# Xsample AIL Standard Scripting Documentation



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# **Xsample Tab**

#### Controls

Ø Ш Cpu 0% Disk 0% NI ø Alto Flute play (4) (1)Output: st.1 S MIDLCh: [A] 1 Memory: 56.07 MB
 M el keuswitel (2) (3) the tab bar (5) Key Switches Play area (excerpt) (6) Layer switch keys Playing techniques display

As an example, here the alto flute:

(1)

The currently selected playing technique is shown in the display. You can use the Keyswitches (5) or alternatively a MIDI Controller (cc#0 or for percussion instruments cc#32) for switching. In order to reach the various sounds without restricting the play range, the keyswitches are grouped in up to three layers. The layer change can be reached on either the keys A#7 - C8 (6) or with the Velocity Keyswitch Mode (2) through the velocity of the keyswitches.

#### Keyswitch types (velocity / layer)

(2)

Xsample offers in the instruments so many sound variations that the keyswitches must be staggered in "layers". Similar variants are mostly on the same keyswitches, if possible. When the button "vel keyswitch" is selected, layer and keyswitch will be controlled at once. Low velocities for the first layer and high velocities for the second layer. If the button is off, you can reach the layers over the Layer switch keys (6).

#### **Tuning functions**

(3)

Stretch

Spread with values greater than 0 or shrink with values less than 0 the total tuning range. You influence the tone spacing evenly between each tone. (= high notes a little higher, low notes a little lower).

Tuning and base note In addition, you can set tuning characteristics of different historical and modern tunes. You can also change the basic tone (CC#29) and the tune (CC#30) by selecting separately.

# **Round Robin menu / Ensemble function** (4)

The drop-down menu below the "round robin" label contains a selection of different variants of "Round Robin" modes, a instrument division and the ensemble mode.

The two random modes (rnd) are a good way to break through recognizable recurrence pattern.

The different modes can be controlled by CC#82



#### Off

Turns of the round robin feature. (cc#82 = 21-41)

#### **On Repitition**

Round Robin is active only when sounds are repeated. (cc#82 = 0-20)

#### **On Repitition (rnd)**

Round Robin is active only when sounds are repeated. But the following "sound exchange" is randomly selected. (cc#82 = 42-62)

#### **Always**

Round Robin is always active. (cc#82 = 63-83)

#### Always (rnd)

Round Robin is always active and plays randomly sound exchanges. (cc#82 = 84-104)

#### Always (indiv.)

Round Robin is always active and plays for each tone separately individual Round Robin cycles. (cc#82 = 105-115)

#### **Instrument 1 & Instrument 2**

All the sounds of the instrument are divided into 2 parts. Instrument 1 (cc#82 = 116-119) and Instrument 2 (cc#82 = 120-122) never play the same sounds, so that phasing effects are avoided.

#### Ensemble function (CC#82 = 123-127)

This mode expands the GUI in the ensemble mode to make some special detail settings.



**E1** With the voice knob you can make 2 to 5 instruments (cc#91). If **autoload default** (E6) is selected, the voices are always automatically combined with suitable default values. If this is not desired, please turn **autoload default** (E6) off.

#### **E2**

#### Panwid

#### e

sets the panorama width of the ensemble. (cc#92)

#### **E3**

#### Aliv

#### e

generates to all parameters random deviations, so that the ensemble sounds more alive. (cc#93)

#### E4 With

#### Detun

#### e

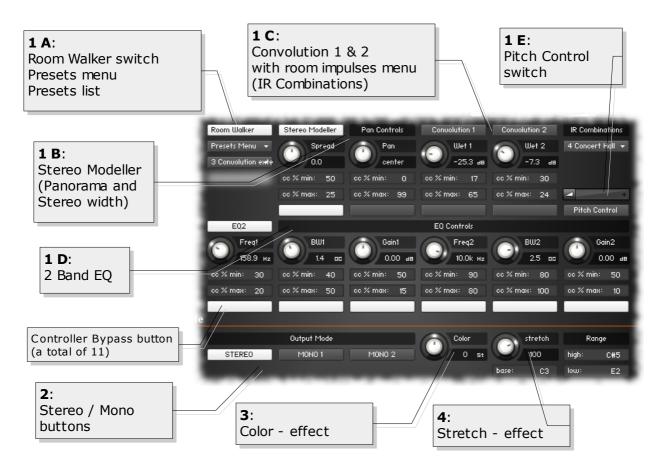
you set the maximum detuning in cents for the individual instruments. (cc#94)

**E5** The **Delay**-value allows an individually time shifting sound start. Large values can also be used for interesting delay effects. (cc#95)

**E6** As mentioned in section **E1**, the *autoload default* switch ensures that every voice multiplication get suitable values. If the switch is not used, this automatism is turned off.

