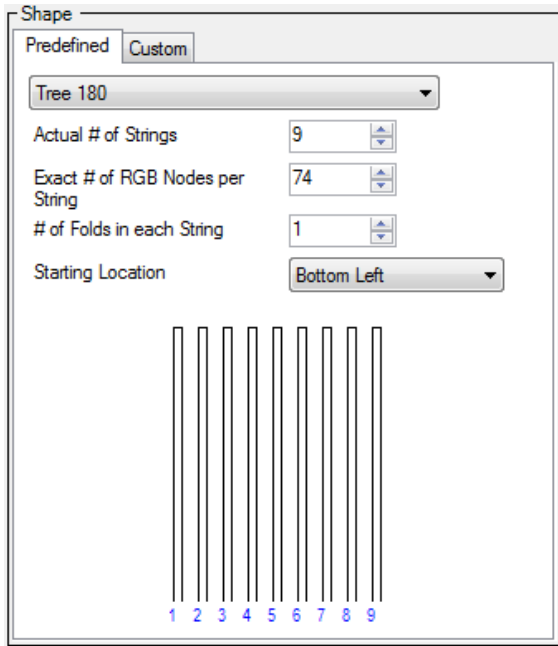


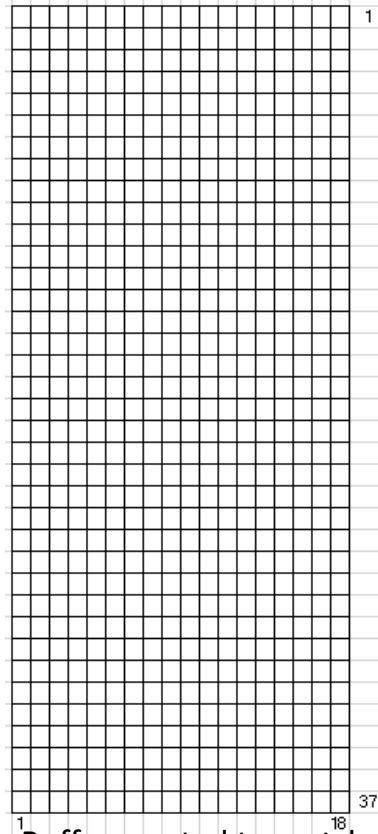
Creating Pixel Editor Effects

Matt Brown
July 2016

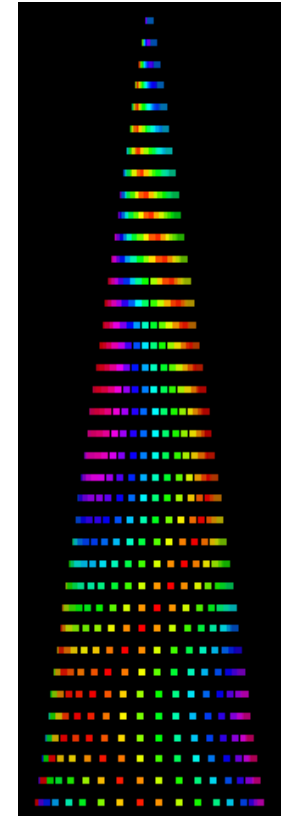
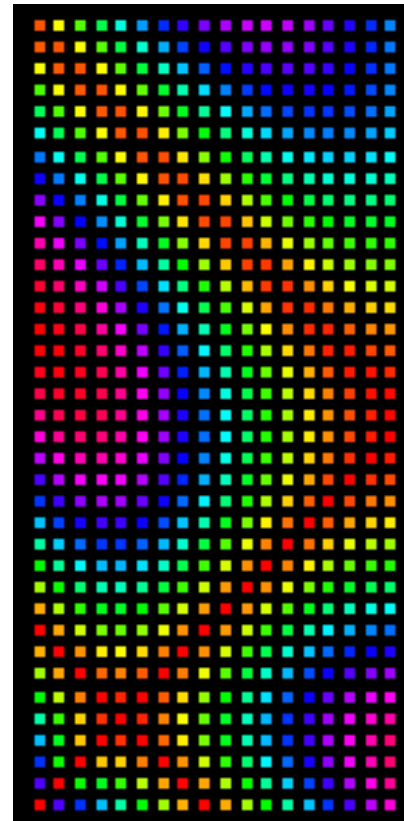
How Effects Work



