**Renoise. Effect Column**

**Sample Commands**

Most of the effects listed here only apply to sample-based instruments and will have no effect on MIDI or plugin instruments, as Renoise does not have full control over properties like playback directions, pitch glides etc. The retrigger and delay commands, however, will work with MIDI and plugin instruments.

* **0Axy** - Set arpeggio, x/y = first/second note offset in semitones. Using 0 for x or y will use the basenote.
* **0Uxx** - Slide pitch up by xx 1/16ths of a semitone (01 is 1/16th of a semitone, 08 is half a semitone, 10 is a whole semitone).
* **0Dxx** - Slide pitch down by xx 1/16ths of a semitone (01 is 1/16th of a semitone, 08 is half a semitone, 10 is a whole semitone).
* **0Gxx** - Glide towards given note by xx 1/16ths of a semitone (01 is 1/16th of a semitone, 08 is half a semitone, 10 is a whole semitone). A value of FF will make the slide instant.
* **0Ixx** - Fade volume in by xx volume units (0I01 inserted 256 times will slide from 0 to full volume, 0I7F inserted twice will do the same much faster).
* **0Oxx** - Fade volume out by xx volume units.
* **0Cxy** - Cut volume to x after y ticks (x = volume factor, 0 = 0%, F = 100%).
* **0Qxx** - Delay note by xx ticks (00 - TPL). Also Qx in Volume and Panning columns.
* **0Mxx** - Set channel volume level, 00 = -60db, FF = +3db.
* **0Sxx** - Trigger sample slice number xx or offset xx.
* **0Bxx** - Play sample backwards (xx = 00) or forwards (xx = 01).
* **0Rxy** - Retrigger note every y ticks with volume x, where x represents:
  + **0** No volume change
  + **1** -1
  + **2** -2
  + **3** -4
  + **4** -8
  + **5** -16
  + **6** \*2/3
  + **7** \*1/2
  + **8** No change
  + **9** +1
  + **A** +2
  + **B** +4
  + **C** +8
  + **D** +16
  + **E** \*3/2
  + **F** \*2
* **0Yxx** - MaYbe trigger line with probability xx. 00 = mutually exclusive mode (will trigger only one note on this line, where the chance of triggering is inserted into the [volume or panning column](file:///C:\\Users\\Sirius%20Harvey\\Desktop\\Education\\renoise\\Pattern%20Effect%20Commands%20-%20Renoise%20User%20Manual.htm" \l "Volume_or_Panning_Column) using Yx).
* **0Vxy** - Set vibrato (regular pitch variation), x = speed, y = depth.
* **0Txy** - Set tremolo (regular volume variation), x = speed, y = depth.
* **0Nxy** - Set auto pan (regular pan variation), x = speed, y = depth.
* **0Exx** - Set active [sample envelopes' position](http://tutorials.renoise.com/wiki/Instrument_Settings" \l "Envelopes" \o "Instrument Settings) to offset xx.
* **0Lxx** - Set [track pre-mixer's](http://tutorials.renoise.com/wiki/Effects_In_Renoise" \l "Pre_and_Post_Mixer_Effects" \o "Effects In Renoise) volume level, 00 = -INF, FF = +3db.
* **0Pxx** - Set [track pre-mixer's](http://tutorials.renoise.com/wiki/Effects_In_Renoise" \l "Pre_and_Post_Mixer_Effects" \o "Effects In Renoise) pan, 00 = full left, 80 = center, FF = full right.
* **0Wxx** - Set surround width, 00 = min, FF = max.
* **0Jxx** - Set [track's output routing](http://tutorials.renoise.com/wiki/Effects_In_Renoise" \l "Pre_and_Post_Mixer_Effects" \o "Effects In Renoise) to channel xx, 01 upwards = hardware channels, FF downwards = parent groups (00 is the master track, 01 is the first soundcard output channel and FF is the closest parent group track).
* **0Xxx** - Stop all notes and FX (xx = 00), or only effect xx (xx > 00).

**Track Effect Commands**

You can also change any [Track Effect](http://tutorials.renoise.com/wiki/Effects_In_Renoise" \o "Effects In Renoise) parameters with pattern effect commands. The sample commands all start with 0 (e.g. 0G for glide), but Track Effects also make use the first number to specify which effect in the chain is being altered:

xyzz -> x is the the xth effect in the chain, y is the yth parameter in the device. For example: let's say you have a Filter as the first effect in the chain, then 13FF will set the Filter's Resonance to the maximum value (1 = Filter device (the first effect), 3 = Resonance (the third parameter), FF = maximum value).

You can also enable and disable effects with [Track Effect](http://tutorials.renoise.com/wiki/Effects_In_Renoise" \o "Effects In Renoise) commands:

* **x000** - Turn effect x off.
* **x001** - Turn effect x on.

Moving a slider in the [Track Effects](http://tutorials.renoise.com/wiki/Effects_In_Renoise" \o "Effects In Renoise) panel will also show the pattern effect code in the [Lower Status Bar](http://tutorials.renoise.com/wiki/Main_Screen" \l "Lower_Status_Bar" \o "Main Screen). Right-clicking a slider will automatically record the parameter changes into the Effect Column when [pattern Automation recording mode](http://tutorials.renoise.com/wiki/Pattern_Editor" \l "Pattern_Editor_Control_Panel" \o "Pattern Editor) is set to Pattern Effects.

