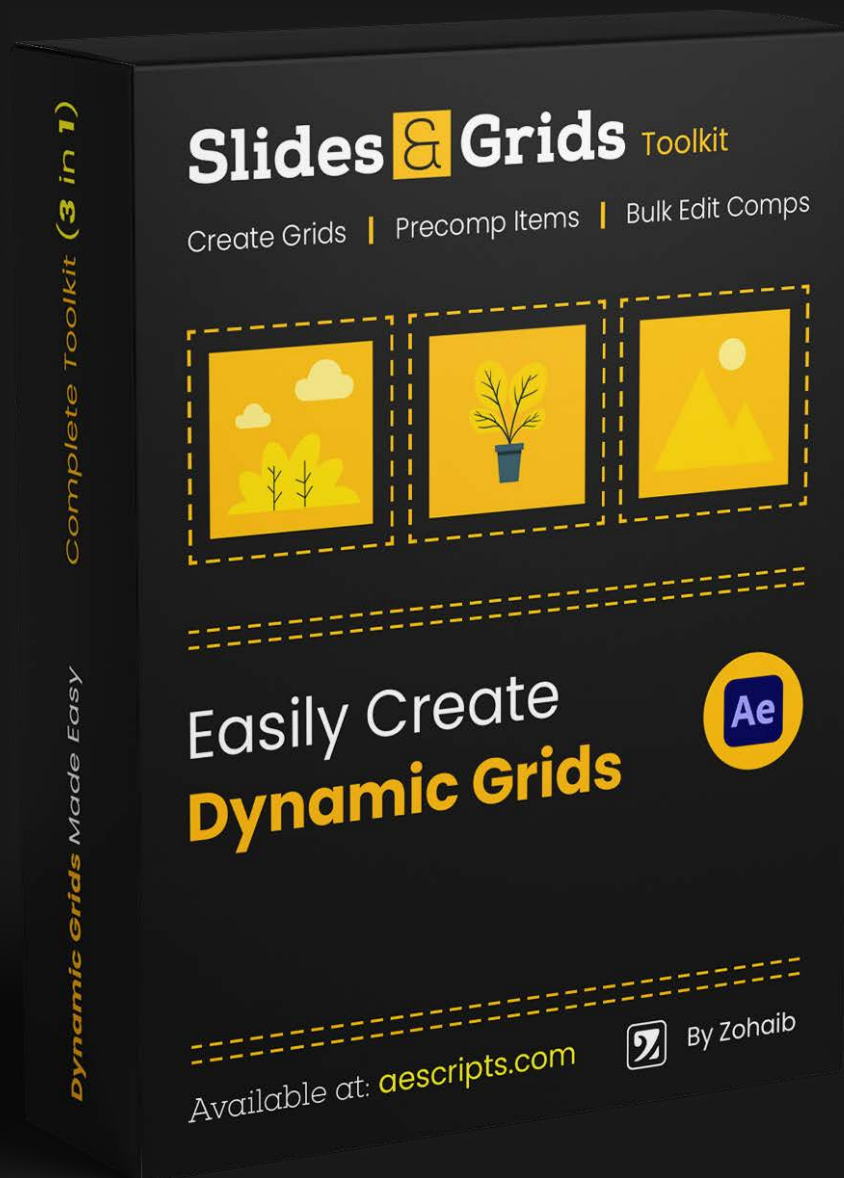


SPECIAL THANKS!

Thanks for downloading "Slides & Grids". I hope you will find it very useful and fun to use in your projects.

Feel free to contact in case of any queries, suggestions, or issues.



"Slides & Grids" helps you with creating dynamic grids easily and animate them with various controls. It contains 3 tools in one script. You can create grids with additional features, create precomps, and bulk edit multiple comps.

INSTALLATION

Download and unzip the script.
Copy .jsxbin file to:

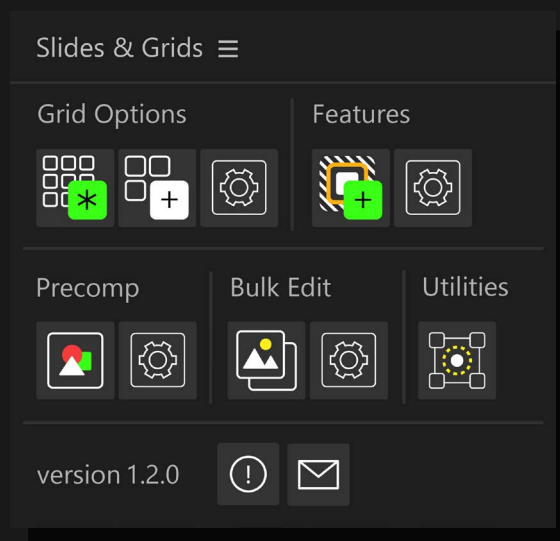
WINDOWS:

C:\Program Files\Adobe\Adobe After Effects <version>\Support Files\Scripts\ScriptUI Panels

MAC:

/Applications/Adobe After Effects <version>/Scripts/ScriptUI Panels

INCLUDED FUNCTIONALITY



There are 3 main functionalities included in the script:

1 – Creating & Managing Grids

It includes functionality to create grids, adjust their settings and manage existing grids with additional helpful utilities explained in its section below.

