following happens:

- The program renders the output of the track, including all insert effects or instrument track presets, to an audio file.

- On playback, the rendered audio file is played back. You can still adjust level and panning, make EQ settings, and adjust the send and output effects.

- Frozen tracks cannot be edited or removed.

- To edit the events on a frozen track or make settings for the insert effects or instrument track presets, unfreeze the track by clicking the corresponding Freeze button again.

    This reactivates the frozen track and the freeze files are deleted.

Track Volume and Pan

The track output volume and pan can be controlled by dragging the corresponding sliders in the track list. You can also double-click the values and enter new values manually. To reset a fader to its default position, [Ctrl]/[Command]-click in the fader area.

Input Selection (Audio Tracks Only)

Clicking the "Input Selection" button opens a pop-up menu, where you can select an input on your audio interface. For more information on setting up your interface, see the chapter "Setting Up Your System" on page 9.

Track Pictures

For each track, you can set up a track picture. This is described in detail in the section "The Track Picture Page" on page 94.
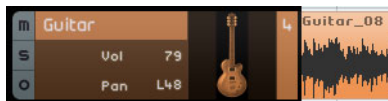
Track Meter

The track meter is a visual representation of the output level of audio and instrument tracks.

Color Selector

Clicking the Color Selector shows the color palette that allows you to select a track color. All events or parts on that track change their color accordingly. A Color Selector is also available on the Mixer Page, see "Setting the Track Color" on page 95.
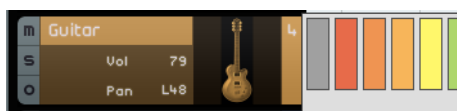
Working with Tracks

Selecting Tracks

To select a track, click the track name. To select multiple tracks, hold down [Ctrl]/[Command] and click them.

Renaming Tracks

To rename a track, double-click the Track Name field and type in the new name.

Numbering Tracks

Tracks are automatically numbered according to the order in which they are arranged. You can rearrange tracks by clicking and dragging it up or down. When you move a track, the track number changes according to its new position in the track list.

Automating Tracks

Track automation allows you to automatically adjust volume, panning, and various other settings while the project is playing. For example, if you want the drums to be quieter at the start of the project and then get louder at the end you can make Sequel do this automatically.

The Automation button switches between three different states:

Option	Description
Hide	The Master automation track and the automation controls are hidden.
Edit	The Master automation track and the automation controls for the tracks are shown, allowing you to view and edit the automation data. Click the upper field to select which parameter you want to automate. You can automate multiple track settings simultaneously, but you can only view one automation parameter at a time. For more information on creating and editing automation, see "Adding Automation" on page 44.
Show	The Master automation track and the other tracks show the automation data for the selected parameters, but you cannot change the automation settings.

Track automation controls

Master automation

74
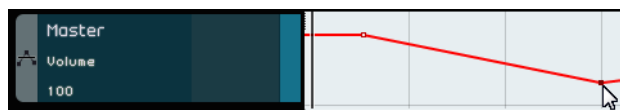
The Arrange Zone

Working with Parts and Events

For a description on the editing functions in the Arrange Zone, see "Common Editing Functions" on page 28.

Working with the MediaBay

The MediaBay allows you to search for media files on your computer. Here, you can also define so-called tags or attributes for media files that allow you to filter the search results.

The MediaBay is divided into two sections: the filter section and the results list.

Filter section

Results list

Selecting the Browse Location

At the top of the MediaBay, you find the Select Browse Location pop-up menu. Here, you can specify which content is shown in the MediaBay. You can also add your own content files, see "Adding User Content" on page 78.
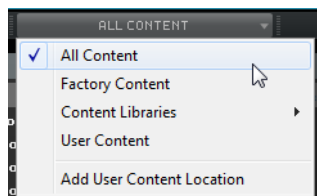
Selecting the Media Type

The "Select Media Type" pop-up menu lets you select which media type is shown in the results list.

Filtering Media Files

Filtering by Attributes

If you click the "Show Filter" button, the filter section is displayed. Here, you can filter the list according to the attributes that are defined for the content, like Category/Sub Category, Style/Sub Style, and Character. This makes it easy to find files of a certain sound or style.
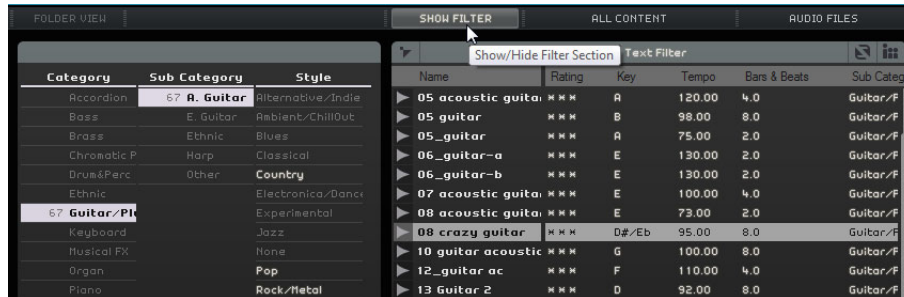
If you click one of the items in the attribute columns, the files containing this attribute are shown in the results list to the right. All other files are grayed out. The number displayed before an attribute indicates how many files match this criteria.

⇨ If the filter section has the focus, you can use the arrow keys to step through the columns and press [Ctrl]/[Command]-[Space] to select or deselect the current item.
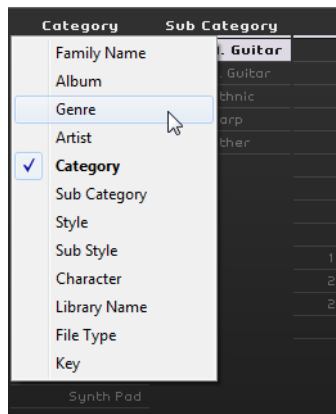
▪ To change the attributes that are displayed in a column, click the column header and select another attribute from the pop-up menu.

Filtering by Family

When you select a factory content file that is tagged with the Family attribute, the "Show Family Items" button becomes available. Activate this button to display only files that are part of the same family. The Family Name column in the filter section allows you to browse all families. Click the "Show Family Items" button again to return to the previous unfiltered view.

Family Name   Show Family Items
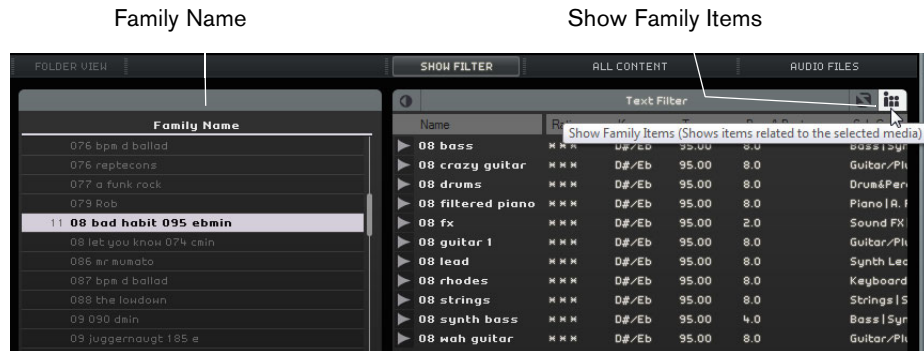
Filtering by Text

At the top of the results list, the "Text Filter" field is displayed. Type in a name to search for, and press [Return] to show the results.

Filtering by Rating

You can use the rating filter to filter out any files with a lower rating.

Shuffle Results

If you click the "Shuffle Results" button, the results list entries are listed in a random order.

Reset Filters

To reset all filters, click the "Reset Filters" button in the top left corner of the results list.

Previewing Media Files

You can preview files by activating the "Activate Preview Mode" button and selecting a file. You adjust the volume using the value field to the left. If you preview a file during playback, the project tempo and key are used. If you preview in stop mode, the media file is played back with its original tempo and key.
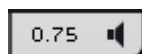
Adding User Content

Sequel comes with thousands of great loops, but you can also add loops from other libraries or content that you created yourself.

⚠ If you add new content to Sequel, the MediaBay has to learn about it and scan the added files. Under Windows, this happens automatically when the transport is stopped, so make sure Sequel is not playing when you add loops. Under Mac OS X, you have to restart Sequel after adding new content.

Add User Content Location

To add a new library from hard disk, CD, or DVD, proceed as follows:

1. On the "Select Browse Location" pop-up menu, select "Add User Content Location".

2. In the dialog that opens, navigate to the folder that you want to use, and click OK.
    The Set Location Name dialog opens.

3. Enter a name for the new content location, and click OK.
    The specified folder is now added to the "User Content Locations" submenu of the "Select Browse Location" pop-up menu.

Adding Content Via Drag and Drop

To add content via drag and drop, proceed as follows:

1. Drag and drop your events, parts, or entire folders onto the MediaBay.
    A dialog opens.

2. Click in the Value column and select an attribute from the pop-up menu.
    This saves the selected attribute in the file. Attributes make it easier for you to organize and browse files.

3. If you import a single file, enter a name in the text field at the bottom of the window.

4. Click OK.
    The file or files are added to your user content.

The User Content Folder

If you select "User Content" from the "Select Browse Location" pop-up menu, only files of your User Content are shown.

The Folder View

When you select a User Content Location in the results list, the "Folder View" button becomes available in the filter section. If you activate the button, the user content is displayed in a hierarchical folder structure.

Delete Selected Media

To delete a media file, select it and click the "Delete Selected Media" button. Note, however, that factory content cannot be deleted.
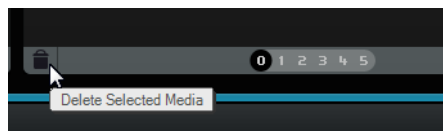
Setting Attributes

To set or change the attributes that are associated with the selected media file in the results list, you have the following options:

- To change the rating, click in the Rating field and drag with the mouse.
- To change the Tempo or Bars & Beats attributes, click in the corresponding field to highlight it, then click again, and type in the new value.
- To change the Key, Sub Style, and Sub Category attributes, click in the corresponding field to highlight it and click again to open a pop-up menu where you can choose a new value.
- To change the Character attribute, click in the corresponding field to highlight it, then click again to open a dialog where you can change the settings.

⇨ You can select several files simultaneously and change their attributes all in one go holding down [Shift] or [Ctrl]/[Command].

Using Drag & Drop

You can drag files and presets from the MediaBay to various zones in the program. If you drag a loop or preset into an empty section of the Arrange Zone, a new track of the corresponding type is created.

Audio Files

Audio files can be dropped in the Arrange Zone or the pad section on the Beat Page.

MIDI Loops

MIDI loops can be dropped in the Arrange Zone. This creates a new instrument track.

Instrument Sounds

Instrument sounds can be dropped on an empty section of the track list. This creates a new instrument track that contains the instrument sound. If you drag an instrument sound onto an existing instrument track, the current instrument track preset is replaced.

Audio Track Presets

Audio track presets can be dropped in an empty section of the Arrange Zone. This creates a new audio track that uses this preset. If you drag an audio track preset onto an existing audio track, the current audio track preset is replaced.

Pattern Banks

Pattern banks, that is, track presets with a beat pattern, a drum kit, and track settings, can be dropped on an empty section of the Arrange Zone. This creates a new beat track that uses this preset. If you drag a pattern bank onto a beat track, the current beat track preset is replaced.

You can also drop pattern banks on the different zones of the Beat Page. Depending on where you drop it, only the patterns, only the sound (drum kit), or both are replaced.

