

E A S T W E S T / Q U A N T U M L E A P



# HOLLYWOOD SOLO VIOLIN

U S E R M A N U A L

PRODUCED BY DOUG ROGERS AND NICK PHOENIX SOUND ENGINEER SHAWN MURPHY



## IMPORTANT UPGRADE NOTE!

### The Hollywood Orchestra Opus Edition is Now Available

Hollywood Orchestra Opus Edition is the highly anticipated expansion to Hollywood Orchestra, the best-selling and most awarded orchestral virtual instrument ever produced. It includes:

- Over 130GB of brand new recordings (total size is now 944GB)
- Reimagined original content for all sections and solo instruments
- All new interfaces that change color depending on the Mood selected
- Hollywood Orchestrator (\$299 value), a must-have tool for all composers
- All Hollywood Solo Instruments previously sold separately (\$299 value)
- Innovative new features and effects powered by our new Opus engine

Follow the link below to watch the walkthrough videos that show the Hollywood Orchestra Opus Edition in action, and see the FAQs if you have further questions.

#### WALKTHROUGH VIDEOS:

[Hollywood Orchestra Opus Edition Trailer](#)

[Hollywood Orchestra Opus Edition Walkthrough](#)

[Hollywood Orchestrator Walkthrough](#)

### How to Upgrade

Special upgrade pricing is available for existing users of the Hollywood Orchestra. Follow the link below to the Hollywood Orchestra Opus Edition product page, and click the 'Buy Now' button to see your upgrade path.

#### HOLLYWOOD ORCHESTRA OPUS EDITION PRODUCT PAGE:

<http://www.soundsonline.com/hollywood-orchestra-opus-edition>

**PLEASE NOTE!** Only Hollywood Orchestra Opus Edition is compatible with the new Opus software. Providing support for old and new versions of Hollywood Orchestra in the Opus software would create confusion and require us to support two versions of the same product in the same software. Original Hollywood Orchestra users that do not upgrade can continue to use the Play software.

Opus and Play are two separate software products, anything you have saved in your projects will still load up inside the saved Play version of the plugins. You can update your current/existing projects to Opus if you so choose, or leave them saved within Play.

#### FREQUENTLY ASKED QUESTIONS (FAQs):

<http://www.soundsonline.com/Support?section=faq&article=>

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## Welcome

### About The Hollywood Solo Instruments Series

These extensive libraries are comprised of the Hollywood Harp, Hollywood Solo Cello, and Hollywood Solo Violin. These instruments were recorded, engineered, and produced with the superior level of sound quality the EastWest brand is known for. Each of the instruments was recorded in Studio 1 at EastWest Studios, giving the libraries a consistent sound and ambience.

The Hollywood Solo Instruments Series was designed to be used with the Hollywood Orchestra Series, which emulates a traditional large studio orchestra. It focuses on a typical solo instrumentation. If you seek a larger sound palate, EastWest has created many other libraries stocked with a variety of other modern, ethnic, percussion, vocal, guitar, and keyboard instruments.

Please visit <http://www.soundsonline.com/> for the entire catalogue.



Studio 1 at EastWest Studios, during setup for the recording sessions

## Producer: Doug Rogers

With over 30 years experience in the audio industry, founder and producer Doug Rogers is the recipient of over 70 industry awards, more than any other sound developer. His uncompromising approach to quality and innovative ideas have enabled EastWest to lead the sound-ware business for more than 25 years. “The Art of Digital Music” named him one of “56 Visionary Artists & Insiders” in the book of the same name.

He released the very first commercial Drum Samples CD in 1988, and followed it with the multiple award-winning “Bob Clearmountain Drums” sample collection which he co-produced. In the years that followed he practically reinvented the sound-ware industry. EastWest introduced loop sample libraries to the market in the early nineties, followed closely by the first midi driven loops collection (Dance/Industrial). He released the first library to include multiple dynamics, followed by the first sample library to stream from hard disk, an innovation that led to the detailed collections users expect today.



His recent productions are Symphonic Orchestra (awarded a Keyboard Magazine “Key Buy Award,” EQ Magazine “Exceptional Quality Award,” Computer Music Magazine “Performance Award,” “Sound On Sound Readers Award” (twice), and G.A.N.G. [Game Audio Network Guild] “Best Sound Library Award”); and Symphonic Choirs (awarded Electronic Musician “Editor’s Choice Award,” G.A.N.G. “Best Sound Library Award,” and Keyboard Magazine “Key Buy Award”). Most recently, his productions include Quantum Leap Pianos, the most detailed virtual piano collection ever produced; Fab Four, inspired by the sounds of the Beatles; The Dark Side (Fab Four and The Dark Side were both M.I.P.A. Award winners, judged by 100 music magazines); Hollywood Strings, Hollywood Brass, Hollywood Orchestral Woodwinds, Hollywood Orchestral Percussion; ProDrummer 1, co-produced with Mark “Spike” Stent; ProDrummer 2, co-produced with Joe Chiccarelli; and Ghostwriter, co-produced with Steven Wilson.

Over the last 17 years he has partnered with producer/composer Nick Phoenix and set up the Quantum Leap imprint, a subsidiary of EastWest, to produce high-quality, no-compromise virtual instruments. EastWest/Quantum Leap virtual instruments are considered the best available and are in daily use by the who’s who of the industry.

## Producer: Nick Phoenix

Nick began scoring film trailers in 1994. To date, he has scored or licensed music for the ad campaigns of over 1000 major motion pictures. “Godzilla,” “Ender’s Game,” “Skyfall,” “World War Z,” “Rush,” “The Hobbit,” “Avengers,” “Star Trek 2,” “Inception,” and “Harry Potter and The Deathly Hallows” are a few recent examples. Nick founded “Two Steps From Hell” with Thomas Bergersen in 2006 ([www.twostepsfromhell.com](http://www.twostepsfromhell.com))

Two Steps From Hell has grown from a production music library into the top epic music artist in the world, with millions of fans and six top selling CDs on iTunes, a phenomenon never before seen in the music industry.

The journey as a composer has inspired Nick to record and program his own sounds and samples. A 17-year partnership with Doug Rogers and EastWest has yielded award winning software titles such as the Hollywood Series, Stormdrum 1, 2 and 3, Symphonic Orchestra, Symphonic Choirs, Silk, RA, Voices Of Passion, Ministry Of Rock 2, Gypsy, Quantum Leap Pianos, Goliath, and many others.



### Sound Engineer: Shawn Murphy

Shawn Murphy is an Academy Award, C.A.S. (Cinema Audio Society), BAFTA, and Emmy award-winning sound engineer who has recorded and mixed the scores for more than 300 feature films including: "Star Wars: The Force Awakens," "Indiana Jones and the Kingdom of the Crystal Skull," "Star Wars: The Phantom Menace," "Star Wars: Episode II - Attack of the Clones," "Star Wars: Episode III - Revenge of the Sith," "Star Wars: A Musical Journey," "Jurassic Park," "Jurassic Park, The Lost World," "Harry Potter and the Prisoner of Azkaban," "Titanic," "The Curious Case of Benjamin Button," "The Bourne Ultimatum," "Minority Report," "Saving Private Ryan," "Munich," "The Passion of the Christ" (score mix), "X-Men: The Last Stand," "Memoirs of a Geisha," "Ice Age 2," and "Ice Age 3."

Hollywood Strings was the first virtual instrument collection he engineered. And his work with EastWest/Quantum Leap continued with the rest of the Hollywood series.





## **Credits**

### **Producers**

Doug Rogers, Nick Phoenix

### **Sound Engineer**

Shawn Murphy

### **Engineering Assistance**

Jeremy Miller

### **Production Coordinator**

Rhys Moody

### **Programming**

Justin Harris, Nick Phoenix, Jason Coffman, Andrzej Warzocha

### **Editing**

Justin Harris, Michael DiMattia, Jason Coffman, Andrzej Warzocha

### **Software**

Klaus Lebkücher, Wolfgang Kundrus, Stefan Holec,  
Bartłomiej Bazior, Truc Phan, Helen Evans

### **Art Direction**

Steven Gilmore, Thomas Merkle, Doug Rogers

### **Manual**

Jason Coffman

## How to Use This and the Other Manuals

All documentation for the EastWest PLAY Advanced Sample System and its libraries is provided as a collection of Adobe Acrobat files, also called PDFs. They can be viewed on the computer screen or printed to paper.

Each time you install one of the PLAY System libraries, two manuals are copied to the file system on your computer:

- **The manual that describes the whole PLAY System.** This, the largest of the manuals, addresses how to install and use all aspects of the software that are common to all libraries.
- **The library-specific manual,** such as the one you are currently reading. This smaller document describes aspects that differ from one library to the next, such as the user interface and the list of included instruments and articulations.

## Using the Adobe Acrobat Features

By opening the Bookmarks pane along the left edge of the Adobe Acrobat Reader, the user can jump directly to a topic from the section names. Note that some older versions of Acrobat Reader might not support all these features. The latest Acrobat Reader can be downloaded and installed at no cost from the Adobe web site. (As an example of a hyperlink, you can click on the last words of the previous sentence (“Adobe web site”) to be taken directly to the Adobe site.)

When reading this and other manuals on the computer screen, you can zoom in to see more detail in the images or zoom out to see more of the page at once. If an included picture of the user interface, or a diagram, seems fuzzy or illegible, then zoom in using one of several means provided in the Acrobat Reader software. Note that images are clearest and screen shots most legible at 200% and next best at 100%.

### **Important Note:**

If you have a computer or tablet with a touch screen, you might have received pre-installed a version of Acrobat Reader designed to work with touches to the screen. In some cases, these touch-friendly versions don’t behave exactly the same way as the official Adobe product. If you are encountering problems navigating through this document, consider downloading the free Acrobat Reader from the [adobe.com](http://adobe.com) website. It is OK to have both versions installed at the same time.

## Online Documentation and Other Resources

For the most up to date information, visit the support pages at EastWest's website. There you can find:

- information made available after these manuals were written
- FAQ pages that may already list answers to questions you have
- suggestions from EastWest and other users of the EastWest PLAY System
- news about upcoming releases

The address is:

**<http://support.soundsonline.com>**

You can also visit the EastWest online forums. There you can read comments and questions from others who use EastWest products and post your own. The many forum participants are a good source of helpful information about both the technical and musical aspects of this software.

The address of the forums is:

**<http://www.soundsonline-forums.com>**

If you visit the forums to receive support from EastWest (instead of going directly to the support site listed above), make sure you post your support request in the Support forum and not in the General Discussion forum.



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# Hollywood Solo Instruments Overview

## The Hollywood Solo Instruments Series

The EastWest Hollywood Solo Instruments Series is comprised of the Hollywood Harp, Hollywood Solo Cello and Hollywood Solo Violin.

These extensive libraries were recorded, engineered, and produced with the superior level of sound quality the EastWest brand is known for. Each of the instruments was recorded in Studio 1 at EastWest Studios, the same studio Hollywood Orchestra was recorded in. This gives the complete Hollywood Orchestral series a consistent sound and ambience, which emulates a traditional large studio orchestra.

A wide variety of articulations were recorded for each instrument, focusing on typical solo instrumentation. In some cases, these various articulations are presented as separate instruments in PLAY's Browser view. In other cases articulations are accessible via a keyswitch instrument, where multiple articulations load as one instrument, and pressing a trigger key activates the current one.

These instruments can be used on their own or integrated into a larger orchestral framework with other titles in the Hollywood Orchestra Series. All these titles have been designed to work together to create an integrated orchestral sound. They were all...

- Recorded in the same studio with many of the same microphones and positions
- Engineered by Sound Engineer Shawn Murphy.
- Produced by Doug Rogers and Nick Phoenix
- Programmed using the same practices and software.

## Comparison of the Diamond and Gold Editions

The Gold Edition is mostly a subset of the Diamond Edition. It is intended for those with smaller or less capable computer systems, and for those looking for most of the features and power of the Diamond Edition but at a smaller price. The differences are:

- **Bit Depth:** the samples in the Diamond Edition are 24-bit; those in the Gold Edition are 16-bit.
- **Delivery:** both Diamond and Gold Editions are available by download via the EastWest Installation Center, or on a hard drive. The CCC Pro "Sound Data Hard Drive" (<http://www.soundsonline.com/CCC-PRO-HD>) contains the Diamond Edition, and the CCC Gold "Sound Data Hard Drive" (<http://www.soundsonline.com/CCC-Gold-HD>) contains the Gold Edition. Each hard drive contains the sound data only. The product licenses can then be purchased online.
- **Mic Positions:** The Diamond Edition includes samples from 5 independent microphone positions that can be mixed together to achieve control over both acoustic vantage and spaciousness of the sound; the Gold Edition provides a single mic position.



The list of articulations for the two libraries are the same. Those with a Gold Edition license can upgrade to the Diamond Edition license (and receive the extra content) by contacting EastWest. Details about upgrading are also available on the SoundsOnline.com website.

