

# Vienna Instruments

# Flute ensemble

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## Introduction

Welcome to the Vienna Symphonic Library, and thank you for purchasing one of our Solo Download Instruments! This document contains the mapping information for the Vienna Instruments Flute ensemble. You will find in it a comprehensive survey of the articulations/Patches content, a listing of abbreviations, and the mapping list proper which gives details for every Patch, Matrix, and Preset.

## Patch information

The Patch information includes articulation type, playing range, number of samples used, RAM requirements, the number of velocity layers and alternations, AB switching possibilities, etc., as well as Patch specific information if necessary.

All download instruments are built up similarly, so that it is easy to exchange instruments with each other to check out different sounds and combinations. The articulations are largely the same within every Instrument group; here's a brief summary of articulations most instruments offer:

**Short notes:** Staccato, portato or détaché

**Long notes:** Sustained with and without vibrato

**Dynamics:** Fortepiano, sforzato, pfp (2 durations) or crescendo and diminuendo (2 durations)

**Flutter tonguing:** Normal and dynamics (crescendo and diminuendo, or crescendo only)

**Clusters:** (Woodwind ensembles only) 3-note clusters, sustained and sforzato

**Trills:** Half and whole tone trills

**Interval performances:** Legato, legato with sustain crossfading, fast legato

**Repetition performances:** Legato, portato or détaché, staccato

**Fast repetitions:** 16ths at 150, 170, and 190 BPM

The velocity layer switches generally are the same for patches with the same number of layers but may occasionally be adapted to the instrument's requirements. The Patch information also lists the velocity layers in detail.

## Interval performances

Interval performances are one of the outstanding features of our Vienna Instruments. They allow you to play authentic legato without any programming tricks. In our Silent Stage, all intervals from minor second to the octave were recorded for every instrument – up and down, of course; that makes 24 interval samples per note for one velocity alone! When you load an interval performance Patch and play a line on your keyboard, the software automatically joins the right samples with their interval transitions again, and you hear a perfect legato. By the way, this technique is not only used for legato but also for other articulations like the strings' portamento, marcato, or détaché and spiccato articulations.

Interval performances also contain at least two legato repetitions for every note which alternate automatically whenever you strike a key more than once. There also are preconfigured thresholds for legato and repetition notes: The legato threshold – i.e., the maximum break between notes where legato is played – is 50 ms. Otherwise, a sustained starting note will sound so that you can easily start a new phrase without leaving the legato Patch. For note repetitions, the threshold is 200 ms: a break up to that duration will yield a legato repetition; if the break is longer, a new starting note. But naturally, it's mingling legato with other articulations which makes a piece really come alive.

Due to their nature, all interval performances are monophonic; otherwise, the software would have to be able to decide which source note belongs to which target note. To circumvent this, you can open two VI instances of the same instrument on separate MIDI tracks without any additional strain on your RAM.

Another variety of interval performance you will come across is the "perf-leg\_sus" Patch. These Patches also contain normal legatos, only the target note of each interval is crossfaded into a looped sustain. They can be used for slower pieces with long notes; however, you should use them with circumspection, since plain legatos sound more lively because they not only render the interval transitions as they were played, but also have different target samples for every interval instead of the same sustained note: When you play, e.g., c–e and then c#–e with normal legato, you will get two different "e" tones; with sus-legato you won't.

## Matrix information

Each Matrix listing contains information regarding the Patches used for the Matrix, the number of horizontal and vertical dimensions, and switching properties. A mapping table shows the Cell positions for each of the Matrix' Patches.

In order to facilitate working with **MIDI controller switches** like the Modulation wheel, the switching positions are not distributed equally across the controller range if they control more than two Matrix rows or columns; generally, the switching range will be narrower at the extreme positions because they are easy to set, and wider in the middle where it is harder to find the desired setting.

## Preset information

The Preset information lists the Matrices used in the Preset as well as its keyswitches. All other information can be gathered from the Matrix and Patch listings, so there's not really much to say here. Please note that the Matrices of a Preset can also be switched with MIDI Program Changes 101–112 instead of keyboard notes, and if you like to keep your keyboard free for playing instead of switching, you can disable Preset keyswitching and only use MIDI Program Changes.

## Pitch

For designating pitch, the Vienna Symphonic Library uses International Pitch Notation (IPN), which was agreed upon internationally under the auspices of the Acoustical Society of America. In this system the international standard of A=440 Hz is called A4 and middle C is C4. All pitches are written as capital letters, their respective octave being indicated by a number next to it. The lowest C on the piano is C1 (the A below that is A0), etc.

You can tune your Vienna Instruments to other players, or adjust it to tunings of earlier musical periods by setting the Perform page's Master Tune option within a range of 420 to 460 Hz.