Output Effects

You can apply three custom output effects to the Master channel. These effects are pre-fader. Additionally, you can activate the post-fader Maximizer effect. For details on the effects and their parameters, see the chapter "Effects and Instruments Reference" on page 119.

To open the Output Effects panel, click the corresponding button in the bottom right of the program window.
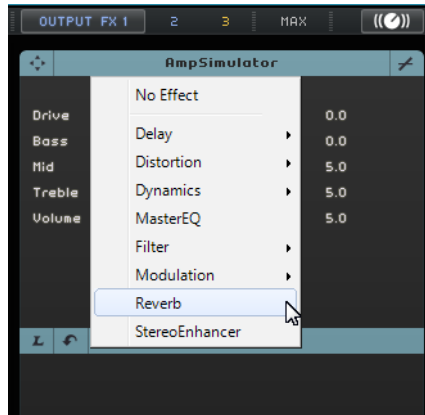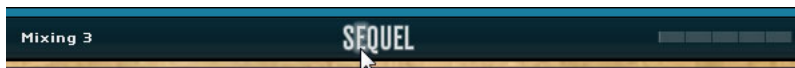
The Multi Zone

Introduction

The Multi Zone is where all of your project's mixing, effects processing, and advanced editing takes place. Furthermore, the Multi Zone includes a Performance Page for taking your project out to the world to play live. The Settings Page contains global options for configuring Sequel according to your needs.

There are six buttons at the bottom left of the Multi Zone that open the corresponding pages:

- Track Inspector Page
- Editor Page
- Track Picture Page
- Mixer Page
- Performance Page
- Settings Page

At the bottom center of the Multi Zone, the program name is shown. When you point the mouse at it, the project name and an indicator of the processing load become visible to the left and right, respectively.

The buttons at the bottom right of the Multi Zone open the MediaBay and the Output Effects section. These are displayed to the right of the Arrange Zone.

The Track Inspector Page

The Track Inspector Page allows you to add effects and instruments to your project. It features several buttons for showing and hiding different panels with settings for the selected track. The selected track's channel strip is shown on the left.

▪ To show or hide a panel, click the corresponding button at the top of the Track Inspector page.

Global Panel Controls

The panels for effects, instruments, and the equalizer share most of the following controls.
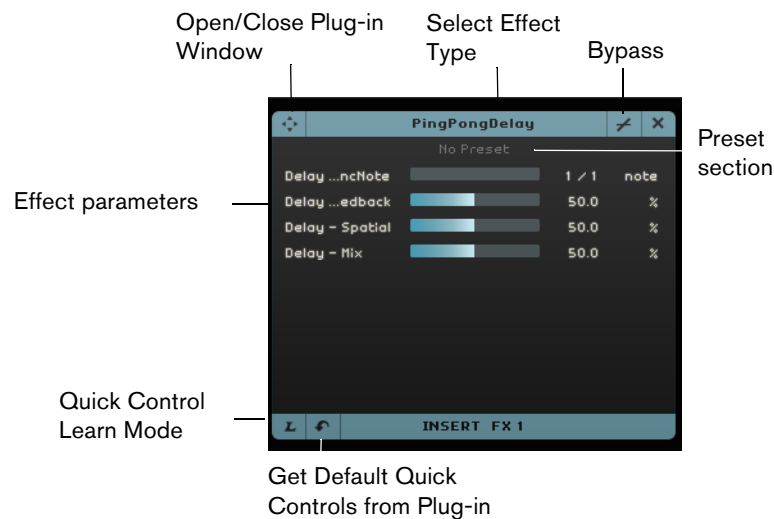
▪ To select an insert or a send effect, click in the "Select Effect Type" field and select an option from the pop-up menu.

▪ To select a preset, click in the preset field, and select an option from the pop-up menu.

▪ To bypass an effect or the equalizer, click the Bypass button.

▪ To assign Quick Controls, use the "Quick Control Learn Mode" and "Get Default Quick Controls from Plug-in" buttons, see "Quick Controls" on page 114.

▪ To open or close the plug-in's native panel, click the "Open/Close Plug-in Window" button.

Handling Presets

- To select a preset, open the preset browser by clicking in the Effect or Instrument Preset field.

In the preset browser, you have the following options:

- To find a suitable preset, use the Category and Sub Category filters.

- To apply a preset, double-click it.

- To go back to the last selected preset, click the Restore Preset button at the bottom left of the preset browser.

Panels for Instrument Tracks

For instrument tracks, three additional panels are available: Chorder, Arpeggiator, and Instrument.

Chorder

The Chorder automatically plays chords when you press a single note on your MIDI keyboard.
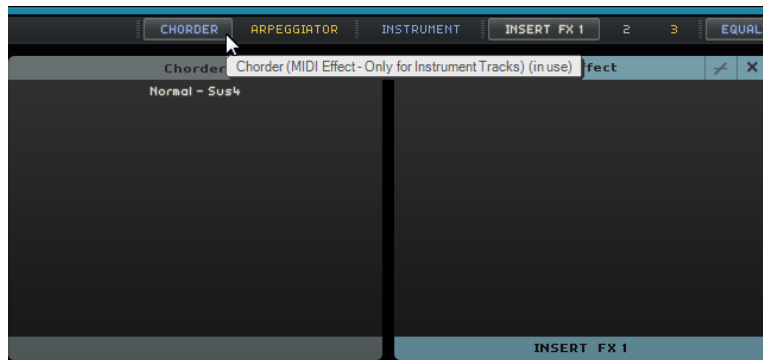
Arpeggiator

The Arpeggiator automatically creates patterns based on the notes you play, creating great rhythm and a really cool effect. The pattern is played as long as a note is held.
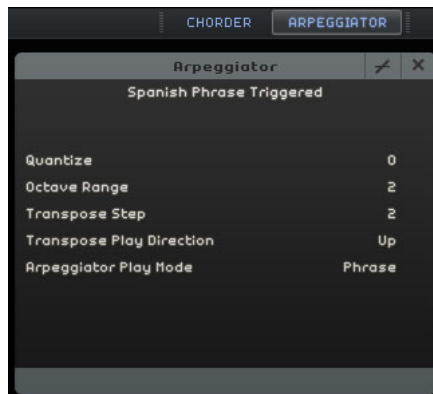
The following parameters are available:

Parameter	Description
Quantize	Sets the resolution of the Arpeggiator patterns.
Octave Range	Determines how many octaves the pattern goes above or below the note you play.
Transpose Step	Determines how many steps the pattern changes each time it starts again.

Parameter	Description
Transpose Play Direction	Determines whether the pattern's key goes up, down, or both.
Arpeggiator Play Mode	Determines what type of pattern is played back. If you select Phrase, you can play a single note to trigger a scale.

Instrument

The Instrument panel contains eight controls that are provided by the selected preset.

Insert Effects Panel

Each track can have three pre-fader insert effects. Pre-fader means that raising or lowering the track fader does not affect how much of the audio signal is sent to the effect.

Insert Effect 3 is positioned in the signal chain after the equalizer. That means that any changes to the equalizer settings affect the signal that is sent to the effect.

For details about the different effects, see "Effects Parameters" on page 119.

Equalizer Panel

The Equalizer panel features a three-band EQ. The low band sets the frequency at which the bass tones are affected. The middle band sets the frequency at which the middle tones are affected. The high band sets the frequency at which the high tones are affected.
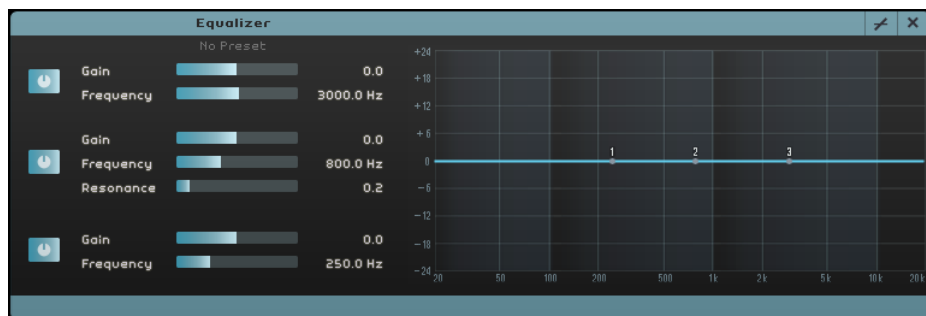
- The Gain slider determines the gain or volume of the EQ band.
- The Frequency slider determines the frequency of the EQ band.

- The Resonance slider determines the frequency range of the middle EQ band. Drag the slider to the left or right to widen or shorten the range.

- To reset the EQ settings, open the presets pop-up menu and select RESET.

The EQ Curve Display

You can also activate EQ modules and make settings using the EQ curve display.

- To adjust the gain, drag a curve point up or down.

- To adjust the frequency, drag a curve point to the left or right.

- To adjust the resonance, click the band 2 curve point, press [Shift], and drag up or down.

- To deactivate an EQ module, double-click the corresponding curve point or drag it outside the display.

Send Effects Panel

Each project can have two send effects. They are useful if you want to apply the same effect to every track. This helps to reduce the CPU load on your computer. You can use any available effect as send effect.
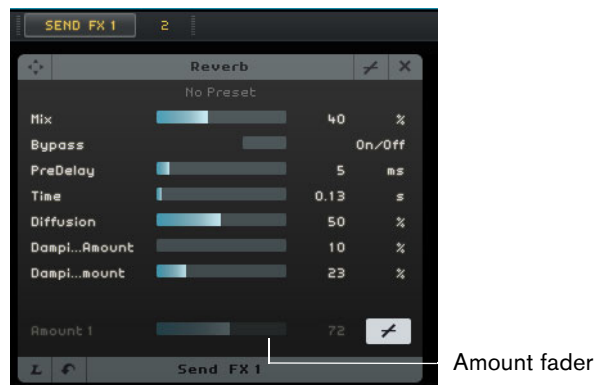
Amount fader

The Amount fader determines the signal portion that is sent to the send, see "Send Effects" on page 43.

⇨ Send effects are global for all tracks. If you want to deactivate a send for a particular track, click the corresponding Disable Amount button.

The Editor Page

The Editor Page allows you to perform advanced editing of your audio events, instrument parts, and beat patterns. If you select an audio event in the Arrange Zone, the Editor Page shows the Sample Editor; if you select an instrument part, the Key Editor is shown; and if you select a beat pattern, the Beat Page is shown.
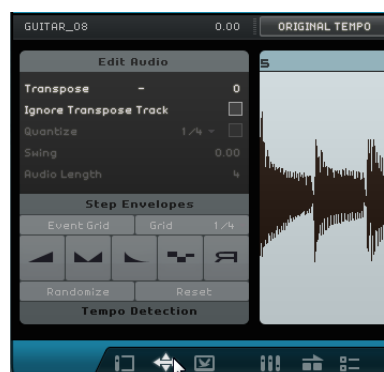
The Sample Editor

The Sample Editor allows you to edit the selected audio file. The main area of the Sample Editor shows a detailed waveform rendering of your audio file.

- Zoom in and out using the "+" and "-" buttons in the bottom right corner or by clicking in the ruler at the top of the Sample Editor and dragging up or down.
- Use the scrollbar at the bottom to scroll left or right.

The Sample Editor contains two additional sections for editing step envelopes and detecting the tempo of an audio file, see "Step Envelope Editing" on page 105 and "Detecting the Tempo of an Audio File" on page 107.

At the top and on the left of the Sample Editor, you find global audio setting parameters:

Event Name/Rename Event

You can rename the event by clicking in the field and entering a new name.

Volume

You can adjust the event volume by clicking the Volume field and dragging up or down. Alternatively, you can double-click in the Volume field and enter a value.