You define a prop



Buffer created to match prop definition

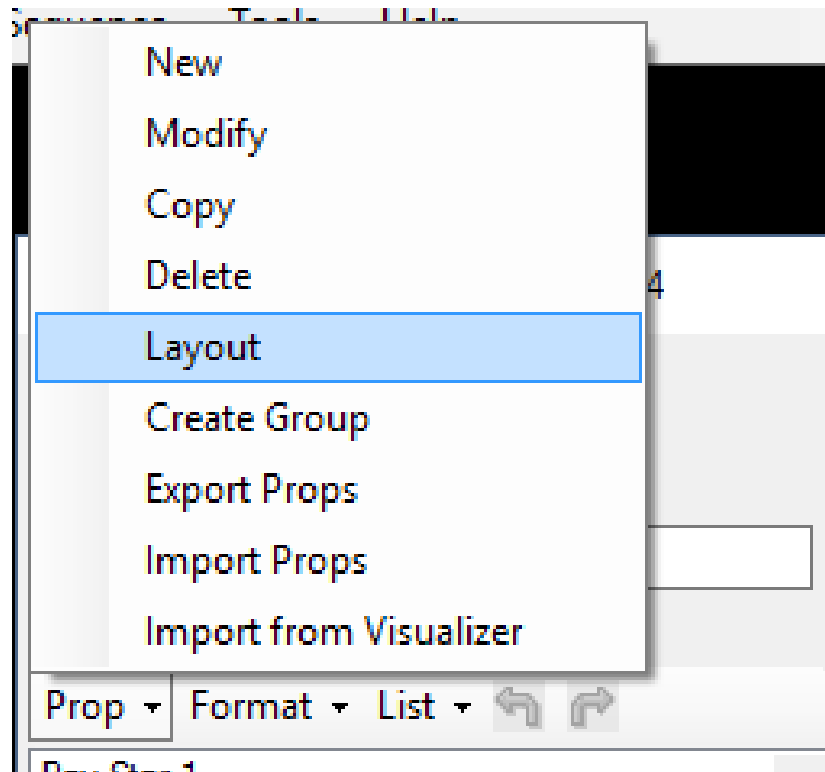


First, You Need a Preview

- Effects are created for a prop (or group) and props belong to a preview

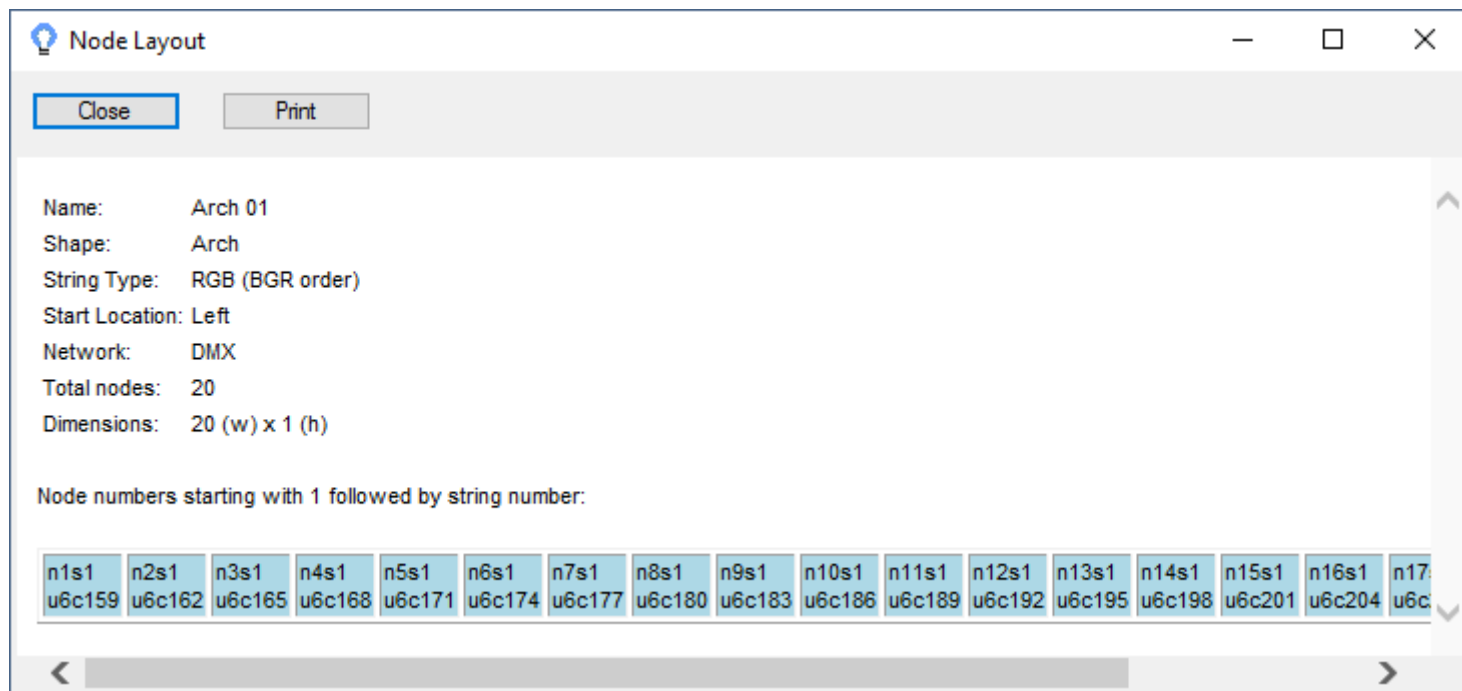
Beware of Prop Layout

- When creating props and designing your effects, always keep in mind the Prop Layout



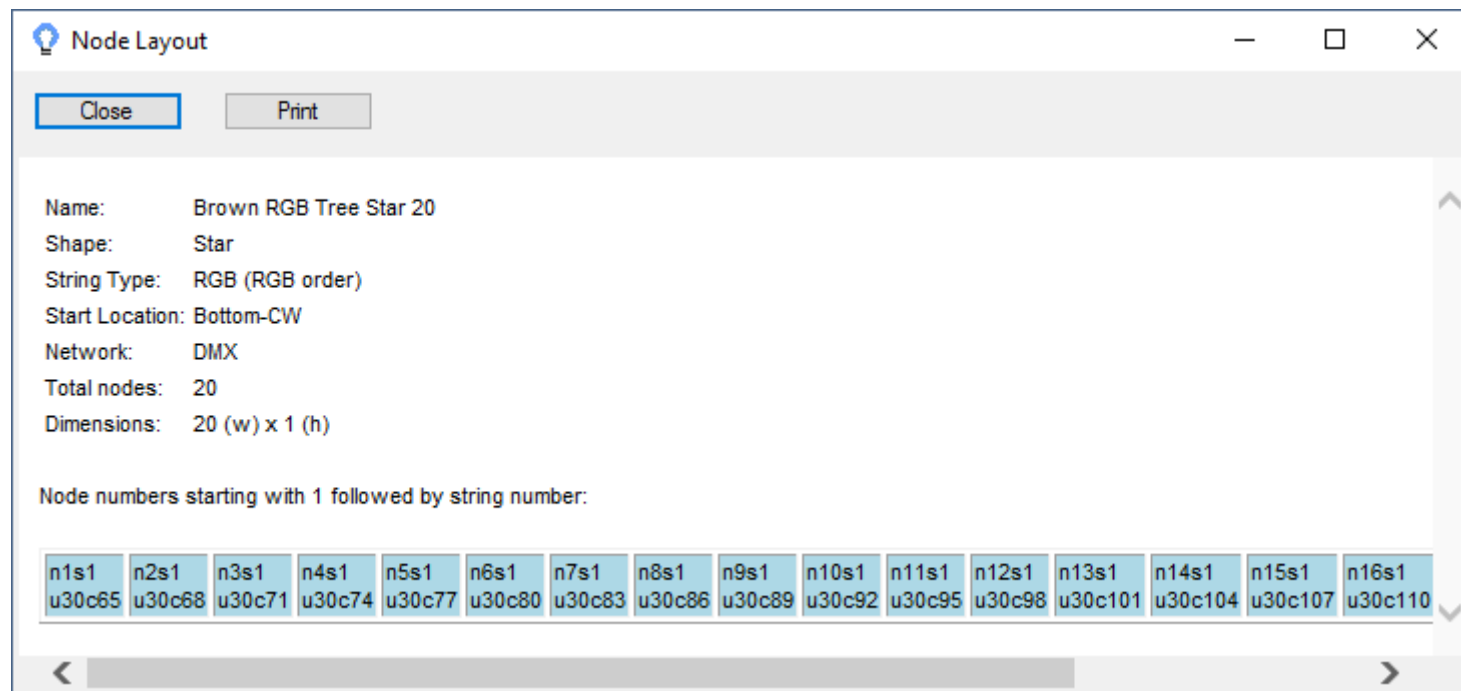
Prop Layout - Arch

- The buffer for an arch is shown below.
- What effects look good on such a buffer?
- How should multiple arches be grouped together?