## What's Included

The Hollywood Solo Instruments series is comprised of three separate libraries: Hollywood Harp, Hollywood Solo Cello and Hollywood Solo Violin. Altogether, this includes:

- a complete set of sample-based instruments, enumerated later in this manual
- approximately 96 Gigabytes of 24-bit, 44.1 kHz samples (Diamond Edition); Hollywood Harp (15 GB), Hollywood Solo Cello (40 GB), Hollywood Solo Violin (41 GB).
- the EastWest PLAY 4 Advanced Sample Engine (Note that PLAY 4 is required; earlier versions are not supported with this library).
- a license that identifies the product you bought
- manuals in Adobe Acrobat (.PDF) format for both the EastWest PLAY 4 System and the Hollywood Solo Instruments.
- an installation program to set up the library, software, and documentation on your computer

Please note: An iLok account is required for a machine-based (electronic) license to be placed on your computer. You may also place the license on an optional iLok key. An internet connection is required for a one-time product activation.

## Hardware Requirements

Below are the minimum and recommended hardware requirements for using the Hollywood Solo Instruments on your computer. Please see the PLAY System manual for a complete list of the Hardware and Software Requirements for installing and running any PLAY System library.

Minimum specification:

- Intel dual-core i5 (or equivalent) processor, running at 2.7 GHz (or above)
- 8 GB of RAM or more
- Mac OSX 10.7 (or later); Windows 7 (or later) with ASIO sound drivers
- 7200 RPM or faster (non energy saving) hard drive for sample streaming

Recommended specification:

- Intel Xeon E5 (or equivalent) running at a minimum of 2.7 GHz (or above)
- 16 GB of RAM or more
- Mac OSX 10.7 (or later); Windows 7 (or later) with ASIO sound drivers
- a 64-bit operating system; and a 64-bit host when running PLAY 4 as a plug-in.
- SSD (Solid State Drive) for sample streaming

## **Solid State Drives (SSDs)**

There is no doubt solid state drives (SSDs) are a revolution for storing and streaming samples. While currently more expensive than traditional hard drives, the seek and retrieval times are almost instantaneous, which means you may be able to create even larger projects and/or use lower latencies without needing workarounds to avoid disruption of the audio output. When using multiple products from the EastWest Hollywood series, SSDs may be your only option (in some cases, “light” patches are provided for other users), and the number of mic positions that can be accessed simultaneously may also be dependent on solid state drives. Installing 2 or more smaller SSDs with a true hardware RAID 0 solution offers the best performance. For professional users, we recommend consulting computer system specialists to achieve the best performance.

EastWest has done extensive testing in which PLAY 4 running with solid state drives for the samples and instruments was able to reproduce over 700 concurrent voices without any pops, clicks, or other artifacts that can occur when the same sequence streams from a traditional hard drive.

This data indicates that it is not the PLAY 4 software that provides the bottleneck in the data flow, but rather the “seek time” required to locate the many hundreds of samples on a traditional hard drive when they need to be streamed to the CPU all at once. For those composers and orchestrators looking to build large projects using the kinds of instruments that add realism through the use of complex cross-fades, solid state drives (along with more than 8 GB of RAM) can help make that happen.

## **Requirements for Sample Storage**

The available space on the hard drive required for an installation of all Hollywood Solo Instruments Series (Diamond Edition) is approximately 96 GB (Gigabytes). The approximate individual library sizes are 15 GB for Hollywood Harp, 40 GB for Hollywood Solo Cello, and 41 GB for Hollywood Solo Violin.



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# The Hollywood Solo Instruments User Interface

Each PLAY library presents its own interface when one of its instruments is currently selected in the Instrument List in the upper right corner (see below).

Much of this interface is shared by all PLAY System libraries, and the common features are described in the PLAY System manual. The universal controls in Hollywood Solo Instruments are described later in this section. If you don't see a control described in this chapter, look at the PLAY System manual (that's the other manual installed on your hard drive during program setup) or in an instrument's specific chapter (Chapters 4 - 6).



# HOLLYWOOD SOLO INSTRUMENTS

Here are the controls described in this manual (and not in the PLAY 4 System manual):

- Performance scripts: each library has a slightly different set of performance controls and each instrument has different performance scripts enabled by default.
- Round Robin Reset
- Stereo Double
- the Master button and Pre-Delay knob in the Reverb controls
- the graphical representation of the Envelope

## Performance Scripts

A performance script changes the playback of samples in an instrument file (.ewi). Each of the libraries in the Hollywood Solo Instruments series contain a set of scripts. The Hollywood Solo Cello and Hollywood Solo Violin contain all the performance scripts outlined below, while Hollywood Harp excludes the Con Sordino and the Other (True Legato) scripts. Some instruments have Performance scripts enabled by default, but either way they can be turned on and off in the Performance section of the PLAYER interface.

Performance scripts can be automated by sending MIDI Continuous Controller (CC) values as well. In order to automate a performance script to turn on or off over the course of a sequence, use the MIDI CC number that is assigned to the script (see table below) you wish to change and send a value between 0 and 63 to disable it and a value between 64 and 127 to enable it. If no MIDI CC value is present, the script retains it's default setting.

Other details about using the Performance scripts, including changing the timing parameter of the Portamento and Legato scripts, or disabling the forced monophonic behavior in the 'Other' script are detailed in their respective sections below.

CC	Portamento	Legato	Repetition	Con Sordino	Other
5	Time	Time			
15				On/Off	
22					Poly/Mono
65	On/Off				
68		On/Off			
69			On/Off		

### Portamento

This script emulates portamento playing by applying a short, anticipatory movement between the pitches of two adjacent notes in a phrase. You can make the portamento effect more pronounced by sending higher values on a scale between 0 and 127 on MIDI Continuous Controller 5 (CC5).



## **Legato**

This script emulates legato playing by forcing monophonic behavior and adjusting note timing. You can make the legato effect more pronounced by sending higher values on a scale between 0 and 127 on MIDI Continuous Controller 5 (CC5). The legato script also disables release trails and turns on reverb to ensure smooth playback of a melodic lines.

Please note that the legato script is only an effect being applied to an instrument and not the same as the instruments in the 04 Legato folder, which have actual sampled legato intervals and use the ‘Other’ script described below.

## **Other (True Legato)**

The ‘Other’ (True Legato) script is enabled by default on the instruments in the 04 Legato folder. It forces monophonic behavior and uses MIDI Velocity sensitivity to adjust the timing of the legato transition’s playback.

By playing softly (around a velocity range of 50-60) a longer legato transition time will playback, allowing slow music to breathe more. By playing more forcefully (within a velocity range of 110-127), a shorter legato transition time will playback, tightening up the timing between notes. When MIDI Velocity is being used to control Legato Speed, it does not affect loudness.

The forced monophonic behavior in the ‘Other’ script can be turned on and off by sending a values on MIDI CC22. Send values between 0 and 63 to enable polyphony, and values between 64 and 127 to enable monophonic behavior. MIDI Velocity sensitivity will continue to affect legato transition time unless the ‘Other’ button is turned off from the PLAYER interface. Please be aware that disabling monophonic behavior runs the risk of inadvertently playing back unwanted legato transitions when there is more than one melodic line being played.

## **Repetition**

Repetition refers to the playing of a single note in rapid succession within a phrase. Turning on this button causes repeating notes to sound slightly different, avoiding the so-called “machine gun” effect.

The Repetition script is not the same as using an instrument with Round Robin (RR) samples. Instead of ensuring identical playback every time the same track is bounced to audio (by using Round Robin Reset button described below), a subtle randomization of playback is the feature. You need to decide how important repeatability is when selecting either an instrument that uses RR samples or applying the Repetition script to one that does not.

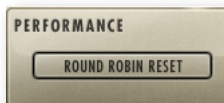
## **Con Sordino**

The script emulates Con Sordino string playing by applying a special filtering technique. The term itself means “with mute”, which describes the sound created when a mute is attached to the strings near the bridge that dampen the vibration, creating a sound with diminished overtones.

## Round Robin Reset Button

A round robin articulation is one in which several different samples are recorded with all parameters, such as volume, speed of attack, and so on, being essentially constant. The PLAY Engine then knows to alternate between the two or more samples during playback. The goal is to avoid what's often called the "machine gun" effect in which playing the same sampled note repeatedly causes the unnatural sound of consecutive notes being mechanically identical.

Any articulation with "RR" in its name uses round robin technology. Those with an "x3," "x4," etc, use 3, 4, or more different samples for each note. Check the third column in the tables of instruments: if that column contains a number other than 1, then it's a round robin instrument.

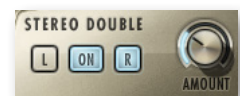


There's one potential problem with round robin technology, and one way to solve it is the Round Robin Reset button. The PLAY Engine remembers which sample should be played the next time the note sounds. If, for example, a round-robin patch contains two samples, A and B, and a piece uses that note 7 times over the whole piece, the PLAY Engine plays A B A B A B A. If the piece is played again from the beginning, the engine will play starting with B, because that's next in order. The second rendition will be subtly different. Being able to reset all round-robin articulations to the beginning of the cycle allows for consistent playback.

You can use this button to reset all round robin articulations on demand. Or use your choice of a MIDI note or MIDI Continuous Controller (CC) to reset them one instrument at a time from a MIDI keyboard or the data stored in a sequencer project. See the description of the Settings dialog (in the main PLAY System manual) for more information about this articulation-specific approach.

## Stereo Double Controls

This knob, with its three buttons, gives the user the option of using exclusively the left stereo signal or right when "Stereo" is selected from the Channel Source drop-down. For any other setting, this control has no effect.



The knob lets the user determine the spread of the signals, how far apart the ear perceives the stereo channels to be. A value of 0% brings the two channels together at the center (unless the Pan knob positions the output differently), and is the equivalent of turning off the controls with the button to the left of the knob. A value of 100% calls for the maximum spread available. Select between the left and right signal with the L and R buttons, respectively.

## Reverb Controls

The common features of the Reverb Controls are explained in the main PLAY System manual. Below are the two features included in the Hollywood Series user interface.

## The Master Button

When this button is pressed and the On light is illuminated, the Reverb for this instrument applies to all the other instruments in this instance of PLAY, including instruments from libraries that do not include a Master button.

If the Master button is already engaged in another instrument in the current instance of PLAY, and the Master button is pressed in a new instrument, then the settings in the user interface (GUI) of the new instrument become the settings for all instruments in this PLAY instance.

The processing of high-quality reverb can be very CPU-intensive and it is often the case that you want to use the same reverb on all the instruments in an audio track. Engaging the Master Reverb button allows you to run a single instance of the reverb processor and have the effect apply to multiple instruments.



Turning on 'Master' will make all other instruments in this instance share this reverb, other send effects, and settings. This is designed to conserve DSP resources and therefore tax your CPU less overall. Note that the volume and pan of the 'Master' Instrument will also affect the overall reverb return signal when used in this manner.

Close

When you engage the Master button, PLAY puts up a warning message, as shown above, to remind you that the reverb settings in this instrument will now apply to all instruments in this instance of PLAY.

## The Pre-Delay Knob

Increasing this level delays the onset of the reverb so that the initial section of the sample is unaffected. This feature allows the sound of each attack to maintain its true color while the rest of the note still gains the benefit of the reverb effect.

## Envelope Controls

The Envelope Controls are described in the main PLAY System manual because they are common to all PLAY System libraries. Only some instruments include the graph, as shown to the right.

Note that the total width of the graph represents the total length of all phases of the envelope. Therefore, when you change something in one part of the graph, for example, the length of the decay, you may see the slopes of other components, the attack and the release, change as well because those phases become a larger or smaller percent of the whole; this is as expected.



## Articulations Window

In the center of the Player view is a control that lists the articulations available in the currently selected instrument. Often this list is short, containing only the one articulation given in the instrument name.

The checkboxes at the left of the control allow you to deactivate any articulation (turn it off while leaving its samples in memory) or, separately, to unload the samples from memory. The small knobs in the third column allow you to adjust the loudness of each articulation without affecting the loudness of the others.

## Browser View

The Browser behaves identically among all PLAY System libraries. Read the main PLAY System manual for information about how to use that view.



## 4. Hollywood Harp: Instruments and Articulations

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# Hollywood Harp: Instruments and Articulations

The EastWest/Quantum Leap Hollywood Harp virtual instrument is a library designed to work together seamlessly with the Hollywood Orchestra series. While it includes the same number of microphone positions, and many of the same features, there is a key difference outlined below.

- The microphone configuration is designed for solo instruments, as opposed to a full orchestra. Instead of the surround and vintage surround microphone positions used in the Hollywood Orchestra series, the Hollywood Harp supplements the close and mid microphone positions with vintage alternatives.

This library contains a Harp with a multitude of articulations that a Harp is capable of. The following pages include a table that lists each instrument in the Hollywood Harp library. You might want to print out the pages containing this table as a reference.

## Overview of Instruments

Each instrument file (with extension .ewi in the Browser view) is comprised of one or more articulations. The instrument files that contain multiple articulations are programmed to trigger those articulations in several different ways, including:

- via MIDI Velocity
- by moving the Mod Wheel (CC1)
- by selecting a corresponding Keyswitch (KS)

Most of the remaining chapter documents the instruments and articulations contained in the Hollywood Harp.