**04D Flute ens (3)****Range: B3–C7****Patches**

Staccato, portato  
 Sustained  
 Fortepiano, sforzato, strong dynamics 3 and 5 sec.  
 Clusters normal and sforzato  
 Trills half and whole tone  
 Legato normal, with sustain crossfading, and fast  
 Performance repetitions legato, portato, staccato

**01D FL-3 staccato****Samples: 114****RAM: 7 MB**

Single notes: Staccato  
 3 velocity layers: 0–55 p; 56–108 mf; 109–127 f  
 2 Alternations

**02D FL-3 portato****Samples: 114****RAM: 7 MB**

Single notes: Portato  
 3 velocity layers: 0–55 pp; 56–108 mf; 109–127 f  
 2 Alternations

**03D FL-3 sustain****Samples: 114****RAM: 7 MB**

Single notes: Sustained  
 3 velocity layers: 0–55 p; 56–108 mf; 109–127 f  
 Release samples

**05D FL-3 fp****Samples: 19****RAM: 1 MB**

Dynamics: Fortepiano  
 1 velocity layer

**06D FL-3 sfz****Samples: 19****RAM: 1 MB**

Dynamics: Sforzato  
 1 velocity layer

**07D FL-3 dyn-str\_Vib\_3s****Samples: 38****RAM: 2 MB**

Dynamics: Strong crescendo and diminuendo, 3 sec.  
 1 velocity layer  
 AB switch: crescendo/diminuendo

**08D FL-3 dyn-str\_Vib\_5s****Samples: 38****RAM: 2 MB**

Dynamics: Strong crescendo and diminuendo, 5 sec.  
 1 velocity layer  
 AB switch: crescendo/diminuendo

**09D FL-3 cluster****Samples: 72****RAM: 4 MB**

Single notes: Three-note clusters, sustained  
 2 velocity layers: 0–88 p; 89–127 f  
 Release samples

<b>10D FL-3 cluster_sfz</b>	<b>Samples: 18</b>	<b>RAM: 1 MB</b>
Dynamics: Three-note clusters, sforzato 1 velocity layer		
<b>11D FL-3 trill_1</b>	<b>Range: B3–A#6</b>	<b>Samples: 72</b>
Trills: Half tone 2 velocity layers: 0–88 p; 89–127 f Release samples		
<b>12D FL-3 trill_2</b>	<b>Range: B3–A#6</b>	<b>Samples: 70</b>
Trills: Whole tone 2 velocity layers: 0–88 p; 89–127 f Release samples		
<b>21D FL-3 legato</b>	<b>Samples: 638</b>	<b>RAM: 39 MB</b>
Interval performances: Legato Monophonic 2 velocity layers: 0–88 p; 89–127 f Release samples		
<b>22D FL-3 legato-sus</b>	<b>Samples: 616</b>	<b>RAM: 38 MB</b>
Interval performances: Legato, notes crossfading into sustains Monophonic 2 velocity layers: 0–88 p; 89–127 f Release samples		
<b>23D FL-3 legato-fast</b>	<b>Samples: 653</b>	<b>RAM: 40 MB</b>
Interval performances: Legato, fast Monophonic 2 velocity layers: 0–88 p; 89–127 f Release samples		
<b>23D FL-3 perf-rep legato</b>	<b>Samples: 190</b>	<b>RAM: 11 MB</b>
Repetition performances: Legato 2 velocity layers: 0–88 p; 89–127 f		
<b>24D FL-3 perf-rep portato</b>	<b>Samples: 342</b>	<b>RAM: 21 MB</b>
Repetition performances: Portato 2 velocity layers: 0–88 p; 89–127 f		
<b>25D FL-3 perf-rep staccato</b>	<b>Samples: 342</b>	<b>RAM: 21 MB</b>
Repetition performances: Staccato 2 velocity layers: 0–88 p; 89–127 f		

## Matrices

<b>Flutes (3) - all</b>	<b>Samples: 2021</b>	<b>RAM: 126 MB</b>
A matrix consisting of all the instrument's patches as well as a combination of sustained notes with staccato attack		

**Matrix switches:** Horizontal: Keyswitches, C1–G1      Vertical: Modwheel, 3 zones

	C1	C#1	D1	D#1	E1	F1	F#1	G1
V1	staccato	sustained	sforzato	legato	legato repetition	trill half	(empty)	clusters sustained
V2	portato	sustained	fortepiano	legato/sus. XF	portato repetition	trill whole	(empty)	clusters sforzato
V3	portato	sus/staccato attack	dynamics 3 sec.	legato fast	staccato repetition	trill whole	f(empty)	clusters sforzato

### Flutes (3) - legato-speed

**Samples: 779      RAM: 48 MB**

Legato with sustain crossfading, normal, and fast

Monophonic, Speed controller

**Matrix switches:** Horizontal: Speed, 3 zones

	H1	H2	H3
V1	legato/sus.XF	legato normal	legato fast

## Presets

### Flutes (3)

**Samples: 2021      RAM: 126 MB**

Matrices:

Flutes (3) - all

Flutes (3) - legato-speed

Keyswitches: C2, D2