Original Tempo vs. Project Tempo

You can switch between Original Tempo and Project Tempo mode by clicking the corresponding buttons:

- In Project Tempo mode, the event's tempo is locked to the project tempo. The tempo of the audio is compressed or stretched and the size of the event is adjusted accordingly.
- In Original Tempo mode, the event keeps the tempo of the corresponding audio file.

The Free Warp Tool

The Free Warp tool allows you to manually adjust how the audio lines up to bars and beats. If the Free Warp tool is activated, you can click in the waveform to add warp tabs and move them to the left or right to change the timing and to time stretch the audio. See "Audio Quantization and Free Warp" on page 103 for more information.

⇨ The warp settings are saved with the project.

Time Stretch Mode

On the "Set Time Stretch Mode" pop-up menu you can select an algorithm preset that affects the stretch result of your audio. For details, see "About Time Stretch and Pitch Shift Algorithms" on page 102.

Reset Warping

The "Reset Warping" button resets any changes that you made with the Free Warp tool. This deletes all warp tabs and restores the bars and beats to their original settings.

Reverse selected Audio

You can reverse the event or a selected region by clicking the Reverse button. All warp tabs are deleted when reversing the audio.

Edit Audio – Transpose

You can change the key of the event by clicking in the Transpose field and dragging up or down. Alternatively, you can double-click in the Transpose field and enter a value.

To the left of the Transpose field, the root key (A, Bb, C#, etc.) of the event is shown. If this information is not available because there is no key attribute, this indicator is empty. Recorded parts show the key that is defined for the project.

Edit Audio – Ignore Transpose Track

You can make sure that an event does not follow any global transpose changes on the transpose track by activating "Ignore Transpose Track".

Edit Audio – Quantize (Project Tempo Mode Only)

On the "Set Grid Resolution" pop-up menu, you can select a quantize value for quantizing and swing. The "Enable/Disable Quantize" option allows you to quantize the audio event to the project tempo. See "Audio Quantization" on page 103 for more information.

Edit Audio – Swing (Project Tempo Mode Only)

Swing allows you to add a more human feel to an audio event. You can adjust the swing effect with the set grid resolution: for example, if the grid resolution value is set to eighth notes, only eighth notes are affected.

Edit Audio – Audio Length (Project Tempo Mode Only)

The "Audio Length" option allows you to manually enter the length of the audio in bars. This is helpful if the length of the audio file has not been detected, but you know its length in bars.

⇨ Changing the audio length value time stretches the audio.

The Key Editor

The Key Editor allows you to edit your instrument parts. The instrument part selected in the Arrange Zone is displayed in the main area of the Key Editor.

The most important editing functions in the Key Editor are described in the section "The Key Editor" on page 33.
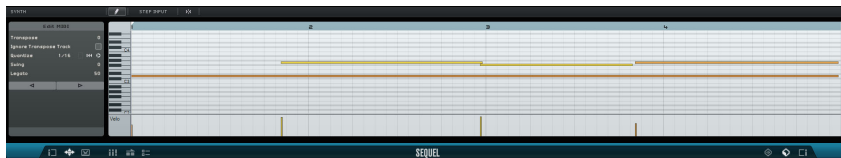
- Zoom in and out using the "+" and "-" buttons in the bottom right corner or by clicking in the ruler at the top of the Key Editor and dragging up or down.

- To zoom in vertically, move the mouse pointer over the left side of the piano keyboard so that it turns into a hand symbol, click and drag left or right.

- Use the scrollbar along the bottom to scroll left or right and the scrollbar on the right to scroll up and down. You can also use the mouse wheel to scroll up and down, or press [Shift] and use the mouse wheel to scroll left and right.

- Click the piano keyboard to hear a specific pitch.

At the top and on the left of the Key Editor, the following parameters are available:

Rename Part

You can rename the part by clicking in this field and entering a new name.

Draw Tool

Clicking this button activates the Draw tool that allows you to draw in notes in the Key Editor.

Step Input

This function allows you to enter instrument data note by note and beat by beat, using a MIDI keyboard or controller. It is useful for quick entry of instrument parts.

When you activate the step input mode, a blue vertical position line appears. Each time you press a key, a note is entered at this line. The length of the note is determined by the grid resolution.

You can use the left and right arrow keys on your keyboard to move the position of the vertical position line.

Snap

When Snap is activated, all editing operations in the Key Editor snap to the grid. The grid resolution is determined by the zoom factor. When Snap is deactivated, notes can be moved and performed freely without snapping to the grid.

Edit MIDI – Transpose

You can change the key of the part by adjusting the transpose value.

▪ To change the key, click the Transpose value and drag up or down. You can also double-click and enter a value between -24 and 24.

To the left of the Transpose value, the root key (A, Bb, C#, etc.) of the part is shown. If this information is not available because there is no key attribute, this field is empty. Recorded parts show the key that is defined for the project.

Edit MIDI – Ignore Transpose Track

You can make sure that a part does not follow any global transpose changes on the transpose track by activating "Ignore Transpose Track".

Edit MIDI – Quantize

You select a quantize value from the "Set Grid Resolution" pop-up menu. This value is used for all quantize-related functions such as swing and triplets. It also determines the grid resolution for the Key Editor.

When you activate the "Triplets On" button next to the quantize value, you can enter triplets in an instrument part. The resolution of the triplets is determined by the quantize value.

Edit MIDI – Reset Quantize

The "Reset Quantize" button lets you restore the previous grid resolution.

Edit MIDI – Perform Quantize

Click "Perform Quantize" to move all the notes to the nearest bar or beat, depending on the quantize value. If this is set to quarter notes, all notes are moved to the nearest quarter note position.

Edit MIDI – Swing

Swing allows you to add a more human feel to an instrument part. You can apply swing by clicking in the value field and dragging up or down. Alternatively, you can double-click in the field and enter a value. Which notes are affected depends on the grid resolution. If the quantize value is set to eighth notes, only eighth notes are affected.

Edit MIDI – Legato

This option increases or decreases the amount of legato in the selected instrument part. Legato is defined as a smooth, even style without any noticeable break between notes. Therefore, when increasing Legato, you are stretching out the notes so that there is no noticeable attack between two notes. Decreasing this value creates shorter notes, sounding more staccato.

Nudge Selected Notes Left/Right

These buttons move the selected note left or right in steps based on the grid resolution.

Controller Lane

The controller lane at the bottom of the Key Editor allows you to add or modify instrument data, such as velocity and controller information. The most common use for this is to edit velocity, pitch bend, and controller numbers for sustain, etc.

- Open the controller pop-up menu to select which controller data you want to view or modify.

For more information about editing controller data, see "The Controller Lane" on page 35.

The Beat Page

The Beat Page allows you to create your own drum parts, or patterns, for a project. The step display in the main area of the Beat Page shows the pattern part that is selected in the Arrange Zone.

Pattern Functions
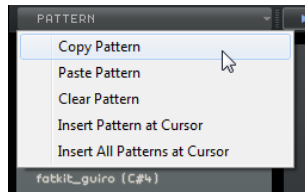
Click the Pattern button to open the "Pattern Functions" pop-up menu. The following functions are available:

Option	Description
Copy Pattern	Copies the active pattern into the clipboard.
Paste Pattern	Pastes the pattern from the clipboard into the active pattern pad.
Clear Pattern	Clears the active pattern.
Insert Pattern at Cursor	Inserts one occurrence of the pattern on the beat track at the cursor position.
Insert all Patterns at Cursor	Inserts one occurrence of all patterns that contain steps on the beat track at the cursor position.

The Pattern Selector Buttons

▪ Click a pattern selector button to select a pattern.

If you select a pattern while another pattern is playing back, playback switches to the new pattern at the next bar position.

- A play icon on the pattern selector button indicates that the pattern is playing.
- A blinking pattern selector button indicates that this pattern will be played when the cursor reaches the next bar.

⇨ You can also use the pattern selector buttons to copy patterns using drag & drop.

If the "Loop Pattern forever" button is activated, the pattern displayed on the Beat Page is played until a new beat part is reached in the Arrange Zone.

1 Bar

Click this button to set the pattern length to one bar (4/4).

2 Bars

Click this button to set the pattern length to two bars.

Triplet

Click the Triplet button to switch the default step resolution from 1/16 to 1/16 triplets.

Swing

Swing adds a more human feel to drum patterns that might otherwise be too static.

▪ Click in the Swing field and drag up or down to change the swing value.

Positive values delay every second drum step in the pattern (or third for triplets). Negative values cause the drum steps to play a little earlier.

Flam

A flam is a short secondary drum hit that is played just before or after the actual main drum beat. If you want to add a flam to a step, proceed as follows:

1. Activate the "Flam Edit Mode" button to the right of the flam function.
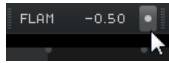
2. In the step display, click a step.
   A small dot representing a flam appears.

3. Click the Flam value field and drag up or down to adjust the flam value.
   This way you can specify whether if the flam is positioned before the beat or after it.

⇨ The velocity of a flam is slightly lower than the velocity of the corresponding step.

Lane Selectors

The 16 lane selectors on the left of the Beat Page match the 16 pads shown in the pad section on the right.

- If you select another pad group in the pad section, the corresponding lanes are displayed on the left.

- If you click a lane, the assigned instrument is triggered.
   The same happens if you select a pad or edit a step in the step display.

Lane Offset

When you move the mouse pointer over a lane, the Lane Offset slider is displayed. It allows you to offset all drum steps of a lane.

- Drag the slider to the left to let the drum steps start a little earlier or to the right to start them later.

Step Display

The step display contains 16 steps for each lane.

- To enter a drum step, click in the step field.
   When you click in an empty field, it is filled, indicating that you will hear a drum beat on this step.

- To enter a continuous range of drum steps, click and drag.

- To remove a drum step, click the corresponding field again.

- To remove a range of drum steps, click and drag over them.

- To set a high velocity value, click in the upper part of the field when entering a step, to set a low velocity value, click in the lower part.
   The different velocity settings are indicated by different colors.

Pad Section

To the right of the step display, you find the pad section that allows you to associate audio samples with pads. The pad section provides up to 128 pads, organized in eight groups of 16 pads.

Each pad is mapped to a particular MIDI note (C-2 to G8). If you convert your beat track into an instrument track, you can trigger the pads via these MIDI notes.

- To assign a sample to a pad, drag it from the MediaBay onto a pad.

- To select a group, click the corresponding group button (labeled 1 to 8) above the pads.

- To select a pad, click on it.
  The waveform of the assigned sample is shown in the sample display to the right and the pad sound is played.

- To replace the sample mapped to a pad, drag a new sample onto the pad.

Preset Browser

Above the sample display, the loaded VST preset is shown.

- Click in the preset field to open the preset browser where you can choose a different drum kit.

Sample Display

The sample display shows the waveform of the sample assigned to the pad that is selected in the pad section.

- Click in the sample display and drag upwards or downwards to zoom the waveform.

- Drag the Start and End flags in the waveform display to define the start and end points of the sample.
  This is useful if you assign a longer (maybe even musical) sample to a pad and you want to play back only a defined portion of it.

Volume for Selected Pad

Use the Volume slider below the waveform display to change the volume of the pad that is selected for editing.

Pad Name

The name of the sample is shown in the pad name field below the waveform display.

- To rename a sample, click in the name field, enter a new name, and press [Return].

MG – Assign Selected Pad to Mute Group

With this control, you can assign a pad to one of eight mute groups. Pads within a mute group never play back simultaneously. With each new note a new pad is triggered.

