
EASTWEST
QUANTUM LEAP
HOLLYWOOD
CHOIRS
PRODUCED BY DOUG ROGERS AND NICK PHOENIX
USER MANUAL
1.0.2

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Special Thanks

To all the singers - we salute you!

In Memoriam

In Loving Memory of Rhys Moody

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Ch. 1: Welcome

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Welcome to Hollywood Choirs

Produced by Doug Rogers and Nick Phoenix, Hollywood Choirs is the epic follow-up to 1999's Voices of the Apocalypse and 2005's Symphonic Choirs, the best-selling and most awarded virtual choir instruments of all time. Hollywood Choirs gives voice to a new generation of powerful cinematic vocals with unprecedented dynamics and shocking realism that unleashes a new world of choral possibilities.

Featuring a Microphone Array that displays the configurations used in each of the 5 Available Mixes (Diamond Edition only), and a Neumann Dummy Head to achieve 3D surround sound that is particularly attractive to film, TV, and game composers. Hollywood Choirs delivers a powerful, blockbuster sound that is sure to excite both composers and their audiences alike.



Includes New Features Released With Play 6

Hollywood Choirs releases with Play 6, the latest version of EastWest's advanced sample engine, which includes improvements, fixes and notable new features including:

- **Instrument Database:** search instruments directly with key words, or by selecting attribute tags to narrow search results across a variety of categories
- **Redesigned UI:** Navigation Bar for Menu options, View selectors, and Instruments.
- **Instruments Sidebar:** access instruments and their advanced instrument properties
- **Integration with NI Komplete and Maschine:** added support for Native Instruments Komplete Kontrol and Maschine software, including parameter mapping and browsing.
- **Convolution Engine:** new and improved convolution engine for better performance with EastWest's convolution reverb and amp simulator.

A New and Improved WordBuilder

Hollywood Choirs includes a new version of WordBuilder, the program that allows you to type in words and have them sung by a choir. Please see below for descriptions of these new features, including many under-the-hood enhancements.



- **All New Phrases:** 237 new phrase presets in English, German, Italian, Latin and Spanish.
- **All New Phonemes:** New vowel and consonants added for increased realism.
- **Frequency Dependent Consonants:** Non-pitched consonants now sampled with high and low frequency variations.
- **Independent Handling:** All consonants that fall at the end of a word are now handled independent of those that begin a word, resulting in more realistic delivery of words.
- **Consonant Volume Scaling:** WordBuilder detects the number of notes in a chord and applies volume scaling to consonants to ensure the they remain at an intelligible level.
- **Sync to DAW:** Now you can synchronize the position in WordBuilder's Text Editor to your DAW's sequencer playback. For more: Use Learn to Sync WordBuilder to DAW Playback
- **Global Phoneme Balance:** Vowels, Pitched Consonants and Non-Pitched Consonants have volume sliders that allow you to adjust the relative balance between phonemes. For more: Adjusting Phoneme Volumes
- **Alternative Takes of Non-Pitched Consonants** The importance non-pitched consonants play in creating intelligible words led to the development of a new feature that provides the user with complete control over alternative takes. Instead of using a traditional 'round robin' system that cycles through alternative takes, often leading to inconsistent results, users can now define a specific alternative take of all non-pitched consonants by using a numbering system. For example, if the first 'S' at the start of the word doesn't sound right repeated later in the word, you can try 'S2', 'S3', or 'S4' until you find an alternate take that sounds more realistic. For more: Using Alternative Non Pitched Consonants
- **Parameter Grouping:** Volume, Pan and Microphone Mix changes are applied across all instruments within a WB Multi. Combined with the existing Reverb Master functionality that applies reverb across all instruments within an instance of Play, shaping the mix any way you want is easier than ever. For more: How To Adjust Volume, Pan, Microphone Mixes and Reverb
- **Ease of Use:** Hollywood Choirs was recorded with combined Men and Women sections, allowing for an increase in overall power of the choir by taking advantage of the overlapping ranges. This makes setting up WordBuilder with just 2 Voice Types much easier. For more: Using WordBuilder in Plug-in Mode

About the Producers

Doug Rogers

With over 35 years experience in the audio industry, founder and producer Doug Rogers and his company EastWest is the recipient of over 100 industry awards, more than any other sound developer. His uncompromising approach to quality and innovative ideas have enabled EastWest to lead the soundware business for nearly 30 years. "The Art of Digital Music" named him one of "56 Visionary Artists & Insiders" in the book of the same name.



For over 20 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 film, games, tv, and music industries.

About Hollywood Choirs, Producer Doug Rogers says: "This is the third choir EastWest/Quantum Leap has sampled, and we learnt a lot from the previous productions and Hollywood Choirs is the culmination of that experience. In particular, the choirs' ability to sing any word or phrase has been significantly improved resulting in much more realism; and there are many more sound options to enable the user to sculpt the sound to their requirements.**"**

Nick Phoenix

Since he began scoring film trailers in 1994, and since founding "Two Steps From Hell" with Thomas Bergersen in 2006, Nick has scored or licensed music for the ad campaigns of over 1000 major motion pictures to date. A few recent works include: "Godzilla", "Ender's Game", "Skyfall", "World War Z", "Rush", "The Hobbit", "Avengers", "Star Trek 2", "Inception", and "Harry Potter and the Deathly Hallows".



The journey as a composer has inspired Nick to record and program his own sounds and samples. For over 20 years, a 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.

About Hollywood Choirs, Producer Nick Phoenix says: "In the past 12 years, there have been many attempts by others to improve on what EastWest/Quantum Leap achieved with Symphonic Choirs. Small improvements were made to various aspects of choir sampling, but the emphasis has been on pre-recorded and severely limited phrases. If composers are not tired of hearing the same faux Latin phrases repeated over and over, those listening certainly are. No single choir virtual instrument has managed to deliver a fluid, intuitive and great sounding choir that was capable of singing any words in any language, soft or loud... until now**."**

What's Included

Hollywood Choirs includes:

- A collection of men and women choir instruments
- A WordBuilder program that turns text into sung words
- Approximately 59 GB of 24-bit, 44.1 kHz samples, All Mixes (Diamond Edition); 8 GB of 16 -bit, 44.1 kHz samples, Main Mix (Gold Edition); 16 GB of 16 -bit, 44.1 kHz samples, Main and Surround Mixes (Gold X Edition)
- EastWest's PLAY 6 System (earlier PLAY versions are not supported with this library)
- A license that identifies the product you bought
- Hollywood Choirs and Play 6 User Manuals (PDFs)
- An Installation Center application to set up the library, software, and documentation

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.

Hollywood Choirs is now fully NKS-ready, including the ability to browse instruments, preview sounds, and immediately access pre-mapped instrument parameters with Native Instruments' Komplete Kontrol and Maschine hardware and software.

See the Hollywood Choirs Is NKS-Ready for more information.

System Requirements

Below are the minimum and recommended hardware requirements for using Hollywood Choirs on your computer. Please see the Play 6 User Manual for a complete list of the Hardware and Software Requirements for installing and running any Play 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

Optimum 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 as a plug-in.
- SSD (Solid State Drive) for sample streaming

Please Note! Beginning with Play 5 and all subsequent versions, 32-bit operating systems and DAWs are no longer supported (32-bit versions of the Play stand-alone and plug-in no longer exist).

Sequencer Compatibility

The chart below outlines the MacOS and Windows 64-bit operating systems and sequencers that are officially supported (fully tested) with the latest version of Play 6. Please contact support for questions related to compatibility with earlier versions of Play, and please note that while 64-bit sequencers (DAWs) that use VST, VST3, AU and AAX plug-in formats may work fine, only those listed in the chart below are officially supported.

Please note! 32-bit Sequencers and Operating Systems are only supported by Play 4, the last version of Play that was released with a 32-bit installer. Play Libraries released on Play 6 are not compatible with older versions of Play. Please contact support for more information.

DAWs (64-bit)		Operating Systems (64-bit)	
Sequecer Software	**version**	**MacOS**[1] (10.8 - 10.14)	**Windows**[2] (7, 8 and 10)
EW Play 6 Stand-Alone	6.0 +	√	√
Ableton Live	9.0 +	√	√
Apple Logic Pro	9.0 +	√	-
Apple Garageband	3.0 +	√	-
Avid Pro Tools	11.0 +	√ [3]	√
Bitwig Studio	2.5 +	√	√
Cakewalk Sonar	6.2 +	-	√
Cockos Reaper	4.0 +	√	√
Image-Line FL Studio	12 +	√	√
Motu Digital Performer	8.0 +	√	√
Steinberg Cubase	7.5 +	√	√
Steinberg Nuendo	6.0 +	√	√
Presonus Studio One	3.0 +	√	√
VSL Vienna Ensemble Pro	5.0 +	√	√
Notation Software	**version**		
Avid Sibelius	7.0 +	√ [4]	√ [4]
MakeMusic Finale	25.0 +	√ [4]	√ [4]
Steinberg Dorico	2.2 +	√ [4]	√ [4]

[1] **MacOS 64-bit Operating Systems** 10.8 through 10.14 are officially supported. Please follow this link for the latest compatibility information regarding MacOS 10.15 (Catalina).

[2] **Windows 7** support is officially being ended by Microsoft on January 14th, 2020.

[3] **Pro Tools 10** users require Play version 4 (32-bit). Please contact support for details.

[4] **Sibelius / Finale / Dorico** notation programs work with Play 6, but do not support the full feature set of some Play Libraries, such as those that use WordBuilder. Please contact support for details.

Support and Documentation

All documentation for Play and individual Play Libraries is provided as a collection of PDFs. An advantage of reading this PDF on an electronic device is the ability to jump directly to a referenced page using links. You can find these in the contents section, at the beginning of each chapter, and within to expand on and / or connect topics.

The Bookmarks pane along the left edge of the PDF allows you to jump to a particular chapter or specific section by clicking on the links. You can also use Page Thumbnails to quickly scan the contents of the PDF and jump to the desired page with a click.

User Manuals and Guides

Visit the EastWest Manuals section of the online Support Center to access the latest User Manuals and Guides for EastWest products.:

- **Play 6 User Manual** describes how to use Play 6, the sample engine that powers all the individual Play Libraries.
- **Play Library User Manuals** describe aspects that are specific to each Play Library, including instruments and unique features of each user interface.
- **Master Navigation Document (MND)** is a one-page PDF that allows easy navigation between the Play 6 User Manual and the Play Library Manuals using links. Links to the MND can be found at the bottom of each chapter in both the Play 6 User Manual and Play Library Manuals.
- **Quick Reference Guides** contain the most essential information, intended to get you started quickly.
- **EW Spaces II User Manual** describes how to use the Space II plugin, and provides a glossary of impulse presets.

In addition to being installed locally into the main library folder of each Play Library, documentation is also installed into the directory below:

- (MAC) Mac HD / Applications / East West / Documentation
- (WIN) C:// Program Files / East West / Documentation

EastWest Support Center

Visit the EastWest online Support Center to:

- submit a support ticket
- read FAQs on a variety of commonly asked questions
- view video tutorials, quick start guides, user manuals and more

EastWest Soundsonline Forums

Visit the EastWest Soundsonline Forums to:

- read comments and questions from other users of EastWest products
- find helpful information on both technical and musical aspects of the software
- receive support by posting to the Support section of the forum



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How To Install Hollywood Choirs

This section guides you through the process of registering an account with EastWest, and how to use the Installation Center to download, install, and activate Hollywood Choirs.

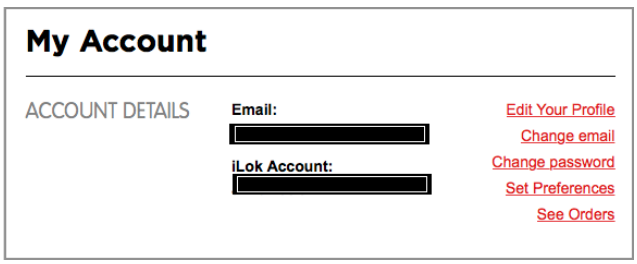
Step 1: Register with EastWest

To purchase a product through Soundsonline.com you must fill out a New Customer Registration form or log in to your existing EastWest account.

EastWest uses the iLok security system, and requires an iLok account in order to complete the registration process.

Licenses for purchased products are deposited directly into the iLok account associated with your EastWest account.

Existing iLok users can enter their iLok account name during registration. Those new to iLok can leave that field blank during registration, and an iLok account name will be created for you based on your EastWest account name.



If you're unsure whether or not an iLok account is already associated with your EastWest account, log in with your EastWest account name at Soundsonline.com and check the 'My Account' section to view your 'Account Details'.

Once you sucessfully create an account and place an order, a confirmation email will be sent with steps on how to procede. These instructions are also contained below.

Step 2: Download and Install the Installation Center

The Installation Center can be downloaded from the 'Software & Product Updates' section of the EastWest Support Center. After downloading and installing the package, the Installation Center will open automatically. It is found here:



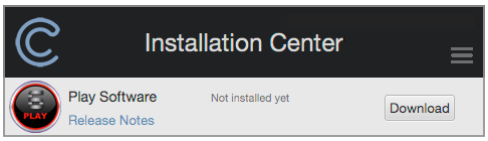
- (MacOS): Mac HD / Applications / EastWest / EW Installation Center
- (Windows): C:// Program Files / EastWest / EW Installation Center

When the Installation Center opens, enter the EastWest account name and password created during registration and allow a moment while it gathers data from your account.

If the Installation Center is already installed, log in and download the latest version by clicking the 'Download' button on the the update panel located near the top the Installation Center. The installer will launch automatically, allowing you to procede through the prompts to update your software.

Step 3: Download and Install Play 6

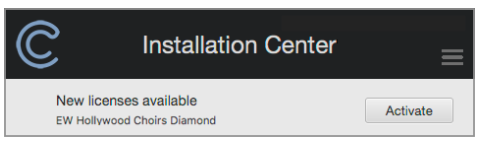
Click the 'Download' button in the Play Software panel that appears near the top of the Installation Center. Once the download is complete, the installer will launch automatically, allowing you to procede through the dialog windows to install Play 6, the sample engine that powers Hollywood Choirs.



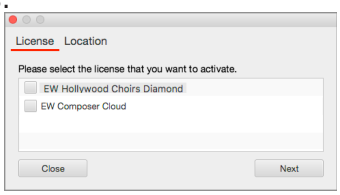
Please note that this installer includes all the neccessary software components to run all Play Libraries, but you will only have access to those you have a license for.

Windows users: The default installation path for the Play VST plugin (Play_VST_x64.dll) is: C://ProgramFiles/VSTPlugins. Do not change this unless you have a custom VST location.

Step 4: Activate Hollywood Choirs

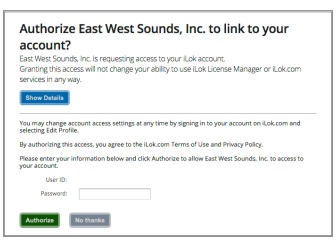


Click the "Activate" button near the top of the Installation Center to open the Activation Assistant window, which will lead you through the activation process.

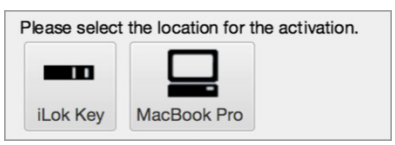


Click 'Next' to proceed past the Introduction tab, then select the license(s) you want to activate in the License tab and click 'Next'.

If you have an iLok account but you have not connected it to your EastWest account, the Activation Assistant will help you link the two accounts. This only needs to be done once time.

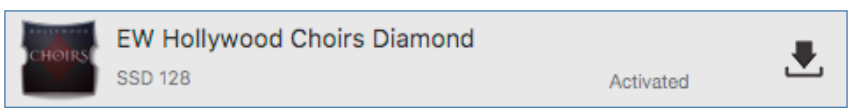


The Location window will give you the option to activate your license on your computer (called a machine-based license) or to a registered iLok security key. Make sure your iLok security key is plugged in if that's your preferred option.

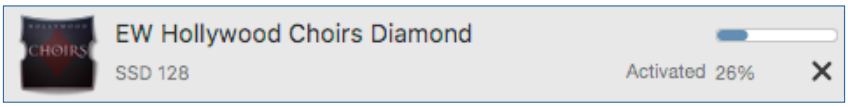


Step 5: Download Hollywood Choirs

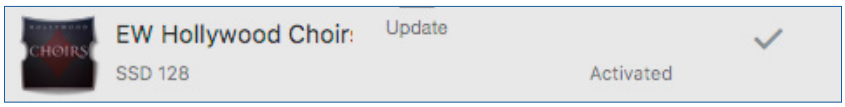
Before you begin downloading the library content for Hollywood Choirs, create a new folder called 'Play Libraries' in the location you wish to store the library. Once created, click the download icon (below) within the product panel to open a browser window where you can navigate to the 'Play Libraries' folder you just created.



The download process will now begin, with a blue bar displaying the download progress. Hit the “X” button if you want to pause the download process. Press “Resume” to continue the download where you left off.

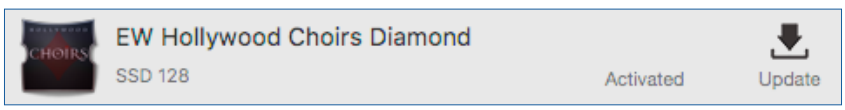


When a product is installed and ready to use, a check-mark is displayed.



Step 6: Update Hollywood Choirs

When an update becomes available for the Hollywood Choirs, it will appear in the Installation Center with the downward arrow icon above the word ‘Update’. Simply click the ‘Update’ icon to download and install the latest Hollywood Choirs update.



An Overview of the User Interface

Hollywood Choirs releases with Play 6, the latest version of EastWest's advanced sample engine that powers all of EastWest's virtual instruments, called Play Libraries.

Use the **Navigation Bar** located at the top to access all main areas (from left to right):



- **Main Menu** enables the opening and saving of instruments and more.
- **Settings Menu** includes access audio/midi setup, streaming settings, and more
- **Player** displays custom controls and a unique user interface for each Play Library
- **Browser** search and browse for instruments in the Libraries and Database areas
- **Mixer** features channel strips, FX Racks and Sub-Mixers for loaded instruments
- **Instrument Selector** easily switch between loaded instruments
- **Instruments Sidebar** access instruments and their Advanced Instrument Properties



See Ch. 4: Hollywood Choirs User Interface to learn more.