# **Transform Tab**

#### Room Walker Controls (1 A – 1 E)



In the upper section you find the "Room Walker" controls. As the name suggests, it is for effects within a two-dimensional space or for moves in a virtual room. CC#11 takes over the room depth and CC#12 the panorama. Basically the Room Walker consist of four insert effects, which can be switched separately on or off:

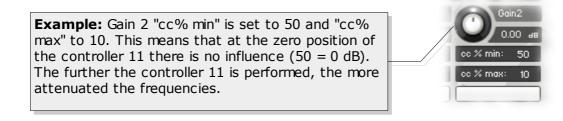
(1 B) Stereo Modeler (pan and stereo width), (1 C) Convolution 1 and 2, the
(1 D) EQ and the (1 E) pitch module.

In the "IR Combinations" menu you can choose between 64 room settings based on 61 IR samples (room impulses). In each case, two different spaces are loaded. In addition to this virtual space positioning completely different effects with the Room Walker of course still possible.

#### **Room Walker operation**

CC#11 acts as a "Macro Controller", which controls up to 10 controls on the Room Walker (the white buttons switch the respective controller influencing on or off).

You can set, for example, that the high frequencies decrease as you "go" deeper into the room, at the same time you reduce the stereo width of the instrument and increase the "wet amount" of Convolution 1. The whole is achieved in that a percentage bias value is available for each element.



#### **Room Walker Presets**

You can also create, save and load your own presets. If you load or save complete banks, first the names file is requested, then the data file. It is recommended to set the files to the same name and the names file with the extension "\_names" at the end.



If your mouse is over the switches and buttons, you will get additional support for the individual functions in the info pane (i) of Kontakt (Info button must be active).

The following is a list of the individual elements of a preset:

- (1) Stereo Modeller Bypass, Pan and Spread Controller Bypass (white buttons) with respective minimum and maximum values
- (2) Convolution 1 and 2 Bypass, Wet 1 and Wet 2 Controller Bypass (white buttons) with respective minimum and maximum values
- (3) EQ Bypass, Frequency 1-2, Bandwidth 1-2 and Gain 1-2 Controller Bypass (white buttons) with respective minimum and maximum values
- (4) Pitch Control Bypass and Pitch Slider value (Bipolar +/- 1 octave)
- (5) IR Combination (1-64)

#### **Room Walker multi instruments**

If you are working with many instruments in a project, your computer processor is of course hugely demanded if each instrument required two Convolution effects. For this case, use the included multi instruments. They allow the use of the Room Walker with the external convolution effects of Kontakt. You can then merge in one multi - many (multi-) Instruments ("merge", press "No"). So you use only two Convolution Effects and yet every instrument can be controlled independently.



#### Output Mode (2)

In the lower range (output mode) you can set the instrument to "mono". There are the variant Mono 1 (left) or Mono 2 (right). You can use it to try out a simple way how your mix sound with mono instruments. If you use a lot of instruments you may reach more transparency of the mix.



### Color Effect

**(3)** (-12 → +12)



This allows you to play the instrument with a "Re-Pitch" - effect. Negative values produce a dull, soft sound and positive values give a light to biting sound. A value of +12 makes a guitar, for example, a kind of banjo. A value of -12 makes a violin a kind of cello. The effect range can be limited by the adjustable "Range". In position "0" you hear the original instrument (standard, loaded by the instrument).

Color can be operated remotely via CC # 56

#### Stretch Effect

**(4)** (-200 → +200%)

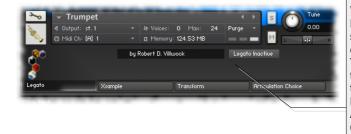
This effect serves only as a small but interesting gimmick: All incoming notes will be compressed or stretched by the base notes around. Play, for example, a broken C minor triad several times in a row while at the same time turning the controller of stretch from 100 to 200%. The effect range can be limited by the adjustable "Range". In position "100%" you can hear the

original sound (standard, loaded by the instrument).