Panorama for Selected Pad

Use the pan control to change the panorama setting of the selected pad.

SOLO

If you activate this button, the selected pad is soloed during playback.

VMax

If you activate this button, all pads are played back with the maximum velocity value of 127.

Reset

If you click this button, all pad assignments on the Beat Page are cleared.

Sound Editing Parameters

The section below the waveform display contains sound editing parameters, distributed to three tabs: Amp, Filter, and Voice.

On the Amp tab, the following parameters are available:

Parameter	Description
Attack	Controls the amplifier envelope's attack time.
Release	Controls the amplifier envelope's release time. Reduce the release time to shorten the decay of sounds played in one-shot mode.
AmpMod	Determines the influence that the velocity has on the pad volume setting. When set to 100%, the pad sounds louder, the higher the velocity. When set to 0%, velocity has no effect on the pad volume.
AttMod	Determines the influence that the velocity has on the Attack setting. The higher the AttMod setting, the longer the additional attack time for a pad. When this parameter is set to 100% and you are playing a pad with high velocity, the attack time is increased by 50%. When set to 0%, velocity has no effect on the attack.

On the Filter tab, the following parameters are available:

Parameter	Description
Off, LP, HP, BP	Sets the filter type: low-pass (LP), high-pass (HP), or band-pass (BP). When you set this control to Off, the settings on this tab have no effect.
CutOff	Sets the filter's cutoff frequency.
Q	Sets the filter's resonance.
Mod	Determines the influence that the velocity has on the cutoff frequency. When set to 0%, the setting has no effect. When set to any other value, the cutoff frequency changes depending on the velocity.

On the Voice tab, the following parameters are displayed:

Parameter	Description
Coarse	Tunes the pad by up to ±12 semitones.
Fine	Fine-tunes the pad by up to ±100 cents.
Reverse	Reverses the selected sample so that you hear it backwards.
Trigger Mode	Set this to "One Shot" to play the sample of the selected pad from start to finish, or to "Key Hold" to play the sample for as long as you hold the mouse button.

The Track Picture Page

You can add a track picture to the selected track. Pictures are useful in live performances as they allow you to recognize your tracks at a quick glance. You can choose pictures of the factory content or add new ones to the user library.

Adding and Deleting Pictures

To add factory pictures, proceed as follows:

1. In the track list, select the track on which you want to insert a track picture.

2. In the Multi Zone, open the Track Picture Page and select the Factory panel.
   The pictures from the factory content are displayed.
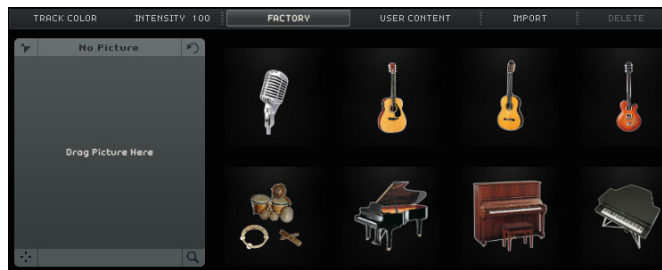
3. Select one of the pictures.
   The picture is displayed for the selected track in the track list and in the corresponding channel strip on the Mixer Page.

To add your own pictures in *.BMP, *.JPEG, or *.PNG. format, proceed as follows:

1. On the Track Picture Page, select the "User Content" panel.

2. Click the Import button, browse to the location where the picture is stored, select it, and click Open.
   The picture is shown in the preview panel on the Track Picture Page and it is assigned to the selected track. A copy of the picture is stored in the User Content Location specified on the Settings Page, see "User Content Location" on page 99.

▪ To delete a picture from your library, select it, and click the Delete button. You can select several pictures by [Ctrl]/[Command]-clicking them and delete them together.
   This only works for your own pictures, factory content cannot be deleted.

Previewing and Editing Pictures

In the area on the left, you can view and edit the track pictures.

Clear Picture button — Rotate Picture button — Reset Zoom — Zoom slider
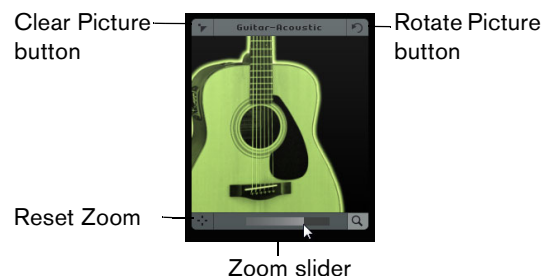
The following editing can be performed:

▪ You can set the track color by clicking the "Track Color" button above the preview panel, and clicking on a color.
   The track picture is automatically tinted in the track color.

- You can increase or decrease the track color tinting by clicking in the Intensity field, and dragging up or down.

- You can change the size of the track picture using the Zoom slider at the bottom of the preview panel.

- You can change the visible part of the picture by dragging the picture in the preview panel.

- You can unassign the picture by clicking the "Clear Picture" button.

- You can change the orientation of the picture by clicking the "Rotate Picture" button.

The Mixer Page

The Mixer Page features a track mixer that shows any track that you created in the project.

Channel Settings

Each track has its own channel fader that includes a Mute button, a Solo button, and a Record Ready button. These buttons have the same functionality as the corresponding buttons in the Arrange Zone, see "The Track Controls" on page 72.

Channel Level (Volume) and Pan

Each channel has a fader for controlling the track volume, and a panner. The controls have the same functionality as the corresponding controls in the Arrange Zone.

Setting the Track Color

When you set up a track by dragging a loop or instrument sound into the Arrange Zone, Sequel automatically assigns a track color.

On the Mixer Page, you can also set a track color individually for each track. Proceed as follows:

1. Select the channel that you want to set a color for.

2. Click the channel name of the selected channel.
   A color selector is displayed.

3. Select a color.
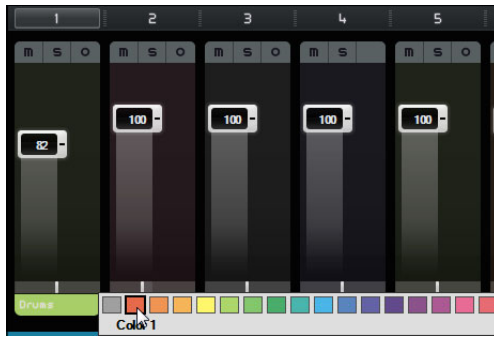
The channel on the Mixer Page and the corresponding track in the Arrange Zone are displayed in the selected color.

The Master Channel

The Master channel is the output of all tracks combined. This channel features a volume fader, a panner, and a button to disable the master automation (see "Removing and Disabling Automation" on page 46).

Clipping

If clipping occurs, the channel meter becomes red. In this case, lower the Master channel fader, or alternatively lower all track faders by the same amount to reduce the level going into the Master channel. To reset the clipping indicator, click the channel fader.

The Performance Page

The Performance Page allows you to create different arrangements of a project and to play back a project in a non-linear way. This is useful for live performances.
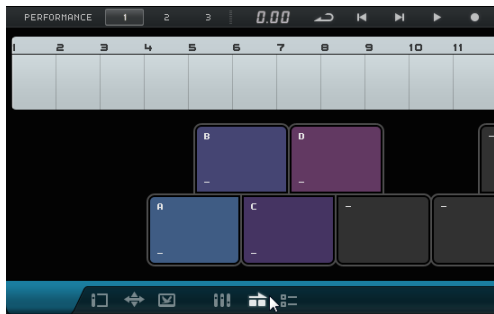
Performance Parts

To set up your project for non-linear playback, you need to create some performance parts on the performance track that mark different sections of your project (for example, intro, verse, chorus). Performance parts are shown on the performance track. You can open this track by clicking the "Show Performance Track" button above the track list.

Creating Performance Parts

Activate the Draw tool above the track list, click and drag to create performance parts.

Pads

The rounded squares in the bottom half of the Performance Page are called pads. Every performance part you create on the performance track can be assigned to a pad. If you click a pad, the corresponding part is played back.
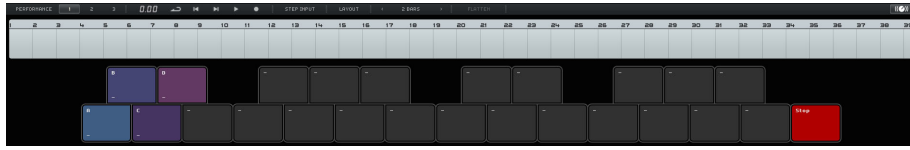
Assigning Pads

Press [Alt]/[Option] and click at the top of a pad to open a pop-up menu where you can choose which performance part is assigned to the pad.

Naming Pads

Press [Alt]/[Option] and click at the bottom of a pad to name it.

Pad Layout Modes

Click the Layout button at the top of the Performance Page to switch the pad display from keyboard layout to MPC style layout.

Performances

Pads can be used to create performances, that is, sequences of parts that are related to performance parts on the performance track. Perfomances are displayed on the performance timeline.

Performance timeline
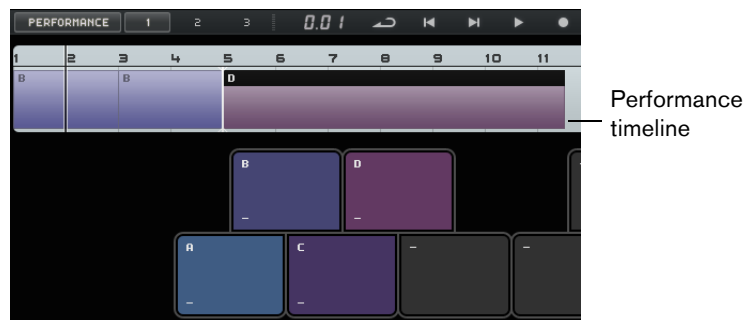
Enabling Performance Mode

Performance mode is automatically enabled when you click a pad, press "Play Performance" or "Record Performance", or enable Step Input mode.

⇨ In Performance mode, all transport controls affect the performance timeline.

Creating Performances

To create a performance, proceed as follows:

1. Activate the "Record Performance" button and trigger a pad.
   A part is created on the performance timeline. You can create as many parts as you need.

2. Press [Space] to stop recording.

3. Click the "Play Performance" button.
   Your performance is played back.

To create a performance with the Step Input function, proceed as follows:

▪ Activate the "Step Input" button and trigger a pad.

A part is created on the performance timeline. To the right of the part an insert cursor is displayed.

⇨ To insert a part at an earlier position on the performance timeline, click a part border to move the insert cursor to this position.

Saving Performances

You can save up to three performances by clicking on the corresponding buttons (1, 2, 3).

Editing on the Performance Timeline

You can edit your parts on the performance timeline. This may have an influence on the adjacent parts: these can be shortened, lengthened, or moved correspondingly. If you move or resize your part so that it gets longer than the corresponding performance part on the performance track, the part is triggered again.

Use the common editing functions to resize, split, move, or delete a part, see "Common Editing Functions" on page 28.

▪ To replace a part in the performance timeline, point the mouse at the part label, and click to open a pop-up menu where you can select another part.

Defining the Jump Grid
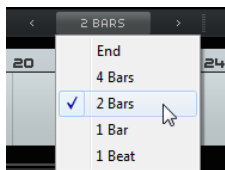
The "Define Jump Grid" pop-up menu lets you set a grid resolution for the active part. Whenever the corresponding grid line is reached, playback jumps to the next part. This works even if your part is longer than the set grid. If your part is shorter, playback jumps to the next part as soon as the end of the part is reached. If you activate the End option, the current part is played back completely before jumping to the next one.