Prop Layout - Star

- The buffer for a star is shown below.
- What effects look good on such a buffer?
- How should multiple stars be grouped together?



Prop Definition – Door #1

- Using a custom shape:

The screenshot shows the 'Prop Definition' window with the following settings:

- Name: Door
- Sequence Method: Pixel Editor
- Comment: (empty)
- Lights: Dimming Curve: None; Traditional: RGB; RGB Pixels; Dumb RGB (3 channel); Channel Order: BRG order
- Shape: Predefined: Custom; Width: 9; Height: 21; A grid of 10 rows and 9 columns (A-I) with circuit numbers 29-38 in column A.
- Channel: LOR; Max Circuit: 150; Individual Start Channels; Separate Unit # for each RGB string

	A	B	C	D	E	F	G	H	I
▶ 1	29	28	27	26	25	24	23	22	21
2	30								20
3	31								19
4	32								18
5	33								17
6	34								16
7	35								15
8	36								14
9	37								13
10	38								12

	Network	Unit #	Start Circuit	End Circuit	Carry Over
▶ 1	Reg... ▼	11	1	147	

Prop Definition – Door #2

- Using a predefined shape:

The screenshot shows the 'Prop Definition' dialog box with the following settings:

- Name:** Door
- Sequence Method:** Pixel Editor
- Comment:** (empty)
- Lights:**
 - Dimming Curve: None
 - Traditional: RGB
 - RGB Pixels
 - Dumb RGB (3 channel)
 - Channel Order: BRG order
- Shape:**
 - Predefined: Custom
 - Window Frame (selected)
 - Exact # of RGB Nodes Top: 7
 - Exact # of RGB Nodes Left/Right: 21
 - Exact # of RGB Nodes Bottom: 0
 - Starting Location: Bottom Right-CCW
- Channel:**
 - LOR (selected)
 - Max Circuit: 150
 - Individual Start Channels
 - Separate Unit # for each RGB string

	Network	Unit #	Start Circuit	End Circuit	Carry Over
▶ 1	Reg...	11	1	147	

Buttons: Save, Cancel

Prop Layout – Door #1 vs #2

Node Layout

Close Print

Name: Door
Shape: Window Frame
String Type: RGB (BRG order)
Start Location: Bottom Right-CCW
Network: LOR
Total nodes: 49
Dimensions: 49 (w) x 1 (h)

Node numbers starting with 1 followed by string number:

n49s1	n48s1	n47s1	n46s1	n45s1	n44s1	n43s1	n42s1	n41s1	n40s1	n39s1	n38s1	n37s1	n36s1	n35s1
u11c145	u11c142	u11c139	u11c136	u11c133	u11c130	u11c127	u11c124	u11c121	u11c118	u11c115	u11c112	u11c109	u11c106	u11c103

Node numbers starting with 1 followed by string number:

n1s1	n2s1	n3s1	n4s1	n5s1	n6s1	n7s1	n8s1	n9s1	n10s1	n11s1	n12s1	n13s1	n14s1	n15s1	n16s1	n17s1	n18s1	n19s1	n20s1	n21s1
u11c85	u11c82	u11c79	u11c76	u11c73	u11c70	u11c67	u11c64	u11c61	u11c58	u11c55	u11c52	u11c49	u11c46	u11c43	u11c40	u11c37	u11c34	u11c31	u11c28	u11c25

Which effects would work best with each prop?

RGB Candy Cane

Prop Definition

Name Comment

Lights

Dimming Curve

Traditional

RGB Pixels
 Dumb RGB (3 channel)