Men and Women Choirs

Hollywood Choirs features a total of 74 instruments divided into two main categories: Men's and Women's Choirs. The two main categories each contain a set of instruments within their respective sub-categories: Cons, Vowels and WordBuilder Multi.

Consonants and Vowels are available as separate Instruments, while WordBuilder Multis (short for Multi-Instruments) are pre-configured and ready to use with WordBuilder.

- **Consonants:** contain instruments that are looped and programmed with the Mod Wheel (CC1) to cross-fade between 2 dynamic layers.

- **Vowels:** contain a variety of different instrument types that are looped (with the exception of Staccato) and use the Mod Wheel (CC1) to cross-fade between 3 dynamic layers.

- **WordBuilder:** The Men's and Women's WB Multis folders contain Multi-Instruments that are designed to work with WordBuilder. A WB Multi (short for Multi-Instrument) will load with everything setup and ready to use with WordBuilder automatically, with 14 instruments that act as one in order to accommodate all the possible phonetic sounds WordBuilder needs to make words at any given moment.

See Ch. 3: Hollywood Choirs Instruments to learn more.

Joining an Award Winning Virtual Instrument Collection

Hollywood Choirs joins EastWest's vast virtual instrument collection that are the winner of over 100 industry awards, making Play Libraries the industry leader in highly detailed sampled instruments.

Altogether, Play Libraries are made up of an expansive range of sampled instruments encompassing a wide cross section of musical styles, from ethnic and orchestral, to rock and electronic, and beyond.



Using WordBuilder in Stand-Alone Mode

The steps below outline how to setup WordBuilder, play a pre-loaded phrase, audition other phrases, and try out a few quick tips. While it's easy to get WordBuilder singing quickly, familiarity with its deep editing features and practice yield the best results.

Step 1: Launch Play in Stand-Alone Mode

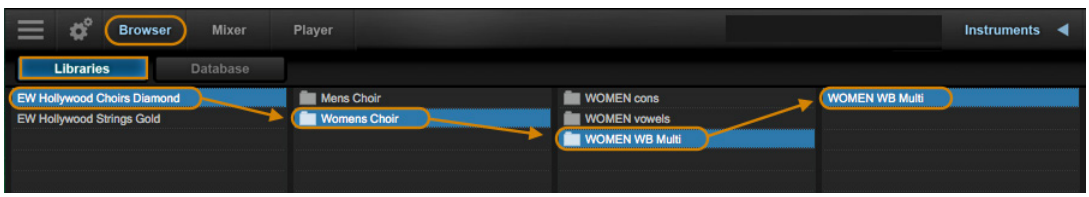
Launch Play in stand-alone mode, found in one of the following directories:

- **(Mac)** Mac HD / Applications / East West / Play
- **(Win)** C:// Program Files / East West / Play

Step 2: Load a WordBuilder Multi from the Browser View

Click on the Browser button in the top-left area of the Navigation Bar, then find 'EW Hollywood Choirs' in the left column of the Libraries area.

Click on either the Men's Choir or Women's Choir sub-folder, then click on either the Men's or Women's WB Multi folders. Double-click on a WB Multi in the right-column to load it.



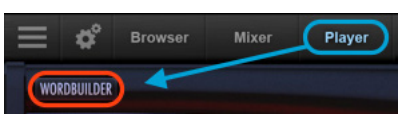
Each WordBuilder Multi requires a dedicated instance of Play. When loading a WB Multi, Play will replace all existing loaded instrument to ensure proper setup.

See The Browser View to learn more.

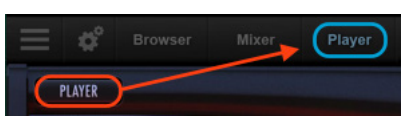
Step 3: Enter and Exit WordBuilder from the Player Area

You can enter and exit WordBuilder from the Player area by clicking the button in the top-left quadrant labeled 'WordBuilder' (to enter). The button state changes to 'Player' upon entering WordBuilder, and pressing it will exit WordBuilder and go back to the Player area.

- **Enter WordBuilder**: click the WordBuilder button located in the top-left corner of the Player view.



- **Exit WordBuilder:** click the Player button located in the top-left corner of the WordBuilder window (this will return you to the Player view).



Step 4: Play Your Keyboard To Hear The Choirs Sing

The WordBuilder window will appear with a pre-loaded phrase in the Text Editor area. On your MIDI controller, use the Mod Wheel (CC1) to control dynamics, and play the keyboard to cycle through the phrase, with every keystroke advancing to the next syllable in the word or phrase.

- **Audio Settings:** If you do not hear sound, make sure your audio output is setup correctly by clicking on the Settings Menu in the Navigation Bar, then click on the Audio Settings tab and select an Output Device.
- **MIDI Settings:** To setup a MIDI controller to play the instrument, click on the Settings Menu in the Navigation Bar, then click on the MIDI Settings tab and select a MIDI Device.

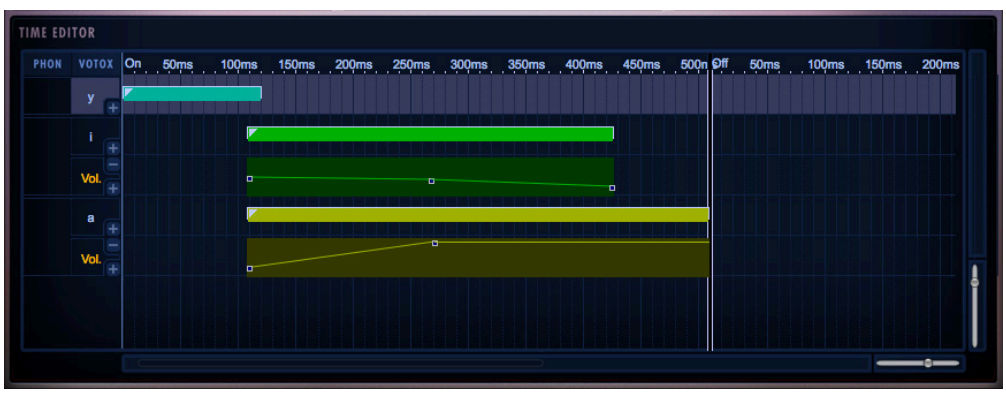
See The Settings Menu to learn more.

Step 5: Learn How To Use WordBuidler

Below are a couple of quick tips to get you started and a link to in-depth instructions.

- **Audition Phrases:** To audition preset Phrases, first delete the existing phrase in the Tex Editor, then click the Phrases button in the Tool area (highlighted in red below), and navigate to the English, German or Latin phrases from the pop-up menu and click on a phrase to load it.
- **Reset Position:** If you're unsure where in the phrase you've ended up, click the Reset Position button in the Tool area to reset the phrase back to the beginning of the text.

See Ch. 5: WordBuilder User Interface to learn more.



Using WordBuilder in Plug-in Mode

The steps below outline how to setup a 2-part (Men and Women) or 4-part choir (Soprano, Alto, Tenor, Bass) choir with WordBuilder. Hollywood Choirs was recorded in two sections to increase the overall power of the choir with overlapping ranges.

The Men's choir includes Bass and Tenor vocalists with a range between MIDI note 36 (C1) and 71 (B3), and the Women's choir includes Alto and Soprano vocalists with a range between MIDI note 53 (F2) and 86 (D5).

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Step 1: Load Play into Your DAW as a Plug-in

Each WordBuilder Multi requires a dedicated instance of Play. For help setting up Play as a plug-in within your DAW, please see Chapter 5 of the Play 6 User Manual: Using Play as a Plug-in.

See Support and Documentation to learn more.

- **2-Part Choir:** to setup WordBuilder with a 2-part choir (Men and Women), load 2 instances of Play into separate instrument tracks in your DAW.
- **4-Part Choir:** to setup a 4-part choir (Soprano, Alto, Tenor, Bass), load 4 instances of Play into separate instrument tracks in your DAW.

Step 2: Load a WordBuilder Multi into Each Instance of Play

Click on the Browser button in the top-left area of the Navigation Bar, then find 'EW Hollywood Choirs' in the left column of the Libraries area. Click on either the Men's Choir or Women's Choir sub-folder, then click on either the Men's or Women's WB Multi folders. Double-click on a WB Multi in the right-column to load it.

- **2-Part Choir:** into each of the 2 separate instances of Play, load the MEN WB Multi and WOMEN WB Multi. After this step, the 2-part choir setup is complete.
- **4-Part Choir:** into each of the 4 separate instances of Play, load (2) MEN WB Multis and (2) WOMEN WB Multi.

Step 3: Define the Key Range for the Each Choir Part

To continue setting up a 4-part choir, name the 2 instrument tracks containing the WOMENS WB Multis, Sopranos and Altos, and name the 2 instrument tracks containing the MENS WB Multis, Basses and Tenors.

If you plan to write each of the 4 parts separately, simply play within the range of each voice type. Typical vocal ranges for each part are outlined below.

- **Sopranos -** MIDI note 60 (C3) to MIDI note 86 (D5)
- **Altos -** MIDI note 53 (F2) to MIDI note 74 (D4)
- **Tenors -** MIDI note 48 (C2) to MIDI note 71 (B3)
- **Basses -** MIDI note 36 (C1) to MIDI note 60 (C3)

If you wish to record multiple parts simultaneously, but only want each part to respond to a specified key range (or key limit), we recommend using your DAW to define the key range values for the 4 instrument tracks that each vocal part is loaded into. Please refer to the documentation of your preferred DAW, as each handles this differently.

How To Adjust Volume, Pan, Microphone Mixes and Reverb

NEW FEATURE

A WB Multi is made up of 14 individual instruments that act as one Multi-Instrument. Play 6 now has the ability to change Volume, Pan, and Microphone Mixes across all instruments within a Multi. Simply make changes to these parameters in any one of the instruments within a multi, and it will affect all other instruments.



To apply Reverb to all instruments within a WB Multi, first make sure the Reverb button is illuminated (On), then click the 'Master' button on any instrument to apply Reverb globally to all the instruments.

All other parameter changes must be applied across <u>all</u> the individual instruments that make up a WB Multi. Use the **<u>Instrument Selector</u>** or the **<u>Instrument Sidebar</u>** (highlighted below) to switch between the 14 individual instruments and apply the same parameter changes to each of them.



Hints from the Producers

We want to mention a few things about the choir samples that may not be obvious. These hints are the sort of thing you can find being posted on our Soundsonline.com forum, so please contribute there anything you find that may help others.

Hint 1: Normal Attack and Legato Attack vowels in the Men and Women choirs all have a hard, staccato accent that kicks in at velocity 102 and above. This means that independent of everything else, if you hit the keys hard, you will get a strong attack. This can be very useful for fast, accented passages. When writing smooth lines, avoid these higher velocities.

Hint 2: Unusual and non-English vowel or consonant sounds can be created by layering vowels or consonants in WordBuilder. For example: the French word "Louvre" can be created in Votox with this text: lOU vrgU. In the first syllable overlap "O" and "U" so that they play together until note off. (To accomplish this overlap, drag the ends of the horizontal bars in WordBuilder's Time Editor.) In the second syllable, overlap "r" and "g" for a French R. Experiment to find your own combinations and post what you find on the WordBuilder forum.

Hint 3: The Latin word "maximus" can be written either like this in Votox: "maX E mOS", or like this: "maX SE mOS". In the second example, the S-sound within the "maX" syllable gets connected to the next syllable because the S-sound is triggered again at the beginning of the next syllable.

Hint 4: Many words work better if you repeat a vowel twice. The word "drum" is usually written like so in Votox: "drum", but it can also be written as: "druum". When you let go of the note, "u" is triggered again for a short period of time before the "m." You can overlap and cross-fade the second "u" and the "m" for a smooth realistic effect.

Hint 5: Consider a word like "rain," which can be written like so in Votox: "reEn". The realism of the vowel sound can be enhanced by adjusting the curve on the "eE" cross-fade. Have the "e" decrease from 127 down to y=50, instead of near 0. This detail makes for a more convincing diphthong.

Hint 6: Generally, the slurred legato is best for a rolling legato line. The regular legato is good for fast, clean connected notes. The legato attack is the least natural and most perfect sounding of all the attacks. Nice lines can be created by mixing the two styles, for example: Normal, Legato, Legato, Legato, Normal, Legato, etc.

Hint 7: When consonants are even slightly too loud, it can sound unnatural. Real choirs in a hall are hard to understand. Consonants that are too soft are preferable to consonants that are too loud.

Hint 8: Use the Mod Wheel and CC 11 for expression. It really helps.

See How To Control Dynamics and Using Per-Letter Automation

Hint 9: The preset, default relationship in volume between the vowels and consonants in all the multis is supposed to be consistent, but slight differences may be present. For this reason, we recommend that you don't do any final tweaking in WordBuilder until you have loaded the multi you plan to use in the final version.

Hint 10: If your choir is sounding fake, try leaving more space between consonants, or make each consonant longer. Try overlapping certain consonants and possibly cross-fading them. Sometimes legato attacks can make things sound better or worse. Sometimes you need to use slurred legato on the vowel to improve a consonant-vowel transition. Sometimes an accent on a certain syllable is crucial to realism. Hit the keys on the keyboard hard for an accent.Sometimes it's a good idea to fix MIDI velocity in your sequencer at a single value. This can improve smoothness and make editing in WordBuilder easier. Use CC 11 and the Mod Wheel to inject dynamics.

Hint 11: We really recommend using Votox exclusively. Once you get good at sounding things out and you learn the letter symbols, it's powerful stuff.

Hint 12: If all else fails we have included over 100 phrases to get started and speed up your work flow.

See Loading, Saving and Organizing Phrases to learn more.

Enjoy,
Nick Phoenix and Doug Rogers

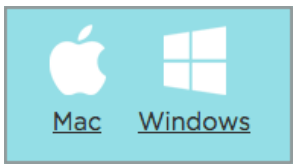
Hollywood Choirs Is NKS-Ready

EastWest's award-winning collection of virtual instruments are now fully compatible with NKS, including the ability to browse instruments, preview sounds, and immediately access pre-mapped instrument parameters all within Native Instruments' Komplete Kontrol and Maschine hardware and software. Follow the steps below to make all installed Play Libraries NKS-ready, including Hollywood Choirs.

See Native Instruments - This is NKS to learn more.

Step 1: Download the NKS Support Installer

To visit the Software & Product Updates page of the EastWest Support Center, please click the following link: http://www.soundsonline.com/Support

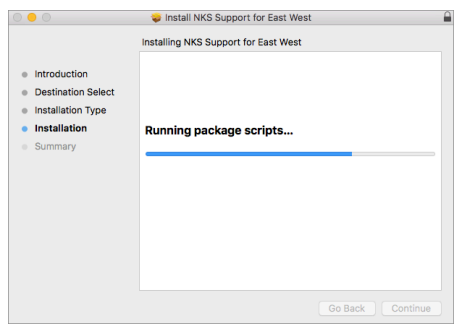


Scroll down to find the 'NKS Support Installer' section, then click on either the Mac or Windows icons to download the installer per your operating system. The download size is approximately 790 mb.

Step 2: Run the NKS Support Installer

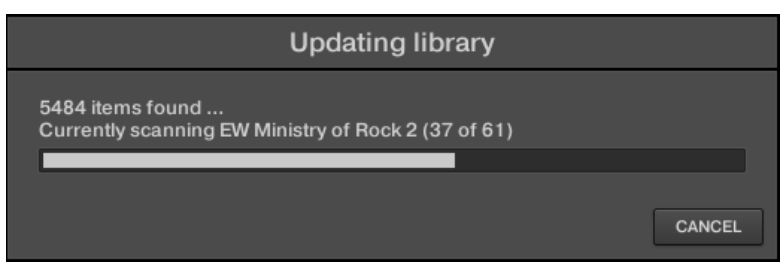
Once the NKS Support installer has downloaded, close all programs, then double-click on the installer to launch it and proceed through the prompts to complete the installation.

Please note! The NKS Support Installer can be run anytime after installing additional EastWest Play Libraries to make them NKS-Ready.



Step 3: Launch Native Instruments Software to Update Libraries

Now launch either the Komplete Kontrol or Maschine software to begin the 'Updating Library' scan of all installed Play Libraries, making them NKS-ready for use with Native Instruments Komplete Kontrol and Maschine software and hardware.



Optimizing Playback and Performance

The Sample Cache settings optimize the streaming settings based on your computer specifications. The right settings can improve the streaming performance of Play 6.

Adjusting the Streaming Cache

To access the Streaming Cache, click on the Settings Menu button (the gear icon located in the top-left corner) in the Navigation Bar, then click the Streaming tab.

Please Note! As a general rule, find the lowest setting that also results in smooth playback. If dropped voices or CPU spikes occur, simply raise the 'Cache Level'.

The lowest recommended 'Cache Level' setting depends on:

- the speed of the computer's processor (CPU)
- the amount of installed memory (RAM)
- the drive type and connection
- the demands of a project

Adjusting the 'Cache Level' affects the following:

- the loading time of your project
- the amount of memory usage
- the playback performance

Outlined below are recommended 'Cache Level' settings based on your computer specifications, but please be aware that the demands of a given project are also a factor in determining the best 'Cache Level' setting. For example, with the same computer specifications, a large Hollywood Orchestra template will require a higher setting than a project with a few small instruments from Fab Four. That's because raising the 'Cache Level' results in more of each sample being loaded into memory (RAM), reducing the reliance on disk streaming, which allows larger and/or more instruments to playback smoothly at a given time.

In the 'Settings' menu under the 'Streaming' tab is a list of available drives that appear under 'Disk Volume' with their respective 'Cache Level' settings to the right. Use the up and down arrows to adjust this level for each drive.

- **A 'Cache Level' between 0 - 1**: results in the fastest load times and smallest memory (RAM) usage, but requires a fast, multi-core processor (CPU) and Solid State Drives (SSD) with a fast connection type to achieve smooth playback

- **A 'Cache Level' between 2 - 3**: results in less demands on the processor (CPU) but requires more memory (RAM) usage. These settings are best for a computer with an average CPU, but still plenty or RAM and SSDs with a fast connection type

- **A 'Cache Level' between 4 - 5**: results in the most memory (RAM) usage, but makes less demands on the processor (CPU) and hard drive. These settings are recommended for computers with an aging CPU and traditional 3.5" HDDs.

