

To access screen buttons, press 'Properties'. Use arrows to navigate, press 'Select' to edit. Press 'Escape' to access the left-side functions.
BLIND: Effect 1 :

Step	Channels	Param	Step Time	In Time	Dwell Time	Decay Time	On State	Off State
1	41		0.1	0	0.1	0	100	0
2	42		0.1	0	0.1	0	100	0
3	43		0.1	0	0.1	0	100	0
4	44		0.1	0	0.1	0	100	0

High School Theatre
Basic Chase Sequence Programming
Self-Paced Independent Tutorial
from



an ancillary of



Congratulations

on taking your first steps to learning how to program

Chase Sequences

on the Element and Ion light boards.

Chase sequences are a lot of fun!

You can learn how to program them with these
easy to follow step-by-step instructions
broken down into **progressive sections**.

And then there are some **extra examples** for you to try out!

Have fun!

PLEASE NOTE:

This tutorial does not address how to set up a new board, and is assuming that your board is up and running.

There are different editions of Element and Ion boards, so your protocol may be slightly different.

These instructions have been 'tried and tested', but if for some reason a step doesn't work on your board, please contact the Helpline at ETC at 608-831-4116 or toll-free in the U.S. at 800-688-4116.

Also check out the Before You Call information at <https://www.etcconnect.com/ContactETC/>.

Sections of the Tutorial

In this self-paced independent tutorial you will learn:

SECTION 1

EFFECTS TAB SET UP

If you don't already have an effects tab, perform this procedure first.

SECTION 2

OPEN EFFECTS AND SET UP

This section leads you through preparing your effect.

(Please note: this is for incandescent instruments only. LEDs are in Section 5.)

SECTION 3

TIMING

Here you will set the timing of your chase sequence; how long the flashes stay on for, how long the flashes stay off for, and how many flashes there will be.

SECTION 4

PLAY BACK

How to run your chase sequence.

SECTION 5

LEDs

Programing a chase sequence with LED instruments.

SECTION 6

SUBS

How to record your effect onto a submaster fader.

SECTION 7

CUES

How to record your effect into a cue.

SECTION 8

EXAMPLES

Camera flashes/lightning. Color flashes to music. Fireworks. Moving train effect.

Section 1

EFFECTS TAB SET UP

If don't have an **Effects** tab (next to the **Live** and **Patch** tabs) first perform this procedure:

- ✓ Click on **+** tab.
- ✓ Click on the **Effects** box.
- ✓ **Effects** should be added to your tab list.

That's all for this section...

Section 2

OPEN EFFECTS AND SET UP

To open the Effects list do one of two things:

- ✓ Click on the Effects tab.
- or
- ✓ Press **Effect** button on the console.

To set up your effect, follow this procedure:

Number your first effect by pressing **Effect** **1** **Enter**.
(Number subsequent effects by pressing **Effect** **x** **Enter**.)
The command line should read: "Effect 1 Create Type".

There should be a selected box on the right of your screen labeled **Type**. If it's not selected, click on it.

- ✓ On the left of your screen select and click on **StepBased**.

Choose the number of steps (for instance 4 steps) by:

- Pressing **SK Step** **1** **Thru** **4** **Enter** **Enter**.

You will see the steps listed in the **Step** column on the left side of the screen.

Let's say you want to chase Channels 5, 6, 7 and 8.

To program Channel 5 in Step 1:

- ✓ Click in the box next to Step 1 under the **Channels** column.

The command line will now read: "Effect 1 Step 1 Chan".

- ✓ Press **5** **Enter** and "5" will appear under the Channels column in the Step 1 row.

(NOTE: You can add two or more channels to a step if you like. See Train sample below.)

Repeat this process for channels 6, 7 and 8 in steps 2, 3 and 4 respectively.

Next you will set the features of your chase sequence.

Under the **Parameter** box it should read **Intens**, which is the default that you want.

If it does not, follow this procedure:

- ✓ Click on the **Parameter** box.
- ✓ Select **Intensity**.

If that option does not appear in the box:

- ✓ Click on the **Parameter** box.
- ✓ Select **Intensity** on the bottom left of your screen.
- ✓ Press **Enter**.