Flatten

The Flatten function is useful, if you want to edit your arranged project by adding instruments and effects, for example.

If you click the Flatten button, the active performance is converted into a linear project. All events in your project are reordered, repeated, resized, moved, and/or deleted to correspond exactly to your performance.

⚠ Flattening may remove events and parts from the project. Only use the Flatten function when you know you do not want to rearrange your performance any more. If in doubt, save a copy of the project.

The Settings Page

On the Settings Page, you can define main settings in Sequel. These settings are divided into four categories: Sequel Projects, Audio Settings, User Interface, and Options.
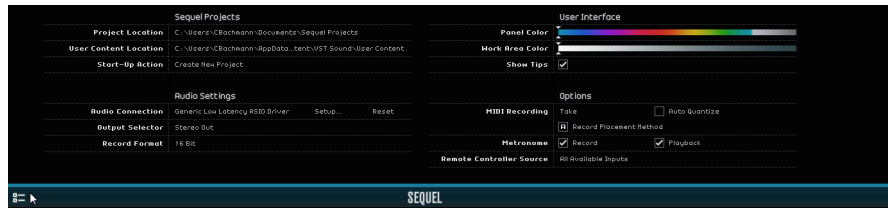
Sequel Projects

Project Location

Click in this field to select the directory where your projects are stored on the hard drive. A dialog opens, allowing you to browse the hard drives and find a suitable location or create a new folder.

User Content Location

Click in this field to specify where your content is stored. A dialog opens, allowing you to browse the hard drives and find a suitable location or create a new folder. See "Adding User Content" on to find out how to add user content.

Start-up Action

This pop-up menu allows you to decide whether Sequel creates a new project or loads your last project on start-up.

Audio Settings

Audio Connection

Click in this field to open a pop-up menu where you can select a driver for audio playback.

▪ Click the "Setup…" button to open the control panel for your audio interface.

▪ Click Reset to reset the driver settings.

Output Selector

Click in this field to open a pop-up menu where you can select the output on the audio interface that you want to use as the output for the project.

Record Format

Click in this field to select the bit rate for your recordings. There are two options:

▪ 16 Bit is the format used for CDs.

▪ 24 Bit provides better quality than 16 Bit, but also requires more storage space on your hard disk.

User Interface

Panel Color and Work Area Color

Use these sliders to apply different colors and shadings to the frames of the main Sequel program window and the work area.

Show Tips

Activate this option to show tooltips when you move the mouse pointer over a button or object.

Options

MIDI Recording – Record Mode

Use this pop-up menu to define a record mode for cycle recordings on instrument tracks.

MIDI Recording – Auto Quantize

If this option is activated, anything recorded on an instrument track is automatically quantized to 1/16 positions.

MIDI Recording – Record Placement Method (Windows only)

When a MIDI interface sends notes to the application, this data includes timing information (so-called timestamps) to correctly position the MIDI events on the Sequel timeline. There may be situations in which these timestamps are not in sync with the internal timing information of Sequel, so recorded MIDI events are not positioned correctly (usually, they occur too late).

If timing problems with the recorded MIDI events occur with your operating system, try changing the Record Placement Method from A (uses timing information of Sequel) to B (uses MIDI timestamp).

Metronome – Record/Playback

You can activate or deactivate the Record and/or Playback options to determine when the metronome click is played.

Remote Controller Source

If you have connected more than one external controller, use this pop-up menu to select the corresponding input.

Computer Usage

If you point with the mouse on the upper or lower border of the program window, a Computer Usage indicator is shown on the lower border of the Multi Zone, to the right of the program name.

If your computer is trying to do too many things at once, it may overload. The indicator shows the current processor load of your computer. When four or more bars light up, the workload is quite high. In case of an overload, the whole indicator lights up in orange. If this happens, try to reduce the processor load, for example, by freezing tracks, see "Freeze" on page 72.

Advanced Features

Introduction

In this chapter, you will get to know the advanced features in Sequel.

Some of the following sections make reference to tutorial projects, located in the default Sequel project folder.

Adding Silence

Adding silence allows you to mute sections of an audio event. This is great for erasing unwanted clicks or glitches, and for removing headphone bleed from vocal tracks or any other extraneous noise. The process is non-destructive.

▪ Load the project "Adding Silence 1" found in the "Sequel Tutorial 5" folder.

This is a simple project with drums, bass, guitar, and an organ track.

The guitar track was recorded by placing a microphone in front of the amp. Therefore, there is a lot of noise present when the guitarist was not playing anything. To clean it up, proceed as follows:

1. Select the Guitar event.

2. In the Multi Zone, open the Editor Page.
   When you move the mouse pointer over the waveform, it changes to a Range Selection tool.
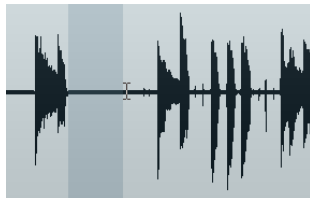
3. Find an area where the guitarist was not playing. There is an area right at the beginning and in between the first and second bar. Click and drag to highlight the section. Zoom in if you need to see more detail.
   The selection area turns gray.

4. Point the mouse at the left and then at the right edge of the selection.
   The mouse pointer changes, allowing you to adjust the size of the selection by clicking and dragging.

5. Adjust the selection so that it is as close as possible to the audio that you want to keep.
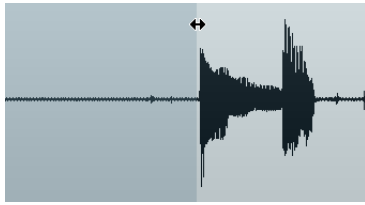
6. Press [Delete] or [Backspace] on your computer keyboard to remove the selection and create silence.

7. Add silence to any other areas in the Guitar event that you think might need it.

▪ Load the project "Adding Silence 2" found in the "Sequel Tutorial 5" folder to hear the project now that silence has been added.

About Time Stretch and Pitch Shift Algorithms

Sequel offers various functions where audio is time stretched or pitch shifted, for example, audio quantization, Free Warp, and transposing, see "Audio Quantization and Free Warp" on page 103 and "Edit Audio – Transpose" on page 87. In the Sample Editor, you can choose between different algorithms that perform the time stretch and pitch shift in realtime.
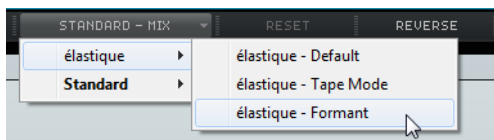
The "Set Time Stretch Mode" pop-up menu contains algorithm presets for time stretching and pitch shifting. It is sorted into category submenus based on the underlying technology: élastique or Standard.

The élastique Pro algorithm is an algorithm for high-quality time stretching and pitch shifting. It is suited for all kinds of audio recordings and for both polyphonic and monophonic material. The audio quality is superior to the Standard algorithm. The following modes are available:

Mode	Description
élastique – Default	This mode offers the best audio quality, without formant preservation. This means that Mickey Mouse effects can occur when transposing audio (especially vocals). If this is not what you want, use the Formant mode.
élastique – Tape Mode	In this mode, the pitch shifting is locked to the time stretching, as if playing back a tape with varying speed. Stretching the audio to a longer duration automatically decreases its pitch.
élastique – Formant	This mode provides formant preservation, meaning that the timbre of the audio is kept.

The Standard algorithm is optimized for CPU-efficient realtime processing. The following presets are available:

Option	Description
Standard – Drums	This mode is best for percussive sounds, as it does not change the timing of your audio. Using this option with certain tuned percussion instruments may lead to audible artifacts. In this case, try the Mix mode as an alternative.
Standard – Plucked	Use this mode for audio with transients and a relatively stable spectral sound character (for example, plucked instruments).
Standard – Pads	Use this mode for pitched audio with slower rhythm and a stable spectral sound character. This minimizes sound artifacts, but the rhythmic accuracy is not preserved.
Standard – Vocals	This mode is suitable for slower signals with transients and a prominent tonal character (for example, vocals).
Standard – Mix	This mode preserves the rhythm and minimizes the artifacts for pitched material that does not meet the above criteria (that is, with a less homogenous sound character).
Standard – Solo	This mode preserves the timbre of the audio. Only use it for monophonic material (for example, solo woodwind/brass instruments or solo vocals, monophonic synths, or string instruments that do not play harmonies).

Audio Quantization and Free Warp

Audio quantization and free warp allow you to edit the timing and tempo of audio events. For that purpose the audio data is time stretched. You can choose between different algorithms that perform the time stretching in realtime. For more information about these algorithms, see "About Time Stretch and Pitch Shift Algorithms" on page 102.

Audio Quantization

The Quantize function in Sequel is automatic and very useful for quickly locking drum tracks to the project tempo.

▪ Load the project "Audio Quantize" found in the "Sequel Tutorial 5" folder.

This project contains a Drums event with a few timing issues.

1. Press [Space] to start playback and hear how the drum beat strays off time.

2. Activate the metronome to hear the mistakes more clearly.

Metronome On/Off
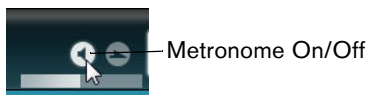
3. Double-click the Drums event to view it in the Sample Editor.

4. Click the "Project Tempo" button to lock the event tempo to the project tempo.

5. Open the "Time Stretch Mode" pop-up menu, open the Standard submenu, and select "Standard – Mix".
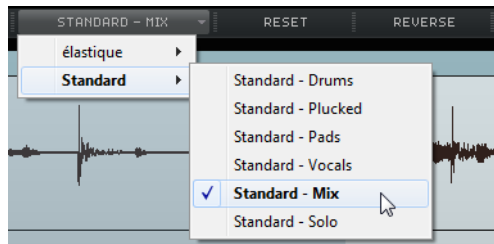
6. Make sure that the right audio length is set and that the grid lines are positioned at the visible beats. In this example, leave everything as it is.

7. Set the Quantize value to 1/4.
   You can see the audio file locking to the nearest quarter note.

8. Activate the "Enable/Disable Quantize" option.
   The audio automatically snaps to the selected Quantize value.
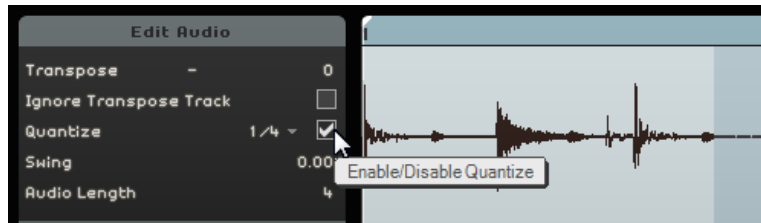
9. Play back the project; it is now in perfect time.

Free Warp

Sometimes, an event might need a bit of manual adjustment as well. That is where Free Warp comes in handy. Warp tabs are a kind of anchor that can be attached to musically relevant time positions in the audio, such as the first beat of every bar. They allow you to effortlessly stretch and warp audio.

▪ Load the project "Audio Warp" found in the "Sequel Tutorial 5" folder.

1. Double-click the Drums event to view it in the Sample Editor.

2. Make sure that "Project Tempo" is activated, and activate the "Free Warp Tool" button.
   In this mode, you can adjust the timing of the audio file by creating warp tabs and dragging them to match up properly with the bars and beats in the ruler. The audio is stretched accordingly.

3. Determine where the first beat of a bar in the audio event does not match the corresponding ruler position in the waveform. Click at the beginning of this beat to create a warp tab.

⚠ Once set, the position of a warp tab relative to a beat is fixed. Moving a warp tab in the waveform always affects the timing.