Also, preset controls are added when you create a grid to manage all its settings or animate it with ease.

There are additional features for the grids like masks, strokes (with dashes), and backgrounds with their own preset control.

2 – Create Precomps

You can precomp a grid item, any other layer or project panel items that have a valid video source. You can adjust margins, fitting options, add backgrounds, and can edit existing comps settings as well.

3 – Bulk Edit

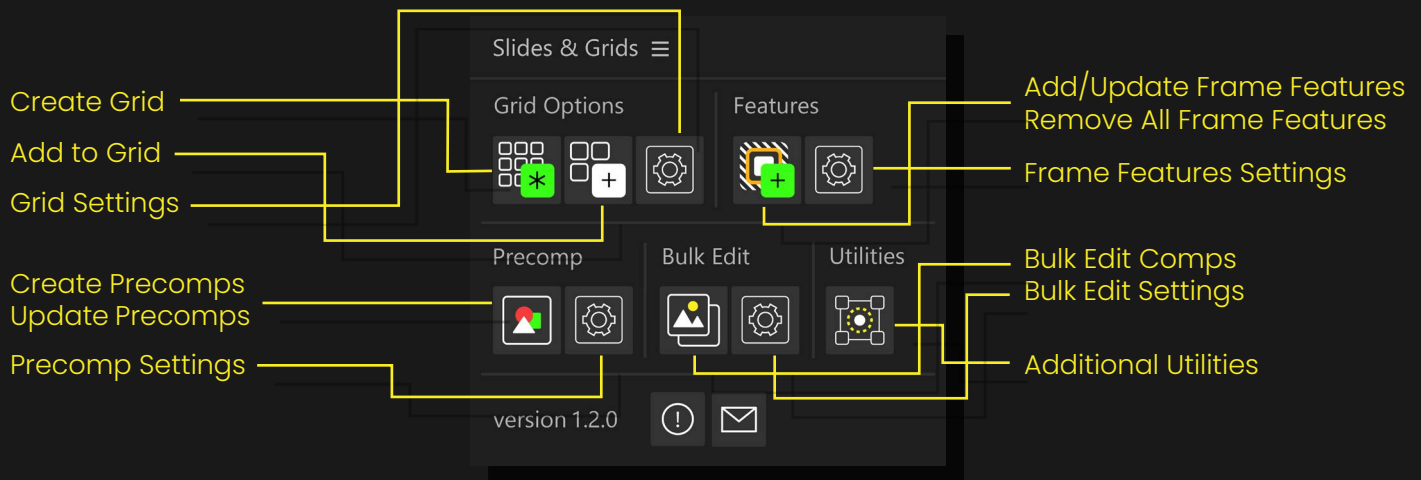
With Bulk Edit options you can easily edit multiple comps by adding, removing, replacing, or changing the visibility of layers.

It can also be helpful to edit footage comps of slideshow templates where the structure of each comp is almost identical and you can easily edit all at once.

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SCRIPT UI



The script contains multiple functionalities and is packed with multiple panels to keep the UI compact. On the main UI, there are groups for different functionalities and settings buttons that will open the settings panel for that specific feature. Whenever you click any main function button, it will execute the command using the settings you've saved. You can always open the settings dialog and run the command from there if you want to change settings at any time.

Panels & Groups

Note:

This is not a detailed description of any of the panel or its inside properties but only describes what each button does. You can check their details below in their respective sections.

• Grid Options

- **Create Grid** – Click this button to create a grid from selected items. It will use the saved settings. (To change settings, you can open the grid settings.)
- **Add to Grid** – To add something to the grid you can use this button. Make sure you've selected at least one grid item and the selected items that you want to add to the selected grid.
You can choose between if selected items to add are in the project or the layers panel from the grid settings dialog.
(You can also add items from one grid to another. For this, you need to select the main grid first in which to add and then the items from another grid to add from.)
- **Grid Settings** – This dialog contains settings for a grid. You can create a grid directly from this dialog if you want to use different settings each time.

• Features

- **Frame Features** – To add, update, or remove frame features.
 - ◇ **Click – Add/Update Frame Features** – To add and update frame features using saved options from the frame features settings dialog.
 - ◇ **Ctrl/Cmd + Click – Remove All Frame Features** – It will remove all added features from the selected grid if exist.