Hard Drive Specifications

There are several factors that determine what kind of performance you can expect when streaming large sample libraries from a hard drive. Those outlined below include details on the speed of the drive itself, the speed of the connection type, and other options for increasing data transfer speed.

- **Solid State Drive (SSD)** is the best drive option, giving you seek and retrieval times that are nearly instantaneous, allowing for smooth performance at low latencies even when working with larger projects. To take full advantage of the speed offered by SSDs, they must be installed internally to a SATA III connection, or externally via a USB 3.0 or Thunderbolt port. Connection types like SATA II, USB 2.0 and Firewire 400 / 800 do not offer speeds that take full advantage of SSDs.
- **Hard Disk Drive (HDD)** running at 7200 rpm (non-energy saving) is the minimum hard drive specification that will achieve adequate performance. It's best to install this internally to either a SATA II or SATA III connection, or externally via eSATA or USB 3.0. Slower connection types like USB 2.0 or Firewire 400 / 800 will offer less performance, and may not be fast enough for instruments with heavy sample loads that playback many simultaneous voices.
- **Raid 0 Configuration** is an option for professional users to achieve high performance when using streaming drives. There are many resources available online that provide instructions, or you can consult a computer specialist.
- **Mac Pro Retrofit** is a way to optimize older Mac Pro towers that have previous generation ports like USB 2.0, and the internal hard drive bays use SATA II connections. Neither take full advantage of the speed offered by SSDs. A way around this is to install an expansion card into a PCI-e slot (x2 or larger). The biggest boost in performance is provided by SATA III interface cards that connects up to two 2.5" SSDs. When used in a RAID 0 setup, speeds of up to 800 mb/s can be achieved. This is much greater than the 300 mb/s offered by SATA 2 interface.

Hard Drive Considerations

Some less obvious considerations include only filling your drive up to 70% capacity, spreading libraries across multiple drives, and dedicating drives only to stream libraries.

- **Dedicated Streaming Drives** can achieve better performance because they are dedicated to streaming and do not share the connection's throughput with other tasks like running an operating system or loading projects files.
- **Managing Drive Space (HDD only)** is important to maintain the speed at which data can be read from a drive. Try to keep around 30% of each streaming drive empty to avoid reduced performance, which can drop by half when the drive is up to or greater than 90% filled.
- **Using Multiple Streaming Drives** is recommended when using large sample libraries like the Diamond edition of Hollywood Orchestra. For instance, because Hollywood Strings and Hollywood Brass are both large libraries, putting them on separate drives will help avoid performance issues when playing back large projects that have high voice counts.

Library Considerations

Another way to improve performance when streaming large libraries is to use libraries that have smaller CPU footprint, like the Gold edition libraries that use 16-bit samples as opposed to 24-bit samples, or 'Lite' instrument versions designed with fewer samples.

- **'Lite' Instrument (LT)** are available for many Play Libraries that are programmed with few samples, lowering voice counts. This can help relieve computer resources that are being taxed as the instrument count rises.
- **Using Smaller Library Editions** require less computer resources by using a lower bit depth (16-bit versus the standard 24-bit) and fewer microphone positions. This enables those with less capable systems access to the same basic soundset. Below is a table showing the differences between the different editions.

COMPARISON OF EDITIONS

	Silver	Gold	Gold X	Platinum	Diamond
Instruments	Selection	All	All	All	All
Bit Depth	16-bit	16-bit	16-bit	24-bit	24-bit
Mic Positions	1	1	2	3	5



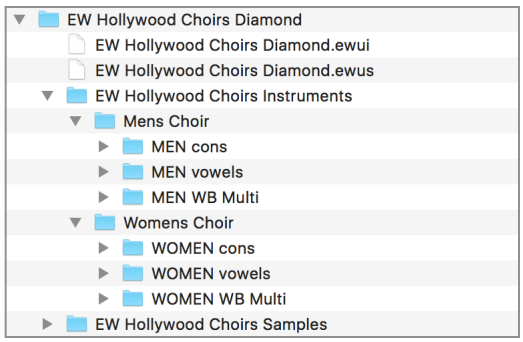
Ch. 3: Hollywood Choirs Instruments

25 Inside the Main Library Folder
25 Instruments and Multis Descriptions
26 Consonants
27 Vowels
28 WordBuilder Multi
28 How To Control Dynamics
29 Release Trails

Inside the Main Library Folder

EW Hollywood Choirs Diamond is the name of the main library folder of Hollywood Choirs.

Inside this folder is the EW Hollywood Choirs Instruments folder that contains Men's Choir and Women's Choir folders. In each of these folders are the Cons and Vowels folders, which contain individual instruments, and the WB Multi folders, which contain Multis designed for use with WordBuilder.



The Hollywood Choir's Instruments folder is linked to the Libraries Browser in Play, where Instruments and Multis are loaded. When loading an instrument, Play will find the associated samples in the EW Hollywood Choirs Samples folder, which contains encrypted content that is only accessible in Play with the respective product license and activation.

Also contained in the main library folder is the [.ewui] and [.ewus] files that allow the EW Installation Center to track the version of the Instrument and Sample folders and notify you if updates are available.

See Step 6: Update Hollywood Choirs to learn more.

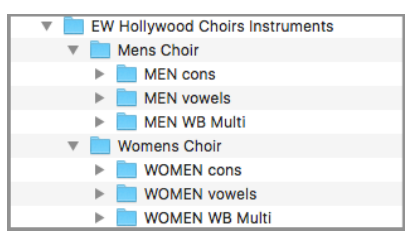
Instruments and Multis Descriptions

Hollywood Choirs features incredible singers, with large vocal ranges. Recorded in two sections, the Women's choir features Soprano and Alto vocalists with a range between MIDI note 53 (F2) and 86 (D5), and the Men's choir features Tenor and Bass vocalists between the range of MIDI note 36 (C1) and 71 (B3). Combining sections allowed us to increase the overall power of the choir by taking advantage of the overlapping ranges.

The Men's and Women's Choirs folders contain identical sets of instruments and Multis in their respective Cons, Vowels and WB Multis folders.

There are 2 types of instruments available in Hollywood Choirs: Instruments and Multis.

Consonants and Vowels are available as separate Instruments, and WB Multis are Multi-Instruments that are pre-configured and ready to use with WordBuilder.



Below are descriptions of the Instruments or Multis contained in each folder along with a table containing the instruments and Multis name, and other relevant details. Instruments use looped samples to sustain until note(s) are released, with the exception of the short articulations contained in the Vowels folders.

Consonants

Each Consonant is available as a separate instrument, programmed with the Mod Wheel (CC1) to cross fades between 2 dynamic layers (mp and ff).

CONSONANTS

MENS Instruments	WOMENS Instruments	Votox	Enunciation
MEN b.ewi	WOMEN b.ewi	b	blue, slab
MEN d.ewi	WOMEN d.ewi	d	red, candor
MEN g.ewi	WOMEN g.ewi	g	green, leg
MEN j.ewi	WOMEN j.ewi	j	orange, fidget
MEN l.ewi	WOMEN l.ewi	l	blue, less
MEN m.ewi	WOMEN m.ewi	m	money, hammer
MEN n.ewi	WOMEN n.ewi	n	green, snug
MEN r.ewi	WOMEN r.ewi	r	red, car
MEN rr.ewi	WOMEN rr.ewi	r!	rojo, perro
MEN th.ewi	WOMEN th.ewi	t!	the, neither
MEN v.ewi	WOMEN v.ewi	v	olive, avert
MEN w.ewi	WOMEN w.ewi	w	wait, awash
MEN y.ewi	WOMEN y.ewi	y	yellow, yonder
MEN z.ewi	WOMEN z.ewi	z	zero, poison
MEN unpitched.ewi	WOMEN unpitched.ewi	*see table below*	

Men and Women non-pitched consonants contain low (beginning at C2) and high frequency (beginning at C4) variations of "unvoiced" samples.

UNPITCHED CONSONANTS

LF / HF	Consonants	Votox	Enunciation
C2 / C4	s	s	silver, lace
C#2 / C#4	ch	c!	chair, catch
D2 / D4	f	f	file, enough
D#2 / D#4	ch2	h!	nacht (night)
E2 / E4	k	k	black, coal
F2 / F4	p	p	pink, upper
F#2 / F#4	qu	q	quick, acquaint
G2 / G4	sh	s!	flesh, nation
G#2 / G#4	t	t	white, true
A2 / A4	th	T!	theme, sloth
A#2 / A#4	x	x	fix, excess
B2 / B4	h	h	hat, ahead

Vowels

Each Vowel is available as a sustained loop instrument that uses the Mod Wheel (CC1) to cross fade between 3 dynamic layers (*mp*, *mf*, and *ff*). Certain vowels (ah, ee, eh, oh, oo) also have have multiple articulations including Legato, Staccato, Vib FF, and Epic.

- **Legato** instruments include multiple sample layers to handle both legato and non-legato playing styles. Playing 2 connected notes up to an octave in either direction triggers a legato sample layer, which captures the intervening pitch slide when moving between two notes, and playing non-connected (at the beginning of a note, when holding a note or at the end of a phrase) triggers a looped sustain sample layer that uses the Mod Wheel (CC1) to cross-fade between 3 dynamics and Expression (CC11) to control loudness.
- **Staccato** instruments contain short notes with 2 RR (Round Robin) samples, and use MIDI Velocity, Mod Wheel (CC1) and Expression (CC11) to control loudness.
- **Vib FF** instruments contain looped double forte (*ff*) sustain vibrato samples that use the Mod Wheel (CC1) and Expression (CC11) to control loudness.
- **Epic** instruments are made up of looped sustain layers, including a vibrato mezzo-forte (*mf*) layer and a vibrato double-forte (*ff*) layer that can be cross-faded between with the Mod Wheel (CC1), with CC11 to control loudness.

VOWELS

MENS Instruments	WOMENS Instruments	Votox	Enunciation
MEN aa.ewi	WOMEN aa.ewi	A	dragon, majesty
MEN ah Legato.ewi	WOMEN ah Legato.ewi	a	copper, wander
MEN ah Stac.ewi	WOMEN ah Stac.ewi	-	-
MEN ah Vib FF.ewi	WOMEN ah Vib FF.ewi	-	-
MEN ah.ewi	WOMEN ah.ewi	-	-
MEN ee stac.ewi	WOMEN ee stac.ewi	E	green, ski
MEN ee.ewi	WOMEN ee.ewi	-	-
MEN eh stac.ewi	WOMEN eh stac.ewi	e	red, steady
MEN eh.ewi	WOMEN eh.ewi	-	-
MEN Epic ah.ewi	MEN Epic ah.ewi		
MEN eu.ewi	WOMEN eu.ewi	U	put, could
MEN ih.ewi	WOMEN ih.ewi	i	index, finger
MEN oh Legato.ewi	WOMEN oh Legato.ewi	o	yellow, ocean
MEN oh Stac.ewi	WOMEN oh Stac.ewi	-	-
MEN oh.ewi	WOMEN oh.ewi	-	-
MEN oo Stac.ewi	WOMEN oo Stac.ewi	O	blue, pool
MEN oo.ewi	WOMEN oo.ewi	-	-
MEN uh.ewi	WOMEN uh.ewi	u	money, rough

WordBuilder Multi

The Men's and Women's WB Multi folders each contain a special Multi-Instrument (Multi) that is designed to work with WordBuilder.

A WB Multi (short for WordBuilder Multi-Instrument) will load with everything setup and ready to use with WordBuilder automatically, including assigning each instrument within the multi to separate MIDI channels (1-14), assigning Voice Type (Men or Women), and loading with a default phrase preset.

The following tables list the names of the WB Multis and a brief description.

WORDBUILDER MULTI

MENS Multi	WOMENS Multi	Description
MEN WB Multi.ewi	WOMEN WB Multi.ewi	Mod Wheel (CC1) crossfades 3 dynamics

Each WB Multi is made up of 14 instruments that act as one. This is in order to accommodate all the possible phonetic sounds WordBuilder needs to make words at any given moment.

Once loaded, use the Mod Wheel (CC1) on your MIDI controller to initialize the separate instruments contained in the Multi, then play your MIDI keyboard to cycle through the phrase,with every keystroke advancing to the next syllable in the word or phrase.

How To Control Dynamics

In order to achieve realism, the instruments in Hollywood Choirs are programmed with MIDI Continuous Controllers (CC's) that control volume, expression and dynamics. Being able to change these controls continuously and mid-note, allows you to shape musical lines as a live choir would.

MIDI Continuos Controllers (CC's) can be automated manually in a DAW, or assigned to the knobs and/or sliders of your MIDI controller, and recorded into a DAW live. If you prefer to automate CC's manually as opposed to recording it in live, find the CC controller lane in your DAW and automate values between 0 and 127 (the range of values defined by MIDI specification).

When first loading an instrument, make sure to Initialize the Mod Wheel (CC1) and Expression (CC11) controls to jog their values, ensuring they sound as the producers intended. You can also input a starting value into the MIDI Continuous Controller (CC) lanes inside your preferred DAW. This is especially important when using the WB Multis, as they are made up of 13 separate instruments.

- **The Mod Wheel (CC1)** is used to cross-fade between multiple sample layers of varying dynamic levels. In Hollywood Choirs, vowel instruments are programmed with 3 layers of varying dynamics: ***p*** (soft), ***mf*** (medium-soft), and ***f*** (loud), and consonant instruments are programmed with 2 layers of varying dynamics: ***p*** (soft) and ***f*** (loud). WB Multis contain all vowels and consonants, and are programmed

accordingly. Starting with the Mod Wheel all the way down, you can write a musical line that begins quiet and gradually crescendos as you push the Mod Wheel up (or vice versa).

- **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 used on the short articulations in the vowels folders (staccato and marcato) to affect an instrument's loudness depending on how soft or hard you play the notes on your MIDI controller. 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. When used in this way, MIDI Velocity does not control loudness.

See Performance Scripts to learn more.

Release Trails

Release trails are the captured sound of the acoustic space from the moment a note ends until the decay of the sound. These complex and subtle reflections off the walls, ceiling, and other surfaces are triggered when a note-off MIDI message is received (when you release a note on your MIDI controller).

Regardless of when the note-off MIDI message is received, the Release Trails will playback naturally because Play is programmed to seamlessly blend them by matching the amplitude relative to it's respective note in real-time, no matter at what point in the AHDSR Envelope the note ends.

In Hollywood Choirs there are 5 available Mixes (Diamond Edition only), containing unique microphone configurations that have varying degrees of release trail decay times based on their position in the acoustic space.

See Mixes to learn more.



Ch. 4: Hollywood Choirs User Interface

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49 The Mixer View
50 The Main Menu
51 The Settings Menu

The Main Navigation Bar

The Navigation Bar is located at the top of Play 6 and includes (from left to right): Main Menu, Settings Menu, the Browser, Mixer and Player buttons, an Instrument Selector, and the Instruments Sidebar panel.



The Player View

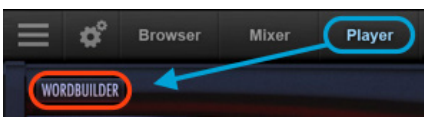
When an instrument from Hollywood Choirs is loaded into Play 6, the Player view will display the Hollywood Choirs user interface and the loaded instrument will appear in the Instrument Selector (and in the Instruments Sidebar panel).

See How To Load Instruments to learn more.

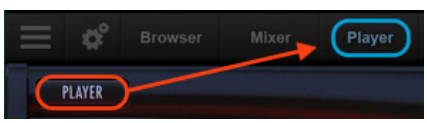
How To Access WordBuilder

When a WordBuilder Multi is loaded, the WordBuilder window becomes accessible.

- **Enter WordBuilder**: click the WordBuilder button_ located in the top-left corner of the Player view.



- **Exit WordBuilder:** click the Player button located in the top-left corner of the WordBuilder window (this will return you to the Player view).





The Master Instrument Channel

The Master Channel is a strip along the right side of the Hollywood Choirs UI that affects the master output for the selected instrument.



Channel Source

Click in the Channel Source field to reveal a drop-down list with options to configure the output.



- **Stereo** outputs the original stereo channels as they were recorded.
- **Mono** sums the left and right channels into a dual mono channel.
- **Mono From Left** outputs the left channel to a dual mono output, discarding the right channel.
- **Mono From Right** outputs the right channel to a dual mono output, discarding the left channel.
- **Swap Left and Right** outputs a reverse stereo image of the original audio (swapping the left and right channels).

Quick Tip! In Hollywood Choirs, the Swap Left and Right option can be used to switch the perceived position the men's and women's choirs as they were originally recorded.

Tuning

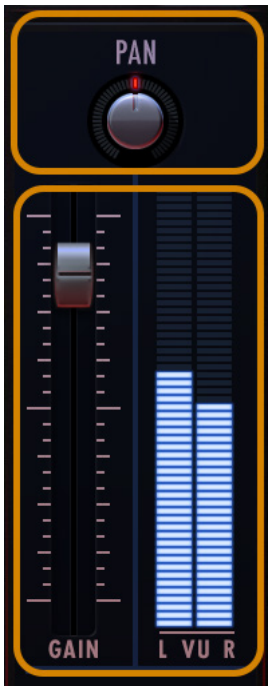
The Tune control includes coarse and fine tuning modes. Coarse tuning adjusts the pitch up or down in semitone increments, while fine tuning moves the pitch up or down in increments of 1/100th of a semitone (called “cents”).



Change the tuning value by clicking on the arrows inside the spinboxes above the coarse and fine tuning buttons, or use the Tune knob with a selected tuning mode. The spinboxes display the tuning values for both the coarse and fine tuning modes.

Pannning

The Pan knob adjusts the volume of the left and right audio signal to change the perceived position of the sound source, while perserving the relative panning of the individual microphones in the Mixes .



The choirs have already been recorded in their respective stage positions, and while not neccessary to modify this to achieve a desirable spread, you can use the Pan knob to further define their position in the stereo image, or for special effect.

Master Fader

The Master Fader adjusts the volume of the instrument’s master output, without affecting relative mix of the microphone submixer channels. Two audio meters display the signal of the stereo output in real-time.