4. Drag the Warp tab left or right to the correct ruler time position.
   The audio is stretched accordingly.
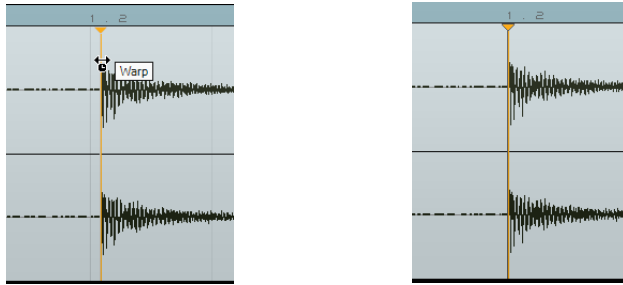
5. Repeat this procedure for any drum beats that are off time. Keep listening back to make sure that you are getting the correct result.

If you are not satisfied, you have two options:

▪ You can delete a warp tab by clicking the triangle at the top of the ruler.
  By deleting the warp tab the stretching is also reset.

▪ You can click the "Reset Warping" button.
  This way, all manually adjusted warp tabs are reset.
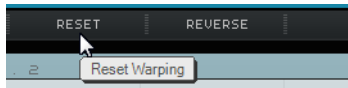
▪ You can perform a new auto quantization by selecting a new Quantize value.

Congratulations! You have successfully warped an audio file to fit the bars and beats of your project.

Step Envelope Editing

The Sample Editor contains a Step Envelopes section. With step envelopes you can manipulate different parameters of your audio loops (such as level, pitch, or pan), producing versatile variations of an audio loop.

Working with step envelopes includes two major workflows:

- Defining steps (audio segments) for your audio loop, and adjusting them according to your needs.
- Adding and editing the step envelopes themselves.

You can edit different types of envelopes, that is, value sequences with one value per step. Sequel offers the following envelope types: Level, Pan, Pitch, Decay, and Reverse, see "Adding and Editing Step Envelopes" on page 106.

⇨ Step envelopes only apply to the selected event. If you want to have several copies of an audio loop with the same step envelopes, first create step envelopes for one event and copy this event afterwards.

Defining Steps

To define the steps for your step envelopes, you can choose between two modes:

Mode	Description
Event Grid	In this mode, Sequel automatically detects onsets in the audio event and calculates the steps accordingly. Use this mode for percussive audio material with clearly discernible beats.
Musical Grid	In this mode, the steps for the audio loop have a defined resolution of 1/4 beats by default. You can define a different resolution by clicking the value selecting a resolution from the pop-up menu. Use this mode for audio material without discernible transients, such as atmospheric sounds or heavy guitar riffs.

⇨ You can also select a step envelope type and start editing without defining a segmentation mode. In this case, Sequel applies the Event Grid mode to define steps for the audio file. If you change to Musical Grid mode, Sequel tries to match the already edited step envelopes with the new segmentation.

Editing the Step Size

To edit the steps calculated by Sequel, you have the following options:

▪ To adjust the width of a step, position the mouse over the border at the beginning or end of the step so that the mouse pointer turns into a double arrow. Click and drag to the left or right to adjust its width.

▪ To divide a step, position the mouse over the bottom of the waveform display so that the mouse pointer turns into a Split tool. Click to divide the step.

▪ To join two adjacent steps, position the mouse over the bottom of the step border so that the mouse pointer turns into a glue tube. Click to glue the steps.

Adding and Editing Step Envelopes

The following step envelope types are available:

Step Envelope Type	Description
Level	Allows you to edit the volume. This is a convenient way for creating fade ins and fade outs or abrupt volume changes.
Pan	Allows you to position the step in the stereo image. High values position the step at the left and low values at the right. Especially with drum loops you can achieve stunning effects by panning steps to opposite positions.
Decay	Lets the step decay. If the steps are short, this creates a kind of stutter effect.
Pitch	Allows you to enter pitch changes. The transposition value is displayed in steps of semitones.
Reverse	Reverses the step.

⚠ The Pan step envelope only works with audio files on stereo tracks. If you want to edit the panning of a mono file, first add an empty track in the Arrange Zone (empty tracks are stereo by default). Then drag the mono file onto the stereo track.

To edit a step envelope, proceed as follows:

1. Select the step envelope type you want to edit, and move the mouse over the waveform display.

   The mouse pointer turns into a Draw tool.

2. Click a step and drag the mouse up or down to edit the value.

▪ To create a step envelope, that is, modify consecutive steps, keep the mouse button pressed and draw a curve.
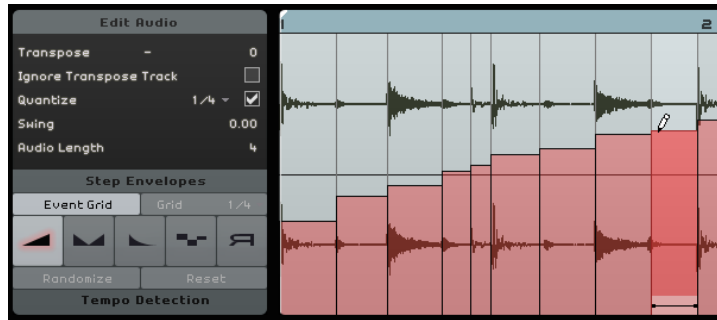
Randomizing Step Envelope Values

If you select a step envelope type and click the Randomize button, Sequel sets the selected step envelope to random values. With this function you can quickly give an audio loop a completely new sound.

Resetting a Step Envelope

You can reset all values of the selected step envelope by clicking the Reset button.

Detecting the Tempo of an Audio File
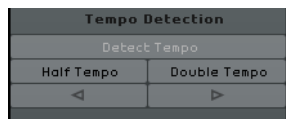
The Sample Editor gives access to the tempo detection function. Tempo detection allows you to detect the tempo of an audio file and align it to the bars and beats grid of the project. For example, it can be applied to complete CD or MP3 tracks with a single constant tempo that you want to use for one of the following:

▪ Creating a loop

   Once you have detected the tempo of an audio file, you can create a loop by setting up a cycle encompassing the section that you want to isolate. You can then cut the loop, and drag it to the MediaBay with the tempo information included. For information about setting up a cycle and about cutting, see "Cycle Playback" on page 24 and "Splitting" on page 29.

▪ Creating performance parts

   You can create performance parts from the imported track and use the pads on the Performance Page to remix your track in realtime, perfectly aligned to the project tempo. For information about performance parts and the pads, see "Live Pads and Chain Play Mode" on page 49.

▪ Creating mixtapes

   You can create mixtapes from your music library where all tracks follow the project tempo. You can easily create soft tempo transitions between the tracks. If needed, you can add tempo changes to your project by adding a tempo track.

Using Tempo Detection

1. Drag the audio file that you want to analyze from the MediaBay or the Windows Explorer or the Mac OS Finder into the Arrange Zone.

2. Double-click the audio event to open it in the Sample Editor.

3. In the Sample Editor, click "Tempo Detection" to open the Tempo Detection section.

4. Click the "Detect Tempo" button.

The following happens:

- Sequel analyzes the audio event and defines a single constant tempo for the whole audio event.
- The project tempo is set to the detected tempo.
- A reference beat inside the audio event is detected. In the Arrange Zone, the reference beat is displayed as a thin vertical line in the audio event.
- In the Arrange Zone, the audio event is moved to align the detected reference beat with the project grid.

5. Play back the audio event with the metronome click turned on to find out if the analysis directly led to a perfect result.

   If this is not the case, you can make corrections with the buttons now enabled below the Detect Tempo button.

⚠ Only close the Sample Editor or deselect the audio event if you are sure that the tempo is correct. The tempo detection settings cannot be adjusted any more after deselecting the events or closing the editor.

Correcting the Detected Tempo

Sometimes, the detected tempo may be half or double the tempo that it should be.

▪ Use the "Half Tempo" or "Double Tempo" button to set the project tempo to half or double the detected tempo.

   The audio file is moved again to match the metronome click.

⚠ If you use the "Half Tempo" or "Double Tempo" button, all manual offset corrections that you made previously are discarded.

It may also be the case that the first downbeat is not detected correctly and has an offset to the correct musical downbeat.

▪ Use the arrow buttons ("Nudge Left" and "Nudge Right") to move the audio file in steps of eighth notes to manually align the first musical downbeat of your audio file with the first downbeat of the metronome click.

Smart Transpose

When you set the project root key in the Pilot Zone, it becomes the reference that any audio file or MIDI loop follow. When you add a file with a defined key to your project, it adapts to the project root key.

Smart Transpose makes sure that the loop is transposed to the nearest interval or pitch. This way, no loop is transposed by more than six semitones. Therefore, loops never sound too unnatural because the pitch was raised too high or too low.

Let's see this in action:

1. Load the project "Smart Transpose" found in the "Sequel Tutorial 5" folder.

2. Open the MediaBay.

3. In the search field, type in "Bb guitar", and press [Return].
Sequel filters the results.
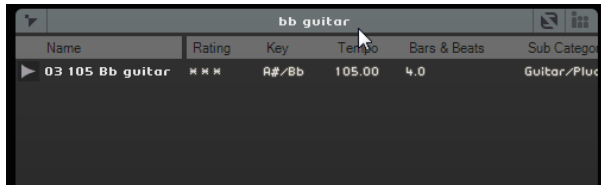
4. Drag the "03 105 Bb Guitar" loop to bar 1.
The project's settings for Tempo and "Project Root Key" change to match the loop. The project root key is now A#, which is the enharmonic equivalent for Bb.

Project root key
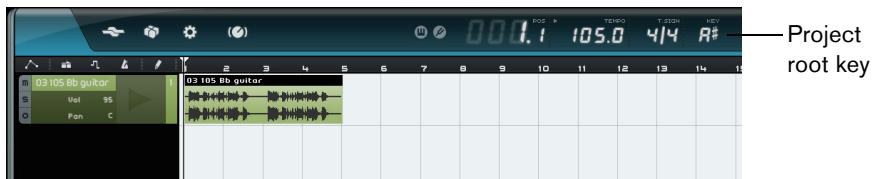
5. Go back to the MediaBay. This time enter "D horns" in the search field, and press [Return].

6. Drag the "02 112 D horns" loop to bar 1 underneath the guitar.

7. Double-click the "03 105 Bb Guitar" event to open it in the Sample Editor.

8. Check the "Root Key" and Transpose values in the Edit Audio section.
"Root Key" is set to A# and Transpose to 0.

Transpose = 0
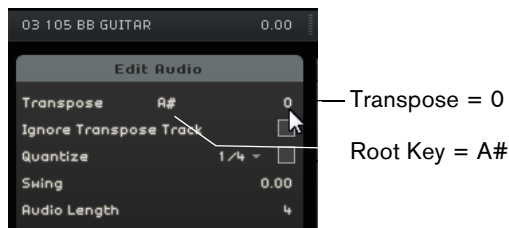
Root Key = A#

9. Select the "02 112 D horns" event, and check the same settings.
"Root Key" is set to D and Transpose to -4. Smart Transpose has automatically transposed the "02 112 D horns" loop to the closest interval.

Transpose = -4
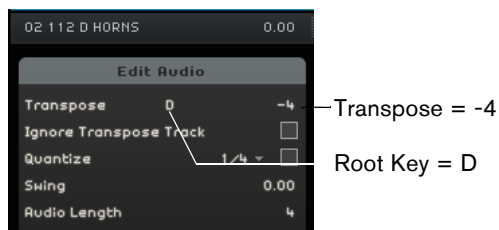
Root Key = D

10. Start playback and hear that the guitar and horns are in the same key without excessive transposition.

Ignore Transpose Track

In case you have an audio loop that is supposed to follow the root key, but not the transpose track, you can activate the "Ignore Transpose Track" option in the Sample Editor.