Channel Order

Shape

Predefined

Actual # of Strings

Exact # of RGB Nodes per String

of Folds in each String

Starting Location

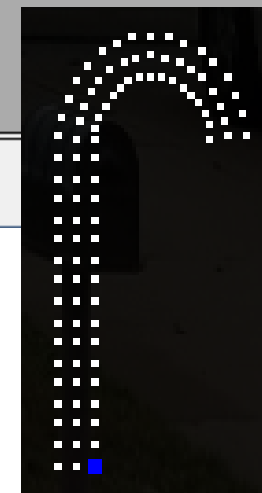
Channel

DMX

Individual Start Channels
 Separate Universe # for each RGB string

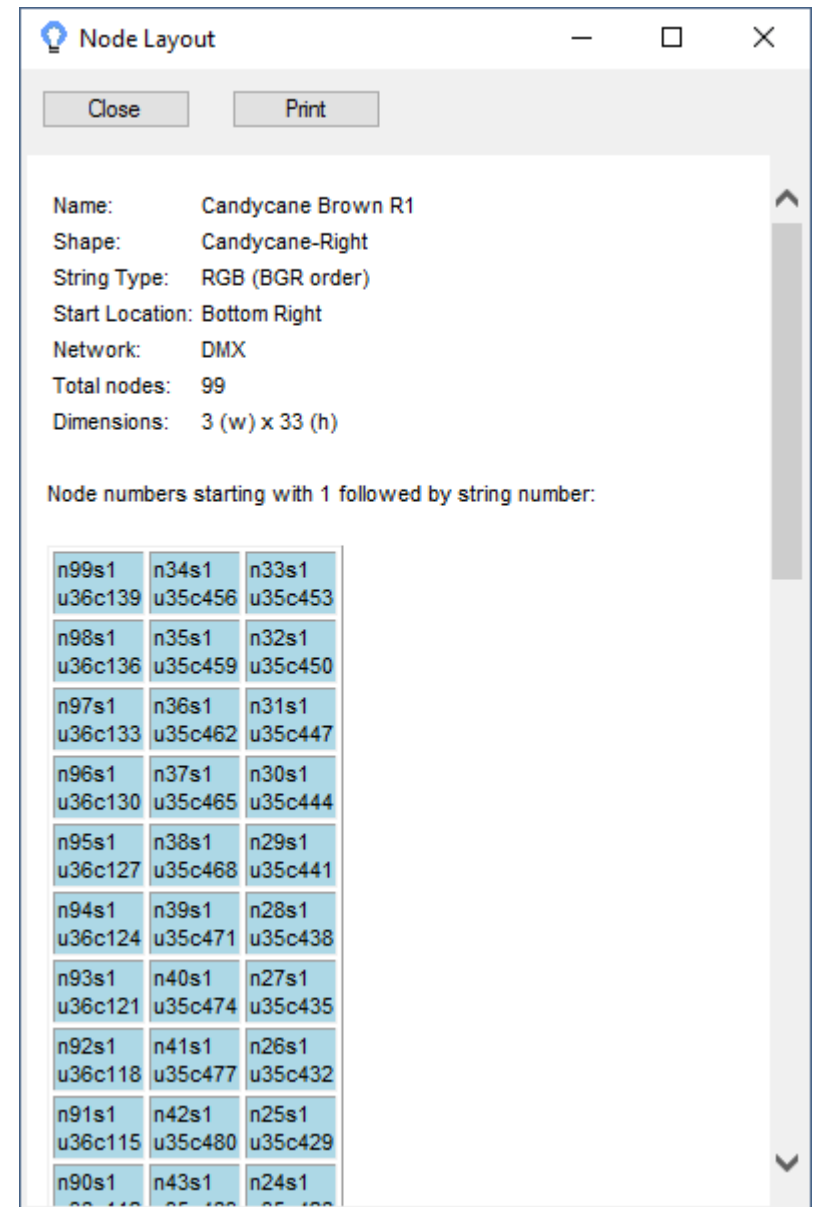
	Univ #	Start Channel	End Channel	Carry Over
▶ 1	35	357	512	141

Save Cancel



Prop Layout – Candy Cane

- The buffer for a candy cane is shown.
- What effects look good on such a buffer?
- How should multiple candy canes be grouped together?



RGB Wreath

4 rings of 25 pixels each

Prop Definition

Name: Comment:

Lights

Dimming Curve:

Traditional **RGB**

RGB Pixels
 Dumb RGB (3 channel)

Channel Order:

Shape

Predefined Custom

of Sections:

Exact # of RGB Nodes per Section:

Width (# of lights):

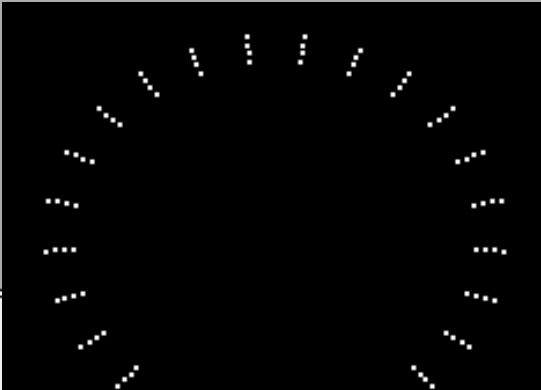
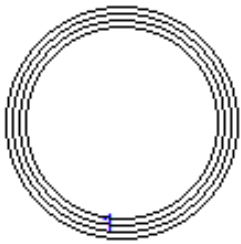
Starting Location:

Channel

Max Channel:

Individual Start Channels
 Separate Universe # for each RGB string

	Univ #	Start Channel	End Channel	Carry Over
▶ 1	1	1	300	



Prop Layout - Wreath

- What effects look good on such a buffer?

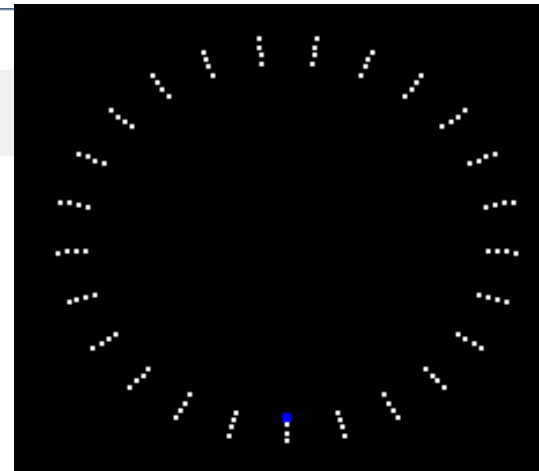
Node Layout

Close Print

Name: Wreath4-CW-inside-bottom
Shape: Wreath
String Type: RGB (RGB order)
Start Location: Bottom-Inside-CW
Network: DMX
Total nodes: 100
Dimensions: 25 (w) x 4 (h)

Node numbers starting with 1 followed by string number:

