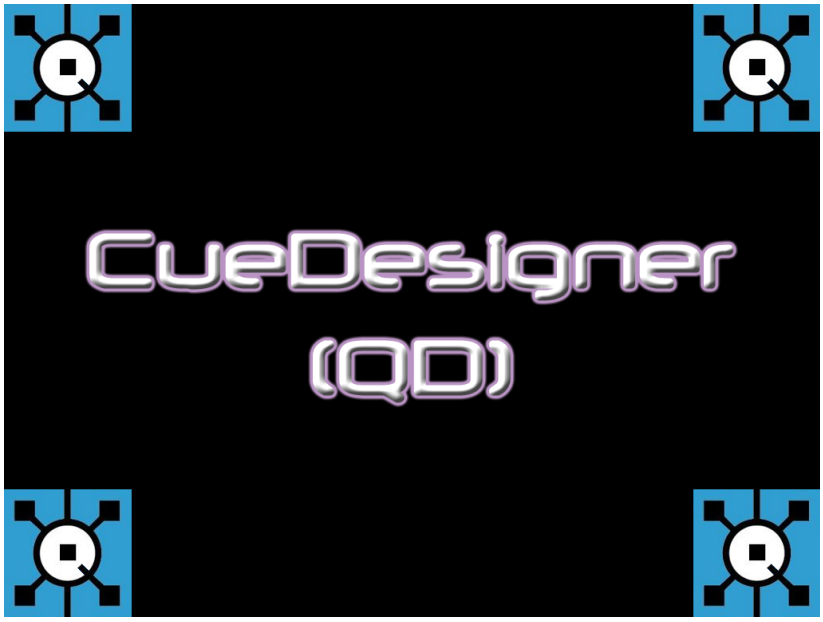


CueDesigner How To

(version 783)

What is CueDesigner

CueDesigner (a.k.a. QD) is a TouchDesigner network designed to run video and audio cues in a linear order. It was designed with theater in mind but can be used for presentations, installations, or anything other project that requires a series of timed video and/or audio events. QD is designed to be easy for TouchDesigner novices, but can also be extended by TouchDesigner pros.

Running QD requires that you have TouchDesigner installed on your system. The non-commercial, free version of TouchDesigner will run audio and video without a water-mark, though video events will be limited to a resolution of 1280x1280. This is probably sufficient for most users.

The network is offered freely with a small request. That request is that all projects that use CueDesigner send an email to the author describing their project briefly. Also, if any changes are made to TouchDesigner (added features, cue types, etc.) please send a copy of your altered network, with a brief description of changes if possible. Images of use and feedback would also be greatly appreciated, and support will be provided if possible.

Contact Information:

Ivan DelSol – sunspider at gmail

How do I use CueDesigner

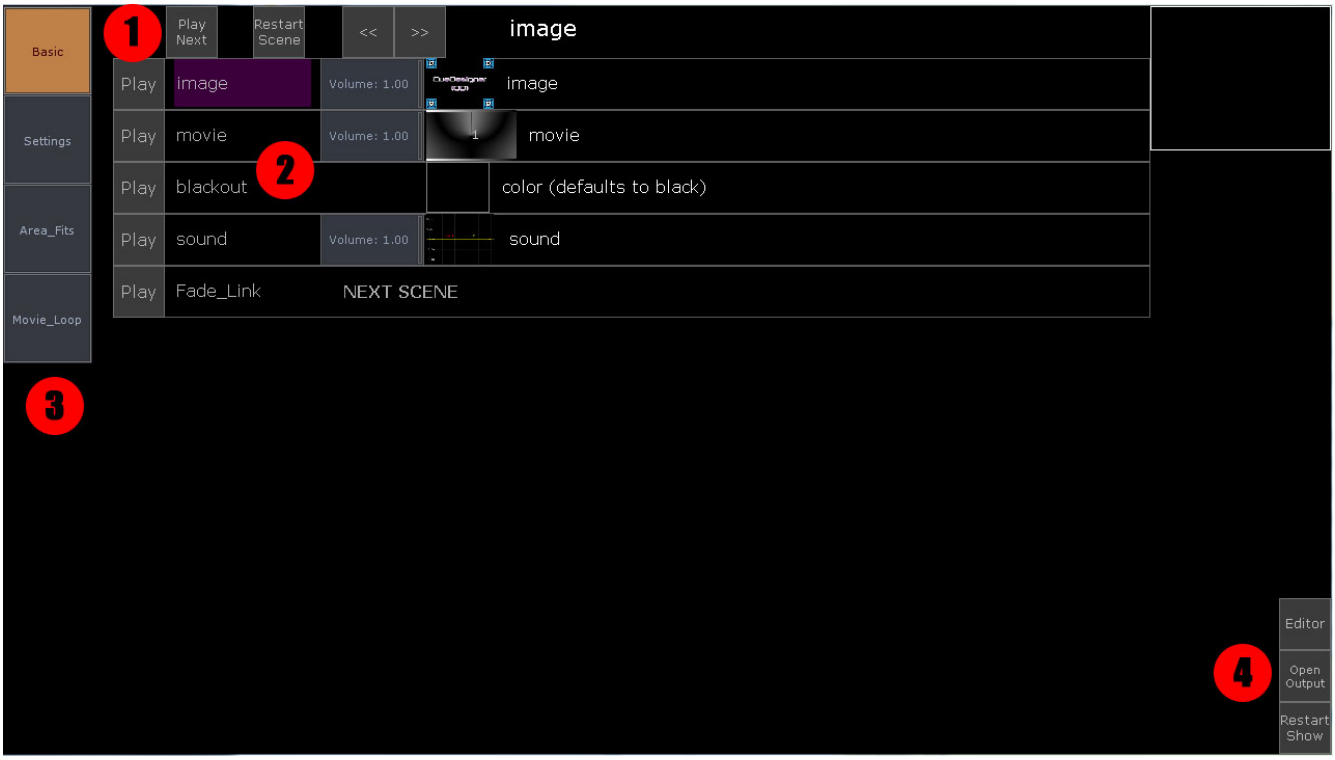
CueDesigner shows are based on a simple table of cues and their settings. This table can be created in CueDesigner or in an external program. The file format is TAB delimited, which is a bit unusual, but is what TouchDesigner likes to use. Most spreadsheet programs will allow you to export a tab delimited text file, and basic features for importing and exporting are built into CueDesigner.

