Using the Instruments and Apple Loops in GarageBand Jam Pack: Voices

GarageBand Jam Pack: Voices contains over 20 new Software Instruments featuring the sound of the human voice. You can use these instruments to create your own vocal and choral compositions, or add vocal tracks to songs in a variety of styles. Voices also includes over 1500 Apple Loops with vocal phrases that you can use to build your own original voice tracks.

This document contains the following information about using the instruments and Apple Loops included in Voices:

- "Introducing the Voices Instruments" on page 1
- "Using the Voices Apple Loops" on page 7
- "Performance Tips" on page 8

Introducing the Voices Instruments

Voices gives you a collection of instruments featuring the human voice, including both solo and choral sounds. Choir instruments include classical, chamber, boys, and gospel ensembles, while solo instruments include an Eastern voice, a synthesized soprano, and a whistler. Voices also features a variety of percussion and rhythm instruments including human beat box, human bass, vocal shouts, and human rhythm sounds. The Voices instruments include the following categories:

- *Choirs,* featuring classical and chamber choirs in male, female, and mixed versions; Gregorian choir; boys' choir; and gospel choir
- *Soloists,* featuring an Eastern voice, a synthesized soprano, and a whistler
- *Percussion,* featuring human beat box, human bass, human body rhythm effects, and vocal shout instruments

This document describes the Software Instruments included in Voices, lists controller information for each instrument, and provides performance tips for using the instruments. It also provides tips for working with the Apple Loops included in Voices to build vocal lines.

Choir

The sound of human voices singing together in harmony, combining words and music, has inspired classical composers to create some of the greatest works in the history of music.

The Voices Jam Pack includes a classical choir that you can use to produce a full choral sound, and a chamber choir that you can use to impart a more intimate feeling. Both the classical and chamber choirs feature separate male and female instruments as well as a mixed male-female ensemble that can be used to create passages in traditional four-part choral harmony.

Classical Choir
A classical choir, consisting of 16 male and 16 female singers or more, produces a full, rich sound that can range from subtle to dramatic in effect. The choir used for this instrument was recorded in a cathedral setting for an authentic sound. Some of the most famous composers in history have made use of a full choir in their best-loved works, including Beethoven's Missa Solemnis; the Mozart, Brahms, and Verdi Requiems; Tchaikovsky's 1812 Overture; Mahler's "Symphony of a Thousand"; and many opera choruses. The sound of a full classical choir has also been used in many film scores to underline moments of mystery and drama.

Chamber Choir
In addition to a full classical choir, Voices includes a chamber choir to provide a more intimate, transparent sound. The chamber choir has been featured in many works of the Baroque and Classical periods, and more recently in films and in recordings in a variety of styles.

Gregorian Choir

Gregorian chant represents the earliest type of music written down in Western history. In the chant style, the voices all sing the same melody in unison (or octaves). Chant became the basis for the masterful choral style of the Renaissance, with complex compositions based around a chant melody, known a *cantus firmus*. One characteristic of Gregorian-style choral singing is the lack of vibrato, allowing the voices to blend completely and creating a more austere, reserved feeling.

Modern composers (including Durufle, Debussy, and Arvo Pärt) have been fascinated by the purity and simplicity of Gregorian choral singing, and have used or suggested it in their compositions. In recent popular music, the Gregorian choir was popularized by the group Enigma (in their piece "Sadeness Part I"), who used it together with a dance beat. It was subsequently employed by other pop and rock groups, as well as by New Age artists wanting to add a sense of spirituality to their music.

Boys Choir

Western Europe has seen a long-standing tradition of boys' choirs, with perhaps the most famous example being the Vienna Boys Choir (in existence since it was founded in the late 15th century by the Emperor Maximillian), which has long maintained a reputation for high musical standards, and has included singers and composers who later achieved great fame and success. Boys' choirs typically consist of boy soprano and alto voices, which together convey a sense of lightness and purity.

Gospel Choir

Gospel music embodies a unique blending of African-American and European vocal traditions, reflecting its origins in the American South. The gospel choir, featuring a rich vibrato performing style, has gone on to captivate the world with its simple yet highly expressive sound. The Harlem Gospel Choir is the modern standard-bearer of the full gospel sound and tradition. Gospel choirs now exist not only in the United States, but in every part of the world from Australia to South Africa, and gospel singers and choirs are used in popular and other recordings to convey moments of depth and spiritual feeling.