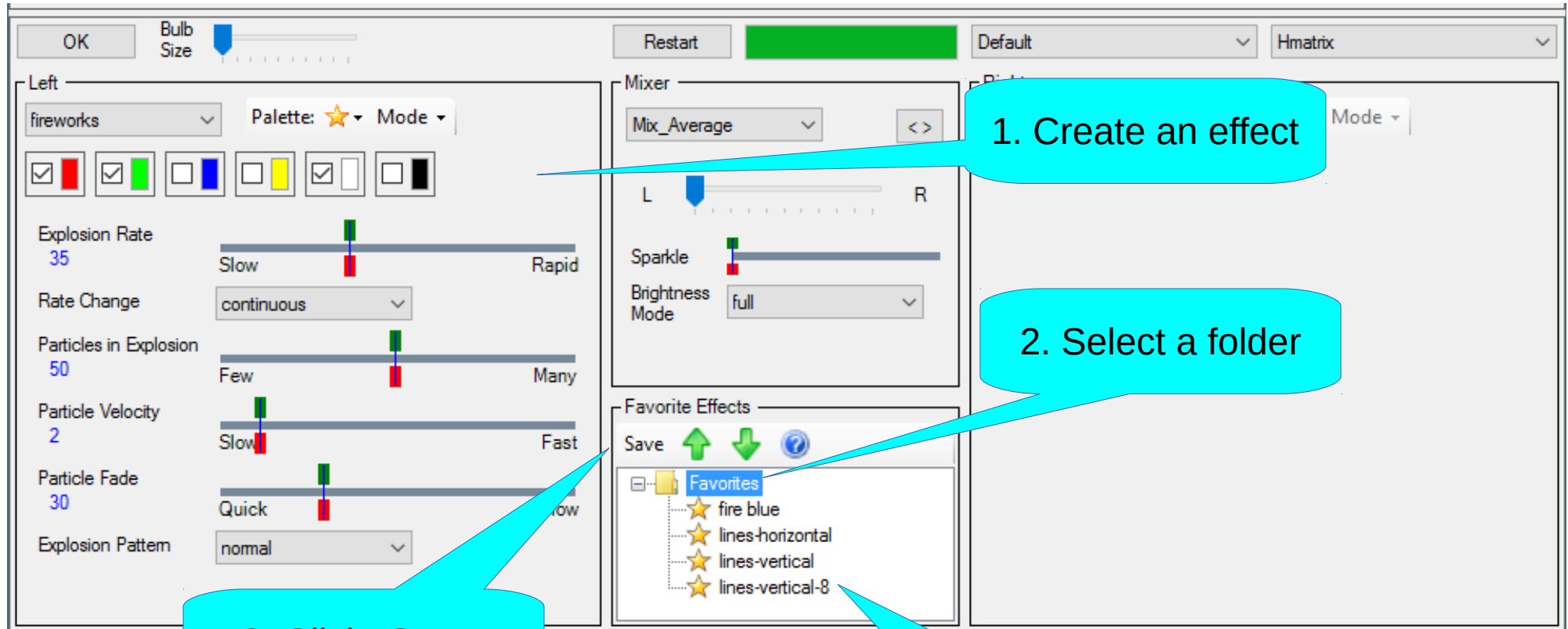
n4s1 u1c10	n5s1 u1c13	n12s1 u1c34	n13s1 u1c37	n20s1 u1c58	n21s1 u1c61	n28s1 u1c82	n29s1 u1c85	n36s1 u1c106	n37s1 u1c109	n44s1 u1c130	n45s1 u1c133	n52s1 u1c154	n53s1 u1c157	n60s1 u1c178	n61s1 u1c181	n68s1 u1c202	n69s1 u1c205	n
n3s1 u1c7	n6s1 u1c16	n11s1 u1c31	n14s1 u1c40	n19s1 u1c55	n22s1 u1c64	n27s1 u1c79	n30s1 u1c88	n35s1 u1c103	n38s1 u1c112	n43s1 u1c127	n46s1 u1c136	n51s1 u1c151	n54s1 u1c160	n59s1 u1c175	n62s1 u1c184	n67s1 u1c199	n70s1 u1c208	n
n2s1 u1c4	n7s1 u1c19	n10s1 u1c28	n15s1 u1c43	n18s1 u1c52	n23s1 u1c67	n26s1 u1c76	n31s1 u1c91	n34s1 u1c100	n39s1 u1c115	n42s1 u1c124	n47s1 u1c139	n50s1 u1c148	n55s1 u1c163	n58s1 u1c172	n63s1 u1c187	n66s1 u1c196	n71s1 u1c211	n
n1s1 u1c1	n8s1 u1c22	n9s1 u1c25	n16s1 u1c46	n17s1 u1c49	n24s1 u1c70	n25s1 u1c73	n32s1 u1c94	n33s1 u1c97	n40s1 u1c118	n41s1 u1c121	n48s1 u1c142	n49s1 u1c145	n56s1 u1c166	n57s1 u1c169	n64s1 u1c190	n65s1 u1c193	n72s1 u1c214	n



Effect Favorites

The screenshot shows the 'Effect Generator' software interface. At the top, there are three preview windows displaying a fireworks effect. Below the previews are control panels for 'Left', 'Mixer', and 'Right'. The 'Favorite Effects' panel is highlighted with a red border and contains a list of saved effects: 'fire blue', 'lines-horizontal', 'lines-vertical', and 'lines-vertical-8'. A speech bubble points to this panel with the text: 'To create favorites you need a preview, but you do not need a sequence'.

Favorites – Add Effect



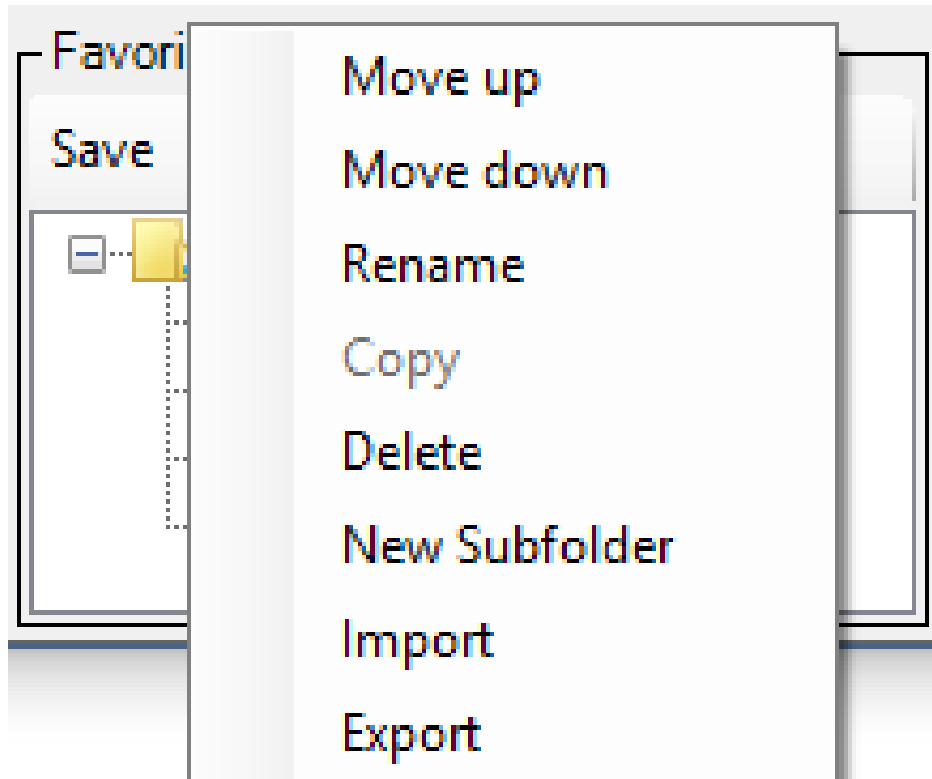
3. Click "Save"