Stretch is with CC#57 and Base with CC#55 remotecontrollable



# Legato Tab



With this function you can achieve a glissando between two notes when you slightly overlap the sounds while playing. In this mode the instrument can play only one voice. You can activate or deactivate the function using the legato button (on / off). The state of the button is not saved with the instrument. The basic setting of the legato button is off. Alternatively, you can control the legato mode with CC#68. CC#24 controls the intensity.

CC#68: 0 = Legato off CC#68: 127 = Legato Mode CC#24: 0  $\rightarrow$  127 = easy effect (slur)  $\rightarrow$  strong glissando

# **Articulation Choice Tab**

Load or unload individual playing techniques

	Switch buttons on or off to load or unload articulations								
5	natural vibrato	senza vibrato	staccato	flutter	tongue	secco	keys		
3	multiphonics	whistle tones	breath						
	_								
Legato	Xsa	mple	Transform		Articulatio	n Choice			
_	-			_	_				

In order to optimize the memory load in your project (reduce), you can unload in this menu sample groups from memory. On this example, the *senza vibrato* and *flutter tongue* samples are not loaded in the instrument.

The settings of the buttons are saved with the instrument.

# **Controller Overview**

Function	Controller	
Sound dynamics (seamless xfades) / phrasing / playing techniques changes	CC# 1	
	CC# 2	
Phrasing / transitions (xfades) / playing techniques changes		
Artificial vibrato (senza vibrato patches) Movement triggers breathing sound when breath function is on	Channel Pressure (AT) CC# 4	
Additional knob on UI (e.g. pedal, tremolo, body, quill, bright)	CC# 22	
Volume breathing sound	CC# 26	
Octave down breathing sound	CC# 27	
Timing control automatic breathing / value 0 = off	CC# 28	
Legato (on / off)	CC# 68	
Legato intensity	CC# 24	
Glissando (up) / clarinet (Eb) & Brass (release switch)	CC# 60	
Glissando (down) / clarinet (Eb) & Brass (release switch)	CC# 61	
Volume	CC# 7	
Pan	CC# 10	
Control of the tonal center note of the selected tuning (Menu)	CC# 29	
Selection of tuning (Menu)	CC# 30	
Switch playing techniques	CC# 0 / CC# 32	
Pedal	CC# 64	
Round Robin switch	CC# 82	
0 – 20 on repetition		
21 – 41 off		
42 – 62 on repetition (random)		
63 – 83 always		
84 – 104 always (random)		
105 – 115 always (indiv.)		
116 – 119 Instrument 1		
120 – 122 Instrument 2		
123 – 127 Ensemble		
Amount of voices (Ensemble Mode)	CC# 91	
Pan width (Ensemble Mode)	CC# 92	
Alive (Ensemble Mode)	CC# 93	
Detune (Ensemble Mode)	CC# 94	
Delay (Ensemble Mode)	CC# 95	
Envelope Attack	CC# 17	
Envelope Decay	CC# 19	
Envelope Release	CC# 18	
Pitchbend range (from standard +-1 (0) semitone to +- 1 octave)	CC# 46	
Velocity to pitch	CC# 40	
Pan Modulation	CC# 44	
Pan Modulation (Speed)	Channel Pressure (AT)	
Pitch Modulation	CC# 42	
Pitch Modulation influence through channel pressure (intensity)	CC# 43	
Octave down	CC# 40	
Octave up	CC# 41	
Room Walker Makro Controller	CC# 11	
Room Walker Pan	CC# 12	
Room Walker Pitch intensity	CC# 67	
Room Walker Pitch Control Bypass	CC# 69	
Transform Color	CC# 56	
Transform Stretch	CC# 57	
Transform Base Note	CC# 55	

Functions marked in red are operated exclusively via MIDI controller. All other functions you can control also on the GUI of the instrument.

### Functions for adventurous

(pale yellow colored controller)

If you have an external MIDI controller or work with the TouchOSC layout, you have the option to alienate the instruments with different controllers.