- **Frame Feature Settings** – Contains checkboxes for all frame features to add or remove. You need to click on the “Add / Update” button to apply current settings and if you unchecked any frame feature then it will be removed automatically from the grid if it exists.
- **Precomp**
 - **Precomp Items** – To create or edit compositions.
 - ◊ **Click – Create Precomps** – It will create precomps for selected items using the settings from the “Precomp Settings” dialog.
 - ◊ **Ctrl/Cmd + Click – Update Precomps** – It will update existing precomps using the saved settings. It will update duration, frame rate, aspect ratio, and background layers inside selected comps.
 - **Precomp Settings** – It contains all precomp settings to apply on new precomps or to use for updating existing precomps.
- **Bulk Edit**
 - **Bulk Edit Comps** – To edit the comps by adding, removing, replacing, or changing the visibility of layers based on the saved settings.
 - **Bulk Edit Settings** – To change settings for bulk editing of comps. You can apply any operation from inside this panel directly for your convenience.
- **Utilities**
 - **Additional Utilities** – This dialog contains extra utilities to perform different operations on the grid and a few for other layer types.

To check short descriptions for properties inside all settings panels in the script, use a dedicated help button inside each panel.

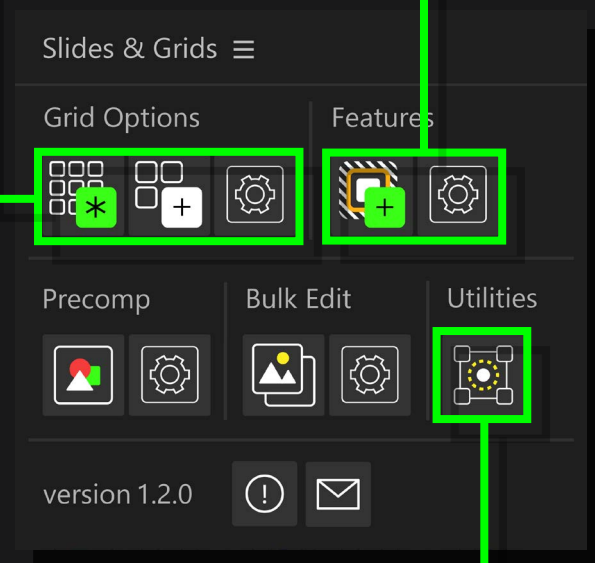
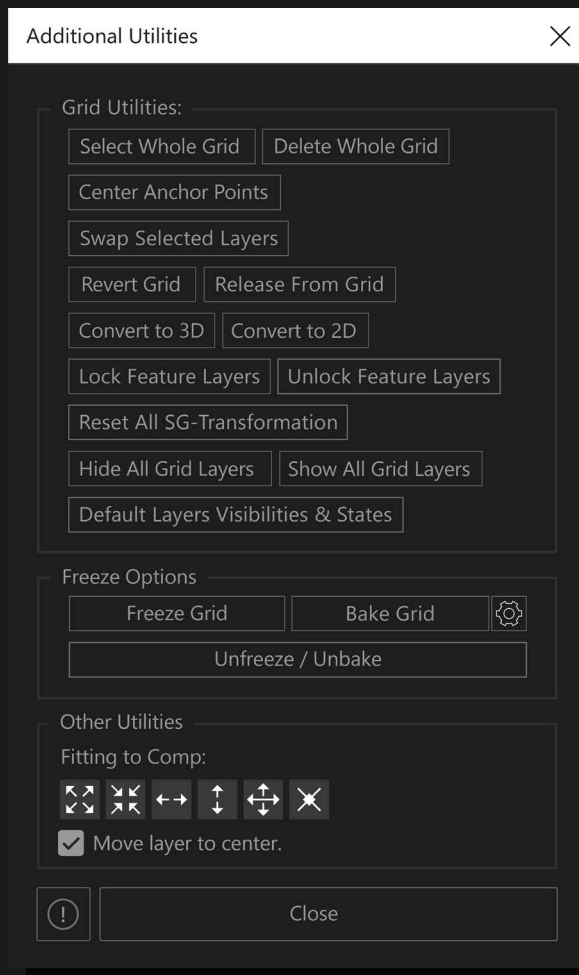
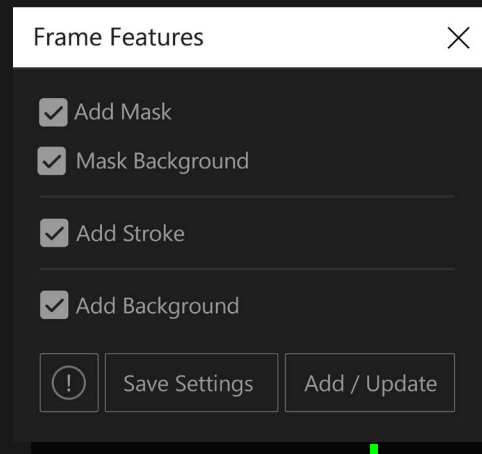
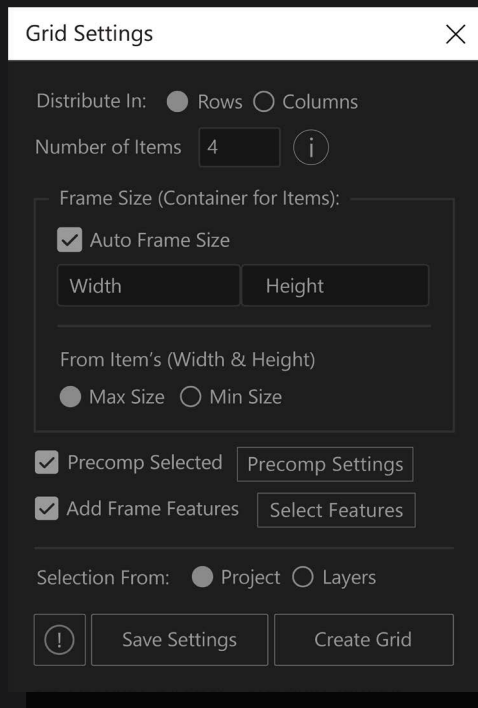
For detailed instructions, check any dialog’s properties page below in their sections.