Stereo Outputs

By default the ‘Main L/R’ option in the Output Channel dialog is selected. To assign an instrument to a stereo output other than the default, click in the field and select 1 of 9 stereo outputs.



This option allows you to send the stereo outputs of each loaded instrument to separate audio tracks in your system’s sound card (in stand alone mode) or in your host sequencer (as a plug-in).

In Hollywood Choirs, WordBuilder Multis load with multiple instruments that act as a single instrument. The outputs should remain assigned to a single stereo output.

Mute and Solo

When enabled, the Mute button silences the audio output for the selected instrument. When enabled, the Solo button silences the audio outputs for all instruments that are not currently soloed.

Mixes

The Mixes section is located to the left of the Master Channel, and to the right of the associated Mix Array on the Hollywood Choirs UI.



The Mixes section allows you to control the volume, pan, on/off state, and the mute/solo state of the 5 Mixes contained in Hollywood Choirs (described below).

Click on the light below each sub-mix to toggle its on/off state, effectively loading or unloading the samples from memory.

The Mute (M) and Solo (S) buttons function the same as the Master Channel. That is, when enabled, the Mute button silences the audio output for the selected instrument. When enabled, the Solo button silences the audio outputs for all instruments that are not currently soloed.



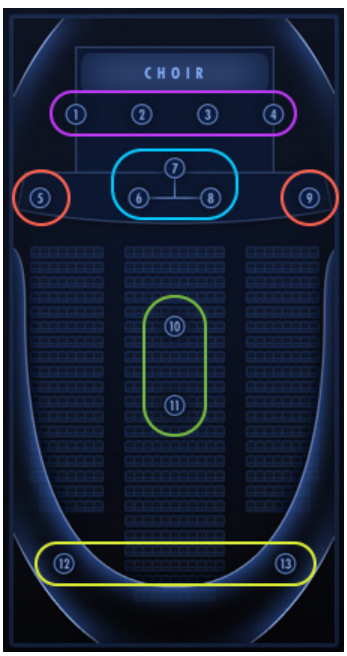
Please Note! The Diamond Edition of Hollywood Choirs includes 5 different microphone mixes: Main, Close, Stage, Mid and Surround.The Gold Edition of Hollywood Choirs includes the Main mix, and the Gold X Edition includes the Main and Surround mixes.

Microphone Array

The Microphone Array is located in the center of the Hollywood Choirs UI, and displays the microphone configurations used in each of the 5 Mixes.



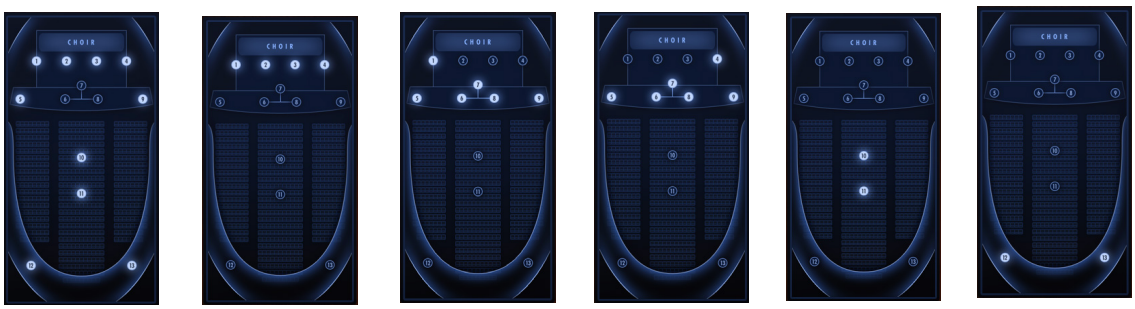
The 13 microphones used in the recording of Hollywood Choirs is shown below, broken down into their respective microphone mix configurations.



- **Spot:** these microphones are numbered 1-4 in the Mix Array. They were placed in a row, in close proximity to the choir.
- **Wide L/R:** these outrigger microphones are numbered 5 and 9 in the Microphone Array, and were placed at the edges of the stage, capturing the most stereo width.
- **Decca-Tree LCR:** a configuration of 3 omnidirectional microphones, numbered 6-8 in the Microphone Array, placed center stage in a triangle formation.
- **Mid:** contains a Neumann Binural Dummy-Head and Josephson microphones at the audience perspective, numbered 10 and 11 in the Microphone Array.
- **Far L/R:** the microphones numbered 12 and 13 that are positioned in the far back corners on the left and right capture the most ambience of all the mics.

Each of the Mixes use various configurations of these microphones. From left to right, the Mixes include: Main, Close, Stage, Mid, and Surround. The Mens Stage Mix contains the far-left spot mic, while the Womens Stage Mix contains the far-right spot mic.

Please Note! The Main Mix is disabled when any of the other Mixes are turned on, since they contain some of the same microphones used in the Main Mix. The exception to this is the Surround Mix, which can be combined with the Main Mix to add more ambience.



Reverb

Play uses a special type of reverb called Convolution that uses short impulses to excite a space, like a studio or cathedral, and capture the resulting "impulse response" (IR).

That IR contains the characteristics of that space, which can then be applied, or convolved, with the input signal to simulate that sound playing in that given space.





- **On Button:** Click the 'On' button to toggle the on/off state of the Reverb. When enabled, the Reverb 'On' button becomes illuminated.

- **Preset List:** Click in the field containing the name of the currently selected IR to reveal a drop-down list of all available IRs, with a check-mark indicating the current selection. Click on the desired IR to select it.

- **Volume Knob:** Adjust this value to specify the amount of reverb to apply to the signal.

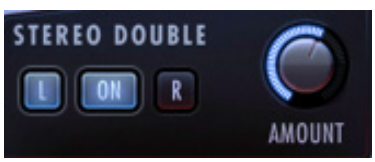
- **Master Button:** Click on this button to toggle the on/off state of the Master Reverb control. When enabled the Reverb 'On' button becomes illuminated and reverb is applied to all instruments within a given instance of Play.

Please Note! The Master Reverb control saves CPU resources by applying the selected IR to all loaded instruments within a single instance of Play, including Play Libraries that do not include a Master Reverb button themselves.

Stereo Double

The Stereo Double controls allow you to set the width of the stereo spread. This only works when 'Stereo' is selected in the the Channel Source of the Master Channel (which is the default setting).





Select between the Left (L) and Right (R) signal with the buttons on either side of the On button, then use the 'Amount' knob to dial in the desired depth.

Turning the 'Amount' knob all the way to the left results in no effect, the equivalent of disabling the effect entirely. Turning the 'Amount' knob all the way to the right results in the maximum stereo spread.

Envelope

The Envelope controls the volume of a sound over time across 5 stages. Each knobs controls the length or loudness of one or more stages of the envelope. All Play Library instruments are programmed with default Envelope values to achieve a natural sound. Changing this may result in less than natural results.



Stages of an Envelope

The Attack, Hold, and Decay stages of the envelope determine how long it takes for the sound to go from the initial attack to the beginning of the the sustain stage. Typically, a sound begins to drop in volume immediately after reaching its loudest point, but using the Hold value maintains the volume at its loudest point until reaching the decay stage.



- **Attack**: measured in milliseconds (ms), this stage starts at the beginning of the note until it reaches its highest volume.
- **Hold**: this stage maintains the loudest volume of the attack for the number of milliseconds (ms) specified.
- **Decay**: the time in milliseconds (ms) it takes to drop from the highest point of the attack or hold stage, to the sustain stage that follows.
- **Sustain:** specifies the loudness of the sound in decibels (db) after the intial attack, and until the note is released.
- **Release:** determines how long the sound remains audible, in milliseconds (ms) after a note is released.

Performance Scripts

A performance script changes the sample playback of an instrument, and can be automated using MIDI Continuous Controllers (CCs). Hollywood Choirs contains 4 performance scripts that are described below.



Automating Performance Scripts

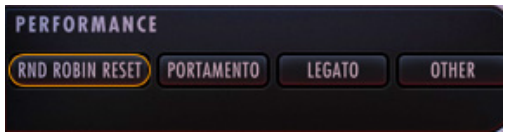
Performance scripts can be automated by sending MIDI Continuous Controller (CC) values to the specified controller lane.

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.

CC	Portamento	Legato	Other (True-Legato)
5	Time	Time	
22			Poly / Mono
65	On/Off		
68		On/Off	

Round Robin Reset

Round Robin (RR) is a sampling technique of recording multiple takes of the same note (played in a similar manner), to capture the inherent variation from one to the next. When playing an instrument that includes RR samples, Play will alternate between these samples to avoid the unnatural sound of the same note (and identical sample) playing repeatedly. Any articulation with "RR" in its name uses round robin technology. Those with an "x3," "x4," etc, use 3, 4, or more sample variations per note.



The Round Robin Reset control solves the one potential problem with this sampling technique. For example, because Play remembers which sample should be played the next time a note sounds, if a round-robin patch contains two samples, A and B, and a piece uses that note 7 times over the whole piece, the playback will be 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.

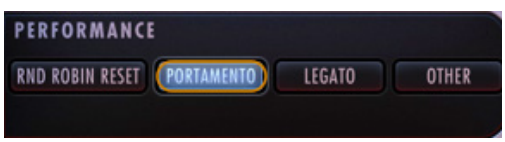


You can use the Round Robin button to reset all round robin articulations on demand, or assign either a MIDI note or MIDI Continuous Controller (CC) to reset them directly from a MIDI controller or from the controller lane in your DAW.

These options are found in the 'Other' tab of the Setting menu. The numeric value in the spin box specifies which note number (C3 = 60) or which MIDI Continuous Controller (CC) will be interpreted as a reset. Once set, all the round robin instruments in any given MIDI channel will be reset when that note or CC value is received.

The Portamento Script

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).



The Legato Script

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 Continuos Controller 5 (CC5). The legato script also disables release trails and turns on reverb to ensure smooth playback of a melodic line.

Please Note! The legato script is only an effect being applied to an instrument and not the same as the true-legato instruments that have actual sampled legato intervals and use the 'Other' script described below.



The Other Script

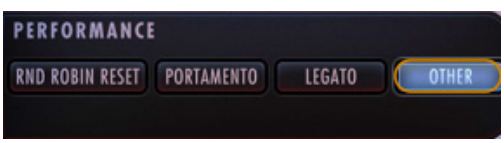
The 'Other' (True Legato) script is forces monophonic behavior and uses MIDI Velocity sensitivity to adjust the timing of the legato transition's playback.

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 view. 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.

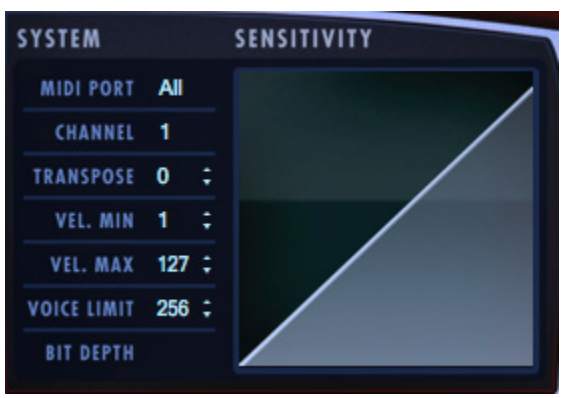


System and Sensitivity

This area contains several settings, some of which can also be found in the Advanced Instrument Properties within The Instruments Sidebar.



- **MIDI Port** defines which available MIDI devices are enabled (stand-alone only).
- **Channel** Omni mode receives MIDI data on all channels, while 1 through 16 indicates a specific channel for receiving the MIDI data.
- **Transpose** raises or lowers the incoming MIDI note by increments of +/- 1 semitone.
- **Velocity Min / Max** specifies the minumum velocity and maximum velocity range for a given instrument. Values below the minimum or above the maximum velocity are respectively remapped to the lowest and highest values.



- **Voice Limit** specifies the maximum number of voices that an instrument can playback. If an instrument receives more voices than the voice limit value, it will cut off voices that began playing first. Keep in mind that there are instruments that play more than one sample when sounding a note (such as instruments that use cross-fading, have release trails and/or multiple microphone positions).
- **Sensitivity** determines what part of the dynamic range the instrument is most sensitive to, ranging in values between -100 and +100. The Sensitivity Curve graph included in Hollywood Choirs will reflect changes made here.

Status Bar

The Status Bar tracks system usage for CPU, Disk, Voices, and RAM usage. Monitor the usage and if neccessary use the 'Sample Cache' settings located in the Settings Menu under Streaming tab.



- **CPU:** the percentage of the total processor capacity Play is consuming.
- **Disk:** the number of kilobytes per second (kB/s) data is being streamed from disk
- **Memory:** The number of megabytes (MB) of RAM being used by loaded samples.
- **Voices:** the number of samples, not just notes, currently being played.

See Optimizing Playback and Performance to learn more.

The Virtual Keyboard

The virtual keyboard at the bottom of the Play user interface is color coded: White keys represent the playble range of an instrument, Tan keys indicate no samples are loaded, and Blue keys are keyswitches that enable the ability to switch between different articulations within an instrument.



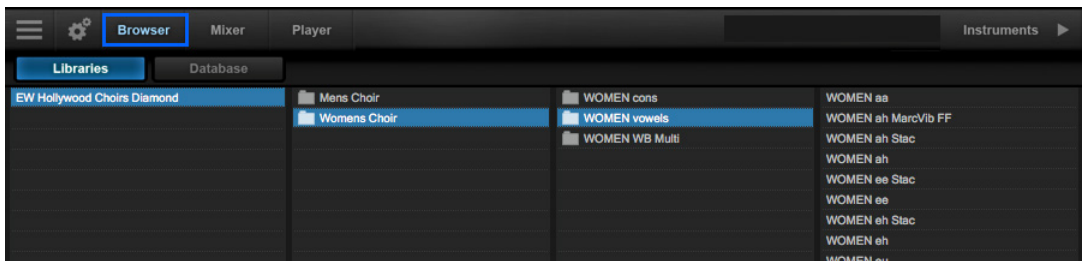
The Browser View

2 different search modes are available in the Browser view that enable you to find the instrument(s) you're looking for: Libraries and Database.

- **Libraries** allows you to search for instruments within their original Play Library file structure. Existing Play users will be familiar with this one.
- **Database** - allows you to conduct a direct search with key words, or narrow down search results by selecting attribute tags across a variety of categories.

Libraries Browser

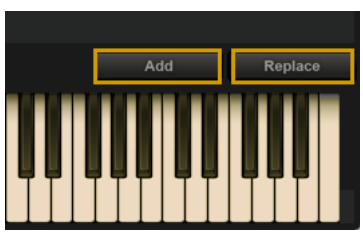
The left column of the Libraries browser is where all installed Play Libraries populate. Click on EW Hollywood Choirs and navigate through the sub-folders in the middle two columns until the right column populates with instruments.



The Men's Choir and Women's Choir folders are identical sets. In each of the folders are Cons and Vowels folders containing separate Instruments for each vowel and consonant, and WB Multi folders containing Multis (Multi-Instruments) that are designed to be used with WordBuilder.

How To Load Instruments

To load an instrument, select it from the right column, and click either the 'Add' button or the 'Replace' button.



Click the 'Replace' button, or simply double-click, to replace the currently selected instrument with a new one.

Click the 'Add' button, or double-click while holding [shift], to add the instrument to the existing loaded instruments.

If more than 1 instrument is loaded when you click the 'Replace' button, a prompt will give you the option to replace the current selected instrument, or replace all loaded instruments.

How To Load A WordBuilder Multi

Find 'EW Hollywood Choirs' in the left column of the Libraries window and select either the Men's Choir or Women's Choir sub-folder. Next, click on either the Men's or Women's WB Multi folders, then double-click on a WB Multi in the right-column to load it. The Multi loads pre-configured and ready to go.

See Using WordBuilder in Stand-Alone Mode to learn more.

How To Use The Instrument Selector

When multiple instruments are loaded, click the Instrument Selector field to reveal a drop-down menu showing all loaded instruments and their respective MIDI channel assignments.



A check-mark indicates the current instrument selection, and clicking on a loaded instrument will make it the current selection.

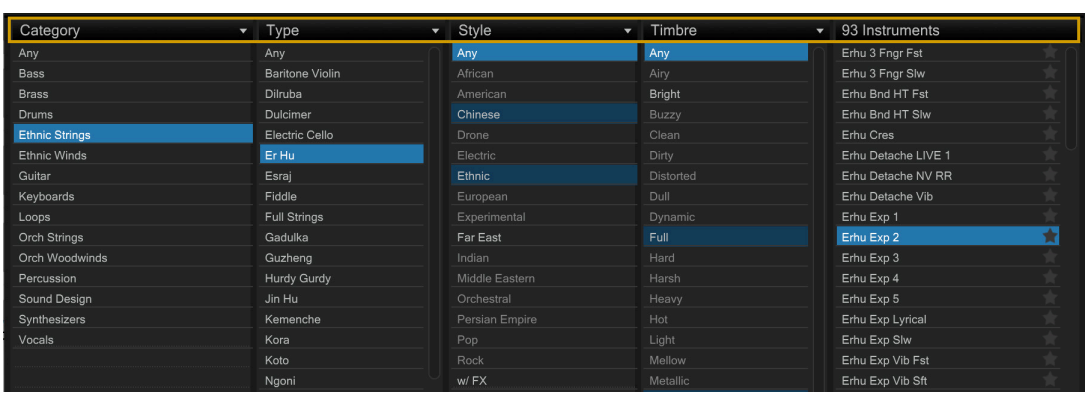
The Player view follows the current instrument selection as well, displaying the appropriate user interface.

Database Browser

The Database browser allows you to search for instruments by selecting attribute tags from a a variety of categories, as well as query search words directly in the Search Field.

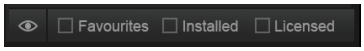


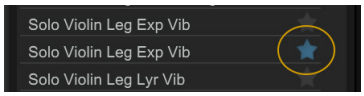
By default, the left column contains the main Category, and the 3 middle columns contain Type, Style and Timbre.



The right column contains a Results List that populates with instruments that match the selected criteria. At the top of that column is an Instrument Count that provides the number of resulting instruments.

