Toggle Visibility



Version 1.0 – September 2017

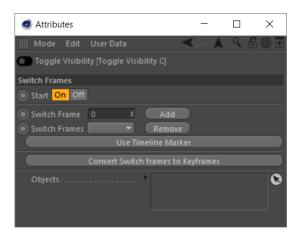
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1. Introduction

"Toggle Visibility" is a Cinema 4D Tag plugin tool that will speed up your modelling and render process. It gives you tools to set the visibility (Editor and Render) with one mouse click. Thus just two clicks instead of defining 4 keyframes (for "Visible in Editor – Off", "Visible in Renderer – Off" and "Visible in Editor – On", "Visible in Renderer – On").

And you can do this for not just one object, but a list of objects if needed. If the host objects visibility is toggle, also the visibility of all objects in the In_Exclude list is toggled! And when done, you can convert the Switch frames to real Keyframes.



For more information, tutorials and FAQ, please visit our website at www.thegreatsummit.com.

2. Installation

When you buy the plugin from our website, you will receive an email with a zip file containing the plugin and one year support.

Just unzip the zip file in the Maxon Cinema 4D plugins folder and you are ready to go.

Compatibility

- CINEMA 4D R16 or later (latest build for each version).
- Studio, Visualize, Broadcast and Prime, Student.
- Both Mac & PC builds are included.
- 64 bit only.

Note: For this plugin, license and support policy has been changed!

This plugin does not require a license file based on your Cinema 4d license.

So, when you buy the plugin, you do not need to enter your Cinema 4d.

2.1 Demo version

The Toggle Visibility Demo version has the following restrictions:

- Tag data will not be saved or loaded when opening or closing the scene.
- Visibility set by the Toggle Visibility Demo Tag will have no impact on rendering.
- The function "Convert Switch frame to Keyframes" is not supported.

3. Using Toggle Visibility

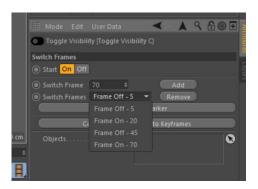
Using Toggle Visibility is very easy.

In principle, you define switch frames to toggle the visibility (Editor and Render visibility) of the object the tag is linked to. Additional objects, placed in the Objects In_Exclude field, will follow the visibility settings of the host object.

3.1 Adding / removing switch frames

Defining switch frames can be done in three ways:

- Add method 1: Use the Switch Frames numeric to define the switch frame and then click the "Add" button to add the switch frame. The switch frame will then be added to the Switch Frames Cycle field.
- Add method 2: Set the timeline marker and then click the "Use Timeline Marker" button. The switch frame will then be added to the Switch Frames Cycle field.
- Remove: select a switch frame using the Switch Frames Cycle field and then click the "Remove" button. The switch frame will then be removed to the Switch Frames Cycle field. After removing a switch frame, the Switch Frames Cycle field will display the first switch frame.



Note: The naming of the switch frames indicates the toggle state.

In this example "Frame Off -5", "Frame On -20", etc. indicate that the visibility will be set to Off at frame 5 and set to On at frame 20, etc.

On / Off setting are related to the Start On/Off setting. See below.

Note: A switch frame is a virtual key frame, not a real keyframe!

A switch frame is not inserted in the animation track.

Basically the tag checks the current frame with the switch frames. If the current frame is equal to a switch frame the visibility of the host object is toggled.

Toggle Visibility [Toggle Visibility C]

3.2 Default start visibility setting – Start On/Off

In order to define the default (initial) setting of the visibility of the host object, "Start On/Off" is used.

Start = On.

This means that the visibility (Editor and Render visibility) of the object before the first switch frame (the initial state) is set to On. This also means that the first switch frame will set the visibility to Off.

Start = Off.

This means that the visibility (Editor and Render visibility) of the object before the first switch frame (the initial state) is set to Off. This also means that the first switch frame will set the visibility to On.