## Instruments Categories

The Hollywood Harp is divided into 3 categories. In the Browser, they will appear as the following separate folders:

- 01 Maestro Patches
- 02 Individual Articulation Patches
- 03 FX

Please note, the number at the start of each category name is there to make sure this list always appears in this order within the Browser. These categories appear as section headers within the following table to help you find instrument files in the tables and in the Browser.

## Controlling Dynamics

As discussed in multiple places within EastWest manuals, there are several ways you can affect how loudly instruments in Hollywood Harp are playing:

- MIDI Velocity
- Volume, CC 7
- Expression, CC 11

## Table of Instruments

The following table lists the instrument files available in the Hollywood Harp.

HOLLYWOOD HARP INSTRUMENTS
01 MAESTRO PATCHES
Harp Angels Bisbigliando MOD
Harp Angels Harmonics
Harp Angels
Harp KS Master C0-G#0
Harp Maestro Bisbigliando MOD
Harp Maestro.ewi
Harp Sus RR Bisbigliando MOD
Harp Sus RR
02 INDIVIDUAL ARTICULATION PATCHES
Harp Bisbigliando
Harp Dbl Hit
Harp Gliss Technique
Harp Harmonics
Harp Nail Pick
Harp Pluck Long
Harp Pres de la table
Harp Rep
Harp Thumb Pick
03 FX
Harp FX
Harp Gliss Angelic
Harp Gliss

## Instrument Types

The following paragraphs explain some of the various types of instruments (.ewi files) available in Hollywood Harp.

### 01 Maestro Patches

The 01 Maestro folder contains ‘combo’ instruments that are made up of multiple articulations. Instruments that include ‘MOD’ in the instrument name rely on cross fading between articulations using the Mod Wheel (CC1), while others trigger different articulations based on MIDI Velocity value. Also included in this folder is a KS Master instrument that allows you to select between articulations using keyswitches located outside of the instrument range and highlighted in blue on Play’s virtual keyboard. The various types of instruments are described below.

#### Angels

The instrument named Angels is a combination of two articulations that are triggered based on MIDI Velocity input. The lower range of MIDI Velocity will trigger the Gliss Technique articulation, while the very top range triggers the Nail Pick articulation.

#### Angels Bisbigliando MOD

This instrument is made up of a Double Hit (Dbl Hit) articulation whose dynamic is MIDI Velocity sensitive, and a Bisbigliando articulation that can be blended in with the Mod Wheel. When the Mod Wheel is at a value of 0, the Bisbigliando articulation is silent.

#### Angels Harmonics

This instrument is similar to the Angels patch in that it is a combination of two articulations that are triggered based on MIDI Velocity input. Here, the lower range of MIDI Velocity range will trigger Gliss Technique articulation, while the top range triggers Harmonics.

#### Maestro

The Maestro instrument is made up of three articulations that are triggered based on MIDI Velocity input. The lower third of the MIDI Velocity range is the Double Hit Rep articulation, the middle range is a Gliss Technique, and the very top range is a Nail Pick.

#### Maestro Bisbigliando MOD

This instrument is the same as the main Maestro patch, only programmed to blend in the Bisbigliando articulation with the Mod Wheel (CC1). When the Mod Wheel is at a value of 0, the Bisbigliando articulation is silent.

#### Sustain RR

This instrument is made up of three articulations that are triggered based on MIDI Velocity input and Round Robin functionality. In the very top range of the MIDI Velocity a Nail Pick articulation will sound, and in the lower MIDI Velocity range, Pluck Long (RR1) and

Thumb Pick (RR2) will cycle between each other via Round Robin. Please note these two articulations are also velocity scaled with multiple dynamics, so that the harder you play the volume dynamic and timbre will be affected.

### **Sustain RR Bisbigliando MOD**

This instrument is the same as the main Sus RR patch, only programmed to blend in the Bisbigliando articulation with the Mod Wheel (CC1). When the Mod Wheel is at a value of 0, the Bisbigliando articulation is silent.

### **Important Note About Round Robin Functionality**

If you follow the rules below, you can increase the likelihood of consistent and realistic playback of instruments that contain round robin (abbreviated RR).

- The round robin technology does not know whether you've restarted the same piece. If a piece ends with a RR1 sample, and you restart the piece without reopening PLAY, the next time the playback will start with a RR2 sample, because that's next in the alternation. You can fix this problem—making each playback the same as the last—by doing a round robin reset. You can do that with the button in the Hollywood Harp UI; or, even better, you can assign a round robin reset event to a MIDI note (one out of range for this instrument) and the sequencer will do a reset each time you start playback. You can set this value in the Other tab of the Settings Dialog. Note numbers are consecutive with Middle C being number 60. The 32 shown in the image is what EastWest calls A0, a little more than two octaves below Middle C. Note that round robin resets apply only to the instrument(s) assigned to the MIDI channel that contains this MIDI event.
- If you frequently play a sequence from any arbitrary spot in the middle, you may want to place round robin reset events at important positions throughout the sequence to force a reset of which of the alternatives to play next.

### **KS Master C0 - G#0**

The KS Master instrument allows you to select between articulations using keyswitches located outside of the instrument range and highlighted in blue on Play's virtual keyboard. The MIDI note number and associated articulations included are:

- C0 - Pluck Long
- C#0 - Thumb Pick
- D0 - Nail Pick
- D#0 - Gliss Technique
- E0 - Rep
- F0 - Double Hit
- F#0 - Harmonics
- G0 - Bisbigliando

## 02 Individual Articulation Patches

The 02 Individual Articulation folder contains instruments that are made up of a single articulation. They are programmed with multiple dynamic layers that are sensitive to MIDI Velocity. Below is a description of the articulation each instrument contains.

### **Bisbigliando**

These instruments employ a technique of moving fingers back and forth across the strings in a light and rapid manner to produce a special tremolo effect.

### **Double Hit (Dbl Hit)**

A technique in which the note is played twice in quick succession.

### **Gliss Technique**

This is a technique in which the fingers slide across the strings to produce a fast scale.

### **Harmonics**

These instruments provide a way to modify the timbre of an instrument, or to reach notes normally out of an instrument's range. It is a note's partial, void of the fundamental frequency. This produces a timbre generally characterized as transparent and hollow.

### **Nail Pick**

A technique in which the player picks the string with their nail.

### **Pluck**

A traditional technique where the player plucks the string with their fingers.

### **Pres de la table**

This is a French phrase which translates to "near the soundboard". The resulting sound is more dry and bright than produced with normal playing.

### **Repetition (Rep)**

The sound of a note re-triggered before the preceding note comes to rest. This sound is more realistic than just repeating the same note over and over from some other patch because you hear the continuity of the sound within the sample.

### **Thumb Pluck**

A traditional technique where the player plucks the string with their thumb.



## 03 FX

The instruments in this folder include special FX and glissando performances. A single sample is mapped to each note, and only white keys are used. For glissandos, a table is provided that details the MIDI note number that each performance is mapped to, as well as the root note and scale of the glissando.

### FX

This instrument contains a variety of unusual FX that a Harp can produce. It includes various scrapes, hits and otherwise non-traditional techniques.

### Gliss Angelic

This instrument contains a variety of overlapping glissando performances that span multiple octaves.

GLISS ANGELIC PERFORMANCE MAP		
MIDI NOTE #	ROOT NOTE	SCALE
C0	F#	Major
D0	F#	Major
E0	F	Major
F0	F	Major
G0	E	Phrygian
A0	E	Phrygian
B0	G#	Minor
C1	G#	Minor
D1	D#	Major
E1	D#	Major
F1	F	Minor
G1	F	Minor
A1	D#	Minor
B1	D#	Minor
C2	F	Phrygian
D2	F	Phrygian
E2	E	Locrian
F2	E	Locrian
G2	E	Minor
A2	E	Minor
B2	[none]	[none]

## HOLLYWOOD SOLO INSTRUMENTS

C3	F#	Major
D3	F#	Major
E3	F	Major
F3	F	Major
G3	E	Phrygian
A3	E	Phrygian
B3	G#	Minor
C4	G#	Minor
D4	D#	Major
E4	D#	Major
F4	F	Minor
G4	F	Minor
A4	D#	Minor
B4	D#	Minor
C5	F	Phrygian
D5	F	Phrygian
E5	E	Locrian
F5	E	Minor
G5	E	Minor

### Gliss

This instrument contains a variety of glissando performances that span multiple octaves.

GLISS PERFORMANCE MAP		
MIDI NOTE #	ROOT NOTE	SCALE
C1	G	Major
D1	F#	Major
E1	F	Major
F1	F#	Major
G1	F	Lydian
A1	F#	Major
B1	F	Major

## HOLLYWOOD SOLO INSTRUMENTS

C2	F#	Major
D2	F	Major
E2	E	Phrygian
F2	G#	Minor
G2	D#	Major
A2	F	Minor
B2	D#	Minor
C3	F	Phrygian
D3	E	Locrian
E3	A	Minor
F3	F#	Major
G3	F	Major
A3	F	Lydian
B3	G#	Minor
C4	D#	Major
D4	F	Minor
E4	A#	Locrian
F4	F	Phrygian
G4	E	Locrian
A4	E	Phrygian
B4	B	Locrian



## 5. Hollywood Solo Cello: Instruments and Articulations

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# Hollywood Solo Cello: Instruments and Articulations

The EastWest/Quantum Leap Hollywood Solo Cello virtual instrument is a library designed to work together seamlessly with the Hollywood Orchestra series. While it includes the same number of microphone positions, and many of the same features, there are a few key differences that are outlined below.

- The microphone configuration is designed for solo instruments, as opposed to a full orchestra. Instead of the surround and vintage surround microphone positions used in the Hollywood Orchestra series, the Hollywood Solo Cello supplements the close and mid microphone positions with vintage alternatives.
- In the Hollywood Solo Cello, dynamics and vibrato depth are linked together on the Mod Wheel (CC1), whereas the Hollywood Orchestra series offers independent control of dynamics and vibrato depth.
- A new type of Legato instrument is available (Legato Sus Slur) that combines the legato and sustain articulations into one sample layer, allowing for more continuity over the duration of a note. Please see the Instrument Type section below for more details.

The following pages include a basic overview of the instrument design, how the instruments are organized, a table of instruments, and a detailed description of each individual instrument, including the specific articulations and programming techniques used.

## Overview of Instruments

Each instrument file (with extension .ewi in the Browser view) is comprised of one or more articulations. The instrument files that contain multiple articulations are programmed to trigger those articulations in the following ways...

- by moving the Mod Wheel (CC1)
- through the Graphical User Interface (GUI)
- by selecting a corresponding Keyswitch (KS)
- by using Performance scripting

## Instrument Categories

Hollywood Solo Cello is divided into 5 categories. In the Browser, they appear as 5 separate folders. They are:

- 01 Long Solo
- 02 Long
- 03 Short
- 04 Keyswitch
- 05 Legato

## Achieving Realistic Performance

### The Mod Wheel (CC1)

The following topics are covered in greater detail in Chapter 7 (Programming Techniques) under the section “Volume, Velocity, Expression and the Mod Wheel”, but are worth mentioning here briefly to introduce the concept.

In order to achieve realistic results, the instruments in Hollywood Solo Cello use MIDI Continuous Controllers (CC's) to control loudness, dynamic layers and/or vibrato depths. Being able to change loudness, timbre, and vibrato continuously and mid-note, allows you to shape musical lines the way a live musician would.

The Mod Wheel (CC1) is used to cross-fade between multiple sample layers of varying dynamic levels and vibrato depths. As an example, take the Sus NV NV VB instrument. It is programmed with three sample layers of varying dynamic levels and vibrato depths. Starting with the Mod Wheel all the way down, you can write a musical line that begins completely silent and gradually crescendos through the *p* and *mf* non-vibrato (NV) layers as you push the Mod Wheel (CC1) up until you reach the top on the *f* vibrato (VB) layer.

MIDI Continuous Controllers (CC's) can also be automated in a DAW, including CC1 (which the Mod Wheel sends). If you prefer to automate CC's manually as opposed to recording it in live, navigate to the CC controller lane in your DAW and automate values between 0 and 127 (the range of values defined by MIDI specification).

### Volume (CC7), Expression (CC11) and MIDI Velocity

Volume (CC7) is used to set the overall instrument volume. It's recommended that you set each instrument's starting loudness by inputting a value in your DAW's Volume (CC7) controller lane at the beginning of the composition to set the relative balance among all instruments in your project.

Expression (CC11) is used to change an instrument's loudness within an individual line of music, or phrase. This allows you to shape dynamics to create crescendos or decrescendos in the middle of a note or phrase. It's also recommended that you set a starting value for Expression (CC11) in your DAW as well.

MIDI Velocity is typically used on shorter articulations to affect an instrument's loudness depending on how soft or hard you play the notes. An exception to this is the way MIDI Velocity is used in Legato instruments, where it controls a performance script that determines the legato transition speed between notes (more on that below). When used in this way, MIDI Velocity does not control loudness.