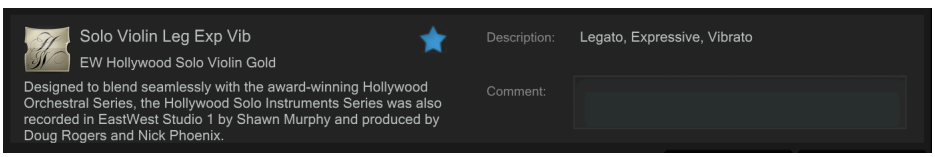
At the bottom of the column are a set of Filters that allow you to further narrow the current selection of instruments to only show those tagged as Favorites, or Installed and/or Licensed to your computer.





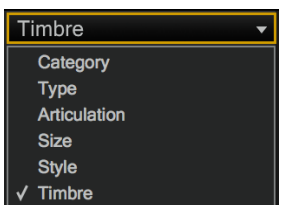
To tag an instrument as a Favorite, click on the star icon to the right of the instrument name in the results list. The star icon will light up to indicate it has been tagged.

The Instrument Panel is located in the lower center area, and contains information for the instrument selected in the results list. This information includes the instrument name, the Play Library or Collection it's from, a blurb about the library, a description of the instrument and comments box that can be freely edited.



Access Additional Attribute Categories

To access additional attribute categories that include Articulation, Library and Size, click on any category name to reveal a drop-down menu, then click on the desired category. A check-mark indicates the current selection.



Quick Tip! When using Play Libraries with a lot of articulations, like the Hollywood Series, swap Timbre for the Articulation category for better results.

Database Hierarchy

The Category column has the highest level of hierarchy in the database. It contains broad attribute tags such as instrument groups like 'Ethnic Strings' and special categories like 'Loops & Kits'. Selecting a tag in this column will affect all other columns, narrowing down the visible results in each.

The Type column has the second highest level of hierarchy in the database. It contains attribute tags that are a subset of Category, including instrument types like 'Dulcimer' and special category types like 'Drum Loops'. Selecting a tag in this column will affect all other columns (except Category) by graying out the visible results in each. This behavior allows you to always see the narrowed results in all other columns based on the main Category selection, even as you further define the search in the Type category.

The remaining categories represent the third tier of hierarchy in the database. Style tags pertain to musical style (genre) and production style (w/FX), Timbre tags describe the quality or tone of a sound, Articulation tags define the performance technique(s) used, and Size tags are related to the loading size of an instrument: small, medium, large and x-large. Libraries tags can be used in conjunction with other search categories to find "all the guitars in Fab Four", for example. This differs from the search function in the Libraries area, where instruments are located by searching for instruments within the individual Play Libraries' folder structure.

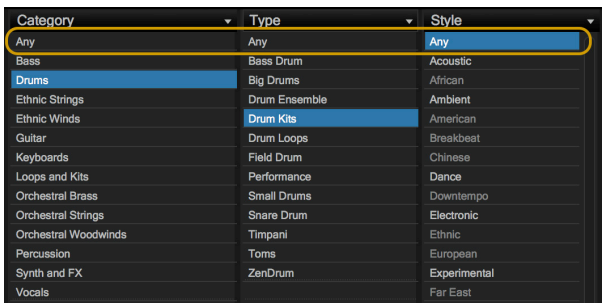
Tag Selection Rules

The Category and Type categories enable one tag to be selected at a given time, while all other categories enable multiple tag selections by holding down 'command' (macOS) or 'alt' (Win) keys while selecting tags.

When selecting multiple tags in the Style, Timbre, Articulation, Library and Size categories, please note that only instruments containing all selected attributes will appear in the results list, not just one or the other. This allows you to find, for example, drums that are both fat and punchy.

How To Reset Tag Selections

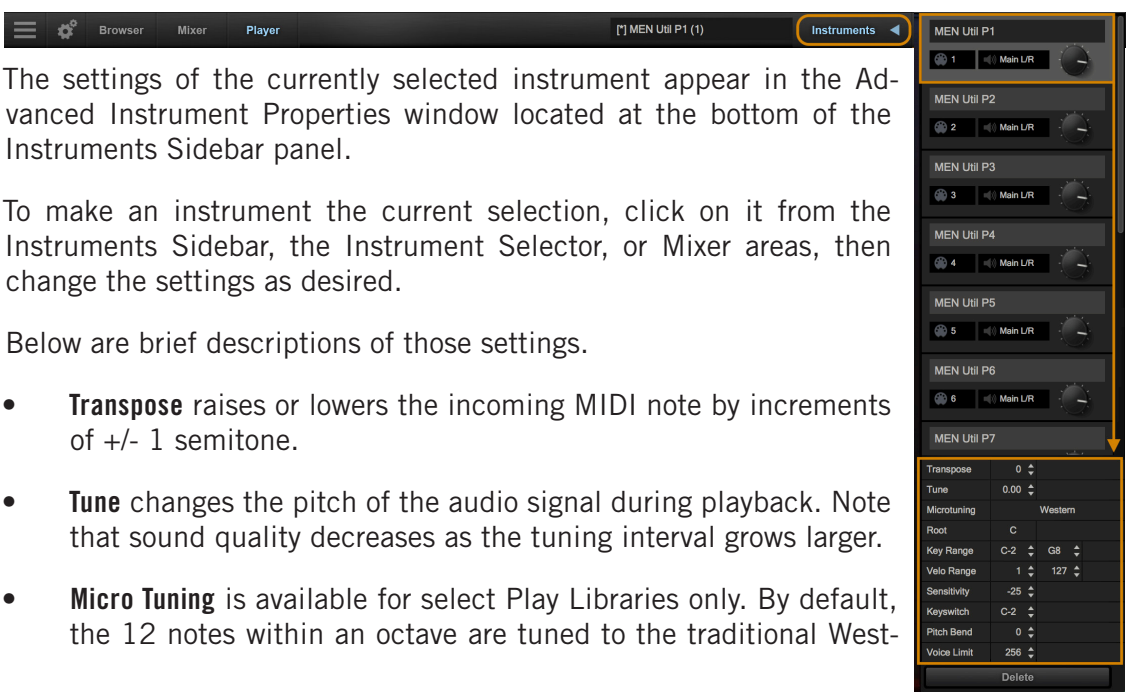
Clicking the 'Any' tag at the top of the Category column will reset existing tag selections across all categories. Clicking the 'Any' tag at the top of every other category will reset the tag selections in only that given category.



The Instruments Sidebar

Click the Instruments Sidebar button on the right side of the Navigation Bar to open a panel that displays all loaded instruments and their MIDI channel, audio output and volume controls.

Advanced Instrument Properties



The settings of the currently selected instrument appear in the Advanced Instrument Properties window located at the bottom of the Instruments Sidebar panel.

To make an instrument the current selection, click on it from the Instruments Sidebar, the Instrument Selector, or Mixer areas, then change the settings as desired.

Below are brief descriptions of those settings.

- **Transpose** raises or lowers the incoming MIDI note by increments of +/- 1 semitone.
- **Tune** changes the pitch of the audio signal during playback. Note that sound quality decreases as the tuning interval grows larger.
- **Micro Tuning** is available for select Play Libraries only. By default, the 12 notes within an octave are tuned to the traditional West-

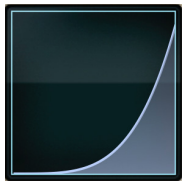
ern scale. The other micro tuning scales adjust the tuning of the 11 non-root notes to produce the characteristic sound of the given scale.

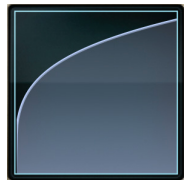
- **Root** allows the selection of the lowest note in the scale, or the "root note". The intervals of all other notes in a given scale are relative to the root.

- **Key Range** specifies the range of notes to which the instrument will respond, effectively muting notes you don't want to hear, or giving you the ability to split the keyboard between multiple instruments on a single MIDI channel.

- **Velocity Range** specifies the minumum velocity and maximum velocity range for a given instrument. Values below the minimum or above the maximum velocity are respectively remapped to the lowest and highest values.

- **Sensitivity** determines what part of the dynamic range the instrument is most sensitive to, ranging in values between -100 (left) and +100 (right). The Sensitivity Curve Graph included in the Player view of some Play Libraries will reflect changes made here.





- **Keyswitch** sets the selected instrument's default keyswitch note, which specifies the articulation in the keyswitch file that plays when no keyswitch note has been played in its MIDI channel in the current session. Please note, the instrument must be saved to the file system with an [.ewi] extension and reopened from that [.ewi] file for the new default value to take effect.

- **Pitch Bend** specifies the range of the Pitch Bend Wheel in semitones. The value can be set between -12 semitones and +12 semitones. Negative values reverse the direction of the Pitch Bend Wheel, so pushing it up lowers the pitch.

- **Voice Limit** specifies the maximum number of voices that an instrument can playback, up to a limit of 999. If an instrument receives more voices than the voice limit value, it will cut off voices that began playing playing first.

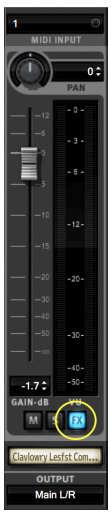
The Mixer View

The Mixer view displays a channel strip for each loaded instrument with controls for volume, panning, mute and solo, as well as buttons to access an FX Rack and to open Sub-Mixer channels for instruments with multiple microphone positions.



How To Access The FX Rack

The FX Rack contains EastWest's Amp Simulator and Convolution Reverb, Ohm Force's Ohmicide distortion plugin, and SSL's suite of audio processing tools that includes a Filter, EQ, Compressor, Gate/Expander, Transient Shaper and Stereo Buss Compressor.





How To Open The Sub-Mixer Channels

For Instruments that contain multiple microphone positions, a Sub-Mixer button will appear to the right of the mute, solo and FX buttons. Single microphone instrument do not display this button.

Click on the Sub-Mixer button to reveal a channel strip for each available microphone position.

Loaded microphones are illuminated in white, while unloaded instruments are gray.

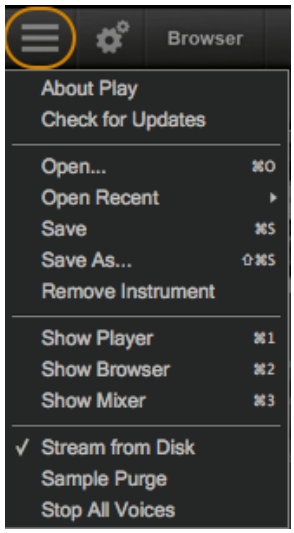
Click on the microphone name to load and unload an instrument.



The Main Menu

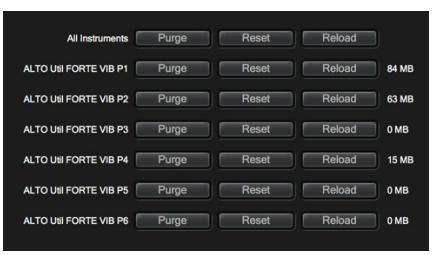
The Main Menu appears as three horizontal bars located in the top-left corner of the Play interface. Click on it for quick access to the options detailed below.

- **About Play:** Displays pertinent information about the product, including version number, copyright, and information about the Play Library the currently selected instrument comes from.
- **Check for Updates:** Use an internet connection to check for a new version of the Play software (if available).
- **Open:** Load an instrument file with the extension [.ewi] from it's current location.
- **Open Recent:** The last 9 previously opened instruments appear in this list. Click on an instrument's file name to reopen it.
- **Save:** Any changes you made with controls in the Player view can be saved to an existing instrument [.ewi] and reopened.
- **Save As:** Performs the same operation as the Save option (above), except that the instrument name and save location can can be changed, without overwriting the original instrument [.ewi]



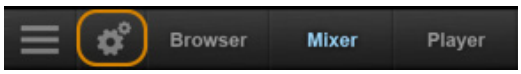
- **Remove Instrument:** Removes the currently selected instrument from this instance of Play.
- **Show Player, Browser, Mixer:** Use these shortcuts as an alternative to switching between the 3 main views in the Navigation Bar at the top of the Play 6 user interface.
- **Refresh Browser:** Use this option if changes to Play Libraries file system were made while Play is open. This option will force Play to rescan and update the file directory.
- **Stream From Disk:** This option is enabled by default upon loading an instrument. It loads the beginning portion of each sample into RAM and streams the rest from the hard drive.When the item is not checked, the entire instrument is loaded into RAM. This setting only applies to the currently selected instrument.
- **Sample Purge:** contains a set of options that allow you to free up system resources in large projects by removing unused samples from memory. This can be done across all instruments, or on a per-instrument basis.

  To begin, click the 'Reset' button to clear the memory of previous playback information. Next, playback the sequence in your DAW. Any notes not played since the last reset will be removed by clicking the 'Purge' button. To bring back purged samples, click the 'Reload' button.



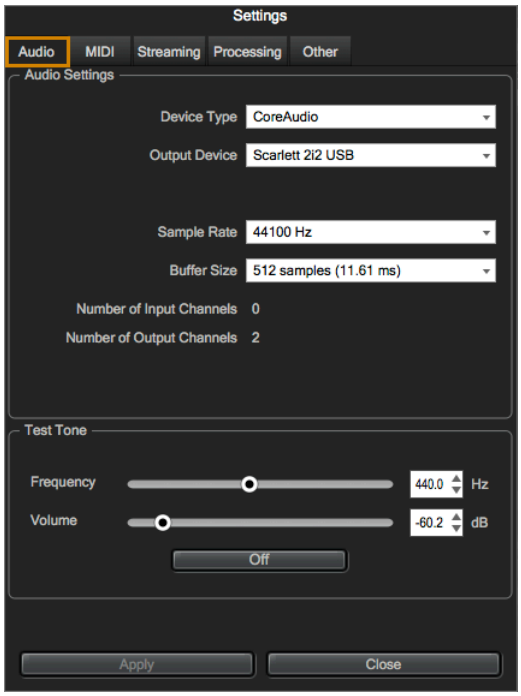
The Settings Menu

The Settings Menu appears as a gear icon located in the top-left corner of the Play interface, to the right of the Main Menu. Click on it for quick access to the 5 categories of options detailed below.



Audio Settings

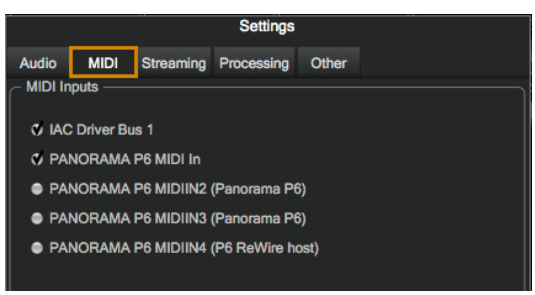
The Audio Settings tab enables you to configure a audio connections when running Play in stand alone. When running as a plug-in, the DAW will handle the audio connections and Play's Audio Settings tab will be disabled.



- **Device Type:** Select an audio driver from the drop-down menu to handle the audio input and output.
- **Output Device:** Select an audio interface from the drop-down menu, or choose built-in audio if you do not have an audio interface
- **Sample Rate:** Select a sample rate from the drop-down menu. The options that appear here will depend on the supported sample rates of your audio interface
- **Buffer Size:** Select from a range of buffer sizes available from your audio interface. Lower buffer settings result in less latency (delay), but require more computer resources.
- **Input / Output Channels:** These readouts gives the number of audio channel inputs and outputs available on your audio interface.
- **ASIO Settings:** A shortcut is available to Windows users that allows you to open the ASIO audio driver to set Sample Rate and Audio Buffer Size.
- **Test Tone:** Use these controls to verify that audio being generated by Play is correctly routed to your speakers, headphones, or any other destination. Use the two sliders to set the frequency and volume, then click on the button to start or stop the tone.

MIDI Settings

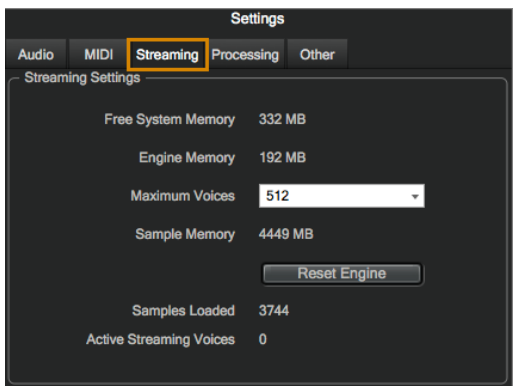
The MIDI Settings tab allows you to specify which MIDI devices can send MIDI data to Play. The types of devices that will be listed here include MIDI keyboards, control surfaces, and the MIDI I/O from an audio interface. Click to leave a check-mark next to the MIDI device to enable it, and click again to remove the check-mark and disable it.



Streaming Settings

Disk streaming technology involves storing a small portion of the beginning of each sample into RAM (called "pre-buffer") and streaming the rest from a drive in real-time. This combination allows for immediate playback without using vast amounts of RAM.

- **Free System Memory:** reports the amount of memory (RAM) the computer has available after the operating system and programs have taken their cut.
- **Engine Memory:** reports the amount of memory (RAM) being used by PLAY to pre-buffer samples. This value is affected by the Maximum Voices selection.

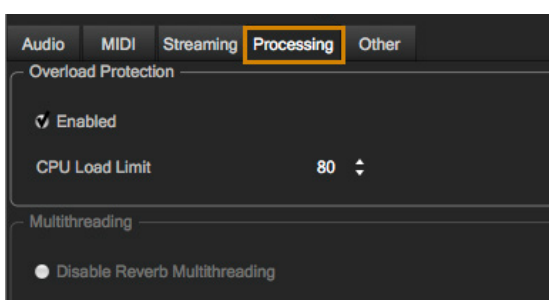


- **Maximum Voices:** the number of maximum voices that can be played back simultaneously within a project (all Play instances).
- **Reset Engine:** can be used to kill all notes being played and to return the audio engine to its initial state. Use this button when experiencing a so-called "stuck note", which is a note that continues to play beyond its indicated length.
- **Samples Loaded:** reports the number of samples currently pre-buffered in memory (RAM). Use this value to determine whether enough RAM is allocated for playback. If this number is too large, use the Purge feature described in the Main Menu section.
- **Active Streaming Voices:** reports the total number of voices being played back in all instances of Play. This is different than the Voices value reported in the Player view, which only applies to that particular instance of Play.
- **Sample Cache** is the most important feature in this menu. As a general rule, find the lowest setting that also results in smooth playback. If dropped voices or CPU spikes occur, simply raise the 'Cache Level'.