Once you design your cue table, CueDesigner automatically generates your show. To run the show, you will use onscreen controls to run the cues. You can use a mouse or keyboard. CueDesigner is designed to be used with controls on one monitor and the output going to another monitor or projector attached

to your computer. Your display should be set to extend, not duplicate, your main monitor.

The Demo Show

The demo show illustrates most of the features of QD. Just start the DemoShow.toe, and press F1 (perform mode) to check it out.



This shows the basic layout of QD. At the top (1) you'll find the scene controls. *Play Next* plays the next cue in the show. *Restart Scene* does what it says it does. The arrow buttons back up or skip forward one cue respectively. To the right of the controls you can see the text associated with the next cue to be played, not the currently playing cue. This is because a cue's associated text should be the event in the show that you are waiting for to activate the cue. This way, you can always see the event you're waiting for at the top of the screen.

The cue list itself is central (2). This demo shows 5 cues. Each cue has, from left to right, a play button, the cue name (highlighted purple if it is the next cue to be played), cue-specific controls such as volume or output previews, and a text description field. The list of scenes in the show are on the left (3). The additional show controls are at the bottom right (4). For now, open an output window by pressing *Open Output*. If you have an additional monitor set up it should open there. If you don't, it will open as a separate window.

To see *Show Table* that this set of scenes and cues is based on, click the *Editor* button. Then view the table by pressing either *Edit Scenes* or *External Editor* depending on your preference.

Basic Scene

As you may have noticed, the table for this scene looks like this:

Basic				

image	video	media/splash.png	image	
movie	video	media/count.mov	movie	
blackout	color		color (defaults to black)	
sound	audio	media/loop.mp3	sound	
Fade_Link	next_scene			

The first row contains the scene name. All further rows contain cue information for the scene. Notice that scenes are separated by a blank column.

The first column contains the cue name, which must be unique. The second column contains the cue type. The third column contains the associated file path, if any. The fourth column contains the cue's associated text. The fifth column contains extra info about the cues, though there is none in this scene. You can press the *Play Next* button to go through the cues one by one. You can also press their *Play* buttons to see them out of order.

Other Example Scenes

In the next example scene, you can see the use of the fifth *extra* column. Settings are written in the form of a python dictionary. It is surrounded by curly braces and contains sets of information in the form *setting:value*. For example, the scene itself has the setting *"media_folder":"media".* This sets the default folder for all files to the "media" folder.

There are a variety of settings on the cues that follow. You can see their effects by playing the cues. Descriptions of each setting are found later in this document.

The next scenes, "Area_Fits" and "Movie_Loop" show examples of more settings.

Editing The Show

Editing the show is as simple as typing directly into the built in table editor, or in the external editor then saving the file. When you have made changes you can use the editor buttons *Update Settings* if you have only changed the text or setting fields or *Recreate Show* if you have changed anything else. Note that there is currently a limit of 12 cues per scene due to screen size restrictions. This can be worked around by using the "autostart" setting for a scene, which makes the first cue play immediately... this makes the next_scene cue basically continue the same scene without a blackout.

To make a new show, simply copy the entire CueDesigner folder to another location, rename the DemoShow.toe file, and create a new show table.