Remote-controlling Sequel

It is possible to remote-control certain Sequel functions by assigning external controllers, for example, small mixers or keyboard controllers with USB or MIDI connection and the ability to send MIDI messages. This way, you can control special program parameters using the assigned faders and knobs on your external controller. The control assignment is saved for the application and will be available for all projects.

You can map the following Sequel parameters and functions to your external controller:

- The transport controls
- The page selection in the Multi Zone (except for the Settings Page)
- The Mixer Page controls
- The controls on the Track Inspector Page panels and the panel selection buttons
- The pattern pad buttons on the Beat Page
- The pads on the Performance Page
- Metronome on/off

The remote assignment is only active if the mapped controls are visible. If you have connected more than one external controller, use the Remote Controller Source pop-up menu in the Options section of the Settings Page to select the corresponding input.

⇨ If you assign a MIDI controller or a key on your keyboard to a Sequel function, this controller or key is filtered. For example, it is not available as input for instrument tracks.

Assigning Controllers Using the Mouse

Proceed as follows:

1. Connect your remote device with the USB or MIDI port on your computer and start Sequel.

2. Click the "Edit Remote Control Assignment" button in the Sequel Pilot Zone.
   The main user interface is dimmed, so that you can clearly see which elements can be assigned to remote controls (indicated by frames).
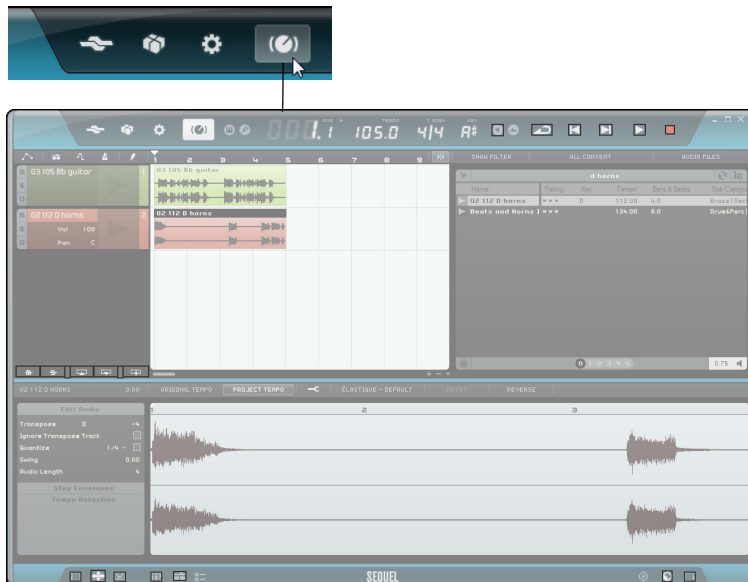
3. Select the function that you want to control with your remote device by clicking on it in the user interface.

The button turns red and the assignment browser opens to indicate that you can now assign a remote control to this function.
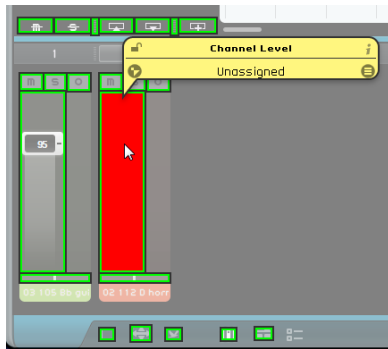
4. Move a control on your external device to map the physical control to the program function.

The selected function is now assigned to the control on the remote device. This is indicated by the corresponding program control turning blue. The name at the bottom of the assignment browser now indicates which remote item is assigned to the selected function.
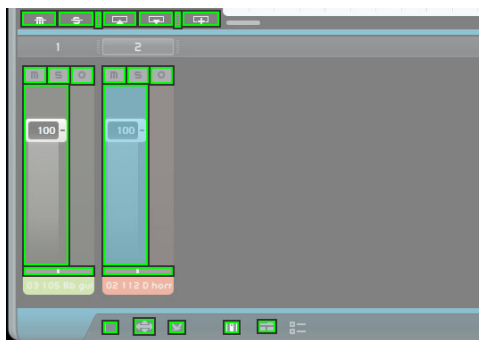
5. To assign another remote controller, click the next program function.

⇨ If you assign the Multi Zone pages first, you can use the controls on your remote device to switch between the different pages.

6. Click the "Remote Object List" button in the lower right corner of the assignment browser.

All remote controls that have been assigned are now shown.

7. Click the "Edit Remote Control Assignment" button in the Pilot Zone to switch back to normal mode.

Congratulations! You can now use your remote device to control the assigned Sequel functions.

The Assignment Browser

The assignment browser consists of the following elements:

Name of the Sequel function

Assigned remote controllers

Show Remote Item Info

Sticky Browser

Reset Remote Assignment

Name of the assigned remote control

Remote Object List button
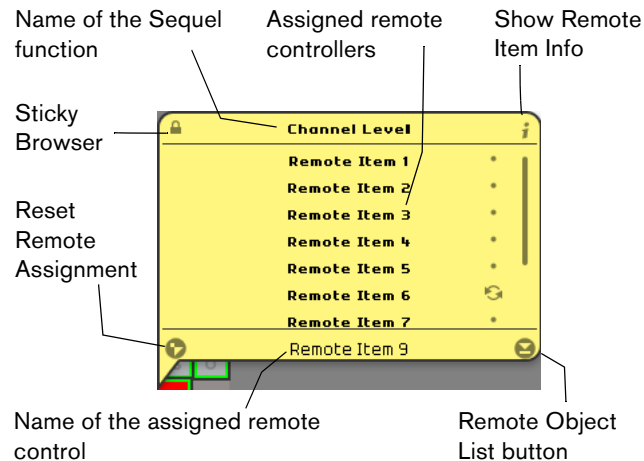
- The "Sticky Browser" button in the top left corner of the assignment browser indicates if the browser is fixed (closed padlock symbol) or closes automatically after a few seconds (open padlock symbol). Click the button to change its status.
- The "Show Remote Item Info" button can be used to show a graphical representation of a rotary control next to each remote item. By clicking these icons, you let the program know that the corresponding physical control is an endless rotary encoder.
- The "Reset Remote Assignment" button allows you to remove a controller assignment from a specific control.
- The name field lets you change the default name for the assigned remote control (at the bottom of the list). This allows you to keep an overview of the assigned controls.

Setting the Remote Focus

The "Set Remote Focus" function allows you to use the same hardware controls for remote-controlling the quick controls on different panels or pages. To set the remote focus to a panel, proceed as follows:

1. Assign the same MIDI controller to all quick controls.

2. Click the upper or lower edge of the panel that you want to remote-control.
   The panel now has the remote focus, indicated by a color change.

3. Remote-control the quick controls on this panel.

4. Click the upper or lower edge of a different panel to remote-control another effect or instrument.

You can also set the remote focus to the Output Effects section and the following pages in the Multi Zone: Track Inspector Page, Beat Page, Mixer Page, and Performance Page.

- To do so, click the "Set Remote Focus" button on the corresponding page.

The "Set Remote Focus" button

This panel has the remote focus
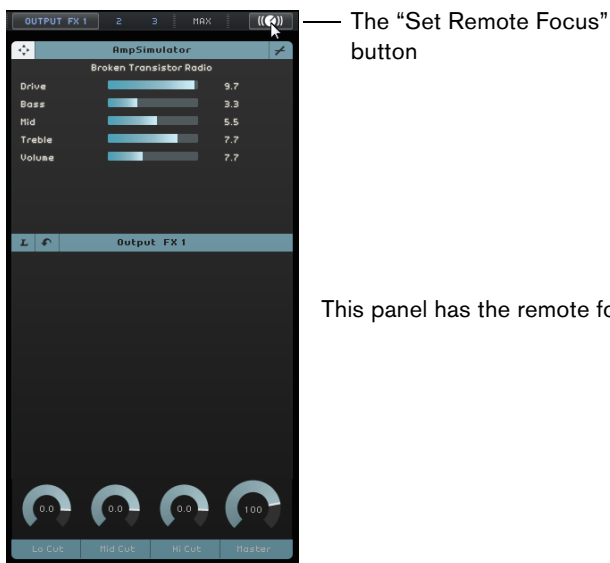
Assigning Controllers Using Key Commands

You can also assign controllers to Sequel functions using key commands. Proceed as follows:

1. Press [F] to enter Edit Remote Control Assignment mode.

   The main user interface is dimmed, so that you can clearly see which elements can be assigned to remote controls (indicated by frames).

2. Use the arrow keys to step through the assignable functions.

   The selected control element turns red and the assignment browser opens to indicate that you can assign a remote control to this function.

3. Move a control on your external device to map it to the program function.

- Use the arrow keys on your computer keyboard to step through the available parameters.

- Press [Enter] on the numeric keypad to make selections, activate functions, or to confirm your settings.

- Press [Esc] to exit a list or browser window or deactivate Edit Remote Control Assignment mode.

Quick Controls

Quick controls are parameter assignments for effect or instrument plug-ins that are shown on the Track Inspector Page of the Multi Zone.

Open/Close
Plug-in Window

Quick control
slots

Quick
controls

Quick Control
Learn Mode

Get Default Quick
Controls from Plug-in
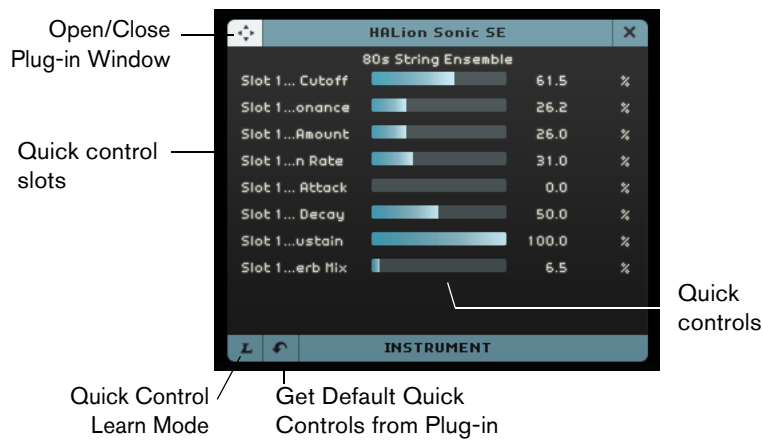
For each effect or instrument plug-in, eight quick control slots are available. These give you instant access to the plug-in parameters. Sequel features a default assignment for the main parameters.

To change the assignment, proceed as follows:

1. Activate the "Quick Control Learn Mode" button.
    The plug-in window opens.

2. In the quick control panel, select a quick control slot.
    You can press [Tab] or use the cursor keys to step through the quick control slots.

3. In the plug-in window, click a parameter.
    The parameter is assigned to the quick control and the quick control slot is renamed accordingly.

4. Repeat these steps for all other quick controls that you want to change.

5. Deactivate the "Quick Control Learn Mode" button.

The new assignment is used from now on.

⇨ If you select a quick control slot in learn mode and press [Delete] or [Backspace], the slot is emptied. This is helpful, for example, if you want to use less than eight quick controls.

You can also change the parameter assignments from within the plug-in's control panel. Proceed as follows:

1. Click the "Open/Close Plug-in Window" button.

   The plug-in panel for your effect or instrument opens.

2. Right-click the parameter that you want to assign to a quick control slot, and select an option from the "Add x to Quick Controls Slot" submenu, where x is the name of the parameter.