In general, if you find that an instrument is not responding to one of the ways of specifying loudness, try using one of the other means.

## Table of Instruments

The following table lists the instrument files available in the Hollywood Solo Cello. This table does not explore the articulations available within each instrument file. That level of detail can be found under Instrument Types section below.

<b>HOLLYWOOD SOLO CELLO INSTRUMENTS</b>
<b>01 LONG SOLO</b>
Solo Cello Flautando Solo
Solo Cello Grand Detache RR Solo
Solo Cello Lyr Vib Solo
Solo Cello Sus Exp Solo
Solo Cello Sus LtVib Solo
Solo Cello Sus Non Vib Solo
Solo Cello Sus NV NV VB Solo
Solo Cello Sus NV VB VB Solo
Solo Cello Tremolo Solo
<b>02 LONG</b>
Solo Cello Flautando
Solo Cello Grand Detache RR
Solo Cello Lyr Vib
Solo Cello Sus Exp
Solo Cello Sus LtVib
Solo Cello Sus Non Vib
Solo Cello Sus NV NV VB
Solo Cello Sus NV VB VB
Solo Cello Tremolo
<b>03 SHORT</b>
Solo Cello Marc Lng Vib RR
Solo Cello Marc Shrt RRx4
Solo Cello Pizz RRx4
Solo Cello Sforzando
Solo Cello Spiccato RRx4
<b>04 KEYSWITCH</b>
Solo Cello Shrt KS C0-F0
Solo Cello Sus KS C0-G0 Solo
<i>continued</i>



## HOLLYWOOD SOLO CELLO INSTRUMENTS

Solo Cello Sus KS C0-G0

### 05 LEGATO

Solo Cello Leg Bow Change Fast

Solo Cello Leg Bow Change Smooth

Solo Cello Leg Bow Change

Solo Cello Leg Runs

Solo Cello Leg Slur

Solo Cello LegSus Slur

## Instrument Types

The following paragraphs explain some of the various types of instruments (.ewi files) available in Hollywood Solo Cello, divided into their respective sub-folders.

### 01 Long Solo

This folder contains a collection of instruments that encompass the articulations that the Hollywood Solo Cello can use to generate long sounds, including sustain instruments with varying levels of vibrato (or none at all) and playing styles like flautando and tremolo.

By default, all the instruments in this folder have the Legato Performance script enabled, which forces monophonic behavior. The legato script also disables release trails and turns on reverb to ensure smooth playback of melodic lines. Other than these features, the instruments are identical to those in the 02 Long folder.

Please refer to the instrument descriptions in the 02 Long category below. For more information regarding Performance Scripts, please see Chapter 3.

### 02 Long

This folder contains the same set of instruments as the 01 Long Solo folder, except the Legato script is turned off by default. This disables the forced monophonic behavior, so that a double stop (or other polyphonic writing) can be played.

Below are descriptions for each of the instrument types, including the articulations they are comprised of and programming techniques used.

#### Flautando

Here, the player uses the point of the bow near the fingerboard to create an ethereal, non-vibrato sound with a breathy quality. This instrument is made up of a single articulation that uses looped samples and responds to the Mod Wheel (CC1) and Expression (CC11) to control loudness.

## Grand Détaché RR

Détaché means “separated” in English. The notes played in this style do not have a legato connection to the following note, but instead come to a well defined end. MIDI Velocity and Expression (CC11) control loudness, and 2 Round Robin (RR) samples per note are available.

## Lyrical Vibrato (Lyr Vib)

This is a style of playing that is suggestive of singing. This instrument is made up of a single articulation that uses looped samples. It responds to the Mod Wheel (CC1) to cross-fade between multiple dynamic layers and Expression (CC11) to control loudness.

## Sustain Expressive (Sus Exp)

This variety of sustain has the most pronounced vibrato (molto vibrato). Unlike the other sustain instruments it is not looped because its expressive nature makes this undesirable. It responds to the Mod Wheel (CC1) to cross-fade between multiple dynamic layers and Expression (CC11) to control loudness.

## Sustain Light Vibrato (Sus LtVib)

This variety of sustain has a moderate amount of vibrato and continues to play a note audibly as long as the note is held by using looped samples. It responds to the Mod Wheel (CC1) and Expression (CC11) to control loudness.

## Sustain Non Vibrato (Sus Non Vib)

This variety of sustain has an absence of vibrato which creates a stark, opaque sound quality. This instrument is made up of a single articulation that uses looped samples. It responds to the Mod Wheel (CC1) to cross-fade between multiple dynamic layers and Expression (CC11) to control loudness.

## Sustain NV NV VB

This instrument has three sample layers of varying dynamic levels and vibrato depths and uses the Mod Wheel (CC1) to cross-fade between them. The *p* and *mf* dynamics use the Sustain Non Vibrato articulation and a top *f* dynamic uses the Sustain Light Vibrato articulation. It continues to play a note audibly as long as the note is held by using looped samples.

## Sustain NV VB VB

This instrument has three sample layers of varying dynamic levels and vibrato depths and uses the Mod Wheel (CC1) to cross-fade between them. The lowest *p* dynamic is Sustain Non Vibrato, the middle *mf* dynamic is Sustain Light Vibrato, and the top *f* dynamic is Lyrical Vibrato. It continues to play a note audibly as long as the note is held by using looped samples.

## **Tremolo**

This articulation is produced by playing fast, alternating up and down bow strokes repeatedly on the same note. In order to accommodate characteristic tremolo writing, where long-held passages with crescendos and decrescendos are played, the samples are looped and both Mod Wheel (CC1) and Expression (CC11) can be used to control loudness.

## **03 Short**

This folder contains a collection of instruments that encompass articulations that the Solo Cello can use to generate short sounds, including various plucking and bowing techniques. Most of the instruments respond to MIDI Velocity to control loudness and have multiple Round Robin samples per note.

### **Marcato Long Vibrato RR**

This instrument contains notes of a moderate duration that begin with a strong accent. MIDI Velocity and Expression (CC11) control loudness, and 2 Round Robin (RR) samples per note are available.

### **Marcato Short RRx4**

This instrument contains notes of a short duration that begin with a strong accent. Multiple dynamic levels are scaled and respond to MIDI Velocity, Expression (CC11) controls loudness, and there are 4 Round Robin (RR) samples per note.

### **Pizzicato RRx4**

This technique involves plucking one or more strings at a time to create a brief, characteristic sound that has the power to cut through a loud orchestral section. Multiple dynamic levels are scaled and respond to MIDI Velocity, Expression (CC11) controls loudness, and there are 4 Round Robin (RR) samples per note.

### **Sforzando**

This articulation is characterized by a sudden, strong accent and uses MIDI Velocity and Expression (CC11) to control loudness.

### **Spiccato**

In this style of playing, notes of very short duration are created by bouncing the bow on the string for a very short time. In this instrument, there are multiple dynamic levels that respond to MIDI Velocity. Expression (CC11) is used to control loudness, and there are 4 Round Robin (RR) samples per note.

## 04 Keyswitch

A keyswitch instrument allows you to select between various articulations using keyswitches that are located outside the instrument's range (highlighted in blue on Play's virtual keyboard). The articulations themselves can be viewed in the Articulation Window in the center of the PLAYER interface, along with their keyswitch assignments. When using a keyswitch instrument in your DAW (to switch between different articulations on a single track), it's important to draw the desired keyswitch notes into the sequence just prior to each phrase to ensure the desired articulation plays back the sequence. The articulations included within a keyswitch instrument are also available as self contained instruments (.ewi) and retain the same programming techniques throughout. Please see the instrument descriptions in this chapter for details on the individual articulations contained within each keyswitch instrument.

### Solo Cello Shrt KS C0-F0

The KS Shrt instrument allows you to select between a variety of short articulations. Below are the available articulations and their associated MIDI note number, whose range is highlighted in blue on Play's virtual keyboard.

- C0 Grand Detache RR
- C#0 Marc Lng RR
- D0 Marc Shrt RR
- D#0 Spiccato RRx4
- E0 Pizzicato RRx4
- F0 Sforzando

### Solo Cello Sus KS C0-F0

The KS Master instrument allows you to select a variety of sustain articulations. Below are the available articulations and their associated MIDI note number, whose range is highlighted in blue on Play's virtual keyboard. The "Solo" version of this instrument has the Legato performance script enabled, which forces monophonic behavior, disables release trails and turns on reverb to ensure smooth playback of melodic lines.

- C0 Sus Non Vib
- C#0 Sus LtVib
- D0 Sus LyrVib
- D#0 Sus Exp
- E0 Sus NV NV VB
- F0 Sus NV VB VB
- F#0 Flautando
- G0 Tremolo

## 05 Legato

### Using Legato Instruments in Varying Contexts

This folder contains a variety of different types of legato instruments. Which type to use will depend on the tempo, the size of the intervals between notes, and your preferences as an orchestrator.

Each instrument includes multiple sample layers to handle different aspects of legato playing. A legato sample layer will trigger when playing connected notes, and a looped sustain sample layer will playback when you begin a note, hold a note, or end a phrase.

The types of legato instruments that are available to handle different types of legato playing are: Legato Bow Change, Legato Runs, Legato Slur and Legato Sus Slur. Please see their instrument descriptions below.

### A Note About the ‘Other’ True Legato Performance Script

The instruments in the 04 Legato folder have the ‘Other’ script applied by default. This script forces monophonic behavior and uses MIDI Velocity input to adjust the timing of the legato transitions between the sustain sample layers.

The forced monophonic behavior can be bypassed (without disabling the script entirely) by sending a value between 0 and 63 on MIDI Continuous Controller (CC22). With proper use, this allows you to play polyphonic lines while gliding into the next note.

For instance, you can set MIDI CC22 to a value between 0 and 63, play a chord, then set MIDI CC22 to a value between 64 and 127. This will cause the last note of the chord to “glide” into the next played note, while other notes in the chord play without being killed.

### Legato Bow Change

During a legato passage, string players often have to change the direction of the bow out of necessity, but sometimes do so for effect. In Hollywood Solo Cello you’re given the option of using this articulation any time it suits your needs. The sound of the bow changing direction has a characteristic sound that is independent of a slur.

There are several different versions of the Legato Bow Change instrument, including Legato Bow Change Fast and Legato Bow Change Smooth. They contain modified performance scripts, use different sustain sample layers and have unique Mod Wheel implementation to better suit the playing style their name characterizes.

The Mod Wheel (CC1) is used to cross-fade between multiple dynamic levels and shape overall loudness in both the regular Legato Bow Change and Legato Bow Change Smooth instruments, with Expression (CC11) also available to control loudness. In the Legato Bow Change Fast instrument, both the Mod Wheel (CC1) and Expression (CC11) are used to control loudness.

In the Legato Bow Change Fast instrument, playing two connected (legato) notes up to an octave in either direction will trigger a legato bow change layer that transitions the initial note into a non-looped grand detache sample layer. Playing disconnected will also playback a non-looped grand detache sample layer with two round robin alternations.

In the Legato Bow Change Smooth instrument, the ‘Other’ performance script has been modified to respond better to a smooth playing style. Otherwise, both the Legato Bow Change and smooth variation are the same. Playing two connected (legato) notes up to an octave in either direction will trigger a legato bow change layer that transitions the initial note into a looped sustain layer where the Mod Wheel (CC1) is used to cross-fade between the *mp* dynamic of light vibrato and the *f* dynamic of lyrical vibrato. Playing disconnected (non-legato) notes will also playback the looped sustain layers with Mod Wheel used to cross-fade between dynamics. Beyond an octave, no legato transition will be heard, but the sustain layer will playback.

### Legato Runs

This instrument allows you to generate the sound of a run by playing the notes in real-time, allowing greater control than pre-recorded runs. It is intended to be played at fast tempos to reflect string writing for runs, and uses the Mod Wheel (CC1) and Expression (CC11) to control loudness. There are two round robin alternations for both the legato runs and grand detache layers.

Playing two connected (legato) notes up to a minor 3rd in either direction will trigger a legato runs layer that transitions the initial note into a non-looped grand detache layer. Playing two connected (legato) notes above a minor 3rd and up to an octave functions the same way, only with a legato bow change layer to transition between sustain layers. Playing disconnected (non-legato) will trigger a non-looped grand detache sample layer.

### Legato Slur

In the Legato Slur instrument, you hear the pitch start to move in the direction of the next note as the first note is ending. The pitch jumps over most of the intervening notes, with only the start and end of the slide heard in the transition. This instrument is best when used at slow to medium tempos, and uses the Mod Wheel (CC1) to cross-fade between multiple dynamic levels and shape overall loudness. Expression (CC11) is also available to control loudness.

Playing two connected (legato) notes up to an octave in either direction will trigger a legato slur layer that transitions the initial note into a looped sustain layer. The legato slur layer has *mp* and *f* dynamic levels, and the sustain layer is made up of an *mp* light vibrato and *f* lyrical vibrato. Use the Mod Wheel (CC1) to cross-fade between these dynamic levels in real-time. Playing disconnected (non-legato) will also playback the sustain layers mentioned above, with the same Mod-Wheel functionality. Beyond an octave no legato transition will be heard, but the sustain layer will playback.