1. Create an effect

2. Select a folder

4. To recall a saved effect,
double-click on it

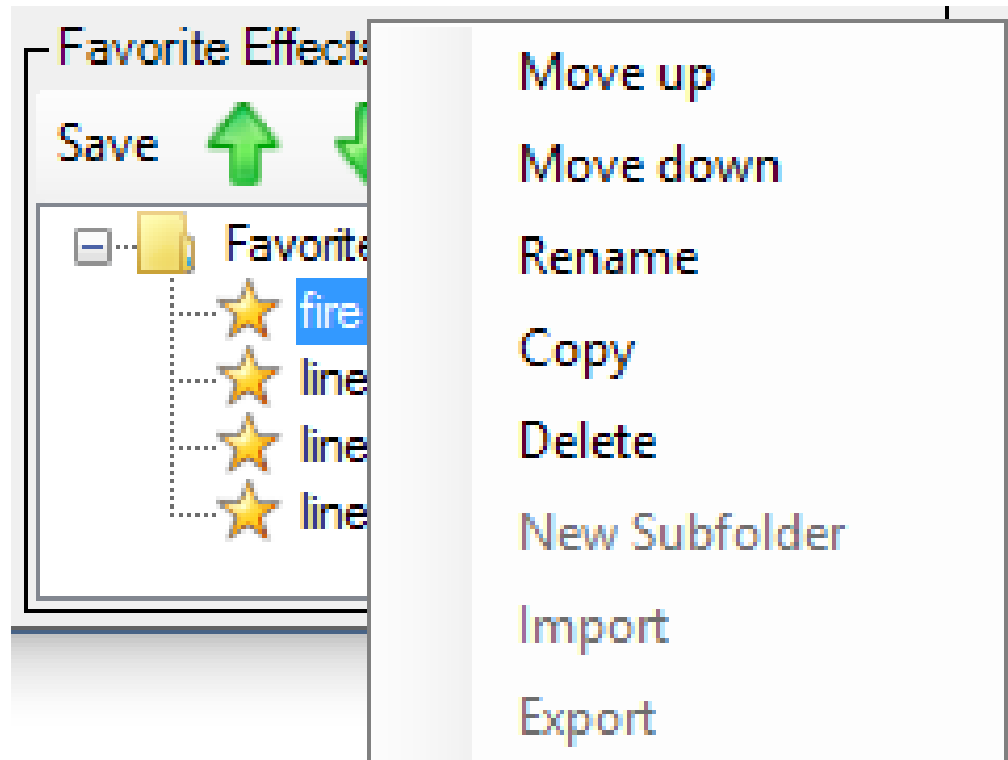
Favorites – Folder Options



Import and export are useful for:

- 1) sharing effects with others
- 2) backing up your effects

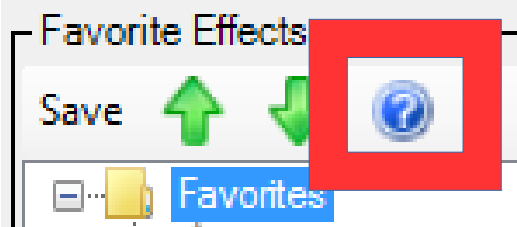
Favorites – Effect Options



Favorites - Organizing

- Folders and effects can be dragged anywhere within the Favorites Tree to:
 - Reorder effects,
 - Move effects to a new folder,
 - Move a sub-folder to a new parent folder.

Favorites - Help



Effect Favorites Help

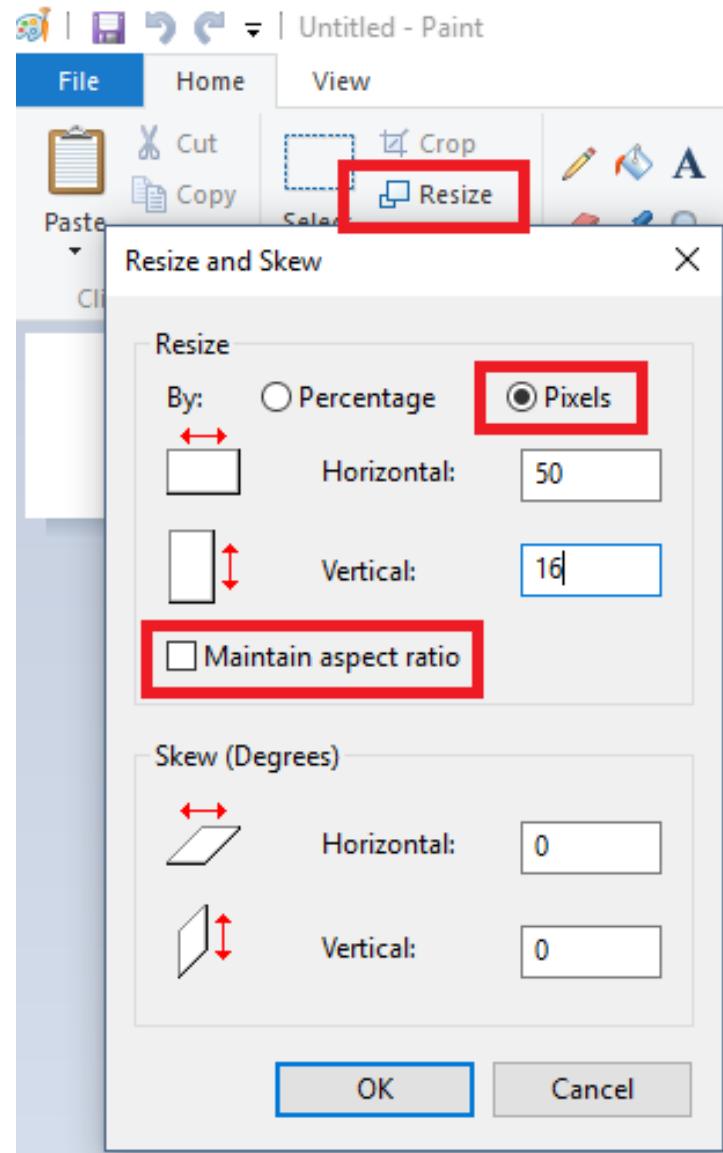
If you create an effect and want to save it for later use, you can save it to the Favorite Effects area. The favorite effects tree can be organized using the actions listed below. Favorite effects can also be imported and exported.