The command line should read: "Effect 1 Step 1 Parameter Intens". **Repeat this process for Steps 2, 3 and 4.**

Section 3

TIMING

Now you will define the timing of the chase sequence.

The columns that you need to use in order to create a basic chase sequence are: Step Time Dwell Time and On State.

If there are numbers in the In Time, Decay Time or Off Time columns:

- ✓ Click in a box.
- ✓ Press 0 Enter.
- ✓ Repeat for each box in those columns.

Setting the timing of your chase.

Step Time is the time between the start of one step and the start of the next step, or the 'rate' that the instruments will flash on.

Dwell Time is the length of time that each instrument will remain on.

For each On State box enter 100, which indicates that the instrument will go to 100%/Full.

Sometimes it's a matter of trial and error to find the correct numbers, especially if you are trying to match the flashes to the beat of music.

If you have a Beats-Per-Minute app, you can find out the Step Time. For instance, a color flash sequence to a piece of music had a Step Time (the timing of the beats) of 0.45 (it was actually .455, but the Step Time only goes to two decimal points) and Dwell Time (how long each instrument stayed on for) of 0.5.

To program a simple chase that flashes one instrument every 2 seconds, and each instruments stays on for 1 second, follow this procedure:

First, let's assume you want each instrument to go to full each time it flashes on. Under the On State column:

- ✓ Click on the first box.
- ✓ Press 1 0 0 Enter.
- ✓ Repeat for all 4 (assuming 4 steps in your sequence) boxes in that column.

Next, to set the instruments to flash on every 2 seconds, under the Step Time column:

- ✓ Click on the first box.
- ✓ Press .
- ✓ Repeat for all 4 (assuming 4 steps in your sequence) boxes in that column.

Then, to set each instrument to stay on for 1 second, under the Dwell Time column:

- ✓ Click on the first box.
- ✓ Press .
- ✓ Repeat for all 4 (assuming 4 steps in your sequence) boxes in that column.

Congratulations! You have now recorded a chase sequence! The board automatically saves all of your programming, but regardless save manually:

- ✓ Press and hold .
- ✓ Press .
- ✓ Release both buttons.

The screen will excitedly flash "Success!"

Section 4

PLAY BACK

Now it's time to play your chase sequence.

To run your chase sequence:

- ✓ Go to your `Live` tab.
- ✓ Press `5` `Thru` `8` `Effect` `1` `Enter`.

or

- ✓ Select channels 5 through 8 by clicking on them on your screen, then press `Effect` `1` `Enter`.

Your chase sequence should start running.

To stop the chase sequence from running:

- ✓ Press `Effect` `1` `At` `Enter`.

Or, as long as all of the channels are still selected on your screen:

- ✓ Press `Sneak` `Enter`.

What fun!

Section 5

LEDs

Now let's program a chase sequence with LEDs.

Follow all of the steps above, except use 4 LED channel numbers, and record them into Chase 2.

Now, when you go to run your chase:

- ✓ Select the first instrument on the screen.
- ✓ Using the color wheel or percentage columns, select the color of that instrument.
- ✓ Select the second instrument on the screen.
- ✓ Using the color wheel or percentage columns, select the color of that instrument.
- ✓ Repeat for subsequent instruments.
- ✓ Now go back and re-select all of the instruments.
- ✓ Then press Effect 1 Enter.

But, wait, we're not quite finished...

Section 6

SUBS

RECORDING AN EFFECT ON A SUB

So that you don't have to keep selecting all of the channels each time you want to run a chase sequence, it's best to record the chase sequence onto a submaster fader. That way you simply have to raise and lower the fader to start and stop the chase. Here's how:

- ✓ Click on the tab.

Select the channels that you have programmed into the effect. For instance, Effect 1 with channels 5, 6, 7 and 8, recorded into Sub 7.

Select the effect:

- ✓

Record the effect into a cue:

- ✓

The effect will run when you raise the fader and stop when you lower the fader.

Section 7

CUES

RECORDING AN EFFECT IN A CUE

If you want to use your chase sequence as a cue for your production, here's how:

- ✓ Click on the tab.

Select the channels that you have programmed into the effect. For instance, Effect 1 with channels 5, 6, 7 and 8, recorded into Cue 9.

Select the effect:

- ✓

Record the effect into a cue:

- ✓

The effect will continue to run until you go into the next cue.