See Optimizing Playback and Performance to learn more.

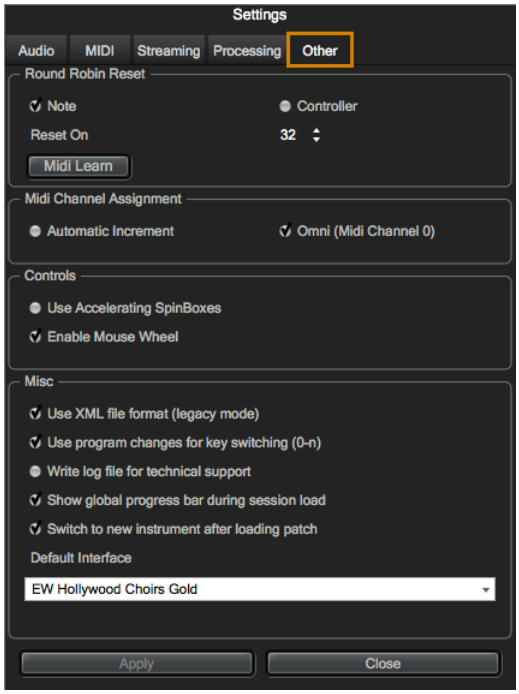
Processing Settings

The Processing tab allows you to specify how much of your computer's processing power is available to Play. Check the 'Enabled' box to turn Overload Protection on and use the spin control to specify the percentage of the computer's processor that Play will use.



Other Settings

The Other tab contains a variety of options and settings for Play.



- **Round Robin Reset:** this technique cycles through two or more samples of the same note, each with inherent variation.It provides a realistic performance, avoiding what's called the "machine gun effect". To ensure this cycle repeats in the same order each time, use a Round Robin Reset to reset the cycle back to the beginning, allowing for consistent playback each time

  Select either a MIDI note or a MIDI Continuous Controller (CC) as the source, then specify which MIDI note (Middle C=Note 60) or MIDI CC will trigger the reset by inputting a numeric value in the spin box.

- **MIDI Channel Assignment:** these options determine the MIDI channel assignment when loading a new instrument in Play:

  Automatic Increment: assigns each new instrument to the next available MIDI channel (1, 2, 3, etc) in the order they are loaded.

  Omni: assigns each new instrument to MIDI channel 0, which receives MIDI on all channels (1–16).

- **Controls:** provides options to modify the behavior of controls.

  Accelerating Spin Boxes: allows you to change values faster the longer you hold down the mouse on an up or down arrow.

  Enable Mouse Wheel: to make value changes in Spin Boxes with the scroll wheel of your mouse.

- **Miscellaneous:** contains a variety of options.

  Use XML File Format: this enables you to work with projects using older versions of Play.

  Use program changes for key-switching: this allows Play to accept MIDI Program Change messages to change keyswitches. Program 0 is the first keyswitch, Program 1 is the second keyswitch, etc.

  Write log file for technical support: this option will create a log file to help technical support address technical issues. The log file is written to the following locations

  (Mac) Mac HD / Library / Application Support / East West / Log

  (Win) C:// Program Data / East West / Log

Show global progress bar during session load: this option allows you to enable or disable the global progress bar that appears when loading a project. This allows users to work on other tasks while projects are loading, without the progress bar in the foreground.

Show product interface after loading a patch: this option will change the Play interface based on the instrument you just loaded. If left unchecked, Play will continue to use the existing interface until a new instrument is explicitly selected.

Default Interface: this option displays a list of all the currently installed Play Libraries. Select the Play Library whose custom interface you want to display when opening Play. Once you open any specific instrument, the custom interface will appear regardless of the default interface.



Ch. 5: WordBuilder User Interface

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The WordBuilder Interface

There are 7 main areas in the WordBuilder interface. A brief description of each area is provided below. For more information about each area, click on the title header link.

- **Voice** is the area to set Voice Properties, select a Text Mode (English, Phonetics and Votox) and Import / Export Voice Files (that save essential text and timing data).
- **Text Editor** is the area to enter type phrases in 1 of 3 Text Modes, with a glossary that displays 'letters' recognized by Phonetic and Votox Text Modes.
- **Tools** has functions for Undo/Redo, to 'Reset Position' of the cursor in the Text Editor, buttons for MIDI Panic and Bypass, an Options menu where you can set English or Latin Vowel Mode, and a menu of preset Phrases.
- **Word** displays the selected syllable in the three Text Modes: English, Phonetics, and Votox. It also has an option to solo the selected syllable.
- **Syllable** is the area to apply the Learn function in 1 of 2 modes (Change Speed or Sync/Draw Only), and adjust the Syllable Speed.
- **Letter** contains options for modifying the velocity of a letter selected in the Time Editor, and to select among types of syllable transitions (normal, legato, staccato, etc).
- **Time Editor** displays the selected syllable, and contains options to shape individual letters within the syllable and how they move from one to the next.



Voice

Located in the top-left corner of the WordBuilder interface, the Voice area displays the Voice Name and Voice Type of the currently loaded WB Multi. All text, timing and controller data in WordBuilder is stored as a Voice File that can exported and imported from the Voice area (see below).

Please Note! The data contained in a Voice File is automatically saved in your DAW when using WordBuilder as a plug-in, but this option is useful to transfer WordBuilder settings between project files.



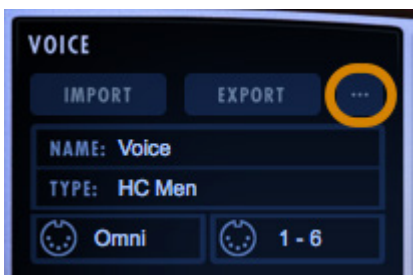


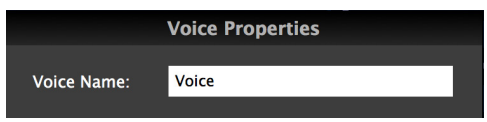
Renaming a Voice File

To prepare a Voice File for Exporting, first give it a unique Voice Name by clicking the "..." button highlighted in the picture below.

In the Voice Properties window, rename the existing Voice Name (which defaults to "Voice") to something that will distinguish it from the other Voice Files in your project.

Please Note! While the Voice Name can be edited, the Voice Type is set automatically to HC Men or HC Women depending on the WB Multi that is loaded.

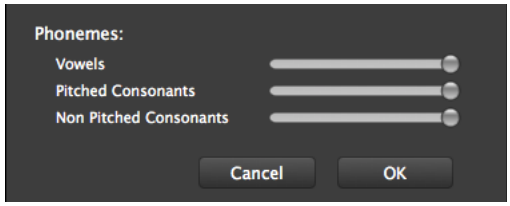




Adjusting Phoneme Volumes

NEW FEATURE

The volume of vowels, pitched consonants and non-pitched consonants can be adjusted relative to each other by moving their respective sliders in the Voice Properties window.



Pitched consonants like b, m , and z are sung with breath, and carry a pitch, while Unpitched Consonants like, p, t and s do not use breath to activate the voice box, and do not carry pitch.

Boost the Consonant volume if the choir is hard to dechiper, or lower the volume to soften the delivery, then press OK to apply changes.

Exporting and Importing a Voice File



Voice Files must be imported and exported between the same Voice Type (HC Mens, HC Womens).

When you've made changes to the Voice File that you're happy with, click the 'Export' button. Your computer's file window will appear, where you can name the file and save it to a choosen destination.

Click the 'Import' button to import an existing Voice File. Your computer's file window will appear where you can navigate to the file, click on it, then click the 'Open' button.

Please Note! Importing a saved voice file overwrites anything currently in WordBuilder, and it does so without asking whether you want to lose the previous information.

The Text Modes

Any word or phrase entered in the Text Editor exists simultanveously in all 3 Text Modes: English, Phonetics and Votox.

The currently selected Text Mode is highlighted in bright blue and is the active mode that appears in the Text Editor. Click on one of the other two buttons to select that Text Mode.

When typing in the English Text Mode, WordBuilder automatically translates any English word it finds in its 100,000-word dictionary into the other two modes.

Correctly formatted text typed into the Phonetics or Votox modes will translate into each other, but not into the English mode.



Text Editor

In the center-top portion of the WordBuilder Interface is the Text Editor, where text you wish the choir to sing is entered. The following sections describe the ways to use the features of the different Text Modes to achieve this.



Deciding Which Text Mode Works Best

In the beginning you may find it easiest to enter text in the English Text Mode, which WordBuilder will translate automatically into the Phonetics and Votox Text Modes simultaneously. This allows you to start with English, then switch to Phonetics or Votox to make adjustments to get the exact performance you want.

If you are writing lyrics in any language other than English, or have extra syllables in a given phrase ("I love you-ou-ou") you will be working in either the Phonetic or Votox Text Modes. The latter is strongly recommended if you plan on using WordBuilder a lot, as it gives you much greater control.







English Text Mode

The Text Editor uses a color code system to indicate the status of the words typed into the English Text Mode.

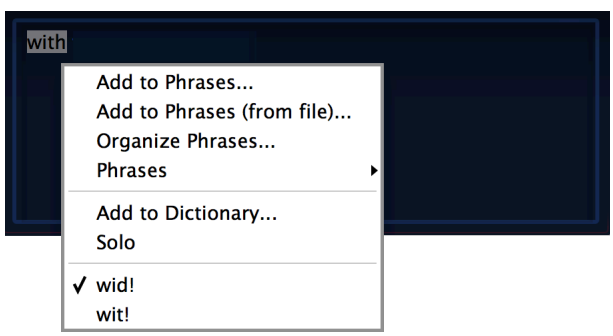


- **Medium Blue** means the word was found in WordBuilder's 100,000-word dictionary.
- **Light Blue** means the word was originally typed into the Phonetics or Votox Text Modes, and is displayed phonetically, even though it appears in the English layer.

  For example, scat syllables words like "she-bop" are not in the English dictionary and must be entered in the Phonetics Text Mode. When returning to the English Text Mode, they will appear in light blue, along with text entered in languages other than English.

- **Dark Red** means either the word was not found in the dictionary, or there is an error in syllable separation. In the first case, the word must be corrected, or if it's not a common word, entered in the Phonetic or Votox Text Modes. In the case of incorrect syllable separation (where an English word is separated into syllables, but WordBuilder cannot make good automatic phonetic separations) use the Phonetics Text Mode to enter words with the syllable separations.
- **Dark Blue** means that a word can be pronounced in two or more ways, and has more than one entry in the dictionary. Right-click (Win) or Control-Click (Mac) on the word to bring up a menu allowing you to select the desired pronounciation.

  For example, there are two possible pronounciations for the word "with". The "th" in the word is typically prounounced as it is in "thigh" (voiced), but in certain situations it is pronounced as it is in "thy" (unvoiced).



- **Gray** indicates a comment, which WordBuilder will not sing. All text entered after a number sign (#) is considered a comment. Note that you can also insert the #-symbol to remove text temporarily from what's being sung. Then delete the # and WordBuilder will sing that text again. The effect of the # ends at the end of the current line, i.e., until the next carriage return (which may be different from where the phrase automatically wraps to the next line).

- **Bright Red** indicates that a word is soloed (see: Word)

Phonetics and Votox Text Modes

Text can also be entered using one of two phonetic alphabets: Phonetics and Votox. In Phonetics Text Mode, text is entered with a traditional Phonetics alphabet, and in Votox Text Mode, text is entered using WordBuilder's own phonetic symbols.



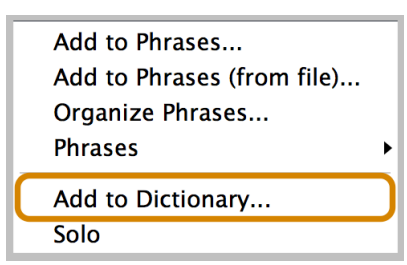
Click on the plus sign (+) to open the Phonetic or Votox Letter Glossary, and the minus sign (-) to close it.

These glossaries provide a guide to their respective phonetic alphabets. The Phonetics 'Letters' menu contains a list of examples of how each of the phonetic symbols are pronounced in the English language, and the Votox Text Mode also provides a 'Letters' menu that contains all the recognized symbols available in the language.

Please Note! Symbols in the phonetic language that are made up of two vowel sounds are called 'Diphthongs, like the "Au" symbol used in the English word "brown".

Adding New Words or Pronounciations To The Dictionary

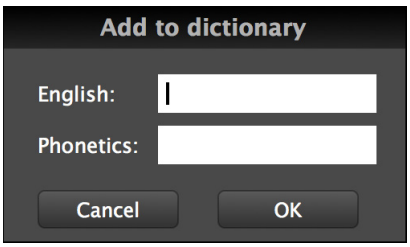
If you intend to use a word not available in the English dictionary again in the future, use the 'Add to Dictionary' option to add that word and its phonetic spelling to the dictionary, so it will translate automatically the next time you use it.



You can also use this option to add new pronunciations to existing words, or even teach your choir to sing in regional accents.

To do this, right-click (Win) or control-click (Mac) on the word (that appears in red because it was not found in the dictionary), to open the context menu, and select 'Add to Dictionary'.

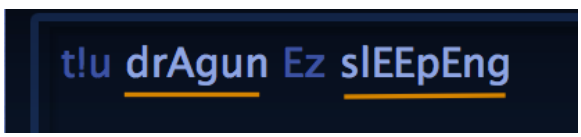
The word will appear in the field next to English, with a blank field next to Phonetics. Enter the phonetic spelling for the word (not Votox) in the Phonetics field, without using hyphens to separate syllables. If you wish to have an alternative way to pronounce a word, as opposed to replacing the existing pronounciation, save it under a different name in the English field.



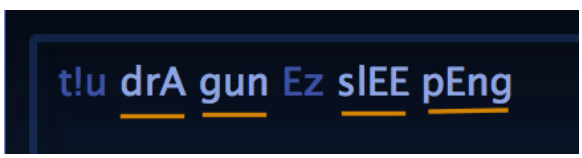
For example, if you want to use a different pronunciation for the word "maybe" you can save it under "MaybeAlt", so it doesn't replace the existing "maybe" pronounciation.If you're sure that you want to use the specified pronunciation, save it under "maybe" to replace the standard pronunciation.

Separating Words Into Syllables

Words entered into the English Text Mode are translated into the Phonetic and Votox Text Modes as a single word, with no spaces in between syllables. When playing your MIDI controller, the word "dragon" (English) or "drAgun" (Votox) will be triggered with a single note or chord.



If you would rather play each of the two syllables in the word "dragon" as separate notes or chords, place a cursor in the Text Editor between the syllables and put a space in between them. Now when playing your MIDI controller, each of the syllables, "drA" and "gun", will be triggered with a single note or chord.



Using Alternative Non Pitched Consonants

NEW FEATURE

Alternative samples are available for all 12 non-pitched consonants. They are available by typing numbers 1, 2, 3 and 4 after the Votox letter in the Text Editor. Take the English phrase "Heart of Courage", for example, which can be spelled "haUrt uv ku rej" in Votox mode. To use an alternative "h" at the beginning of "heart" and alternative "k" at the beginning of "courage" it would be spelled like this: "h3aUrt uv k2u rej".



Please Note! Placing a "1" after a non-pitched consonant will playback the same sample as when no number is present. This ensures backward compatibility with existing phrases.

Tools

In the upper-right corner of the WordBuilder Interface are the Tools buttons, that provide several important functions.





- **Undo** allows you to backtrack through an undo history log of the last 100 changes you've made in WordBuilder.
- **Redo** allows you to re-apply changes that were undone by the Undo operation.
- **Reset Position** instructs WordBuilder to reset the playback position to the start of the text. The next incoming MIDI note will "sing" the first word in the Text Editor.
- **Bypass** sends incoming MIDI data directly to a MIDI port without passing it through WordBuilder for processing.
- **Panic** silences "stuck notes" on every MIDI channel within a single instance of Play, in cases where a MIDI Note-Off message was note received.
- **Options** contains a variety of settings that can be adjusted relating to timers, voice defaults, events, and general data.
- **Phrases** opens a menu that allows you to select from a variety of phrase presets to import into the Text Editor, or add your own phrases for later recall.

Using the Reset Position Command

WordBuilder will advance to the next syllable in a word or phrase as it receives incoming MIDI notes, unless it receives the Reset Position command. This command tells WordBuilder to start playback at the first word in the Text Editor when it receives the next incoming MIDI note.

More specifically it repositions the syllable cursor to the beginning of the text, resets any open keyswitch files back to the default keyswitch (C0) of "normal" attack, and resets the Mod Wheel.

There are three ways to send the Reset Position command in WordBuilder, which will reset the playback to the first word in the Text Editor.

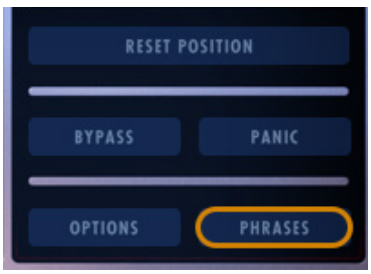


- Click the Reset Position button in the Tools menu.
- Send a MIDI CC (see: Events Options) to specify the message WordBuilder looks for.
- Press the F5 key.

Quick Tip! To Reset Position to any word or syllable in the Text Editor, click the mouse to position the cursor before the syllable you want to start with, then press the F4 key.

Loading, Saving and Organizing Phrases

The Phrases menu contains options to load existing phrase presets, save your own phrases, and organize them anyway you like.



A phrase file contains all the information relevant to a phrase, including the phonetics used, timing values, cross fade values and so on.

Using The Included Phrases

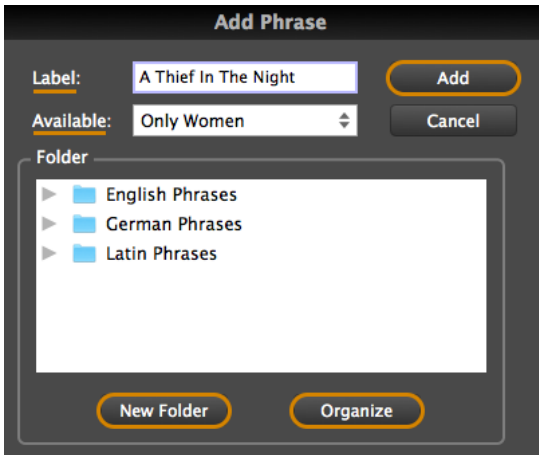
To load one of the 237 phrase presets into the Text Editor, click on the Phrases button, then select a phrase from within one of the categories at the bottom of the menu.