   The plug-in parameter is assigned to the selected quick control slot.
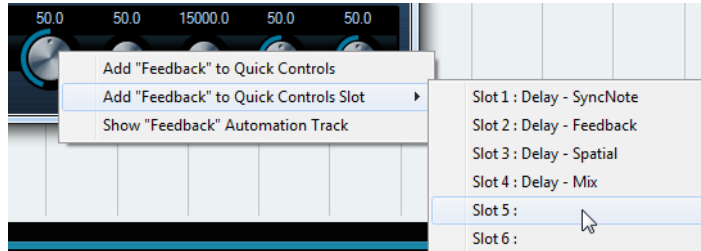
Quick control assignments are saved globally.

▪ To retrieve the default assignments, click the "Get Default QCs from Plug-in" button.

▪ To rename a quick control, double-click the name in the quick control slot, enter a new name, and press [Return].

You can also automate the quick control parameter settings. For details on automation, see "Adding Automation" on page 44.

⇨ Quick controls become really powerful when you assign them to remote-control devices. Quick control assignments only need to be set up once for insert effects, send effects, output effects, and instruments.

Key Commands

Introduction

This chapter contains a list of the available key commands in Sequel, structured according to the different edit categories in the program.

The Available Key Commands

File Commands

The File category contains the following key commands:

Option	Key command
Help (Operation Manual)	[F1]
Quit	[Ctrl]/[Command]-[Q]

Project Commands

The Project category contains the following key commands:

Option	Key command
New Project	[Ctrl]/[Command]-[N]
Open Project	[Ctrl]/[Command]-[O]
Save Project	[Ctrl]/[Command]-[S]
Save As	[Ctrl]/[Command]-[Shift]-[S]
Manage Projects	[Ctrl]/[Command]-[Shift]-[M]
Toggle Automation Mode	[A]
Show/Hide Track Inspector Page	[1]
Show/Hide Editor	[2]
Show/Hide Track Picture Page	[3]
Show/Hide Mixer	[4]
Show/Hide Performance Page	[5]
Show/Hide Settings Page	[6]
Show/Hide Filter Section	[7]
Show/Hide MediaBay	[8]
Show/Hide Output Effects	[9]
Show/Hide Virtual Keyboard	[K]
Show/Hide Tuner	[T]

Edit Commands

The Edit category contains the following key commands:

Option	Key command
Undo	[Ctrl]/[Command]-[Z]
Redo	[Ctrl]/[Command]-[Shift]-[Z]
Cut	[Ctrl]/[Command]-[X]
Copy	[Ctrl]/[Command]-[C]
Paste	[Ctrl]/[Command]-[V]
Delete	[Delete] or [Backspace]
Duplicate	[Ctrl]/[Command]-[D]
Split at Cursor	[Ctrl]/[Command]-[T]
Bounce Selection	[Ctrl]/[Command]-[B]
Select All	[Ctrl]/[Command]-[A]
Select None	[Ctrl]/[Command]-[Shift]-[A]
Add Track	[Ctrl]/[Command]-[+]
Remove Selected Tracks	[Ctrl]/[Command]-[Delete] or [Backspace]
Record Ready	[R]
Snap to Grid	[J]
Quantize	[Q]
Edit Remote Control Assignment	[F]

Navigate Commands

The Navigate category contains the following key commands:

Option	Key command
Left	[Left Arrow]
Right	[Right Arrow]
Up	[Up Arrow]
Down	[Down Arrow]
Add Left	[Shift]-[Left Arrow]
Add Right	[Shift]-[Right Arrow]
Add Up	[Shift]-[Up Arrow]
Add Down	[Shift]-[Down Arrow]
Bottom	[End]

Virtual Keyboard Commands

When the virtual keyboard is active, the usual key commands are blocked. The only exceptions are: [*] ("multiply" on the numeric keypad) for recording, [Space] for start/stop, and [Home]/[Command]-[Home] to jump to the project start.

For the virtual keyboard, the following key commands are available:

Option	Key command
One Octave Down	[Left Arrow]
One Octave Up	[Right Arrow]
Change Virtual Keyboard Display Type	[Tab]

Zoom Commands

The Zoom category contains the following key commands:

Option	Key command
Zoom In	[H]
Zoom Out	[G]
Zoom Last	[Shift]-[H]
Zoom Full	[Shift]-[G]
Zoom to Parts	[Shift]-[P]

Transport Commands

The Transport category contains the following key commands:

Option	Key command
Locate to Selection	[L]
To Cycle Start	[Home] (PC)/[Command]-[Home] (Mac)/[.] (Notebooks)
Start	[Enter] (numeric keypad)
Stop	[0] (numeric keypad)
Start / Stop	[Space]
Record	[*] ("multiply" on the numeric keypad) or [Ins]
Rewind	[-] ("subtract" on the numeric keypad)
Forward	[+] ("add" on the numeric keypad)
Return to Zero	[.] or [,] on the numeric keypad
Cycle	[/] ("divide" on the numeric keypad)
Set Cycle to Selection	[P]
Locate next Marker	[Shift]-[N]
Locate Previous Marker	[Shift]-[B]

Effects and Instruments Reference

Introduction

This chapter describes the effects and instruments included with Sequel. How to use effects is described in the section "The Track Inspector Page" on page 82.

Effects Parameters

Delay Effects

PingPongDelay

PingPongDelay creates a bouncing effect. It bounces the signal between left and right.

SyncNote allows you to sync the bouncing effect to the tempo. Feedback determines how long the delay lasts. Using the Spatial parameter you can increase the distance between the bounces. This sounds great on solos. The Mix parameter determines how much original signal you hear versus the affected signal.

StereoDelay

StereoDelay is great for giving your tracks a sense of space. It includes two delays. One for the left channel and one for the right channel. SyncNote allows you to sync the delay effect to the tempo. Feedback determines how long the delay lasts. The Mix parameter determines how much original signal you hear versus the affected signal.

Distortion Effects

AmpSimulator

The AmpSimulator allows you to make it sound like your tracks were recorded through an electric guitar or bass amplifier.

Drive gives a boost to the signal and simulates an overdrive pedal. Bass adds low end to the signal. Mid boosts the middle frequencies of the signal. Treble adds high end to the signal. Volume allows you to give that extra boost to the signal without adding any distortion.

▪ There are a number of AmpSimulator presets available. Try out the different presets to find an amp sound.

Distortion

Distortion is great for adding crunch to your tracks. This effect is easy to use with only two parameters, but it is extremely effective. Boost cranks up the distortion amount. Output raises or lowers the signal going out of the effect.

VST Amp Rack

VST Amp Rack is a powerful guitar amp simulator. The sound-related parameters (Bass, Middle, Treble, and Presence) have a significant impact on the overall character and sound of the amp. Gain cuts or boosts the signal, Bass adds low end to the signal, Middle boosts the middle frequencies of the signal, and Treble adds high end to the signal. Presence boosts or dampens the higher frequencies, and Master controls the volume of the output signal.

- There are a number of presets with guitar-amp-specific effect chains available. Try out the different presets to find the perfect guitar sound.

Dynamics Effects

Compressor

Compressor reduces the dynamic range of the audio, making softer sounds louder or louder sounds softer, or both. Threshold determines how much compression is added to the signal. When the signal goes above the threshold level, the Compressor reduces the signal; the further to the right you drag, the more compression you get.

Gate

Gate allows you to create a "gate" which lets only audio through if it meets the specified volume requirement. Threshold sets the volume level that the signal has to reach in order to be heard. Release controls how quickly the gate closes after it has been opened.

Maximizer

Maximizers are commonly used in the mastering stage to raise the overall level of the mix. Optimize raises the level of your tracks without clipping the output. Turning this up all the way creates a brick-wall effect that is often used on drum tracks in electronic music.

Master EQ

This is an easy-to-use 3-band parametric equalizer. The Low, Mid, and High parameters allow you to cut or boost the corresponding frequency band. The buttons below the knobs let you disable the frequency bands.

Filter Effects

DualFilter

This effect filters out certain frequencies while allowing others to pass through. Pos changes the position, that is, the focus frequency of the filter. With higher values, only high frequencies are heard, with lower values, only low frequencies are heard. Reso adds a ringing effect to the filtered sound.

Morph Filter

This effect lets you mix lowpass and highpass filter effects. Frequency changes the cutoff frequency of the filter. Resonance adds a ringing effect to the filtered sound. The Morph slider lets you mix the filter output between lowpass (0) and highpass (100).

Modulation Effects

AutoPan

AutoPan automatically moves the track's signal from left to right and back again. Rate determines how quickly the signal moves back and forth. Width adjusts how far to the left and right the signal goes.

Chorus

Chorus works by doubling whatever is sent into it with a slightly detuned version. Rate changes the speed of the chorus effect. Width adjusts how much the signal is detuned. The Mix parameter determines how much original signal you hear versus the affected signal.

Flanger

Flanger works like the Chorus effect in that it doubles the input signal. Instead of detuning it, however, it delays it slightly by a gradually changing amount. The Rate parameter adjusts the speed of the effect. Feedback determines the intensity of the typical Flanger sweep. The Mix parameter determines how much original signal you hear versus the affected signal.

Phaser

The Phaser effect works by applying multiple filters to the signal. Rate determines the speed of the effect. Feedback determines the intensity of the typical Phaser sweep. The Mix parameter determines how much original signal you hear versus the affected signal.

Rotary

Rotary emulates a rotating speaker, which is a popular effect for electronic organ sounds, but also works great for guitar. The Speed parameter adjusts the speed of the rotation.

Tremolo

Tremolo works by creating a repetitive variation of gain. Rate determines the speed of the gain adjustments. Depth determines how much the gain varies.

Vibrato

Vibrato works by rapidly creating slight changes in pitch. It is the same idea as playing a note on a guitar and moving your finger back and forth within the fret. Rate changes the speed of the effect. Depth determines how much the pitch varies.

Reverb

Reverb allows you make it sound like your music was recorded in a large hall or cathedral. The Mix parameter determines how much original signal you hear versus the affected signal. Bypass lets you compare the original sound and the reverb sound. PreDelay controls how much time passes before the reverb is applied. Time determines the length of the reverb, thus creating a sense of space. Higher Diffusion values lead to a smoother sound, while lower values lead to a clearer sound. "Damping - High Amount" affects the decay time of high frequencies. Lower values cause high frequencies to decay quicker. Values above 100% cause high frequencies to decay slower than mid-range frequencies. "Damping - Low Amount" affects the decay time of low frequencies. Lower values cause low frequencies to decay quicker. Values above 100% cause low frequencies to decay slower than mid-range frequencies.

StereoEnhancer

StereoEnhancer allows you to spread out your project's stereo image. This can create a greater sense of space for crowded mixes. Width determines how wide the image is spread.

Instrument Parameters

In order to access the instrument parameters, you first have to add a VST 3 track and select an instrument.

Prologue

Prologue is a synthesizer that works like classic analog synthesizers. Cutoff determines the cutoff frequency of the signal. Resonance adds a ringing type effect. Attack adjusts how quickly you hear the initial hit of a note. Release determines how long a note is held once it has been released. Drive boosts the signal, making it louder. "LFO Frequency" is used to modulate and change the signal. "LFO Level" raises or lowers the volume of the LFO (low frequency oscillator). FX controls how much the built-in effect of the instrument is heard.

HALion Sonic SE

This instrument is described in detail in the separate PDF document "HALion Sonic SE".

Groove Agent One

For a description of this instrument, see "Pad Section" on page 92 and "Sample Display" on page 92.

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