**Global Commands**

* **ZTxx** - Set [tempo (BPM)](http://tutorials.renoise.com/wiki/Transport_Panel" \l "Song_Parameters" \o "Transport Panel) (20 - FF, 00 = stop song)
* **ZLxx** - Set [Lines Per Beat (LPB)](http://tutorials.renoise.com/wiki/Transport_Panel" \l "Song_Parameters" \o "Transport Panel) (01 - FF, 00 = stop song).
* **ZKxx** - Set [Ticks Per Line (TPL)](http://tutorials.renoise.com/wiki/Song_Settings" \l "Player_Options" \o "Song Settings) (01 - 10).
* **ZGxx** - Toggle [song Groove](http://tutorials.renoise.com/wiki/Song_Settings" \l "Groove_Settings" \o "Song Settings) on/off (00 = turn off, 01 or higher = turn on).
* **ZBxx** - Break pattern. The current pattern finishes immediately and jumps to next pattern at line xx (hex).
* **ZDxx** - Delay (pause) pattern playback by xx lines.

**Volume Column**

* **00 - 7F** - Set note volume (velocity) of triggering note or set aftertouch value on current playing note (note value should be empty!) in current column (polyphonic after-touch).
* **Ix** - Volume fade in in the current note column, with step x \* 10 (91 = 0I10 in effect column, 92 = 0I20 in effect column etc.)
* **Ox** - Volume fade out in the current note column, with step x \* 10 (A1 = 0O10, A2 = 0O20 etc.)

**Panning Column**

* **00 - 80** - Set panning of current note column: 00 = full left, 40 = center, 80 = full right.
* **Jx** - Panning slide left with step x (0 - F).
* **Kx** - Panning slide right with step x (0 - F).

**Volume or Panning Column**

* **Ux** - Slide pitch up by x semitones.
* **Dx** - Slide pitch down by x semitones.
* **Gx** - Glide towards given note by x semitones. A value of F will make the slide instant.
* **Cx** - Cut the note after x ticks (0 - F).
* **Qx** - Delay a note by x ticks (0 - F).
* **Bx** - Play sample in the current note column backwards (0 is backwards, 1 is forwards again).
* **Rx** - Retrigger a note every x ticks (0 - F).
* **Yx** - MaYbe trigger note with probability x.

**Note:** The panning/volume **Rx** version of retrigger does not restart the sample from the beginning, while the **0Rxy** effect command does. This behaviour is intended to give you a choice of two different retrigger modes.

**Delay Column**

The delay column can only be used to delay note or [Note OFF](http://tutorials.renoise.com/wiki/Playing_Notes_with_the_Computer_Keyboard" \l "Note_Off" \o "Playing Notes with the Computer Keyboard) values. For example:

* **40** - 25% delay
* **80** - 50% delay
* **C0** - 75% delay

**Unity C# Methods**

**MonoBehaviour itself**  
Update, LateUpdate, FixedUpdate, Awake, Start, Reset  
OnApplicationPause, OnApplicationFocus, OnApplicationQuit  
OnLevelWasLoaded, OnEnable, OnDisable, OnDestroy  
OnGUI

**Send by Collider**  
OnMouseEnter,OnMouseOver,OnMouseExit,OnMouseDown,OnMouseUp,OnMouseUpAsButton,OnMouseDrag

**Send by Rigidbody for "isTrigger"-collider**  
OnTriggerEnter,OnTriggerExit,OnTriggerStay

**Send by Rigidbody for normal collider**  
OnCollisionEnter,OnCollisionExit,OnCollisionStay

**Send by CharacterController** OnControllerColliderHit

**Send by Physx joint component**  
OnJointBreak

**Send by ParticleCollider**  
OnParticleCollision

**Send by Renderer**  
OnBecameVisible, OnBecameInvisible

**Send by Camera**  
OnPreCull, OnPreRender, OnPostRender, OnRenderObject, OnWillRenderObject, OnRenderImage

**Only in Editor**  
OnDrawGizmosSelected,OnDrawGizmos

**Send when using Networking**  
OnPlayerConnected, OnServerInitialized, OnConnectedToServer, OnPlayerDisconnected,  
OnDisconnectedFromServer, OnFailedToConnect