### Legato Sustain Slur

This instrument is similar to Legato Slur, except that instead of separate layers for the legato and sustain portions, each sample is sustained at the end of the legato transition, which is then looped for continuous playback. This works particularly well on solo instruments because it allows for more continuity over the duration of a note as opposed to cross-fading between separate sample layers. Like the Legato Slur instrument, it's best at slow to moderately fast tempos.

Please note that because the legato and sustain articulations are continuous, and the legato intervals are sampled within an octave in either direction from the source note, nothing beyond an octave will be heard when playing connected (legato) notes. In cases where your writing requires this, we recommend using the Legato Slur instrument, which will play a sustain layer when outside the range of the legato transition sample layer.

The Legato Sustain Slur instrument also has unique programming of the Mod Wheel (CC1) based on its design. Playing two connected (legato) notes when the Mod Wheel (CC1) is between 0 and 63 will trigger the *mp* dynamic of the legato sustain slur layer, and when the Mod Wheel is between 64 and 127 the *f* dynamic of the legato sus slur layer will play. Playing disconnected (non-legato) when the Mod Wheel (CC1) is between 0 and 63 will play the *mp* dynamic of light vibrato, and when the Mod Wheel is between 64 and 127 the *f* dynamic of lyrical vibrato layer will playback.

Once the dynamic layer is triggered and the note is held into the looped sustained portion, either the Mod Wheel (CC1) or Expression (CC11) can be used to control loudness mid-note. However, because the legato and sustain articulations are continuous, and the dynamic layer that plays back is triggered based on the initial Mod Wheel value, the dynamics cannot be shaped mid-note.





## 6. Hollywood Solo Violin: Instruments and Articulations

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# Hollywood Solo Violin: Instruments and Articulations

The EastWest/Quantum Leap Hollywood Solo Violin virtual instrument is a library designed to work together seamlessly with the Hollywood Orchestra series. While it includes the same number of microphone positions, and many of the same features, there are a few key differences that are outlined below.

- The microphone configuration is designed for solo instruments, as opposed to a full orchestra. Instead of the surround and vintage surround microphone positions used in the Hollywood Orchestra series, the Hollywood Solo Violin supplements the close and mid microphone positions with vintage alternatives.
- In the Hollywood Solo Violin, dynamics and vibrato depth are linked together on the Mod Wheel (CC1), whereas the Hollywood Orchestra series offers independent control of dynamics and vibrato depth.
- A new type of Legato instrument is available (Legato Sustain) that combines legato and sustain articulations into one sample layer, allowing for more continuity over the duration of a note. Please see the Instrument Type section below for more details.

The following pages include a basic overview of the instrument design, how the instruments are organized, a table of instruments, and a detailed description of each individual instrument, including the specific articulations and programming techniques used.

## Overview of Instruments

Each instrument file (with extension .ewi in the Browser view) is comprised of one or more articulations. The instrument files that contain multiple articulations are programmed to trigger those articulations in the following ways...

- by moving the Mod Wheel (CC1)
- through the Graphical User Interface (GUI)
- by selecting a corresponding Keyswitch (KS)
- by using Performance scripting

## Instrument Categories

Hollywood Solo Violin is divided into 5 categories. In the Browser, they appear as 5 separate folders. They are:

- 01 Long Solo
- 02 Long
- 03 Short
- 04 Keyswitch
- 05 Legato

## Achieving Realistic Performance

### The Mod Wheel (CC1)

The following topics are covered in greater detail in Chapter 7 (Programming Techniques) under the section “Volume, Velocity, Expression and the Mod Wheel”, but are worth mentioning here briefly to introduce the concept.

In order to achieve realistic results, the instruments in Hollywood Solo Violin use MIDI Continuous Controllers (CC’s) to control loudness, dynamic layers and/or vibrato depths. Being able to change loudness, timbre, and vibrato continuously and mid-note, allows you to shape musical lines the way a live musician would.

The Mod Wheel (CC1) is used to cross-fade between multiple sample layers of varying dynamic levels and vibrato depths. As an example, take the Sus NV NV VB instrument. It is programmed with three sample layers of varying dynamic levels and vibrato depths. Starting with the Mod Wheel all the way down, you can write a musical line that begins completely silent and gradually crescendos through the *p* and *mf* non-vibrato (NV) layers as you push the Mod Wheel (CC1) up until you reach the top on the *f* vibrato (VB) layer.

MIDI Continuous Controllers (CC’s) can also be automated in a DAW, including CC1 (which the Mod Wheel sends). If you prefer to automate CC’s manually as opposed to recording it in live, navigate to the CC controller lane in your DAW and automate values between 0 and 127 (the range of values defined by MIDI specification).

### Volume (CC7), Expression (CC11) and MIDI Velocity

Volume (CC7) is used to set the overall instrument volume. It’s recommended that you set each instrument’s starting loudness by inputting a value in your DAW’s Volume (CC7) controller lane at the beginning of the composition to set the relative balance among all instruments in your project.

Expression (CC11) is used to change an instrument’s loudness within an individual line of music, or phrase. This allows you to shape dynamics to create crescendos or decrescendos in the middle of a note or phrase. It’s also recommended that you set a starting value for Expression (CC11) in your DAW as well.

MIDI Velocity is typically used on shorter articulations to affect an instrument’s loudness depending on how soft or hard you play the notes. An exception to this is the way MIDI Velocity is used in Legato instruments, where it controls a performance script that determines the legato transition speed between notes (more on that below). When used in this way, MIDI Velocity does not control loudness.

In general, if you find that an instrument is not responding to one of the ways of specifying loudness, try using one of the other means.

## Table of Instruments

The following table lists the instrument files available in the Hollywood Solo Violin. This table does not explore the articulations available within each instrument file. That level of detail can be found under Instrument Types section below.

HOLLYWOOD SOLO VIOLIN INSTRUMENTS
<b>01 LONG SOLO</b>
Solo Violin Flautando Solo
Solo Violin Grand Detache RR Solo
Solo Violin Lyr Mte Solo
Solo Violin Lyr Vib Solo
Solo Violin Sus Exp Solo
Solo Violin Sus Non Vib Solo
Solo Violin NV NV VB Solo
Solo Violin NV VB VB Solo
Solo Violin Sus Vib Solo
<b>02 LONG</b>
Solo Violin Flautando
Solo Violin Grand Detache RR
Solo Violin Lyr Mte
Solo Violin Lyr Vib
Solo Violin Sus Exp
Solo Violin Sus Non Vib
Solo Violin NV NV VB
Solo Violin NV VB VB
Solo Violin Sus Vib
<b>03 SHORT</b>
Solo Violin Marc Vib RRx4
Solo Violin Martele RRx4
Solo Violin Pizz RRx4
Solo Violin Sforzando
Solo Violin Spiccato RRx4
<b>04 KEYSWITCH</b>
Solo Violin Shrt KS C0-F0
Solo Violin Sus KS C0-G0 Solo
<i>continued</i>

## HOLLYWOOD SOLO VIOLIN INSTRUMENTS

Solo Violin Sus KS C0-G0

### 05 LEGATO

Solo Violin Leg Bow Change Fast

Solo Violin Leg Bow Change Smooth

Solo Violin Leg Bow Change

Solo Violin Leg Exp Vib

Solo Violin Leg Lyr Vib

Solo Violin Leg Runs

Solo Violin Leg Slur

Solo Violin Leg Sus

## Instrument Types

The following paragraphs explain some of the various types of instruments (.ewi files) available in Hollywood Solo Violin, divided into their respective sub-folders.

### 01 Long Solo

This folder contains a collection of instruments that encompass the articulations that the Hollywood Solo Violin can use to generate long sounds, including sustain instruments with varying levels of vibrato (or none at all) and playing styles like flautando and tremolo. By default, all the instruments in this folder have the Legato Performance script enabled, which forces monophonic behavior. The legato script also disables release trails and turns on reverb to ensure smooth playback of melodic lines. Other than these features, the instruments are identical to those in the 02 Long folder. Please refer to the instrument descriptions in the 02 Long category below. For more information regarding Performance Scripts, please see Chapter 3.

### 02 Long

This folder contains the same set of instruments as the 01 Long Solo folder, except the Legato script is turned off by default. This disables the forced monophonic behavior, so that a double stop (or other polyphonic writing) can be performed. Below are descriptions for each of the instrument types, including the articulations they are comprised of and programming techniques used.

#### Flautando

Here, the player uses the point of the bow near the fingerboard to create an ethereal, non-vibrato sound with a breathy quality. This instrument is made up of a single articulation that uses looped samples and responds to the Mod Wheel (CC1) and Expression (CC11) to control loudness.

## Grand Détaché RR

Détaché means “separated” in English. The notes played in this style do not have a legato connection to the following note, but instead come to a well defined end. MIDI Velocity and Expression (CC11) control loudness, and 2 Round Robin (RR) samples per note are available.

## Lyrical Mute (Lyr Mte)

Here, the violin is played in a lyrical style with a mute attached, which dulls the sound into a softer tone with fewer overtones. This instrument is made up of a single articulation that uses looped samples and responds to the Mod Wheel (CC1) and Expression (CC11) to control loudness.

## Lyrical Vibrato (Lyr Vib)

This is a style of playing that is suggestive of singing. This instrument is made up of a single articulation that uses looped samples and responds to the Mod Wheel (CC1) and Expression (CC11) to control loudness.

## Sustain Expressive (Sus Exp)

This variety of sustain has the most pronounced vibrato (molto vibrato). Unlike the other sustain instruments it is not looped because its expressive nature makes this undesirable. It responds to the Mod Wheel (CC1) to cross-fade between multiple dynamic layers and Expression (CC11) to control loudness.

## Sustain Non Vibrato (Sus Non Vib)

This variety of sustain has an absence of vibrato which creates a stark, opaque sound quality. This instrument is made up of a single articulation that uses looped samples. It responds to the Mod Wheel (CC1) to cross-fade between multiple dynamic layers and Expression (CC11) to control loudness.

## Sustain NV NV VB

This instrument has three sample layers of varying dynamic levels and vibrato depths and uses the Mod Wheel (CC1) to cross-fade between them. The *p* and *mf* dynamics use the Sustain Non Vibrato articulation and a top *f* dynamic uses the Sustain Vibrato articulation. It continues to play a note audibly as long as the note is held by using looped samples.

## Sustain NV VB VB

This instrument has three sample layers of varying dynamic levels and vibrato depths and uses the Mod Wheel (CC1) to cross-fade between them. The lowest *p* dynamic is Sustain Non Vibrato, and the middle *mf* and top *f* dynamic are Sustain Vibrato. It continues to play a note audibly as long as the note is held by using looped samples.

## **Sustain Vibrato (Sus Vib)**

This variety of sustain has a moderate amount of vibrato and continues to play a note audibly as long as the note is held by using looped samples. It responds to the Mod Wheel (CC1) to cross-fade between multiple dynamic layers and Expression (CC11) to control loudness.

## **03 Short**

This folder contains a collection of instruments that encompass articulations that the Solo Violin can use to generate short sounds, including various plucking and bowing techniques. Most of the instruments respond to MIDI Velocity to control loudness and have multiple Round Robin samples per note.

### **Marcato Vibrato (Marc Vib) RRx4**

This instrument contains notes of a short duration that begin with a strong accent. MIDI Velocity and Expression (CC11) control loudness, and 4 Round Robin (RR) samples per note are available.

### **Martele RRx4**

Martele is a French word that means “hammered” in English. It involves playing with an accent on the attack and quick, definite release. Multiple dynamic levels are scaled and respond to MIDI Velocity, Expression (CC11) controls loudness, and there are 4 Round Robin (RR) samples per note.

### **Pizzicato (Pizz) RRx4**

This technique involves plucking one or more strings at a time to create a brief, characteristic sound that has the power to cut through a loud orchestral section. Multiple dynamic levels are scaled and respond to MIDI Velocity, Expression (CC11) controls loudness, and there are 4 Round Robin (RR) samples per note.

### **Sforzando**

This articulation is characterized by a sudden, strong accent and uses MIDI Velocity and Expression (CC11) to control loudness.

### **Spiccato RRx4**

In this style of playing, notes of very short duration are created by bouncing the bow on the string. Multiple dynamic levels are scaled and respond to MIDI Velocity, Expression (CC11) controls loudness, and there are 4 Round Robin (RR) samples per note.



## 04 Keyswitch

A keyswitch instrument allows you to select between various articulations using keyswitches that are located outside the instrument's range (highlighted in blue on Play's virtual keyboard). The articulations themselves can be viewed in the Articulation Window in the center of the PLAYER interface, along with their keyswitch assignments. When using a keyswitch instrument in your DAW (to switch between different articulations on a single track), it's important to draw the desired keyswitch notes into the sequence just prior to each phrase to ensure the desired articulation plays back the sequence. The articulations included within a keyswitch instrument are also available as self contained instruments (.ewi) and retain the same programming techniques throughout. Please see the instrument descriptions in this chapter for details on the individual articulations contained within each keyswitch instrument.