Tip for Settings Panels:

The settings panel for each functionality works almost the same. You can change the settings or run the command directly from the inside.

From all settings panels if you hold “**Alt/Opt + Click**”, then it will execute the current command and it will close the panel automatically.

CREATING AND MANAGING GRIDS



General Info – About Grid

Creating & Managing Grid

To create a grid, you need to select items either from the project or the layers panel. These can be of different sizes and you can easily adjust them to fit within their frame.

Supported Layer Types:

All layers with a valid video source including text/shape, compositions, video footages, solid layers, etc are supported.

Click on the “Create Grid” button on the script panel to create a grid (confirm the selection panel inside the “Grid Settings” dialog).

The grid layers will be generated and controls will be added to the “Controller” layer. There are 2 preset controls, one for the grid and the second for feature layers if they exist or when added later.

Each grid will get a unique ID. And in case the precomps check was enabled then every new precomp will be saved in the project panel’s grid comp folder with its unique ID. [“#SG-(Comps) > #SG-[unique-ID]”]

Grid Layer’s Types

These layer types will be added when creating a grid and based on frame features:

The grid’s unique ID will be used as a prefix on all these layers.

- **Controller** – This is the main layer that will control the grid and has all the controls you can change to modify or animate the grid. Adding or removing frame features will update its preset controls here as well.
- **Stroke** – This layer will contain a stroke for each grid item below.
- **Mask** – This layer consists of a mask for the grid item / frame. All grid items will have a separate mask and will use this layer as track matte to clip itself.
- **Item** – The name of this layer depends on the name of the items you’ve added to the grid and a unique grid ID will be used as the prefix.
- **BG** – This layer will contain both backgrounds that can be added as frame features. You can add 1 or 2 backgrounds at the same time. One is for the frame and the second is an additional that is based on the frame background.

Manage Layers Order in Grid

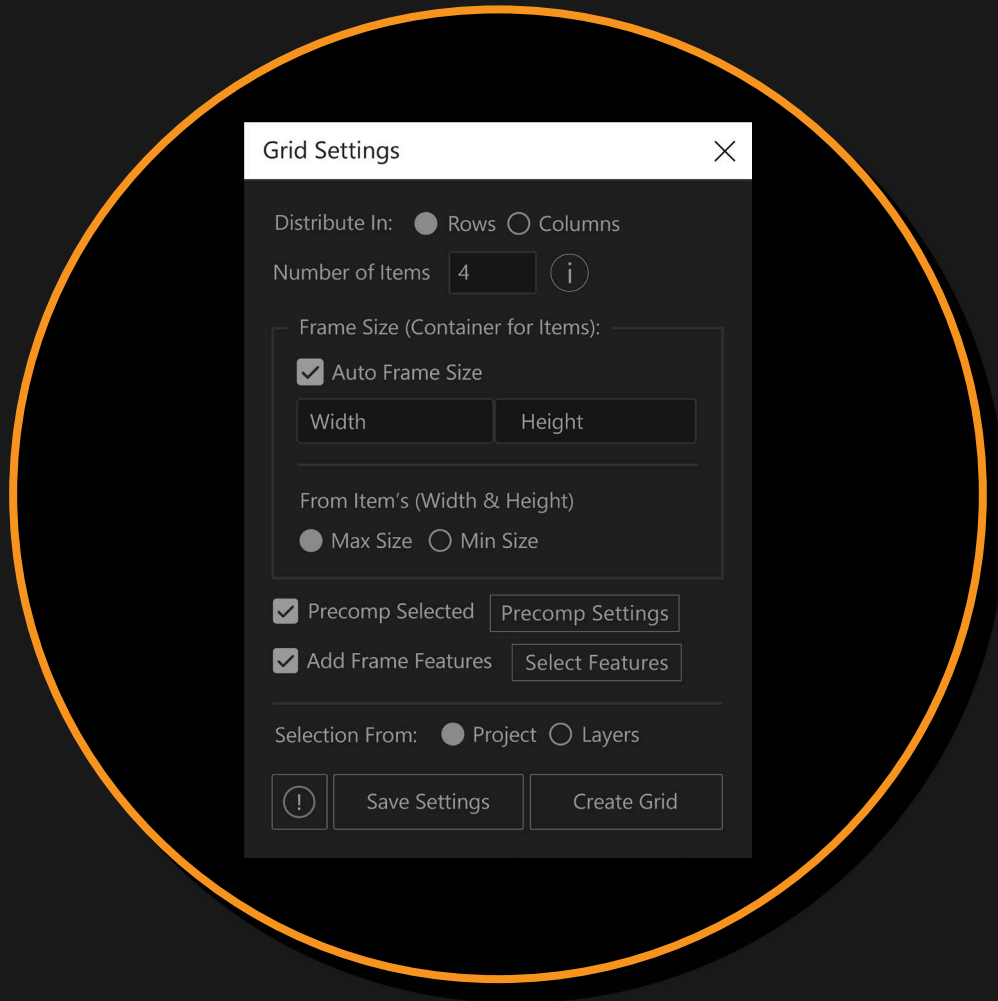
- **Project Panel Items** – For project panel items, they will be added in the order they exist in the project panel by disregarding their selection order.
- **Layers Panel Items** – The items from the layers panel would be added to the grid in the order you’ve made the selection.