- * To save the current Effect Generator settings as a favorite, first click a folder in the favorites tree where the effect should be saved (the first time click on "Favorites"), then click Save.
- * To recall a favorite (i.e. load it into the Effect Generator) just double-click on it.
- * To move an entry up or down, select an entry by left-clicking on it, then use the up and/or down arrows to move it to the desired position. Alternatively, you can right-click on the entry, then select Move Up or Move Down from the pop-up menu.
- * You can move effects from one folder to another simply by dragging the effect to the new folder. You can even drag entire branches of the tree if you need to move them.
- * To delete an entry or an entire branch, right-click the node to delete, then select Delete from the pop-up menu.
- * To add a new branch to the tree, right-click on the parent folder, then select New Subfolder from the pop-up menu. Enter the name for the new folder when prompted, then click OK.
- * To rename an entry (folder or favorite effect), right-click on the node, then select Rename from the pop-up menu. Enter the new name when prompted, then click OK.
- * To copy an effect, right-click on the node, then select Copy from the pop-up menu. Enter the name for the copy when prompted, then click OK.
- * To export favorites to a file, right-click on a folder, then select Export from the pop-up menu. Select the directory and file name, then click OK. All children of the selected folder will be exported. This file will have an LPEFAV extension.
- * To import favorites from a file, right-click on a folder, then select Import from the pop-up menu. Select the file to import, then click OK. Imported favorites will become children of the selected folder.

OK

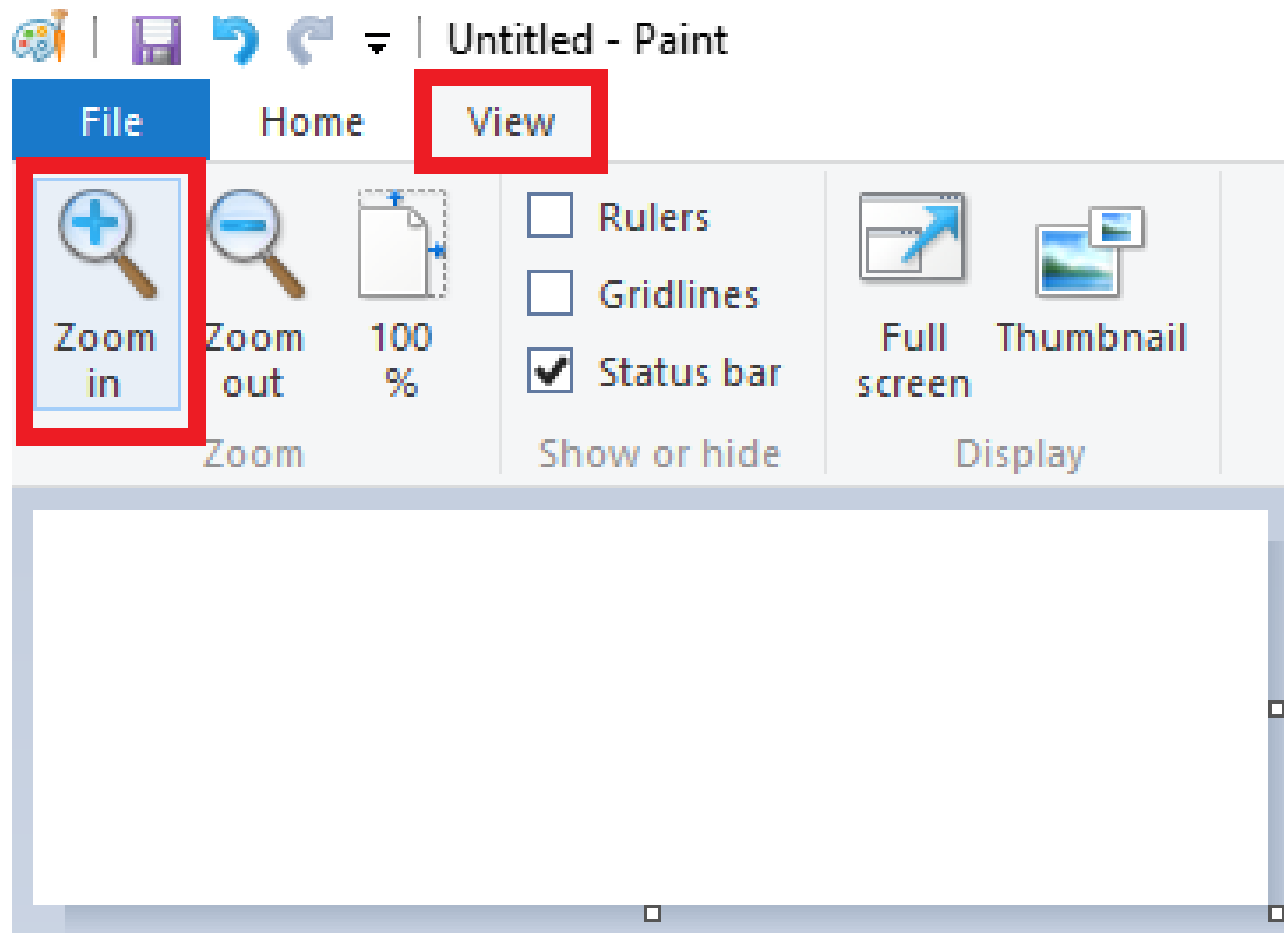
Using Masks

- When you want to only display certain rows or columns on a prop, use a mask.
- Create a mask using MS Paint.
- Start by creating a bitmap that matches the size of your prop.