Start On/Off setting also defines the toggle state of the first switch frame and following switch frames. If Start is On, the first switch frame will be Off, the next one On (toggle), etc.

If Start is Off, the first switch frame will be On, the next one Off (toggle), etc.

Changing Start On/Off will have an immediate impact.

The visibility state of the host object and the linked object will be changed accordingly end also the switch frame states will be changed.

3.3 Objects In Exclude field

Objects the In_Exclude field, will follow / get the same visibility as the host object.

Objects can be removed from this field by right clicking on the object in the field and selecting "Remove" or "Remove All".

After removing an object from the list the visibility (Editor and Renderer) of the removed object will be set to Default (Editor and Renderer).

3.4 Example 1

Following settings are defined by the user:

- Start On/Off is On
- Switch frame defined on 5, 20, 45 and 70.

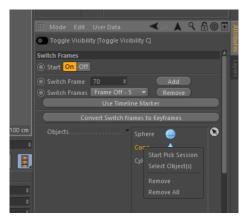
Because Start On/Off is On, visibility before the first switch frame is set to On

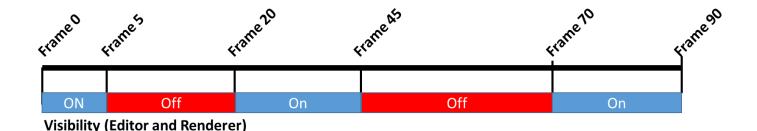
The first switch frame is set at 5 and because Start On/Off is On, this switch frame will toggle visibility Off. The Switch frame is named "Frame Off -5".

The second switch frame is set at 20 and because the previous switch frame is Off, this switch frame will toggle visibility On. The Switch frame is named "Frame On -20".

The third switch frame is set at 45 and because the previous switch frame is On, this switch frame will toggle visibility Off. The Switch frame is named "Frame On -45".

The fourth switch frame is set at 70 and because the previous switch frame is On, this switch frame will toggle visibility On. The Switch frame is named "Frame On -70".





Objects in the In_Exclude field, will follow the visibility (Editor and Renderer) of the host object.

3.5 Example 2

Following settings are defined by the user:

- Start On/Off is Off
- Switch frame defined on 5, 20, 45 and 70.

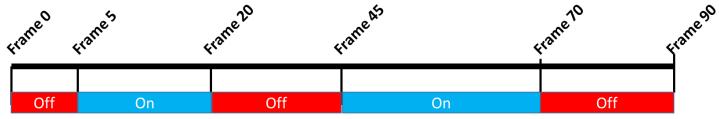
Because Start On/Off is Off, visibility before the first switch frame is set to Off

The first switch frame is set at 5 and because Start On/Off is Off, this switch frame will toggle visibility On. The Switch frame is named "Frame On -5".

The second switch frame is set at 20 and because the previous switch frame is On, this switch frame will toggle visibility Off. The Switch frame is named "Frame Off -20".

The third switch frame is set at 45 and because the previous switch frame is Off, this switch frame will toggle visibility On. The Switch frame is named "Frame On -45".

The fourth switch frame is set at 70 and because the previous switch frame is On, this switch frame will toggle visibility Off. The Switch frame is named "Frame Off -70".



Visibility (Editor and Renderer)

3.6 Convert Switch frame to Keyframes

With this function, the switch frames are converted to keyframes.

- Start On/Off is converted to a keyframe at frame 0.
 Visibility is set to On, if Start On/Off = On.
 Visibility is set to Off, if Start On/Off = Off.
- Sequential switch frames will set keyframes with the corresponding visibility.
- When the keyframes are created, all switch frames will be removed.



Resulting Timeline.

Note: Before the keyframes are created, all current keyframes on tracks "Visible in Editor" and "Visible in Renderer" will be deleted! Therefore a confirmation is needed.



Note: Undo of this action is not realized in this version of the plugin.

Note: Objects in the In_Exclude list will still follow the host visibility, which now is set by keyframes and by switch frames.