Tip: Record the effect cue and the following cue with Time 0, so that the effect starts immediately and stops immediately.

Section 8

SAMPLE CHASE SEQUENCE EXAMPLES

Here are some sample chase sequences that you can duplicate, or use as a base for creating other chases.

CAMERA FLASH or LIGHTNING EFFECT

4 LED instruments, white, channels 70, 75, 80, 85, flashing in order as seen below.

The screenshot shows a software interface with a table of parameters for 'BLIND: Effect 1'. The table has columns for Param, Step Time, In Time, Dwell Time, Decay Time, On State, and Off State. The data is as follows:

Param	Step Time	In Time	Dwell Time	Decay Time	On State	Off State
75	0.8	0	0.1	0	100	0
80	0.8	0	0.1	0	100	0
85	0.8	0	0.1	0	100	0
70	0.8	0	0.1	0	100	0

This close-up shows the 'BLIND: Effect 1' table with the following data:

Step	Channels
1	75
2	80
3	85
4	70

This close-up shows the parameter table for 'Effect 1' with the following data:

Param	Step Time	In Time	Dwell Time	Decay Time	On State	Off State
Intens	0.8	0	0.1	0	100	0
	0.8	0	0.1	0	100	0
	0.8	0	0.1	0	100	0
	0.8	0	0.1	0	100	0

COLOR FLASHES IN TIME TO MUSIC

4 LED instruments, one red, one blue, one green, one amber, channels 70, 75, 80, 85 flashing in order below.
(Step time was 0.455, but Ion only allows for 2 decimal points.)

Step	Channels	Param	Step Time	In Time	Dwell Time	Decay Time	On State	Off State
1	70	Intens	0.45	0	0.5	0	100	0
2	85	Intens	0.45	0	0.5	0	100	0
3	80	Intens	0.45	0	0.5	0	100	0
4	75	Intens	0.45	0	0.5	0	100	0

Step	Channels
1	70
2	85
3	80
4	75

Param	Step Time	In Time	Dwell Time	Decay Time	On State	Off State
Intens	0.45	0	0.5	0	100	0
Intens	0.45	0	0.5	0	100	0
Intens	0.45	0	0.5	0	100	0
Intens	0.45	0	0.5	0	100	0

FIREWORKS

4 LED instruments, one red, one blue, one green, one amber, channels 41, 42, 43 and 44, flashing in quick succession.

Step	Channels	Param	Step Time	In Time	Dwell Time	Decay Time	On State	Off State
1	41		0.1	0	0.1	0	100	0
2	42		0.1	0	0.1	0	100	0
3	43		0.1	0	0.1	0	100	0
4	44		0.1	0	0.1	0	100	0

Step	Channels
1	41
2	42
3	43
4	44

Param	Step Time	In Time	Dwell Time	Decay Time	On State	Off State
	0.1	0	0.1	0	100	0
	0.1	0	0.1	0	100	0
	0.1	0	0.1	0	100	0
	0.1	0	0.1	0	100	0

MOVING TRAIN EFFECT

Slow green pulses, simulating train traveling through trees, channels 41 and 42 flash on together for 3 seconds, then flash off together for 1 second, and repeat.

To access screen buttons, press 'Properties'. Use arrows to navigate, press 'Select' to edit. Press 'Escape' to access the left-side functions.

BLIND: Effect 3 : Effect 3

Step	Channels	Param	Step Time	In Time	Dwell Time	Decay Time	On State	Off State
1	41>42		2	1	3	0	100	0
2	41>42		1	0.5	1	0	0	0

To access screen buttons, press 'Properties'. Use arrows to navigate, press 'Select' to edit. Press 'Escape' to access the left-side functions.

BLIND: Effect 3 : Effect 3

Step	Channels
1	41>42
2	41>42

To access screen buttons, press 'Properties'. Use arrows to navigate, press 'Select' to edit. Press 'Escape' to access the left-side functions.

Param	Step Time	In Time	Dwell Time	Decay Time	On State	Off State
	2	1	3	0	100	0
	1	0.5	1	0	0	0

Be creative!

Have fun!

*Interested in learning more about
stage lighting?*

Check out more LITT Self-Paced Independent Tutorials at <https://www.presett.org/>