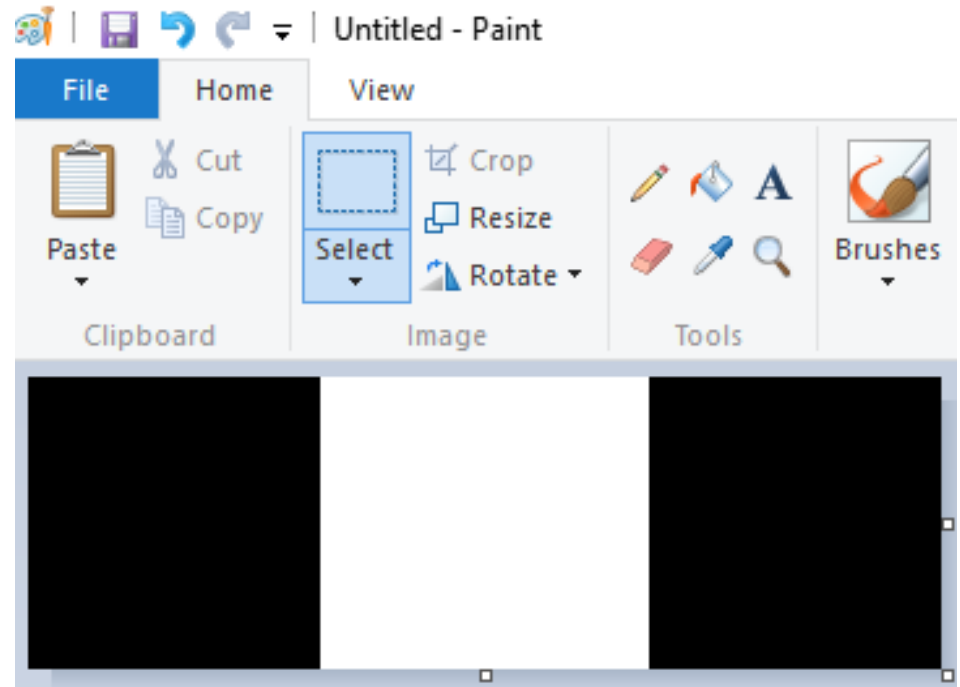
Using Masks

- Zoom in – a lot!

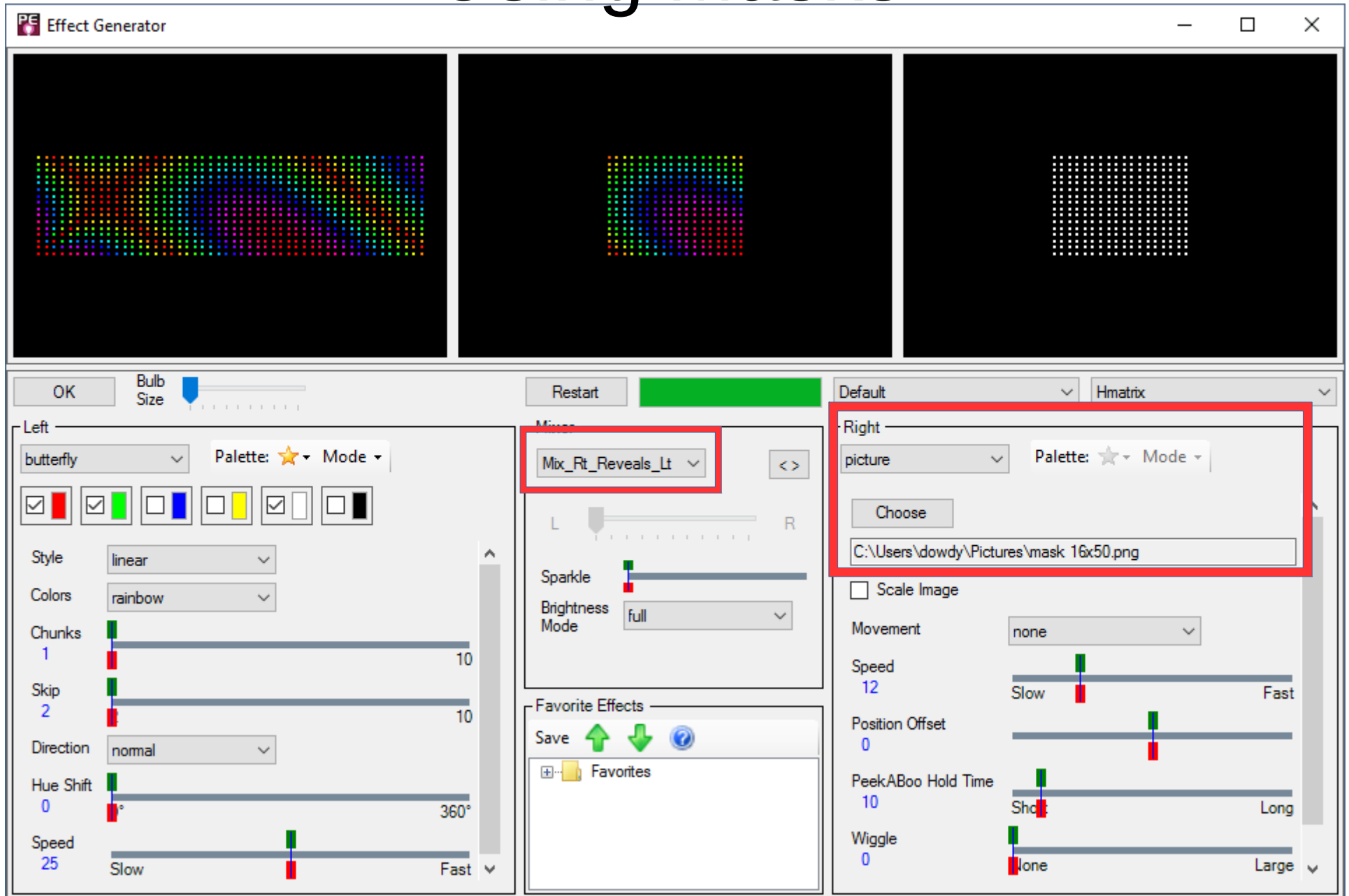


Using Masks

- Leave areas white where you want the lights on; draw areas in black where you want the lights off.
- In this example, only the center section will allow an effect to “show through”.



Using Masks



New Effects in S5 (so far!)

- Marquee
- Ripple
- Scanner
- Wave