Changing Grid Items Order:

You can change the orders or swap grid items easily from the “Additional Utilities” panel. Use “Swap Selected Layers” inside grid utilities functions.

If you do it manually then make sure the order of feature layers remains intact.

Grid Settings – Dialog



- **Distribute In** – To set distribution in rows or columns. (It can be changed later from the effects control panel on the “Controller” layer.)
- **Number of Items** – It will set the number of items/layers in a single row or column based on the distribution type you’ve selected.
- **Frame Size (Container for Items)** – The size of the frame is in pixels but can be scaled if used with any grid fitting option other than “Scale Manually”.

What is a frame?

The grid will generate frames (like cells in excel) and then will set each item into those, so each item is centered within its frame.

You can set the fitting of an item within a frame using any of the fitting options.

- **Auto Frame Size** – If it is enabled then you can set below how it should calculate frame size while creating the grid. (Disable this for custom frame size or you can change it later manually from preset controls on the “Controller” layer.)
 - ◊ **From Item's (Width & Height)** – To calculate frame size based on the maximum or minimum size found in all selected items.
- **Precomp Selected** – If enabled then will also precomp all items before creating the grid. (You can change settings in the “Precomp Dialog Settings”.)
- **Add Frame Features** – To add Mask, Stroke, and Backgrounds to each frame/item. (Click “Select Features” to open “Frame Features Dialog” for additional settings.)
- **Selection From** – It tells the script if items to create a grid or add to grid are selected from the project panel or the layers panel.

Grid Controls – Preset

fx [GRID-CONTROLS]

Reset

Distribute By

Rows

Fitting Options

Fit Rows & Columns

Number of Items

4

Offset - X (Alternate)

0.00

Offset - Y (Alternate)

0.00

Progressive Shift

Uniform Margin

☒

Margin - X

0.00

Margin - Y

0.00

Zoom to Comp

Frame Size & Fitting

Transform & Delay

Position

0.0,0.0,0.0

Uniform Scale

☒

Scale - X

100.00

Scale - Y

100.00

Rotation

0 x +0.0°

Opacity

100.00

<<< Delay Controls >>>

Delay Properties

Delay (In Frames)

0

Delay By

1-Sequentially

1- Sequentially, 2- By Distance

Reverse Delay Direction

☐

2- By Distance

Delay Center

960.0,540.0

3- Random Delay Options

Random Seed

0

Randomize Each Frame

☐

Random Values Shifter

- **Distribute By** – To distribute items by rows or columns.
- **Fitting Options** – To choose how the grid should fit within the composition.
 - **Fit Rows** – To fit the grid by its width (rows). No matter how many items are in a row, it will always fit the comp horizontally no matter if we change the frame size. The columns can still flow outside of the screen vertically from the bottom.

- **Fit Columns** – To fit the grid by its overall height. The rows can still go outside the comp from the right if they exceed the comp width.
- **Fit Rows & Columns** – It will fit both rows and columns within the comp boundaries.
- **Scale Manually** – Will not fit the grid to the comp and items will have their actual frame size without any scaling.

If the fitting is set to rows/columns or both then the frame will scale proportionally to fit within the comp horizontally or vertically. Otherwise, it will represent its real size in pixels.

- **Number of Items** – To set how many items should be in a single row or column. (Based on the distribution type.)
- **Offset X/Y Alternate** – To offset every row in the X direction alternatively and every column in Y alternatively (each in opposite direction). It is helpful to use for slideshow animations where every second row or column moves against the direction of the previous row/column.
- **Progressive Shift** – To shift a number of rows and columns in any direction but with the speed that progresses with each next row/column.
 - **Number of Rows/Cols** – The number of rows or columns in one shift group to offset with progressive speed.
 - **Multiplier** – To increase/multiply the offset speed.
 - **Reverse Speed Distribution** – To choose whether the speed progresses faster or slower in each next row/column than the previous ones inside a shift group.
 - **Shift – X / Shift Y** – To shift the rows and columns in x or y, in both directions positive or negative.
- **Uniform Margin** – To control both margins (X and Y) with the first slider (Margin – X).
- **Margin X / Y** – To add margins in pixels between each row and column individually.
- **Zoom to Comp** – To zoom a specific item using its index. It moves it to the center of the composition and scales it to properly fit the comp. It will fill comp with this item and crop width or height if exceeds the comp boundary.
- **Item Index** – Set the index for the item here that you want to zoom. To check the index, select any item layer and open its effects control panel to find the “Index Calc” property.