Choir

Instrument	Controller Info
Classical Ensemble Classical Ensemble Swells Classical Female Ensemble Classical Female Swells Classical Male Ensemble Classical Male Swells	• Mod wheel changes the vowel being sung (between ah, oo, uh, and um).
Chamber Ensemble Chamber Ensemble Swells Chamber Female Ensemble Chamber Female Swells Chamber Male Ensemble Chamber Male Swells	• Mod wheel changes the vowel being sung.
Gregorian Ensemble Gregorian Ensemble Swells	• Mod wheel changes the vowel being sung.
Boys Chamber Ensemble Boys Chamber Swells	• Mod wheel changes the vowel being sung.
Gospel Ensemble Gospel Ensemble Swells Gospel Voice Effects	• Mod wheel changes the vowel or phrase being sung.

Soloist

The most easily identifiable, and, for many people, most expressive musical instrument is the solo human voice. The sound of the human voice elicits an immediate response, and is capable of the widest possible range of emotional expression.

Eastern Solo

One of the more interesting recent developments of the world music phenomenon is the use of Eastern-style vocals in popular music. From its origins in the traditional music of South Asia, this highly sensual and expressive style of singing has become familiar to modern listeners through its use by pop artists as diverse as Sting and Thievery Corporation, and has additionally become associated with its use in Indian "Bollywood" films.

Synth Soprano Solo

The soprano voice is the highest and the most prominent vocal part in both classical and popular music. Voices includes a special Synth Soprano Solo instrument that blends the natural sound of the soprano voice with a contemporary synthesized texture. This instrument can be used for projects in techno, trance, and other electronic music styles, or to add an atmospheric feeling to projects in other genres.

Whistler

Putting the lips together to produce musical notes is a universal way of creating melodies, immediately identifiable yet so simple and natural that many people do it unconsciously. Yet virtuoso traditions of whistling have evolved in different parts of the world, where there were few resources available for fashioning musical instruments.

Soloist

Instrument	Controller Info
Eastern Solo	• Mod wheel changes the vowel being sung (between ah and oo). • Highest velocities add an ornamental "behlava" (like a slow trill).
Synth Soprano Solo	• Mod wheel changes the vowel being sung (between ah and oo).
Whistler	• Mod wheel adds vibrato. • The highest velocities play a tapping sound.

Percussion
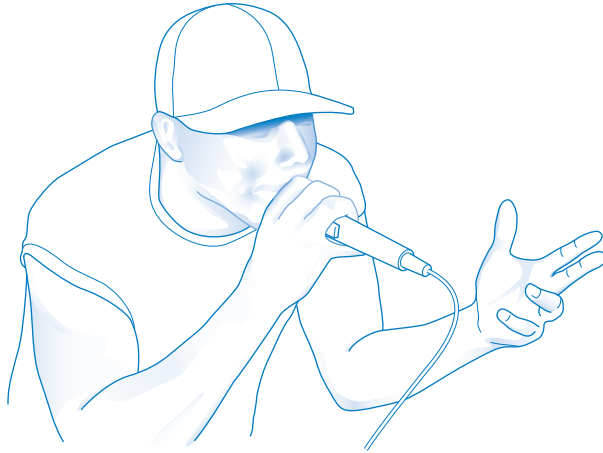
The human body is capable of producing a nearly unlimited number of sounds, and has been used by ancient cultures and contemporary performing artists as a musical instrument. Using the body and mouth to simulate the sounds of percussion and other musical instruments has been widely used in the past century, from jazz scat singing to the multilayered creations of Bobby McFerrin and the group Voicestra. Now you can add these human percussion and rhythm sounds to your projects using Voices instruments.

Human Beat Box
Human beat box uses the human lips, tongue, throat, and voice to create beats, grooves, and rhythms, and to imitate other sounds, such as turntable scratching. It is used in contemporary urban music styles, particularly in hip-hop music. The name derives from "beat boxes", electronic drum machines used to create repetitive percussion patterns ("beats") over which rappers and others would improvise.

Beatboxing is also sometimes called "vocal percussion" or "multivocalism." It originally developed in urban areas including Chicago, New York, and Los Angeles, and may be related to scat singing and other vocal simulations of instrumental music. The stars of "classic" beatboxing in the 1980s included Darren "Buffy" Robinson, Doug E. Fresh, and Biz Markie.

Human Bass
In classical choral music, the lowest instruments (including contrabass and bassoon) often double the lowest part sung by the bass voice. In several styles of a capella music (that is, music for voices only, with no instruments), including barbershop, doo-wop, and more recently beatboxing, the bass voices often imitate the sound of a string bass or electric bass guitar.