- Transpose with CC#27 e. g. the breathing sounds of wood or brass instruments by up to an octave or transpose the sounds in total with CC#40/41.
- Use the envelope controller to create unusual sounds (e. g. a piano with long attack (CC #17), extremely short sounds (CC#19), or extremely long releasing sounds (CC#18)).
- Or modulate with extreme values the pitch of an instrument. This results in "metallic-sounding" sounds (CC#42). Subtle changes are also possible.
- Or move the instrument from left to right with a pan modulation (CC#45).
- Or create an extremely out of tune instrument with CC#44. The pitch is determined by the velocity (up to an octave).
- Combine these effects with the possibilities of the Room Walker and / or the Transform Color function.

# Appendix

### List of the 61 room impulses

IR Sample	Length
Beautyverb	8,255"
Big Church	4,960''
C_Chamber_Early_1	0,848''
C_Chamber_Early_2	1,393"
C_Club_Medium	2,081''
C_Club_Small	1,608"
C_Concert_Hall_Large	5,144"
C_Concert_Hall_Medium_1	2,345"
C_Concert_Hall_Medium_2	3,061"
C_Concert_Hall_Small C_Large_Church	1,457'' 4,606''
C_Medium_Church	3,048''
C Room Medium	1,351"
C Room Small	0,850"
C Wood Chamber	3,364"
Comb	2,707"
Combed_Cloud	3,912''
Crystals	7,970"
Cyclo	3,925"
Dual_Crystal_1	6,119"
Dual_Crystal_2	5,453"
Flanging Galaxyverb	2,011'' 9,000''
Hall 1	3,417"
Hall 2	2,906"
Hall_Early	0,975"
Hydro_gliss	5,108"
Long_Crisps	6,588''
Long_Distance	3,215"
P3_Auditorium_Large	5,400"
P3_Auditorium_Medium	4,158"
P3_Auditorium_Small	2,926"
P3_Concert_Large	4,396"
P3_Concert_Medium P3 Concert Small	3,597'' 2,446''
P3 Damped Hall	2,366"
P3_Early_1	0,620"
P3_Early_2	0,899"
P3_Early_3	0,618"
P3_Echoy	5,038"
P3_Like_Reverse	5,270"
P3_Long_Modulated	6,607"
P3_Nice_Hall	3,901"
P3_Plate_Large	3,839"
P3_Plate_Medium P3_Plate_Small	1,643'' 1,250''
P3 Theatre	3,478"
P3 Warm Hall Large	5,858"
P3_Warm_Hall_Medium	3,049"
P3_Warm_Hall_Small	2,210"
P3_Watery_2	4,350''
P3_Watery_Hall	8,378"
P3_Woody	4,440"
Plasma	4,984''
Roll	2,845"
Room_1	1,131"
Room_2 Smear	1,310'' 5,337''
Space Tunnel	7,293''
Tunnel	5,485"
Watery	4,235"
,	,

Grey: < 2'' / yellow: > 5''