Each item index starts from 1 and will increment with each next item in the grid. (Frame feature layers are not included.)

- **Zoom Slider** – The value to animate zoom from 0 to 100. 0 = no zooming, 100 = item is fully zoomed to fill the composition.
- **Frame Size & Fitting** – To adjust the frame size that contains an item and set how an item should fit within its frame.
 - **If Size Differs** – In case item size is different than its frame size, then use these fitting options to fit items to the frame properly.
 - ◊ **Fill the Frame** – To fill the whole frame and push extra pixels outside the frame proportionally if any from the width or height of the item exceeds.
 - ◊ **Fit to Frame** – It will fit the item within the frame by scaling it proportionally. And if any item’s width or height is not proportionally equal to the frame’s width or height, then it will introduce some empty space inside its frame.
 - ◊ **Fit by Width** – To fit each item by its width to the frame width and will scale the height proportionally.
 - ◊ **Fit by Height** – It will fit each item by its height to the frame height and will adjust the width proportionally.
 - ◊ **Stretch to Fit** – It will stretch the item’s width and height to fit it exactly inside its

frame. It won't maintain the proportions.

- ◊ **No Fitting** – It will not scale the item from any axis, but will only center the item within its frame. (It may still get scaled relative to its frame if the grid fitting option is set to Fit by Row/Column or both.)
- **Frame Size – X / Y** – To set the frame size in X or Y in pixels for each item. It will scale proportionally if any fitting option for the grid is selected (fit by row/column or both). Set the grid fitting option to "Scale Manually" to use the exact frame size.
- **Transform & Delay** – To animate transform properties for the grid items with or without adding frame delays.

Check "Transform & Delay" tutorial here: <https://youtu.be/8KuAJ0MhrtQ?t=1125>

- **Position** – To change or animate the position of the whole grid.
If the delay is enabled then the position value for each item will get delayed according to the number of frames to delay.
- **Uniform Scale** – If enabled then the "Scale – X" slider will also control "Scale – Y". So, both will scale with equal amounts.
- **Scale – X / y** – To scale in the x or y direction individually. (with or without delay.)
- **Rotation** – To rotate the items in the grid. (with or without delay.)
- **Opacity** – To change or animate opacity for all grid layers with or without delay.
- **Delay Properties** – To enable/disable delay for any of the grid preset's transform properties. If a property is disabled then any of the "Delay By" method mentioned below won't work for that property anymore but only the transform properties described above.
 - ◊ **Delay Position** – Enable/Disable delay for position property.
 - ◊ **Delay Scale** – Enable/Disable delay for scale property.
 - ◊ **Delay Rotation** – Enable/Disable delay for rotation property.
 - ◊ **Delay Opacity** – Enable/Disable delay for opacity property.
- **Delay (In Frames)** – Number of frames to delay for each item. It will increase according to the indices or position of the items based on the "Delay By" type.
- **Delay By** – Set delay type here for the grid.
 - ◊ **1-Sequentially** – In sequential type, the transform properties of the grid will get delayed by their indices. Each item index starts from 1 and increments with each next item. The number of frames delayed will get multiplied by these indices to delay the animation.
 - ◊ **2-By Distance** – It will delay animation for items by their positions from the "Delay Center" point. As they get far from this point they will be delayed more than the ones that are closer to this point.
 - ◊ **Delay Center** – To set a center point to start calculating the delay from. It will work only if the delay type is set to "By Distance".
The items closer to this point will animate sooner than the ones that are far.
 - ◊ **Reverse Delay Direction** – To reverse the delay direction for both delay types (sequential and by distance).
In sequential, an item with the maximum index will animate first moving towards the lower index, and in distance mode the items farther from the delay center will animate first and the closer one will at the end.
 - ◊ **3-Random** – To delay the animation timings randomly by using frames to delay value. It can also be used to generate random values for the grid items. You can also create cool transitions for your grid from random values to normal values.
 - ◊ **Random Seed** – To re-generate the random values for the affected properties for all the grid items.
 - ◊ **Randomize Each Frame** – If enabled then the random values will be generated on each frame.

- ◇ **Random Values Shifter** – It is helpful to apply random values to existing transform properties, to randomize the grid or to transition any of its property values from a random state to a normal state using influence sliders. If influence of any property is 0, then time randomization will still work according to the enabled delay property and the number of frames to delay.