### Solo Violin Shrt KS C0-F0

The KS Shrt instrument allows you to select between a variety of short articulations. Below are the available articulations and their associated MIDI note number, whose range is highlighted in blue on Play's virtual keyboard.

- C0 Grand Détaché RR
- C#0 Marcato Vibrato RRx4
- D0 Martele RRx4
- D#0 Spiccato RRx4
- E0 Pizzicato RRx4
- F0 Sforzando

### Solo Violin Sus KS C0-G0

The KS Master instrument allows you to select a variety of sustain articulations. Below are the available articulations and their associated MIDI note number, whose range is highlighted in blue on Play's virtual keyboard. The "Solo" version of this instrument has the Legato performance script enabled, which forces monophonic behavior, disables release trails and turns on reverb to ensure smooth playback of melodic lines.

- C0 Sustain Non Vibrato
- C#0 Sustain Vibrato
- D0 Sustain Lyrical Vibrato
- D#0 Sustain Expressive
- E0 Sustain Lyrical Mute
- F0 Flautando
- F#0 Sustain NV NV VB
- G0 Sustain NV VB VB

## 05 Legato

### Using Legato Instruments in Varying Contexts

This folder contains a variety of different types of legato instruments. Which type to use will depend on the tempo, the size of the intervals between notes, and your preferences as an orchestrator.

Each instrument includes multiple sample layers to handle different aspects of legato playing. A legato sample layer will trigger when playing connected notes, and a looped sustain sample layer will playback when you begin a note, hold a note, or end a phrase.

The types of legato instruments that are available to handle different types of legato playing are: Legato Bow Change (including fast and smooth variations), Legato Expressive Vibrato, Legato Lyrical Vibrato, Legato Runs, Legato Slur and Legato Sustain. Please see their instrument descriptions below.

### A Note About the ‘Other’ True Legato Performance Script

The instruments in the 04 Legato folder have the ‘Other’ script applied by default. This script forces monophonic behavior and uses MIDI Velocity input to adjust the timing of the legato transitions between the sustain sample layers.

The forced monophonic behavior can be bypassed (without disabling the script entirely) by sending a value between 0 and 63 on MIDI Continuous Controller (CC22). With proper use, this allows you to play polyphonic lines while gliding into the next note.

For instance, you can set MIDI CC22 to a value between 0 and 63, play a chord, then set MIDI CC22 to a value between 64 and 127. This will cause the last note of the chord to “glide” into the next played note, while other notes in the chord play without being killed.

### Legato Bow Change

During a legato passage, string players often have to change the direction of the bow out of necessity, but sometimes do so for effect. In Hollywood Solo Violin you’re given the option of using this articulation any time it suits your needs. The sound of the bow changing direction has a characteristic sound that is independent of a slur.

There are several different versions of the Legato Bow Change instrument, including Legato Bow Change Fast and Legato Bow Change Smooth. They contain modified performance scripts, use different sustain sample layers and have unique Mod Wheel implementation to better suit the playing style their name characterizes.

The Mod Wheel (CC1) is used to cross-fade between multiple dynamic levels and shape overall loudness in both the regular Legato Bow Change and Legato Bow Change Smooth instruments, with Expression (CC11) also available to control loudness. In the Legato Bow Change Fast instrument, both the Mod Wheel (CC1) and Expression (CC11) are used to control loudness.

In the Legato Bow Change Fast instrument, playing two connected (legato) notes up to an octave in either direction will trigger a legato bow change layer that transitions the initial note into a non-looped grand detache layer. Playing disconnected will also playback a non-looped grand detache layer. Beyond an octave, no legato transition will be heard, but the grand detache layer will playback. Both of the grand detache layers have two round robin alternations.

In the Legato Bow Change Smooth instrument, playing two connected (legato) notes up to an octave in either direction will trigger a legato bow change layer that transitions the initial note into a looped sustain vibrato layer where the Mod Wheel (CC1) is used to cross-fade between the *pp*, *mf*, and *f* dynamic levels. Playing disconnected (non-legato) notes will also playback the looped sustain vibrato layer with the same Mod Wheel control over dynamics. Beyond an octave, no legato transition will be heard, but the sustain vibrato layer will playback.

In the default Legato Bow Change instrument, playing two connected (legato) notes up to an octave in either direction will trigger a legato bow change layer that transitions the initial note into a looped sustain vibrato layer where the Mod Wheel (CC1) is used to cross-fade between the *pp*, *mf*, and *f* dynamics levels. Playing disconnected (non-legato) will playback a non-looped grand detache sample layer. Beyond an octave, no legato transition will be heard, but the grand detache layer will playback. Both of the grand detache layers have two round robin alternations.

### Legato Expressive Vibrato

This instrument features legato playing in an expressive style. It is best suited for slower tempos and uses the Mod Wheel (CC1) to cross-fade between multiple dynamic levels and shape overall loudness, with Expression (CC11) also available to control loudness.

Playing two connected (legato) notes up to an octave in either direction will trigger a legato vibrato layer that transitions the initial note into a looped sustain vibrato layer. The legato vibrato layer has *mp* and *f* dynamic levels, and the sustain vibrato layer is made up of *pp*, *mf*, and *f* dynamic levels. Use the Mod Wheel (CC1) to cross-fade between these dynamic levels in real time. Playing disconnected (non-legato) will also playback the sustain layers mentioned above, and has the same Mod-Wheel functionality. Beyond an octave no legato transition will be heard, but the sustain vibrato layer will playback.

### Legato Lyrical Vibrato

This instrument allows legato playing in a lyrical style, which is reminiscent of singing. It is intended for use at slow to moderate tempos and uses the Mod Wheel (CC1) and Expression (CC11) to control loudness.

When playing two connected (legato) notes up to an octave in either direction, a legato lyrical layer transitions the initial note into a lyrical sustain layer, which is looped for continuous playback. Playing disconnected will also playback a looped lyrical sustain layer.

## Legato Runs

This instrument allows you to generate the sound of a run by playing the notes in real-time, allowing greater control than pre-recorded runs. It is intended to be played at fast tempos to reflect string writing for runs, and uses the Mod Wheel (CC1) and Expression (CC11) to control loudness. There are two round robin alternations for both the legato runs and grand detache layers.

Playing two connected (legato) notes up to a minor 3rd in either direction will trigger a legato runs layer that transitions the initial note into a non-looped grand detache layer. Playing two connected (legato) notes above a minor 3rd and up to an octave functions the same way, only with a legato bow change layer to transition between sustain layers. Playing disconnected (non-legato) will trigger a non-looped grand detache layer.

## Legato Slur

In the Legato Slur instrument, you hear the pitch start to move in the direction of the next note as the first note is ending. The pitch jumps over most of the intervening notes, with only the start and end of the slide heard in the transition. This instrument is best when used at slow to medium tempos, and uses the Mod Wheel (CC1) to cross-fade between multiple dynamic levels and shape overall loudness, with Expression (CC11) also available to control loudness.

Playing two connected (legato) notes up to an octave in either direction will trigger a legato slur layer that transitions the initial note into a looped sustain vibrato layer where the Mod Wheel (CC1) is used to cross-fade between the *pp*, *mf*, and *f* dynamic levels. Playing disconnected (non-legato) notes will also playback the looped sustain vibrato layer with the same Mod Wheel functionality. Beyond an octave, no legato transition will be heard, but the sustain vibrato layer will playback.

## Legato Sustain

The Legato Sustain instrument is programmed differently than the other Legato instruments. Instead of separate sample layers for the legato transition and sustain portions, the sample is sustained at the end of the legato transition, which is then looped for continuous playback. This works particularly well on solo instruments because it allows for more continuity over the duration of a note as opposed to cross-fading between separate sample layers. This legato instrument can be used at both slow and fast tempos by using the Mod Wheel (CC1) to playback either the legato sustain lyrical layer (for slower tempos) or legato sustain bow change layer (for faster tempos).

Playing two connected (legato) notes when the Mod Wheel (CC1) is between 0 and 63 will trigger the *mp* dynamic of the legato sustain lyrical, and when the Mod Wheel is between 64 and 127 the *f* dynamic of the legato sustain bow change will trigger. Playing disconnected (non-legato) when the Mod Wheel (CC1) is between 0 and 63 will trigger the *mp* dynamic of the looped lyrical sustain layer, and when the Mod Wheel is between 64 and 127 the *f* dynamic of the looped sustain vibrato layer will playback.

Once the dynamic layer is triggered and the note is held into the looped sustained portion, either the Mod Wheel (CC1) or Expression (CC11) can be used to control loudness mid-note. However, because the legato and sustain articulations are continuous, and the dynamic layer that plays back is triggered based on the initial Mod Wheel value, the dynamics cannot be shaped mid-note.

It's important to note, however, that because the legato and sustain articulations are continuous, and the legato intervals are sampled within an octave in either direction from the source note, nothing beyond an octave will be heard when playing two connected (legato) notes. In cases where your writing requires this, we recommend using one of the other Legato instruments, which will playback a sustain layer when outside the range of the legato transition layer.



## 7. Programming Techniques in Hollywood Solo Instruments

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# **Programming Techniques in the Hollywood Solo Instruments**

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This chapter discusses ways to use the Hollywood Solo Instruments to achieve the traditional sound of solo instruments in a live studio orchestra setting. The information in this chapter applies equally well to all the various EastWest libraries, but some information is specific to particular libraries, including how to achieve legato playing.

## **Setting Up Templates**

The simplest way to work with any orchestral instruments is to set up templates once you have gotten to know the sounds and how all the features of PLAY work. You might, for instance, have a comedy template that has a lot of short articulations, effects, and crescendos; and/or an epic template that includes a lot of legato patches. Obviously, the more computers you have and/or the more capable the computers, the bigger your templates can be.

Once you have decided what patches will go inside each template and have made sure they will all fit into your available RAM, you should load everything and save the setup for each instance of PLAY to its own .ewi file or, if you have multiple instances of PLAY loaded inside a sequencing program or VST host, it is as simple as saving the sequence or VST host file. This will remember everything inside. If you are using multiple computers, make sure you have created a track in your sequence for every program on every computer.

One last thing to consider when deciding which computer will load which sounds is the amount of work each computer will have to do. Make sure to spread the sounds that you use most onto different computers so one computer doesn't end up carrying a majority of the load.

Remember that if you're running any of the Hollywood Solo Instruments on more than one computer concurrently, you will need to spread the licenses across multiple computers via either multiple iLok security keys or machine-based license activations.

The next stage is crucial and highly subjective. All PLAY libraries respond to three different volume controllers: CC7 (volume), CC11 (expression), and the Mod Wheel (CC1). It is highly recommended you record a CC7 message at the beginning of every track. Spend some time to set the initial volume of every track at a level in natural balance with the rest of the ensemble. This is tricky and will never be perfect, but the more time you spend on the setup the more time you'll save later. If, for example, you're using Hollywood Strings, Hollywood Brass, and other EastWest libraries in addition to Hollywood Solo Instruments, then start by playing the french horns, some big string ensembles, and your noisiest percussion really loud and at the same time; that will give you a reference



of what the loudest passages will be like. Together, they should be at least 3 dB below 0. Then adjust the other instruments to blend with these loudest instruments.

It's recommended you not use MIDI volume (CC7) for any other purpose than this volume setting at the start of each track. Use CC11—or the Mod Wheel when appropriate—to change volume and breathe life into your compositions. This way, CC7 acts as a limiter and keeps everything from getting out of whack. Also, at a later time you can easily change the prominence of an entire track in the mix by adjusting this single CC7 level at the start of the track.

You should save the sequence before moving on. Then go to the editor (or whatever it's called in your sequencer) that displays CC7, CC11, and CC1 (Mod Wheel) information. You will be editing these last two a lot, so it's a good idea to make these windows easy to access. Label your saved templates and you're ready to go.

### Opening Multiple Instances of PLAY

With the PLAY 4 software, it's possible to open more than one instrument in each instance you run in a sequencer or other host. An "instance" is each open window running PLAY. If, for example, you see 5 PLAY windows inside your sequencer, then you have opened 5 instances. There are compelling reasons for spreading instruments across multiple instances.

The main reason for opening the PLAY software more than once is to be able to take full advantage of the multiple cores available in today's high-end computers. If, for example, your computer's CPU has 4 cores, then each of the 4 cores can be independently running separate instances.

Sequencers typically assign all the processing in any given instance of a plug-in to a single core. So, in one case, if you load all your instruments into a single instance of PLAY, the work of running all those instruments will be restricted to a single core, which is less efficient than spreading the work across all the cores. But, in another case, if you create at least as many instances of PLAY as there are cores in the CPU, the sequencer can assign the instances across all the cores, which most likely means you can open more instruments and play them back without problems.

As a general rule, if you're using more PLAY instruments than you have cores in your computer, then it's best to open at least as many instances as you have cores. Let's say you have a 4-core computer and are planning to open 10 PLAY instruments. You could open 4 instances of PLAY and spread out the patches 3, 3, 2, and 2 per instance. Or you could open 10 instances with one instrument each. Or some arrangement in between. The exact arrangement that's best for you depends on which instruments, how consistently each is heard through the piece, the complexity of the instruments (cross-fades are often using more CPU resources at once than other patches), and other factors. If you come up with an arrangement in which each instance is using about the same number of voices as the other instances, then you're likely using your instances efficiently.