Keyboard Shortcuts

There are a few keyboard short cuts to make running the show easier:

- *Play Next*: spacebar
- *Restart Scene*: ~ (tilde) key
- *Rewind*: up arrow
- *Forward*: down arrow

Show Settings *(and defaults)*

These basic show settings can be accessed by pressing the Show Settings button in the editor.

- **media_folder**: (“”) *file* names throughout the show will have this folder prepended to them by default
- **width**: (1280)width of video output by cues
- **height**: (1024) height of video output by cues
- **next_safety**: (0.2) the number of seconds you must wait before moving to the next cue. This prevents accidental double clicks
- **translate_x**: (0) move video output of cues left or right
- **translate_y**: (0) move video output of cues up or down
- **scale_x**: (1) scale width of video output by cues
- **scale_y**: (1) scale height of video output by cues
- **resolution_x**: (1280) projector target resolution width
- **resolution_y**: (1024) projector target resolution height
- **output_monitor_number**: (1) if you have many monitors/projectors, pick one for output. Monitor 0 is the one with the cue controls on it
- **leave_orphan_scenes**: (False) if you have scenes in your network that you don't want automatically deleted when you recreate your show, set this to True. Note that scenes that are listed in your show table will still be deleted when you recreate.

Scene Settings *(and defaults)*

These settings can be applied to scenes. They can be set via the scene's *extra* dictionary.

- **autostart**: if scene is entered via the Next button, automatically start first cue
- **media_folder:** *file* names throughout the scene will have this folder prepended to them by default. This replaces the Show media_folder, it is not added to it.

Common Cue Settings *(and defaults)*

These settings are common to all cues. Note that most of them don't make do anything with the *next_scene* cue type.

- **stay_on**: (False) if True, do not stop this sound from playing when the Next button is clicked.
- **stopcue_on_play**: (“”) the name of the cue you want to stop when this cue is played. Used in conjunction with the 'stay_on' setting in another cue.
- **fadeout**: (0) number of seconds to take fading out
- **fadein**: (0) number of seconds to take fading in
- **wait_for_fadeout**: (True) when played with Next button, wait until previous cue fades out before starting

- **wait_for_fadein**: (True) when moved past with Next button, wait until next cue fades in before stopping

Audio Cue Settings (and defaults)

- **loop**: (False) If True, repeat the sound indefinitely.
- **volume**: (1) Level to play sound at from 0 (silent) to 1 (full volume)

Color Cue Settings (and defaults)

- **rgb:** ([0,0,0]) the red, green, and blue levels of the color in the form [r, g, b]. For example: [0,0,0] is black, [1,1,1] is white, and [1,0,0] is red.

Video Cue Settings (and defaults)

- **loop**: ("hold") Loop settings include:
    - "hold" - pause on last frame
    - "cycle" - restart at beginning
    - "mirror" - alternate between playing backwards and forwards
    - "black" - show black screen when video ends
- **volume**: (1) sound volume level
- **audiofade**: (True) fade the audio when the video fades
- **shake**: (0) if > 0, shake the output like there's an earthquake. The greater the number the bigger the shake.
- **flip**: (False) if True, flip the output left to right
- **area_fit**: ("fitbest") how to fit the image into the video output area. Can be:
    - "fithorz" - if necessary, scale to fill image area horizontally
    - "fitvert" - if necessary, scale to fill image area vertically
    - "fitoutside" - scale image to as large as possible allowing image to go offscreen on one axis. Basically the larger of *horizontal* or *vertical.*
    - "fitbest" - if necessary, scale to show entire image as large as possible. Basically the smaller of *horizontal* or *vertical*.
    - "fill" - stretch or smash image to fill image area completely
    - "nativeres" - use image's native resolution, no scaling

Disclaimer

QD is a work in progress and so not everything is perfect. There are a few inconsistencies in design and many user friendliness upgrades that will be made. Feel free to send comments or suggestions.

There are also a few glitches that have to do with TouchDesigner. The strange sounds you hear when

Recreating a show are an example. I have also seen some movie frame skipping and glitching and heard some sound clicking. This probably depends on the power of the computer you are using. In general, if you work in Perform mode (F1 from Touch Designer) and have other applications closed, your performance should work without too much of this sort of thing.

Support

Do feel free to contact me (sunspider at gmail) for support. Outside use of CueDesigner will motivate further development. I am available to help fix bugs, create shows, and add features.

Expert Info

TouchDesigner experts will find the QD system fairly easy to extend. In general, if you wish to make a new cue type, go to the /cuedesigner/archetypes operator. There you will find all the basic objects used to construct a show. Of course, the easiest thing is to start with a cue that is similar to your needs. Probably the video cue will be the most useful. Any settings in the *extra* column of the show table will be put into the *settings* operator within the cue. Use those settings to alter operator parameters etc.