Phrase presets provide a good place to become familiar with WordBuilder and specifically how to use the Votox Text Modes to achieve the desired pronouciation. You may need to adjust the timings and other settings to fit your music, or it may work as is. Either way, they are a good learning tool to become familiar with the Votox Text Mode.



Saving Your Own Phrases

To save a phrase for later recall, highlight the phrase in the Text Editor, then click on the Phrase button and select the 'Add to Phrases' option from the menu. This will bring up the 'Add Phrase' dialog window, where you can determine how and where to save the file.

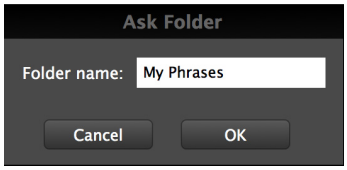


In the 'Add Phrase' dialog window, name the phrase file in the 'Label' field, then select a Voice Type you wish to save the phrase with from the 'Available' drop-down menu.

Next, select the folder you wish to store the phrase in, then click 'Add'.

Creating New Folders and Organizing Phrases

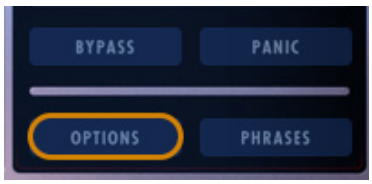
Click the 'New Folder' button highlighted above to add a new folder to store phrase presets in. Enter the folder name in the dialog window that appears, then click 'OK'.



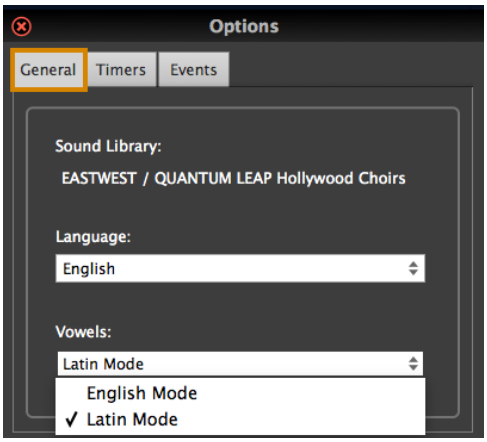
Clicking the 'Organize' button will open your computer's file browser window, which will display the default location of the 3 folders that come with WordBuilder, as well as any new folders you create. Here, you can organize the folders and sub-folders anyway you please.

The Options Dialog

Click the 'Options' button in the Tools menu to open a dialog box shown below. From here you can change a number of settings that affect the ways the program operates.



General Options



- **Sound Library** allows you to choose between sound libraries that have WordBuilder functionality. At the moment this includes the Symphonic Choirs and the Hollywood Choirs.

- **Language** specifies what language the dictionary will translate to Phonetics. English is the only available option at the moment.

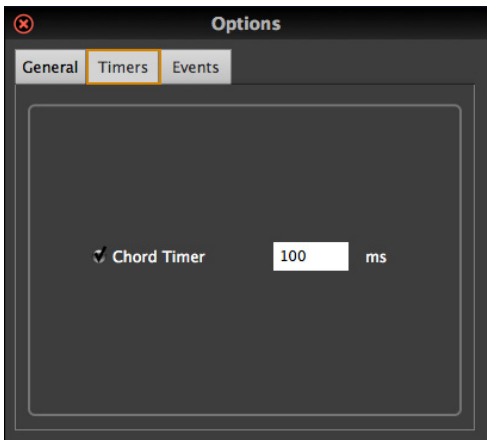
- **Vowels** allows you to choose between English Mode and Latin Mode. The different

modes change how symbols are translated into the Votox Text Mode, but do not affect the sound.

See Mastering the Phonetic Alphabets to learn more.

Timers Options

The Chord Timer controls which notes are considered part of a chord (that playback the same syllable of text) by how far apart they are in time.

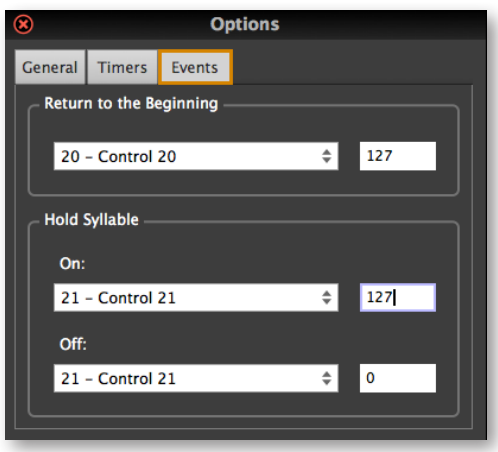


When using the Chord Timer, experiment to find a value that works best for your playing style, or for the piece you're writing, and be mindful to play with accurate timing based on the timer value. This feature is especially helpful when playing melodic lines on top of chords, but can be disabled when writing solo melodic lines.

1. Click the small checkbox to the left of Chord Timer to enable and disable it.
2. When enabled, enter a value in milliseconds into the field to set the tolerance..

Events Options

Here you can assign MIDI CCs to trigger the Return to Beginning and Hold Syllable commands, which determines the position of the syllable playback cursor in the Text Editor.



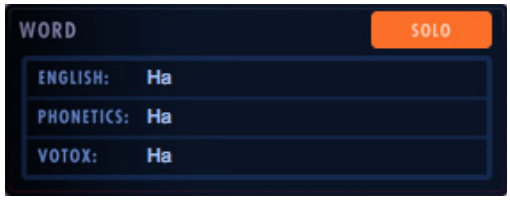
- **Return to Beginning:** this command instructs WordBuilder to reset the syllable cursor to the first word in the Text Editor, and is assigned by default to MIDI CC20 with a value of 127. It's recommended that you automate this MIDI CC before the first note of a phrase you wish to start with at the beginning of the text.

- **Hold Syllable** commands instruct WordBuilder to start holding a syllable when it receives an ON command, and stop holding a syllable when it receives an OFF command. For example, if you want the "ee" sound of "sweet" to hold over five notes, send the MIDI CC assigned to ON from the sequencer before the "ee" has started on its first note, and send the OFF command after the start of its fifth note. The ON and OFF commands are not assigned by default, but can be assigned to any unused MIDI CCs and values.

Word

When placing a cursor on a word or syllable in the Text Editor, the Word area will display the English, Phonetics and Votox spelling of the selection

How to Solo a Word



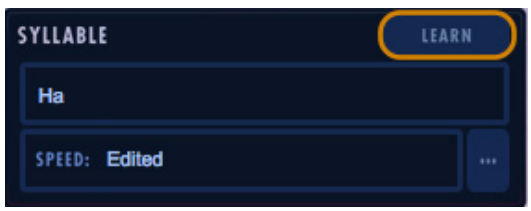
This selection can be soloed by clicking the 'Solo' button, so that it can be played over and over while settings are adjusted.

The selection will turn red in the Text Editor to indicate it has been soloed. Click the Solo button again to turn it off.

Syllable

When placing a cursor on a word or syllable in the Text Editor, the Syllable area will display the English spelling of the selection, and the state of the Syllable Speed function (explained below). This area also contains buttons to access the 'Learn' and 'Syllable Speed' functions themselves.

When entering text into the Text Editor, WordBuilder uses default lengths for each sound that makes up a syllable. These default values are good approximations, but if the tempo is fast the note may end too soon, or if a particular syllable lasts too long, the word may not sound natural.



Instead of manually setting the number of milliseconds each sound within a syllable lasts, the 'Learn' function records you playing the phrase and adjusts these timings automatically. This function provides a way to automate letter timings to match note durations, but does not achieve perfect enunciation without some fine-tune editing of the performance in the Time Editor.

Use Learn to Sync WordBuilder to DAW Playback

NEW FEATURE

When applying the 'Learn' function while using Play and WordBuilder as a plug-in within your DAW, the text position in WordBuilder will sync to the cursor position in the DAW. This will keep the playback in the correct order when you start playback in the middle of a song or phrase. If you need to change existing 'Learn' automation, simply run the 'Learn' process again. These instructions are outlined below.

Setting Up the Learn Function

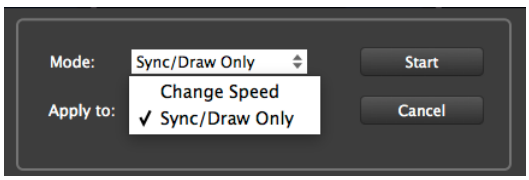
To begin the process, click on the Learn button in the Syllable area to open a dialog box and select and click in the Mode drop-down menu to select between 2 modes:

- **Change Speed** mode instructs WordBuilder to adjust the duration of phonetic segments based on the playback information it learns, providing the greatest benefit

when used on fast-paced music, where the default durations of phonetic segments may not have time to play out before the notes end.

When the Learn function is run with the Change Speed mode selected, the Time Editor will display a lighter blue interval that is the duration of the note itself, and a dark red interval that is the time for singing the consonants and glides that close the syllable.

- **Sync/Draw Only** mode does not make actual timing changes, but instead provides useful information in the form of displaying the length of each syllable in the timeline at the top of the Time Editor.



This allows you to make informed decisions when manually adjusting the timings of the phonetic segments by showing a note's timings as it relates to the default letter timings of the syllables.

When the Learn function is run with the Sync/Draw Only mode selected, the Time Editor displays the length of notes and rests into the gray, red, and blue regions of the timeline at the top, but does not change the actual lengths of the phonetic letters (the colored bands next to each phonetic letter in the Time Editor). You can then manually drag the ends of the bands to achieve the desired effect.

Running the Learn Function

Click the Start button to open another dialog box that instructs you to play the melody. Play the passage in real-time from your MIDI controller, or playback the sequence from your DAW.



When the progress bar fills in completely, WordBuilder has received as many notes as there are matching syllables.

Click on 'OK' to return back to the WordBuilder interface, or click 'Cancel' to discard the learned information.

Once WordBuilder has "learned" the note-on and note-off events of a musical line, you can manually tweak the timings to fine-tune the performance to your tastes.

If you change the tempo or the rhythm, you may want to rerun the "Learn" feature to conform the phonetic segments to the shape of the new melodic line. Changing pitches does not require rerunning "Learn."

Removing Changes Made by the Learn Function

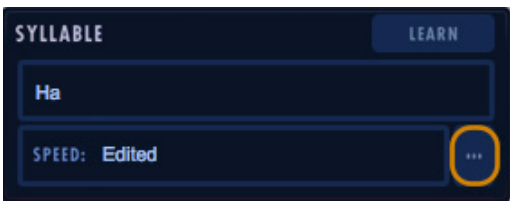
To remove all data used by the Learn function, highlight the syllable(s) you want to revert back to default timings and then select 'Normal' in the Syllable Speed menu. This action also strips all other changes made to those syllables, as if you had deleted and re-added them.

Adjust Timing with Syllable Speed Options

The Syllable Speed displays 4 states, one of which is displayed in the Speed dialog:

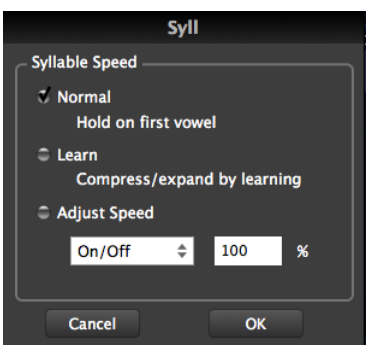
- **Normal** indicates the default timings are in effect.
- **Learned** indicates the timings have been modified by the Learn functions.
- **Edited** indicates the timings have been modified with the mouse.
- **Adjusted** indicates the Syllable Speed function was used to modify timings.

Click on the "..." button in the Syllable area to open the Syllable Speed menu and select between 3 modes that adjust the speed of the selected syllable by changing the duration of its individual segments in the following ways:



- **Normal** mode reverts timings to their default values and removes all MIDI CC data that had been automated.

- **Learn** mode is useful when the Learn function has been run with the Sync/Draw Only mode selected, which doesn't actually apply changes to the phonetic timings. Select Learn and click 'OK' to complete the process that would have been done had Learning been done in Change Speed mode. You can also use this mode if you want to change a word in the text while leaving the notes as they are, and want WordBuilder to learn timings for the new phonetic segments.



- **Adjust Speed** mode allows you to change the duration of the syllable as a percentage of the current duration. Select this mode for the settings below it to become active. In the left drop-down list, you can choose whether to apply changes to only the Note On portion of the Time Editor to the left of the dividing line, the Note Off portion of the Time Editor to the right of the dividing line, or to both Note On and Off portions.

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Letter

Clicking on a Votox Letter in the Time Editor's left column will select it and make it available for editing in the Letter area.



Here, you can change the volume of each letter within a syllable by applying a MIDI Velocity transform option, and select between 4 playing styles to control how syllables transition from one to another.



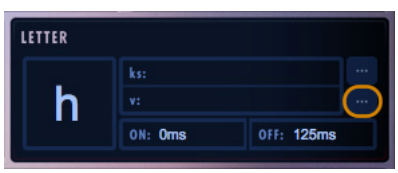
How To Set Letter Velocities

These options transform incoming MIDI velocity data, which come along with MIDI note data and is calculated by the speed with which you depress the keys on your MIDI controller (how hard you play). MIDI velocity values range from 0 (silent) to 127 (played with maximum force). All results are rounded to the nearest whole number between these values.

For example, if the English word "fun" is being sung on a single note, there are three letters being played to enunciate the syllable, and WordBuilder gives you the control to adjust the velocities on the Votox "F" and "u" and "n" separately.

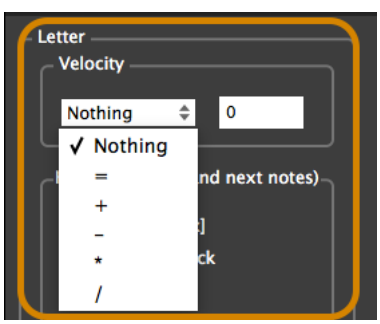
1. Click on a syllable in the Text Editor to select it. Once selected, varying parts of that syllable will appear in the Word, Syllable, and Letter areas of WordBuilder.

2. Click on one of the individual Votox letters that makes up a syllable in the left column of the Time Editor, highlighting it. That Votox letter will now appear in the Letters area and is availalbe for editing.



3. Click on the "..." button in the Letters area to open the Letters menu,

4. Click in the drop-down menu in left side of the 'Velocity' section and choose between 6 MIDI velocity transform options: Nothing, (=), (+), (-), (*) and (/).



5. Type a value into the field on right side of the 'Velocity' section. This value will transform the MIDI velocity based on the transform option selected in the step above.

   - **Nothing** leaves the MIDI velocity unchanged from the original sent from your DAWs playback or a MIDI controller.
   - **Equal Sign (=)** forces the MIDI velocity to the exact value specified in the field at the right, regardless of the incoming MIDI note velocity.

- **Plus (+)** transforms the MIDI velocity by adding the number in the dialog box to its value.
- **Minus (-)** transforms the MIDI velocity by subtracting the number in the dialog box from its value.
- **Multiply (*)** transforms the MIDI velocity by multiplying its value by the number in the dialog box.
- **Divide (/)** transforms the MIDI velocity by dividing it's value by the number in the dialog box.

How to Control Syllable Transitions

Both instrumental and vocal musicians perform musical lines in varying styles, playing or singing legato or staccato and more. When writing lyrics, it's important to consider how each syllable flows into the next, or doesn't. For example, even though the sounds of the letters are the same, as in "alone" and "a loan", the phrase may be articulated differently to make the meaning more clear.

WordBuilder uses keyswitching to move between the 4 available articulations, or playing styles. Each letter within a syllable can be controlled in one of three methods: using Text Syntax symbols in the Text Editor, assigning an articulation to a letter within the Letters menu, or sending keyswitch notes manually.

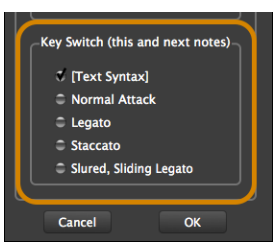
Text Syntax is the default option to control syllable transitions. The table below shows the symbols that can be entered in the Text Editor to control which articulation is applied to a letter. An example of using the Text Syntax in the Text Editor to specify a type of playing style (articulation) to a letter is : ">the why and (where-fore >of the <mer-ry =day".

TEXT SYNTAX

Articulations	Symbol
Normal	=
Legato	(
Staccato	>
Slur, Slide	<

Direct Assignment involves using the Letters menu to assign an articulation directly to a letter. Follow steps 1-3 in the 'How To Set Letter Velocities' to select the letter you wish to edit, then select one of the 4 articulations outlined below, and click 'OK'.

- **Normal Attack** is the natural articulation of sung speech
- **Legato** will smoothly connect one syllable to the next.
- **Staccato** plays disconnected from the next syllable.
- **Slurred, Sliding** will slide upward into the next syllable.



Keyswitch Triggers involves sending a keyswitch note to WordBuilder directly from your MIDI keyboard, or when playing back a sequence from your DAW, as opposed to handling it internally. The table below contains the list of articulations with their respective note numbers that trigger them. Keyswitches continue to affect a letter until a new keyswitch overrides the previous one.

KEYSWITCHES

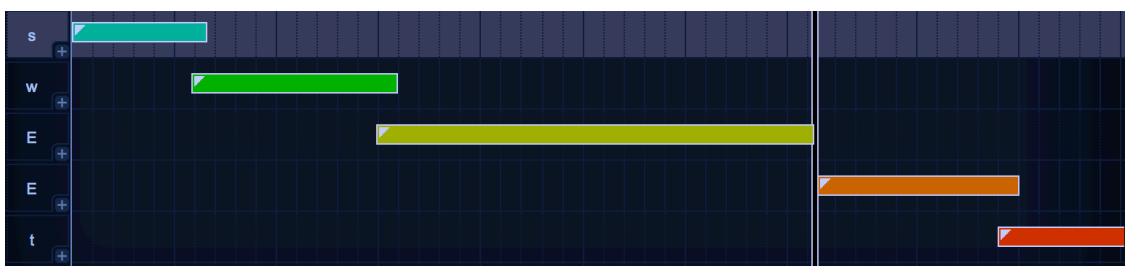
Articulation	Note Number
Normal	24 (C0)
Legato	25 (C#0)
Staccato	26 (D0)
Slur, Slide	27 (D#0)

Time Editor

The Time Editor allows you to fine-tune how each letter within a syllable sounds when moving from one to the next during playback.