Check “Random” tutorial here: <https://youtu.be/oTiSFEGljDg?t=190>

◇ **Position**

- ◇ **Position Influence** – If set to 0 that means no random influence over existing position values and 100 is equal to full influence by random values.
- ◇ **Position Shift Direction** – To set for which direction random values should be generated or have an impact.
 - ◇ **X and Y** – To generate random values for both x and y directions.
 - ◇ **X or Y** – To generate random values either for x or y direction at a time, separately for each item. An item will move either in x or y direction, but not in both directions.
 - ◇ **X, Y and Z** – To generate random values in all 3 directions. It is helpful if grid layers are 3D. This way you can distribute items in z space (including x and y) randomly or scatter items in the scene and then can also use a camera to navigate through them.
 - ◇ **X, Y or Z** – To generate random values for only one direction from all 3. It will work correctly if the grid layers are converted to 3D.
 - ◇ **X only** – Generates random values in x direction only (positive or negative).
 - ◇ **Y only** – It will generate random values in y, positive or negative directions.
 - ◇ **Z only** – To generate random values only in z positive or negative directions and it will work if the grid layers are 3D.
- ◇ **Position Shift** – The amount to shift position in each direction negative or positive based on a random value inside this range.
Let’s suppose you set a value of 50 in x direction which means it will generate random values between -50 to +50. It will shift grid items within this range using a random value.
- ◇ **Scale**
- ◇ **Scale Influence** – Transition between the random values generated here and the actual scale values of grid items. If the influence is 0 then the random values will not affect the scale at all, and 100 means the random values are fully applied to the grid items’ current scale values.
- ◇ **Scale Shift Direction** – To set in which direction each item should scale randomly.
 - ◇ **X and Y** – To generate random scale values in both x and y directions simultaneously.
 - ◇ **X or Y** – To generate random scale only in one direction, either x or y for each grid item.
 - ◇ **X only** – The items will only scale randomly in x direction.
 - ◇ **Y only** – The scale shift will only generate random values for y direction.
- ◇ **Uniform Scale Shift** -- If this is enabled then both x and y directions will scale proportionally with a random value based on the “scale shift-x” slider.
- ◇ **Scale Shift – X / Scale Shift – Y** – To generate the random values for x and y directions.
It will generate random values in both positive and negative directions using these x and y sliders, these random values will then be subtracted from the grid transform scale values.
Let’s suppose in the grid transform controls the scale is set to 50%. Now if you set a 20% scale shift here, then it will generate a random value between -20 to

+20, which will then be subtracted from the above 50% scale. That produces scale in negative and positive directions from the original 50% scale (30% to 70%).

If you don't want to produce random values greater than the original scale, then subtract the scale shift value from the original scale to compensate for that.

◇ **Rotation**

◇ **Rotation Influence** – To transition between the random rotation value that is set here and the actual rotation of the grid items. 0% means no influence over the original values and 100% means full influence.

◇ **Rotation Shift** – The amount of rotation by which you want to randomize the items in both directions (-/+). If you set a 90° angle then it will generate random values between -90 and +90, which will be applied to the current rotation value.

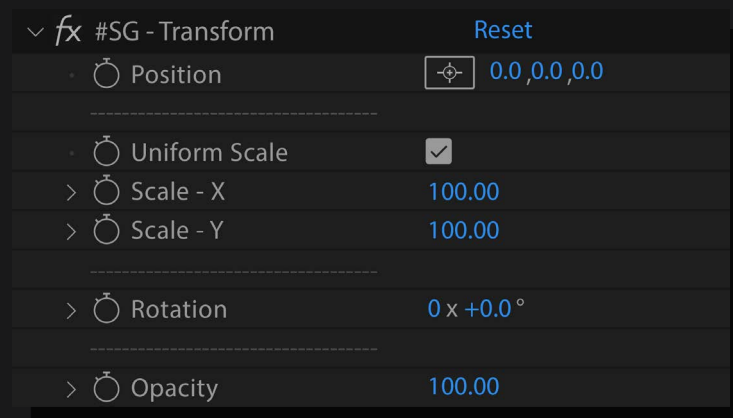
◇ **Opacity**

◇ **Opacity Influence** – It controls how much you want the random opacity to affect the original opacity values of grid items.

◇ **Opacity Shift** – The amount by which to randomize the current opacity values of grid items.

If you set a 50% value here, then the original opacity will get randomized down to 50% opacity from the grid's current opacity values.