## Prepping the MIDI Controllers

It is recommended that you tell PLAY what MIDI Continuous Controllers to look for by sending some Continuous Controller messages after loading the patches and before the first notes are played. When playing live, that can mean tweaking each of the knobs, sliders, and wheels enough to send some data to PLAY. In a sequencer, you can draw a short sloped envelope for each controller before the first notes. This advice applies to the Mod Wheel (CC 1), CC 7, CC 11, and any other Continuous Controllers in your project.

## Creating a Soundscape

Whether listening to an orchestra live on a stage or from a stereo recording, we're all used to hearing the sounds of the various instruments coming at us from different directions. In a traditional symphonic layout for an entire orchestra, for example, we expect the violins to be on our left, and the cellos and basses on our right. There are two reasons we might want to continue this practice. The first is to trick the listener's ear into perceiving a recording of a live performance. Even when everyone understands that the piece was created inside a computer, emulating a traditional sound can have its benefits. The second reason is that it's easier for the human ear to hear two similar sounds as separate when it perceives them as arriving from different locations.

### Panning

In the Hollywood Solo Instruments, the Close, Mid and Main microphone positions are in the center of the studio at various distances. The Close and Mid microphone positions also each have an additional vintage microphone placed just off to the side. Feel free to pan them left or right to achieve whatever effect you want, including spreading them across the entire width of the stage to make each one more discernible from the others in the mix.

Note that the natural panning within all the samples in the whole EastWest Hollywood series has one subtle feature that reverb plug-ins do not offer: correctly timed reflections from all surfaces. To understand this concept, consider a double bass player who is 5 meters from the wall to our right and 45 meters from the wall to our left. We are seated half way between the walls. The reflection from the right wall, which will be louder in our right ear, travels 30 meters (5 plus 25); the reflection from the left wall, louder in our left ear, travels 70 meters (45 plus 25). That 40-meter difference means that the reflection arrives in our right ear approximately one-ninth of a second sooner than in our left ear, a significant difference. And the other instruments all have their characteristic left/right delay based on where they sit on the stage. It is impossible for a single digital reverb to achieve that level of realism.

## Proximity Clues

Panning left or right is not the only way to separate instruments. It is also possible to move them forward and backward. This can be achieved in three ways:

1. Dynamics
2. Delay
3. Presence

1. When most musical instruments change from being played louder to softer the timbre of the sound changes. Even if you let someone else adjust the volume control on your stereo, you can still tell whether the instrument you're hearing was played loud or soft based on the instrument's tone; most instruments have a harsher sound when played louder. So, in an orchestral mix, if a particular instrument seems to be played loud, but the volume level of that instrument compared to others is softer, then the ear assumes that that instrument is farther away. Adjusting independently the timbre—with velocity parameters and/or a cross fade using the Mod Wheel—and the volume of the sound, you can move individual instruments forward or backward.

2. Because sound travels at a fixed speed of approximately 340 meters per second (1100 feet per second), the ear uses very small time delays to judge relative distance. If two instruments play staccato notes simultaneously, and one is 15 meters (50 feet) further away, the note from the more distant oboe arrives 0.044 seconds later. That's about one twenty-third of a second, a short time but noticeable to the ear. It's very easy in a sequencer to delay a track by a specific time—either with a Delay plug-in or by shifting the notes in the sequencer's Piano Roll view—and thereby achieve this effect.

3. As discussed in the section covering the 5 mic positions (not available in the Gold Edition), the farther you are from an instrument in a concert hall the more the natural reverb of the hall contributes to what you notice. You still hear the echoes from the walls when you're close by; you notice them less because of how loud the instrument is. It's harder to hear the crinkle of a cough drop wrapper standing near a roaring jet engine than in a hushed concert hall, even though the wrapper makes the same sound. This "presence" of the sound is another distance clue. Mixing in more of the Close samples for an instrument makes it seem closer to the listener.

By combining all three principles, you can achieve quite convincing front/back positioning in your orchestral mix. Giving the ear contradictory signals can confuse it, achieving either a good or bad effect, depending on your intentions.

## Volume, Velocity, Expression, and the Mod Wheel

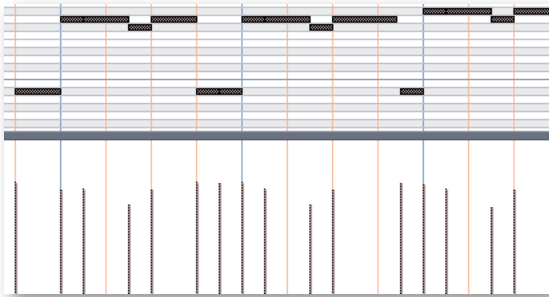
There are at least three ways to make any given sampled instrument sound louder, or at least make the real instrument seem to have been played louder. The skilled MIDI orchestrator uses all three.

## HOLLYWOOD SOLO INSTRUMENTS

**Volume (CC7)** is simply the increase or decrease in loudness of the audio output. Changing volume is the same as turning the volume knob on your stereo system. An instrument played softly can be cranked up and a loud instrument can be turned down.

Volume can be adjusted mid-note; that is, the listener can experience a crescendo or diminuendo for a held note.

As was mentioned in the section on setting up templates on page 52, it is recommended that there be one Volume MIDI event on each track to set the starting loudness for the whole track.



**Velocity**, a term based on how strongly a keyboard player hits the keys, controls how forcefully the note is played. Adding force changes not only the loudness of the notes, but usually also changes the notes' timbre. With a piano's action, the velocity cannot affect what happens to the sound after the hammers hit and leave the strings, and velocity works the same way here. In the current implementation of MIDI, velocity is usually designated by a

number between 0 and 127. Many software sequencers display velocity as vertical bars, something like those at the bottom of the image above.

Most modern sample players, PLAY included, can select different samples for different ranges of velocity. For example, the team creating the samples recorded Middle C on the Cello at *p*, *mp*, and *f*. The team then assigns the *p* samples to, say, velocities 0–74, the *mf* samples to velocities 75–109, and so on. Because each dynamic level of an instrument has its own timbre, a note's velocity can affect not only its loudness but also its timbre, from gentle to forceful.

Velocity changes are, therefore, a much better way than volume changes to achieve natural-sounding dynamics. The disadvantage of velocity is that it cannot be changed mid-note. Using loudness and velocity together gives the orchestrator more control over all aspects of dynamics.

**The Mod Wheel (CC1)** replaces Velocity for many instruments in the Hollywood Solo Instruments library. The instrument files do not respond to the Velocity parameter of a MIDI note at all. Use the Mod Wheel (CC1) to add swells and other custom dynamics for instruments programmed this way.

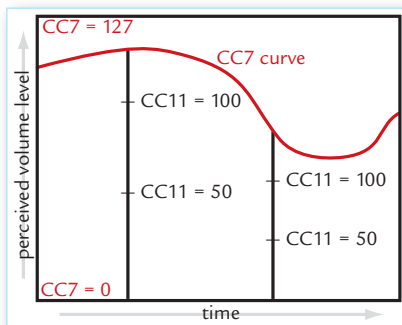
## HOLLYWOOD SOLO INSTRUMENTS

Once you learn to use the Mod Wheel—whether playing live or in a sequencer—you will find it to be an excellent means of controlling the continuous dynamics of the notes.

**Expression (CC11)** is represented by MIDI Continuous Controller 11 (CC11). The usual way to use CC11 is for continuous control of the loudness. That is, while Velocity cannot change mid-note, and it is recommended that CC7 be set only once at the beginning of the piece—or at least only at the start of major sections—CC11 can provide the kind of dynamic shaping of phrases that give music its expressive life (hence the name “Expression” for this Continuous Controller). Use it to create swells in the middle of a note or a phrase. With CC11, you create the crescendos and fluid dynamics of expressive music.

It is possible to shape the dynamics of a line either by “playing” a CC11 controller in real time, or by drawing an envelope in a sequencer. Most MIDI keyboards and control surfaces have programmable knobs and/or sliders that can be set to send CC11 messages to a specific MIDI channel. If your sequencer supports automation, it can record the movements of the knob or slider and save them as part of the project. Such manual and real-time control over the shape of an instrumental line is usually more efficient than drawing in an envelope, and often achieves more convincing results.

The Mod Wheel and the Expression control achieve similar mid-note dynamic results. But do remember that while some instruments respond to the Mod Wheel, Expression works for all instruments in PLAY, and may therefore be a better choice for changing dynamics over the length of a phrase or whole piece. You should decide which dynamic controls work best for your style and become accustomed to using them consistently.

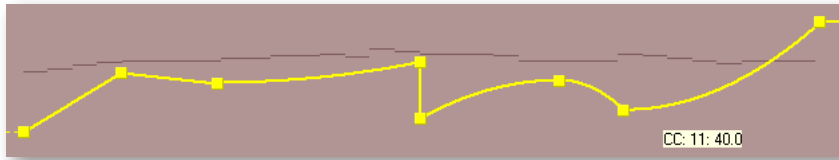


Although the volume and expression controls can be adjusted separately, the volume setting does change how expression affects perceived volume. Think of CC7 as setting an upper limit on the dynamics at any moment. Expression, like most continuously changeable values in MIDI, takes values between 0 and 127. CC7 specifies how loud a sound to generate for the maximum expression, 127. The diagram seen here shows that when volume decreases the fixed changes in expression represent smaller changes in perceived loudness. Changing from an expression level of 50 up to 100 represents a smaller change

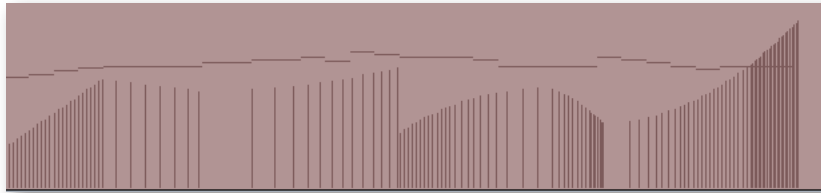
in loudness when the volume control (CC7) is reduced.

### MIDI Envelopes and Control Data

Most modern sequencers let you draw an envelope for MIDI Continuous Controllers. The diagram below with the yellow curve is an example of an envelope for CC11. Notice how the values are constantly changing, the same way a player adds musicality and interest to a phrase by changing the strength of the hits moment to moment. (The dark horizontal lines near the top are the notes).



When saved as MIDI data, this same envelope appears as a finite set of commands, as in the next image. In a sequencer track, these often appear as vertical lines, each line being a command to change the value—in this case to change CC11.



The other way—and many say it's the better way—to send CC11 events to the sample player is with a MIDI controller, either a keyboard or a control surface. As long as you or your group has an extra hand—or foot, if you use a pedal—you can enter continuous controller information while playing the notes into the sequencer. This allows you to hear the interchange among the notes, their velocities (how hard you're hitting the keys), and the expression being added with CC11.

This process can also be done in two passes—notes first, then control data—if your setup allows you to record automation data to a track that already contains other MIDI data.

Everything written about CC11 in this section also applies to CC1 (Mod Wheel) and all other MIDI continuous controllers. Learning to shape musical lines the same way an instrumentalist does will give your work a more natural musicality. By combining velocity control, expression, Mod Wheel, and volume, you change digital samples into real, living music.

## Using Cross-Fades

The Hollywood Solo Instruments series makes extensive use of cross-fading. The basic idea of a cross-fade is that 2 or more samples of the same instrument—but that differ in some aspect, such as loudness, timbre, and/or vibrato—are played back simultaneously. And the mix of how much of each sample makes it into the audio output is controlled by the Mod Wheel (which is CC1).

For example, when the Mod Wheel is at the bottom of its range, only the *p* sample is audible, and as you push the Mod Wheel up the sound of the *p* is reduced while the sound of the *mp* sample is increased. Eventually, the *p* drops to inaudibility while the *mp* samples begin to be heard.

Part of the reason for using more cross-fades is that they provide a more continuous and gradual change from one sound to another. Also, they modify timbre along with loudness, even mid-note, just like an acoustic instrument. And a third reason for using more

cross-fades in this library is that recent improvements in hardware and software make this much more realistic approach possible.

In the Hollywood Solo Instruments series, look for cross fades in articulations that can be held for a long time. Shorter articulations utilize velocity sensitivity to control dynamics as a rule.

The only real reason not to use cross-fade instruments as often as they'd be useful in your projects is that they use significantly more of your computer's resources.

## Achieving a Legato Sound

There are two different technologies available in Hollywood Solo Instruments for achieving a legato sound:

- the instruments in any of the Legato folders
- the Legato and Portamento scripts

Legato instruments include recordings of live musicians playing true legato transitions of up to an octave, both upward and downward. The PLAY engine combines these seamlessly with other notes to create very convincing legato passages. These legato transitions are heard not only in instruments you might use for flowing legato phrases, but also in the playable runs that are intended for very fast passage work.