Using the word “sweet” as an example, the Time Editor gives you the ability to control how quickly or slowly the vocal line moves from the “s” to the “w”, either holding on the “w” or getting to the “ee” as soon as possible. You may also want the “ee” to continue after the MIDI note off message is received, to mimic the time it takes singers to close the “t” with their tongues.



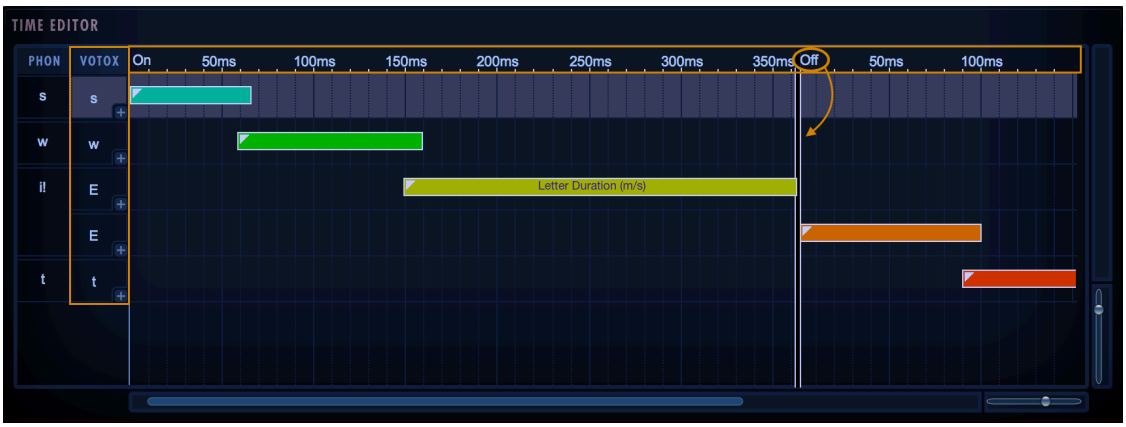
Default Note Lengths

Playing a single note from your MIDI controller or DAWs playback will trigger 5 samples, one for each Votox letter in the word “sweet”. By default, WordBuilder uses standard lengths for each letter in the text when first entering it into the Text Editor, but you can drag the ends of the bars with your mouse to change the start time and duration of each letter within a syllable, giving total control over when each sample begins and ends as well as how much each overlap.

Different Parts of the Time Editor

Phonetic and Votox letters appear in the two left columns, displaying their respective phonetic alphabets. All words typed in WordBuilder are translated into Votox letters (including Phonetics), which in turn trigger the sounds that make up each syllable. This is a big reason it's advantageous to learn the Votox Text Mode, to have direct control over the sounds that make up each syllable.

The timeline across the top of the Time Editor displays a marker every 50 milliseconds, with white vertical lines separating the MIDI Note On portion of the timeline (the note itself) from the MIDI Note Off portion (the release trail).



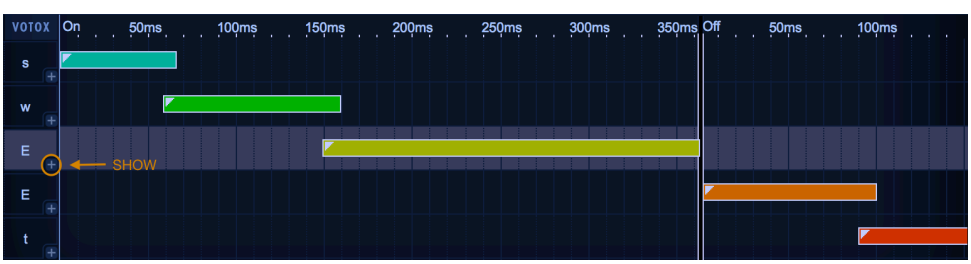
The last Votox letter in the Note On portion, which appears to the left of the white vertical line separator, continues indefinitely until you release a held note. If you drag the separator to the right you'll notice it will go along with it.

The colored bars represent the duration of each Votox letter, which in this case is three notes during the Note On portion and two notes during the Note Off portion.

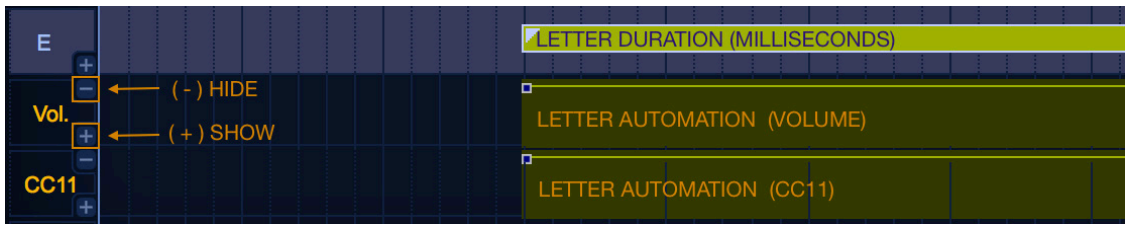
Using Per-Letter Automation

The Time Editor gives you expressive control by allowing you to use MIDI CCs (Continuous Controllers) to automate things like Modulation (CC1), Volume (CC7) and Expression (CC11) for each letter within a syllable over time.

To open a MIDI CC lane, click the plus (+) button in the bottom-right corner of any Votox letter box in the left column of the Time Editor, exposing the default Volume automation lane.

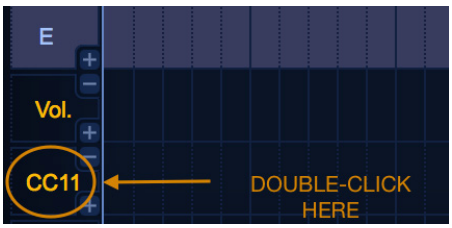


Each automation lane contains a plus (+) button allowing you to open another automation lane, and a minus (-) button to close the existing lane. Each additional automation lane added will be assigned to the susequent MIDI CC number: CC0, CC1, CC2, etc.

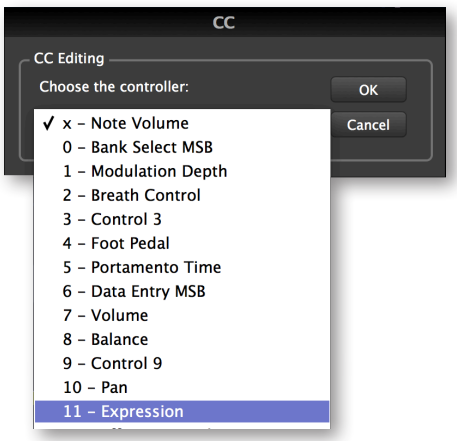


Selecting a MIDI CC to Automate

To change the default parameter assigned to an automation lane, double-click on the parameter name below the Votox letter box to open the CC Editing dialog box.



Click in the drop-down menu under the header 'Choose the Controller' and select the parameter you wish to automate and click 'OK'. Notice the parameter name will change accordingly in the left-column under the Votox letter you are automating.

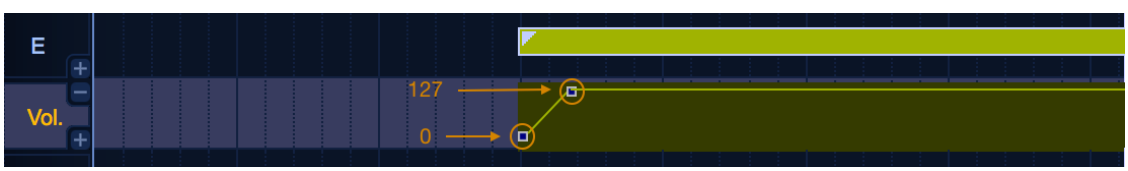


Creating an Automation Envelope

The default automation value is 127, but nodes can be placed between the values of 0 and 127 along the to create an envelope.

Double-click anywhere on the envelope to create a node that displays as a small square. To delete this node, double-click with the right mouse button.

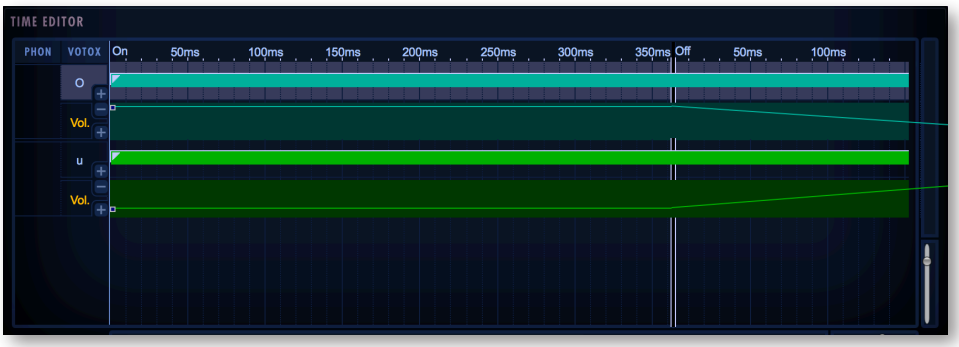
Drag this node within the designated colored area to create a change in the time value (x-coordinate) and/or parameter value (y-coordinate). When dragging the node, a small Tool Tip dialog will open and show the exact location in terms of these x - y coordinates.



Cross-Fades Between Phonetic Letters

Letters within a syllable do not always follow each other sequentially in the Time Editor. In certain circumstances blending two together by using a cross-fade, where one letter fades out as another fades in, is neccessary to achieve a particular pronounciation.

WordBuilder handles this situation by creating these cross-fades automatically where needed, but you can modify or eliminate these automation envelopes as described above.



Mastering the Phonetic Alphabets

The Phonetic and Votox alphabets used in WordBuilder share a close relationship, but the Votox alphabet was designed exclusively for WordBuilder for the sole purpose of notating individual sounds that, when combined, form words that are sung.

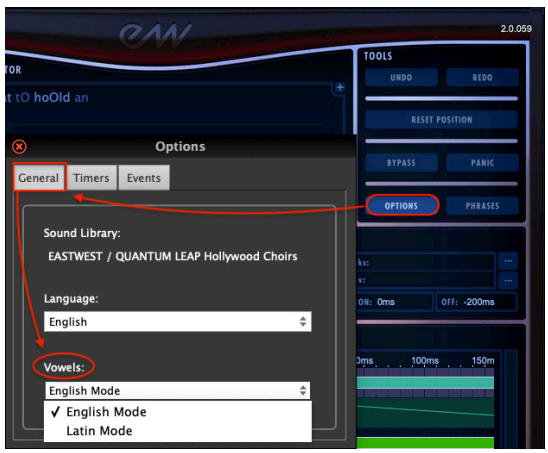
Please note! WordBuilder functionality is only available for the following Play Libraries: Symphonic Choirs, Hollywood Choirs, and Hollywood Backup Singers.

The Importance of Votox

We recommend learning Votox text mode. The English text mode is a good starting place, and the Phonetic text mode is useful, but both are converted to Votox text mode where WordBuilder gives you control over each component of sound used to construct syllables and words.

Language options are available in Votox text mode. This option does not affect the sound of the words, just the symbols used to represent them.

- **Latin** uses Votox symbols that more closely reflect spellings in Romance languages.
- **English** uses Votox symbols that more closely reflect spellings in English languages.



To select a language option, click on the Options button to open the Options Dialog. In the default tab, General Options, click in the drop-down menu under the Vowels header, to select between 'English' and 'Latin' language options.

Types of Speech Sounds

All of the different types of speech sounds are included in the Phonetic Pronunciation Table below, as well as being broken down into their separate types: vowels, diphthongs, pitched consonants, and non-pitched consonants.

- **Vowels** are a speech sounds produced by vibrating vocal chords in an open vocal tract with no obstruction. When sung, it forms the voiced pitch of the syllable.
- **Consonants (pitched)** are speech sounds where the breath is (partly) obstructed. When combined with a vowel sound a syllable is formed.
- **Consonants (non-pitched)** are produced by breath alone, and do not engage the vocal tract to produce a definite pitch. This is also referred to as Unvoiced.
- **Diphthongs** are speech sounds that consist of two distinct vowels sounds that are cross-faded between each other within a single syllable.

Phonetic Pronunciation Tables

The tables in the section contain the different alphabet symbols used in both the Phonetic and Votox languages, and examples of English words to help contextualize the sound of each pronunciation. The Votox alphabet is further broken down into English and Latin alphabet language options.

The first table contains the entire set of alphabet symbols regardless of speech type, with subsequent tables containing only specific speech types, including vowels, diphthongs, and consonants (both pitched and non-pitched).

PHONETIC PRONUNCIATION TABLE

Phonetic alphabet	Votox alphabet		English Reference
	Latin	English	
a	A	u	m**o**ney, r**ou**gh
a!	a	a	c**o**pper, w**a**nder
Ai	ai	aE	wh**i**te, s**igh**
Au	Au	uO	br**ow**n, m**ou**se
b	b	b	**b**lue, sla**b**
c!	C!	C!	**ch**air, cat**ch**
-	h!	h!	na**cht** (night)
d	d	d	re**d**, can**d**or
d!	t!	t!	**th**e, nei**th**er
e	e	e	r**e**d, st**ea**dy
e!	a!	A	bl**a**ck, **a**fter
Ei	Ei	iE	gr**ay**, sl**a**te
f	F	F	**f**ile, enou**gh**
g	g	g	**g**reen, le**g**
g!	ng	ng	pi**ng**, ha**ng**ar
h	H	H	**h**at, a**h**ead
i	i	E	**i**ndex, f**i**nger
i!	ii	EE	gr**ee**n, sk**i**
j	j	j	oran**g**e, fi**dg**et
k	K	K	bla**ck**, **c**oal
l	l	l	b**l**ue, **l**ess
m	m	m	**m**oney, ha**mm**er
n	n	n	gree**n**, s**n**ug
o	o	o	**o**range, n**augh**ty

| *continued* |

PHONETIC PRONUNCIATION TABLE

Phonetic alphabet	Votox alphabet		English Reference
	Latin	English	
Oi	oi	oE	**oi**l, b**oy**
Ou	ou	oO	yell**ow**, **o**cean
p	P	P	**p**ink, u**pp**er
-	Q	Q	**qu**ick, **qu**een
r	r	r	**r**ed, ca**r**
r!	Ar	ur	p**ur**ple, low**er**
rr	r!	r!	**r**ojo, pe**rr**o
s	S	S	**s**ilver, la**c**e
t	T	T	whi**t**e, **t**rue
t!	T!	T!	**th**eme, slo**th**
u	U	U	p**u**t, c**ou**ld
u!	u	O	bl**ue**, p**oo**l
v	v	v	oli**v**e, a**v**ert
w	w	w	**w**ait, a**w**ash
x	X	X	fi**x**, e**xc**ess
x!	S!	S!	fle**sh**, na**ti**on
y	y	y	**y**ellow, **y**onder
z	z	z	**z**ero, poi**s**on
z!	zj	zj	vi**si**on, a**z**ure

PHONETIC PRONUNCIATION GUIDE VOWELS & DIPHTHONGS

VOWELS are speech sounds produced by vibrating vocal chords in an open vocal tract with no obstruction. When sung, it forms the voiced pitch of the syllable.

Phonetic alphabet	Votox alphabet		English Reference
	Latin	English	
a	A	u	m**o**ney, r**ou**gh
a!	a	a	c**o**pper, w**a**nder
e	e	e	r**e**d, st**ea**dy
e!	a!	A	bl**a**ck, **a**fter
i	i	E	**i**ndex, f**i**nger
o	o	o	**o**range, n**augh**ty
u	U	U	p**u**t, c**ou**ld
u!	u	O	bl**ue**, p**oo**l
-	i	E	*only used in diphthongs*

DIPHTHONGS are speech sounds that consist of two distinct vowels sounds that are cross-faded between each other within a single syllable.

Ai	ai	aE	wh**i**te, s**igh**
Au	Au	uO	br**ow**n, m**ou**se
Ei	Ei	iE	gr**ay**, sl**a**te
i!	ii	EE	gr**ee**n, sk**i**
Oi	oi	oE	**oi**l, b**oy**
Ou	ou	oO	yell**ow**, **o**cean
r!	Ar	ur	p**ur**ple, low**er**

PHONETIC PRONUNCIATION GUIDE CONSONANTS

PITCHED CONSONANTS are speech sounds where the breath is (partly) obstructed. When combined with a vowel sound a syllable is formed.

Phonetic alphabet	Votox alphabet		English Reference
	Latin	English	
b	b	b	**b**lue, sla**b**
d	d	d	re**d**, can**d**or
g	g	g	**g**reen, le**g**
j	j	j	oran**g**e, fi**dg**et
l	l	l	blue, **l**ess
m	m	m	**m**oney, ha**mm**er
n	n	n	gree**n**, sna**g**
r	r	r	**r**ed, ca**r**
t!	T!	T!	**th**eme, slo**th**
v	v	v	oli**v**e, a**v**ert
w	w	w	**w**ait, a**w**ash
y	y	y	**y**ellow, **y**onder
z	z	z	**z**ero, poi**s**on

NON-PITCHED CONSONANTS are produced by breath alone, and do not engage the vocal tract to produce a definite pitch. This is also referred to as Unvoiced.

c!	C!	C!	**ch**air, cat**ch**
-	h!	h!	na**cht** (night)
d!	t!	t!	**th**e, nei**th**er
f	F	F	**f**ile, enou**gh**
g!	ng	ng	pi**ng**, ha**ng**ar
h	H	H	**h**at, a**h**ead
k	K	K	bla**ck**, **c**oal
p	P	P	**p**ink, u**pp**er
-	Q	Q	**qu**ick, **qu**een
rr	r!	r!	**r**ojo, pe**rr**o
s	S	S	**s**ilver, la**c**e
t	T	T	whi**t**e, **t**rue
x	X	X	fi**x**, e**xc**ess
x!	S!	S!	fle**sh**, na**ti**on
z!	zj	zj	vi**si**on, a**z**ure

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