Vocal Shouts

Many styles of contemporary music include shouts and other non-tonal vocal sounds. The Vocal Shouts and Vocal Shout Effects instruments provide a different sound for each note, which you can trigger from your keyboard. These sounds are non-looping and non-transposing.

Human Body Rhythm Effects

This instrument features different rhythm sounds spread across the notes on the keyboard like a drum kit. The sounds included in the Human Body Rhythm Effects instrument follow the layout of the General MIDI specification, so the instrument can be used with existing drum loops and Software Instrument regions.

Human Body Sound Effects

In addition to percussive and bass sounds, the human body can produce many sounds with a definite musical pitch. This instrument includes a variety of tonal body sound effects that you can use to add a unique flavor to your projects.

Percussion

Instrument	Controller Info
Human Beat Box	• Different velocities sound different timbres.
Human Bass	• Mod wheel sustains (loops) the note.
Vocal Shouts Vocal Shout Effects	• Velocity increases volume.
Human Body Rhythm Effects	• Velocity increases volume.
Human Body Sound Effects	• Velocity increases volume.

Using the Voices Apple Loops

Voices gives you over 2000 Apple Loops with vocal lines, phrases, and harmony parts that you can add to your projects. Some Apple Loops are designed to be used as background vocals, whereas others are intended to be used as lyrical phrases. You can arrange a series of phrases to create your own lead vocal parts.

In modern studio recordings, a vocalist often records a series of phrases that can be edited and arranged or "comped" together to create a continuous vocal line. You can use the Apple Loops included in Voices in the same way, either by splitting loops or by shortening them in order to mix different fragments of a larger phrase.

Some of the Apple Loops in Voices are intended to be used in a larger musical mix. These loops may start on a different beat than the first beat of the measure, and so they may be silent on the beat that aligns with the left edge of the loop when you add them to the timeline. You can move them in the timeline so that they fit together most effectively with the other loops and recordings in your project (in musical terms, "in the pocket").

The Apple Loops in Voices are recorded at an extremely high level of sound quality, and make use of the time- and pitch-shifting technology built into GarageBand, Logic, and Soundtrack Pro. However, because our ears are so attuned to the subtleties of the human voice, audio distortion and artifacts may be more noticeable when using the Voices loops in a key or tempo that is not close to their original key and tempo. It is recommended that you check the key and tempo of the loops in the loop browser, and use loops only in nearby keys and in tempos close to the original tempo.

Performance Tips

The Software Instruments and Apple Loops in Voices represent the state of the art in sample-based digital audio technology. They are designed to provide an extremely high level of sound quality while using your computer's processor, memory, and hard disk resources as efficiently as possible. By their nature, however, high-quality samples like the ones in Voices require a certain level of processor power, available memory, and hard disk speed for optimal performance.

This document provides tips on how to get the most out of the Voices instruments and loops, and tells you what aspects of your computer setup might produce the greatest effects on performance, depending on how you use Voices.

Add Memory

In general, Real Instrument loops (blue) are extremely efficient and require the least amount of resources from your computer. The Software Instruments and Software Instrument loops (green) in Voices require more processing power, as the sound is being processed in real time. This is why Software Instruments and Software Instrument loops require a computer with at least a G4 processor, and why Apple recommends you have at least 1 GB of RAM to use Voices.

The simplest way to increase performance—that is, to be able to play songs with more tracks and with more Software Instruments—is to install more RAM in your computer. For GarageBand and Logic users, adding RAM is an affordable investment that will improve the performance of the high-quality instruments in Voices.

Convert Software Instrument Loops to Real Instrument Loops

As stated above, Software Instrument loops require more processing power than Real Instrument loops. If your computer has 512 MB or more of memory, the performance impact of using Software Instrument loops is much higher than with Real Instrument loops. Whenever you use Software Instrument loops that you don't intend to edit later, converting them to Real Instrument loops can increase performance.

You can convert a Software Instrument loop to a Real Instrument loop by Option-dragging it from the loop browser to the timeline. You can change the default behavior in GarageBand preferences so that Software Instrument loops are always converted to Real Instrument loops when you drag them from the loop browser to the timeline.

Lock Tracks

When you lock a Software Instrument track, the track is rendered to your computer's hard disk. Playing the rendered track requires less processing power and less memory than playing the Software Instrument track. By locking tracks, you trade processor usage for hard disk usage. This can provide an increase in performance (especially on computers with slower processors, or when you are using many instruments or effects, which consume processing power), but locking many tracks can have an impact on performance, especially on laptops or other computers with slower hard disk speeds (or on computers with nearly full hard disks).