Use the true legato instruments when you want a convincing legato sound in your phrases and you don't need some other articulation to predominate.

The Legato and Portamento scripts can simulate legato transitions with scripts. Therefore, they are useful when you want a touch of legato sound between notes for some other articulation, such as between consecutive trills or marcato notes.

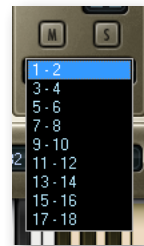
See more about these scripts where Performance scripts are described, on page 17.

## Directing the Audio Output

The output from PLAY is one or more stereo audio signals. The image at the right shows 9 stereo pairs of outputs in the drop-down list from the Master Output control. Each instance of PLAY has its own outputs separate from those of every other instance.

If you are using PLAY as a plug-in in a host, you can usually specify whether you want the output audio to be captured in a single track or maintained as separate tracks. See the documentation for your sequencer to learn how that selection is made in the host software you use.

If you've selected to set up a single track to hold all the audio output from one instance of PLAY, and you open multiple instruments in this instance, then all the instruments will be mixed in the PLAY audio engine and written to the track as a single stereo signal.



If, instead, you've selected to set up multiple tracks, then you can select the track for each individual instrument and possibly each individual microphone position. Outputs that share the same channel are mixed in the PLAY audio engine and written out as a single pair of tracks. Outputs on different channels are written independently to different sequencer tracks, and available to be mixed within the sequencer at a later time.

**ADVANCED:** Note that the sequencer may be able to generate a monophonic track from the stereo output, but that will happen in the sequencer; PLAY always outputs a stereo signal. See the sequencer's documentation if you want to generate a monophonic track.

### The 5 Microphone Positions

The Hollywood Solo Instruments series were recorded simultaneously from multiple locations in the studio. It contains 5 mic positions that can be controlled from the Player view. To load the 'Main' microphone position, click the toggle switch next to the vintage 'Mid' microphone (these two positions cannot be loaded together).

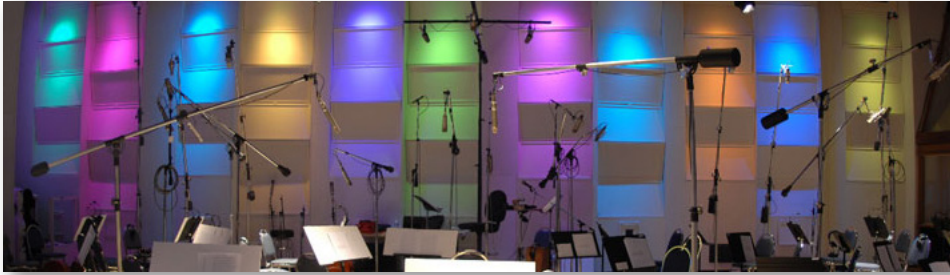
- a 'close' position directly in front of the instrument
- a vintage 'close' position just off-center of the instrument
- a 'mid' position a few feet away from the instrument
- a vintage 'mid' position a few feet away and just off-center of the instrument
- a 'main' position comprised of a mix of microphones in a Decca Tree configuration

All the recorded samples are "phase-locked," meaning that when two or more of them are mixed into a stereo recording they are necessarily in-phase and there will be no destructive interference.

The ability to combine the multiple auditory perspectives gives you the same kind of control that a recording engineer enjoys when recording a live concert performance from multiple microphone feeds.

The PLAY System interface allows you to mix the various samples together. With the available knobs, sliders, and buttons, you can pan each mic separately, change its dynamics to suit your needs, load/unload the samples from RAM, mute and solo each mic to achieve the sound you want—both while composing and when mixing the final output. The drop-down menu at the bottom of the faders allows you to assign the audio output from each set of microphones to its own output channel.





The photo above, taken during the setup at EastWest Studios in Hollywood, California, gives you some idea of the microphones used to capture the sound. The controls in the Player view allow you to turn on or off the various mics, adjust their relative volume, and pan them however you want.

You do need to be aware that the samples for each microphone occupy their own space in RAM memory. If your computer doesn't have enough RAM to load all the samples you need at once, you may want to use only one set of mics when composing. You can then add in any other mics when you're ready to work on the sound of the performance.

### Understanding the Five Microphone Positions

To understand how the five mic positions can help you, let's perform a quick *thought experiment*. Imagine yourself in a concert hall with an ensemble on the stage. For the sake of clarity, we'll use a hall instead of a recording studio to make the various locations relative to the instruments easier to understand.

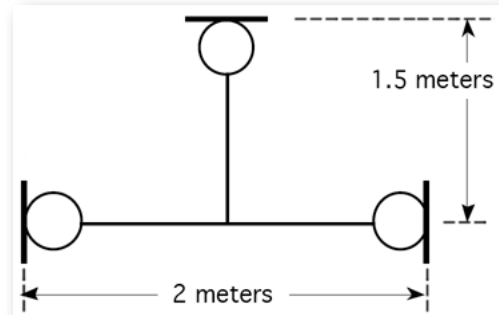
First, you're invited to sit directly in front of a Cello player who plays a melody. What you hear approximates the sound recorded in the **Close** mic position. The sound coming directly from the instruments is so much louder than the reflections off the walls and other surfaces that these reverberations make up a very small part of what you hear.

For the **Mid** mic position, you are seated right at the edge of the stage, approximately at the midpoint of the first row. What you hear is a little more definition than the Main mics (see below) but with more natural reverberation than the Close mics.

Finally, you're placed in a seat in the fifth row of the house and you listen to the same Cello melody. Now you hear more of the natural reverberation of the hall because your ears are not so overpowered by the sound coming directly from the instrument. This sound is captured by the **Main** mics, a cluster of microphones called a Decca Tree which sits above the front of the player.

The Close and Mid positions were each recorded with an additional microphone that captured the same basic perspective, only slightly off center and with vintage RCA 44 ribbon microphones.

**ADVANCED:** A “Decca tree”—for those interested—is an arrangement of three microphones originally designed at the English Decca Records, and still used for orchestra recordings, especially when recording movie scores. The mics are arranged as in the diagram at the right. Because of the 2-meter spacing between the left and right mics, the audio provides the intensity cues necessary for detailed stereo imaging while including sufficient phase information to produce an open and spacious sound. In addition, the middle microphone generates a solid central image.



## Microphone Placement

Below is a description that gives you an idea of where the various mics captured their sound in the recording studio.

The Close microphones were positioned in front of the instrument. They were near enough to capture the presence of the instrument, but far enough away to allow the sound of the instrument to breathe.

The Mid mics were positioned a few feet away from the instrument, retaining definition of the instrument without a “close” sound.

The Main mics were arranged in a Decca Tree configuration which was placed at the front of and above the instrument to capture a well balanced sound. See above for more details regarding a Decca Tree arrangement.

## Adjusting the Delays

Because all five sets of samples were recorded simultaneously for each note in the library, there are predictable and natural delays in the time it takes the music to reach each set of more distant mics. This latency is part of the natural reverb of the hall and it produces a pleasing fullness to the sound when the samples are mixed correctly. If you want to tighten up the reverb from the Main samples, it is possible with modern sequencers and mixers to adjust the audio track a little forward in time. Either perform a calculation using the speed of sound at sea level (approximately 340 meters/second; 1100 feet/second, if you prefer) or let your ears decide what works best.

If you do plan to micro-adjust the audio as in the previous paragraph, be aware that you will need to record the output from the individual mics to separate audio tracks. You cannot have the PLAY engine mix the audio tracks in a single plug-in instance or standalone instance. That is, you need to record one track with, for example, only Mid mics and a different track with only Main mics.

The Close mics, of course, have virtually no latency. If you don't use the Close mics, and you play something that requires very quick and punchy attacks, you may notice some small delay, which can be cured by adding in some of the Close mics. In most cases you would want to use the Close mics to add definition to an instrument or section. The idea is to experiment until you find a combination that works.

### **Microphone Positions, Release Trails, and Digital Reverb**

All three of these technologies can be used to control the apparent ambience of your audio output. It is important to understand the effect of each and to use them wisely.

#### **Microphone Positions**

The way you choose to mix the microphones in your project can result in a sound that varies from small and “dry” to large and “wet.” What you are adding in or leaving out (to some degree) is the natural ambience of the room exactly as it occurred during the recording sessions. This ambience is heard as long as the samples are playing (and that includes the release trail samples), but cannot extend past the end of the samples.

#### **Release Trails**

These are samples that begin at the moment the instrumentalist stopped playing each note and capture the sound that continues to “ring” in the natural reverberation of the recording studio.

It is possible to turn off release trails for any instrument, but doing so only removes the room's ambience after the note ends, not while it is being played. Turning them off can result in unnaturally abrupt endings to the notes, but that can be effectively hidden by turning on the Reverb effect.

Note that staccato and other short articulations do not, as a rule, include release trails.

#### **Digital Reverb**

Convolution Reverb is a digital effect that simulates the sound of a room's ambience through a set of mathematical algorithms that use known reflection times of a set of test tones and apply that data to generate artificial reflections in real time. PLAY includes such a reverb and the data (called impulse responses, or IRs) with which to recreate many different sizes of rooms. The IRs built into Hollywood Solo Instruments series include the exact “EW Studio 1” in which the recording sessions took place. In addition, an IR of the hall where the Symphonic Orchestra was recorded is available as well, for those wishing to mix the Hollywood series with the Symphonic Orchestra series.

You will have to decide in what way to use each of these technologies for each project. As long as you understand how each of these three components contributes to the sound you are hearing—and the limitations of each technology—you can use your ear to determine how to get exactly the sound you want.

## Mixing Microphones From Separately Bounced Tracks versus Mixing in PLAY

Because mixing 2 or 3 of the mic positions in the right proportions can add dimension to a stereo or surround sound recording, you need to understand the various approaches to combining them into the final mix.

The following three cases describe some basic setups to show how you can use the Output controls, with emphasis on the individual microphone positions. When considering the possibilities of multiple instruments, each with its own microphone positions, the ways of setting up the outputs are too numerous to list here. Use the principles described here to define your own approach.

### 1. Creating separate audio tracks for each microphone, one at a time

In this approach, you can set up one or more instruments with a single mic position and the output going to one or more audio tracks in the sequencer. Usually, you will work with either the Mid or the Main mics during the composition phase, especially if it is the mic position that will dominate in the final mix. Once you're ready to commit the composition to the audio track(s), you can bounce down the track(s) to create a final single-mic recording.

Then go into every instrument in PLAY that contributed to those audio tracks so you can unload the Main mics and replace them with a different set, for example, the Close mics. Bounce down new audio track(s), making sure you name your tracks to indicate which mic position was used. Don't worry about the loudness of this track relative to the first audio track; you will adjust that in the final mix-down.

If you're using more than 2 mic positions, repeat the process to create the rest of the tracks.

Once you have all the tracks, you can mix them into a single track, adjusting the relative volumes to achieve the sound you want.

There are two principal advantages to this approach. First, it requires a smaller computer system (or network) than trying to load multiple sets of samples into RAM at once. Second, you have separate audio tracks for each mic positions. This way, you can create a wetter or drier mix—or create a surround-sound version. You can do so with the confidence that you will have no phasing issues to contend with.

### 2. Creating ready-mixed audio tracks, all at once

It is also possible to work with more than one mic position at a time, though this requires a more capable computer setup to handle the extra samples in RAM and the extra concurrent processing. In this approach, before bouncing down to audio tracks, you can load multiple mic positions in all instruments. You will need to adjust the individual volume sliders for the various microphone positions at this time to achieve the balance you want.

This approach works best when you want to get a final mix quickly without working through multiple mix-downs.

### 3. Creating parallel audio tracks from a single instrument file

If you want to create the separate audio files described in the first approach and have a very capable computer system that will allow you to process multiple mic positions simultaneously, then you can use this approach. Set up your instruments as in case 2 (above), but use the individual output controls for the mic positions you're using to send the audio to separate tracks (instead of mixing them within the PLAY audio engine).

The output control opens to reveal the drop-down list of possible audio outputs. Using these controls, you can direct the audio to separate tracks in the sequencer (or separate tracks in the sound card when running in standalone mode). Selecting "Default" sends the audio to whichever track is selected in the Master controls; selecting anything different sends the audio to that stereo pair of outputs. In the sequencer (or sound card) you can specify which outputs should be captured in each audio track. See the documentation for your sequencer or sound card to learn how to do that.

Note that it is possible to send multiple instruments (and even mic positions) to the same track and the PLAY engine will mix them. For example, you can send the Close mics from two different instruments to the "3-4" outputs, and they will all get bounced down to the same audio track.

This approach gives you the ability to spread out your audio outputs any way you want (up to the maximum number of outputs your system can handle).

Note that when run as a plug-in, each instance of PLAY has its own set of outputs. That means that if two instruments are loaded in separate instances of PLAY and they are both assigned to outputs "3-4" they will end up in separate audio tracks in the sequencer.

### If Using Only One Microphone Position

It is certainly possible to create a piece with only a single microphone position. Usually, the Main mics are a good choice, though in some cases the Close or Mid mics might be the right choice.

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