**Send when using MasterServer**  
OnFailedToConnectToMasterServer, OnMasterServerEvent

**Send by NetworkView components**  
OnNetworkInstantiate, OnSerializeNetworkView

**Send by AudioSource components**  
OnAudioFilterRead

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| [**あ**](http://ru.wikipedia.org/wiki/%E3%81%82) ***а*** | [**い**](http://ru.wikipedia.org/wiki/%E3%81%84) ***и*** | [**う**](http://ru.wikipedia.org/wiki/%E3%81%86) ***у*** | [**え**](http://ru.wikipedia.org/wiki/%E3%81%88) ***э*** | [**お**](http://ru.wikipedia.org/wiki/%E3%81%8A) ***о*** |
| [か](http://ru.wikipedia.org/wiki/%E3%81%8B) *ка* | [き](http://ru.wikipedia.org/wiki/%E3%81%8D) *ки* | [く](http://ru.wikipedia.org/wiki/%E3%81%8F) *ку* | [け](http://ru.wikipedia.org/wiki/%E3%81%91) *кэ* | [こ](http://ru.wikipedia.org/wiki/%E3%81%93) *ко* |
| [さ](http://ru.wikipedia.org/wiki/%E3%81%95) *са* | [し](http://ru.wikipedia.org/wiki/%E3%81%97) *си* | [す](http://ru.wikipedia.org/wiki/%E3%81%99) *су* | [せ](http://ru.wikipedia.org/wiki/%E3%81%9B) *сэ* | [そ](http://ru.wikipedia.org/wiki/%E3%81%9D) *со* |
| [た](http://ru.wikipedia.org/wiki/%E3%81%9F) *та* | [ち](http://ru.wikipedia.org/wiki/%E3%81%A1) *ти* | [つ](http://ru.wikipedia.org/wiki/%E3%81%A4) *цу* | [て](http://ru.wikipedia.org/wiki/%E3%81%A6) *тэ* | [と](http://ru.wikipedia.org/wiki/%E3%81%A8) *то* |
| [な](http://ru.wikipedia.org/wiki/%E3%81%AA) *на* | [に](http://ru.wikipedia.org/wiki/%E3%81%AB) *ни* | [ぬ](http://ru.wikipedia.org/wiki/%E3%81%AC) *ну* | [ね](http://ru.wikipedia.org/wiki/%E3%81%AD) *нэ* | [の](http://ru.wikipedia.org/wiki/%E3%81%AE) *но* |
| [は](http://ru.wikipedia.org/wiki/%E3%81%AF) *ха* | [ひ](http://ru.wikipedia.org/wiki/%E3%81%B2) *хи* | [ふ](http://ru.wikipedia.org/wiki/%E3%81%B5) *фу* | [へ](http://ru.wikipedia.org/wiki/%E3%81%B8) *хэ* | [ほ](http://ru.wikipedia.org/wiki/%E3%81%BB) *хо* |
| [ま](http://ru.wikipedia.org/wiki/%E3%81%BE) *ма* | [み](http://ru.wikipedia.org/wiki/%E3%81%BF) *ми* | [む](http://ru.wikipedia.org/wiki/%E3%82%80) *му* | [め](http://ru.wikipedia.org/wiki/%E3%82%81) *мэ* | [も](http://ru.wikipedia.org/wiki/%E3%82%82) *мо* |
| [や](http://ru.wikipedia.org/wiki/%E3%82%84) *я* |  | [ゆ](http://ru.wikipedia.org/wiki/%E3%82%86) *ю* |  | [よ](http://ru.wikipedia.org/wiki/%E3%82%88) *ё* |
| [ら](http://ru.wikipedia.org/wiki/%E3%82%89) *ра* | [り](http://ru.wikipedia.org/wiki/%E3%82%8A) *ри* | [る](http://ru.wikipedia.org/wiki/%E3%82%8B) *ру* | [れ](http://ru.wikipedia.org/wiki/%E3%82%8C) *рэ* | [ろ](http://ru.wikipedia.org/wiki/%E3%82%8D) *ро* |
| [わ](http://ru.wikipedia.org/wiki/%E3%82%8F) *ва* | [ゐ](http://ru.wikipedia.org/wiki/%E3%82%90) *ви* |  | [ゑ](http://ru.wikipedia.org/wiki/%E3%82%91) *вэ* | [を](http://ru.wikipedia.org/wiki/%E3%82%92) *о* |
|  | | | | [ん](http://ru.wikipedia.org/wiki/%E3%82%93) *н* |
| が *га* | ぎ *ги* | ぐ *гу* | げ *гэ* | ご *го* |
| ざ *дза* | じ *дзи* | ず *дзу* | ぜ *дзэ* | ぞ *дзо* |
| だ *да* | ぢ *(дзи)* | づ *(дзу)* | で *дэ* | ど *до* |
| ば *ба* | び *би* | ぶ *бу* | べ *бэ* | ぼ *бо* |
| ぱ *па* | ぴ *пи* | ぷ *пу* | ぺ *пэ* | ぽ *по* |

**State manager**

sing UnityEngine;

using Assets.Code.States;

using Asstes.Code.Interfaces;

public class StateManager : MonoBehaviour {

private IStateBase activeState;

private static StateManager instanceRef;

void Awake()

{

if (instanceRef == null) {

instanceRef = this;

DontDestroyOnLoad (gameObject);

}

else

{

DestroyImmediate(gameObject);

}

}

void Start () {

activeState = new BeginState (this);

Debug.Log ("This object is of type: ");

}

// Update is called once per frame

void Update () {

if (activeState != null)

activeState.StateUpdate ();

}

void OnGUI ()

{

if (activeState != null)

activeState.ShowIt();

}

public void SwitchState(IStateBase newState)

{

activeState = newState;

}

}