### List of the 64 room impulse combinations

Name	Convolution 1	Length	Convolution 2	Length
1 Medium Church	C Medium Church		C_Chamber_Early_1	0,848''
2 Large Church 1	C_Large_Church		C_Chamber_Early_1	0,848"
3 Large Church 2	C_Large_Church		C_Wood_Chamber	3,364''
4 Concert Hall	C_Concert_Hall_Large		C_Club_Small	1,608"
5 Medium Concert Hall 1	C_Concert_Hall_Medium_2		C_Room_Medium	1,351"
6 Medium Concert Hall 2	C_Concert_Hall_Medium_1		C_Room_Small	0,850"
7 Small Concert Hall 8 Wood Chamber 1	C_Concert_Hall_Small C Wood Chamber		C_Chamber_Early_1	0,848"
9 Wood Chamber 2	C Wood Chamber		C_Room_Small C_Concert_Hall_Large	0,850'' 5,144''
10 Medium Club	C_Club_Medium		C_Chamber_Early_2	1,393"
11 Medium Room	C Room Medium		C_Chamber_Early_2	1,393"
12 Roomy Hall 1	Room_1	1,131"		3,417"
13 Roomy Hall 2	Room_2	1,310"		2,906''
14 Into Church	Big_Church		Hall_Early	0,975''
15 Galaxy Church	Big_Church		Galaxyverb	9,000"
16 Galaxy Beauty	Beautyverb		Galaxyverb	9,000"
17 Big Plasma Verb	Galaxyverb		Plasma	4,984''
18 Smear Verb 19 Crystal Flange	Smear	5,337"	Flanging	2,845"
20 Hydro Distance	Dual_Crystal_2 Hydro gliss	5,455		2,011" 3,215"
21 Tunnel Distance	Tunnel		Long_Distance	3,215"
22 Smear Tunnel	Space_Tunnel	7,293''		5,337"
23 Crisps Comb	Comb	2,707"	Long_Crisps	6,588''
24 Crystal Cyclo	Cyclo		Dual_Crystal_1	6,119''
25 Beauty Watery	Watery		Beautyverb	8,255"
26 Like Reverse	P3_Like_Reverse		P3_Early_1	0,620"
27 Echoy	P3_Echoy		P3_Early_2	0,899"
28 Long Modulated 29 Nice Hall	P3_Long_Modulated P3 Nice Hall		P3_Early_3 P3_Early_2	0,618'' 0,899''
30 Metallic Hall 1	P3_Warm_Hall_Small		P3 Plate Large	3,839''
31 Metallic Hall 2	P3 Plate Medium		P3 Plate Small	1,250"
32 Theatre	P3_Warm_Hall_Small		P3_Theatre	3,478''
33 Watery 1	P3_Watery_2		P3_Plate_Medium	1,643"
34 Watery 2	P3_Watery_Hall		P3_Plate_Medium	1,643"
35 Warm Hall Medium	P3_Warm_Hall_Medium		P3_Early_1	0,620"
36 Warm Hall Large	P3_Warm_Hall_Large		P3_Early_1	0,620"
37 Damped Hall 38 Auditorium Large	P3_Damped_Hall P3_Auditorium_Large		P3_Early_2 P3_Concert_Small	0,899'' 2,446''
39 Auditorium Medium	P3_Auditorium_Medium		P3_Concert_Small	2,446''
40 Auditorium Small	P3_Auditorium_Small		P3 Concert Small	2,446''
41 Concert Small	P3_Concert_Small	2,446''	P3_Early_2	0,899"
42 Concert Medium	P3_Concert_Medium		P3_Early_2	0,899''
43 Concert Large	P3_Concert_Large		P3_Damped_Hall	2,366"
44 Woody	P3_Woody		P3_Early_3	0,618"
45 Long dark modulated Hall 46 Echoy long modulated	P3_Damped_Hall P3_Long_Modulated	2,366	P3_Long_Modulated P3_Echoy	6,607'' 5,038''
47 Metallic Reversy	P3_Plate_Large		P3_Like_Reverse	5,270"
48 Early Water 1	P3_Early_1		P3_Watery_2	4,350"
49 Early Water 2	P3_Early_1		P3_Watery_Hall	8,378"
50 Small Early	P3_Early_3		P3_Early_1	0,620"
51 Small Chamber	C_Chamber_Early_1		C_Room_Small	0,850''
52 Medium Early	P3_Early_2		Hall_Early	0,975"
53 Room Plate	Room_1	,	P3_Plate_Small	1,250"
54 Medium Room 2 55 Small Chamber 2	Room_2 C Chamber Early 2	,	C_Room_Medium	1,351'' 1,457''
55 Small Chamber 2 56 Club Plate	C_Club_Small		C_Concert_Hall_Small P3 Plate Medium	1,643''
57 Flanging Club	Flanging	,	C Club Medium	2,081"
58 Warm Hall Medium	P3_Warm_Hall_Small		C_Concert_Hall_Medium_1	2,345"
59 Damped Concert Hall	P3_Damped_Hall		P3_Concert_Small	2,446"
60 Comb Roll	Comb	2,707"		2,845''
61 Small Auditorium Hall	Hall_2		P3_Auditorium_Small	2,926"
62 Warm Church	C_Medium_Church		P3_Warm_Hall_Medium	3,049"
63 Medium Distance Hall 64 Wood Hall	C_Concert_Hall_Medium_2 C Wood Chamber	3,061" 3,364"	Long_Distance	3,215'' 3,417''
		5,504	nun_1	5,717

Grey: < 2'' / yellow: > 5''

# **Version History**

Latest release february 2018

- all instrument fixed patches shows now the concret range of the playing styles (black inverted)
- several minor adjustments

Release october 2017

- minor adjustments for Part 2 fixed patches (Trumpet, Trombone)
- minor adjustments for Part 3 fixed patches (Accordion, Celesta)
- minor adjustments for Part 4 fixed patches (Strings score versions)

Initial release january 2015