#SG Transform – Preset

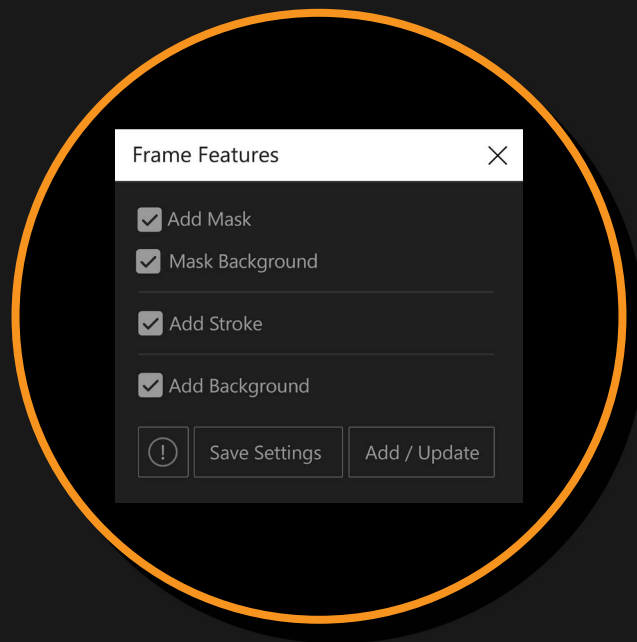


You'll find this preset on each grid item layer. It allows to transform any of the grid items manually and can easily custom animate any transform property of an item.

- **Position** – To further position a grid item in any direction. Z direction will only work if the grid layers are converted to 3D.
- **Uniform Scale** – If you want to scale x and y directions proportionally then enable this option. It will use "Scale - X" value for "Scale - Y".
- **Scale - X/Y** – You can adjust scale in x and y directions using these sliders.
- **Rotation** – To further rotate any item of a grid.
- **Opacity** – It will change and override the opacity of any grid item. If it's 0 then it will override the actual grid item opacity and will make the item disappear completely.

If you have manually adjusted transformation for multiple grid items then you can easily reset them all and also remove keyframes by using "Reset All SG-Transformation" function inside "Additional Utilities" dialog.

ADDING / REMOVING FRAME FEATURES



General Info – About Frame Features

You can add or remove frame features like masks, strokes, and backgrounds. It will create a controller preset on the “Controller” layer to change the feature’s properties. When you add/remove certain features, the preset controls get updated automatically.

Although you can enable/disable certain features from preset controls, it is recommended to add only those which are needed to avoid additional calculations that may impact the performance if the number of items is high.

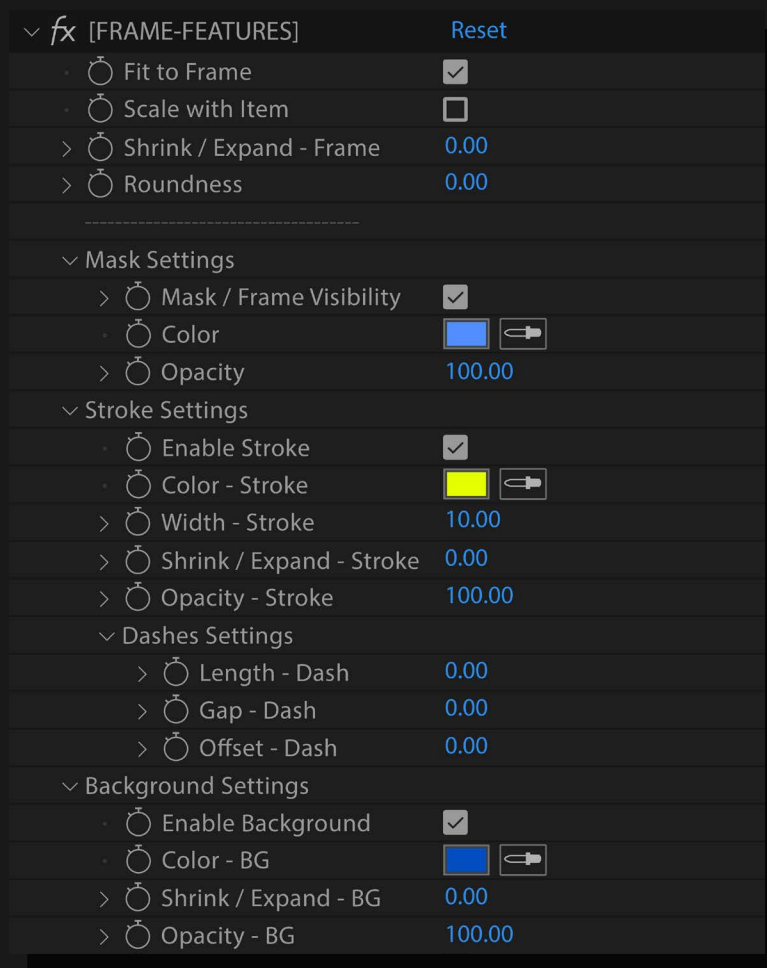
Frame Features – Dialog

- **Add Mask** – You can add masks to frames by enabling this feature and any extra pixels exceeding the frame boundaries will get clipped.
- **Mask Background** – By enabling this you will get a background behind each frame. It is helpful if the items are transparent and you want to add backgrounds to those.

This option will only be available if “Add Mask” is enabled.

- **Add Stroke** – To add strokes to the frames. You can then control the dashes, offset, width, and other stroke options from the preset controls.
- **Add Background** – This is an additional background that you can add if you need. It will be added below the frame’s “Mask Background” and also shrink/expand based on that. You can shrink/expand, adjust color and its visibility from the controls preset.

Frame Features Controls – Preset



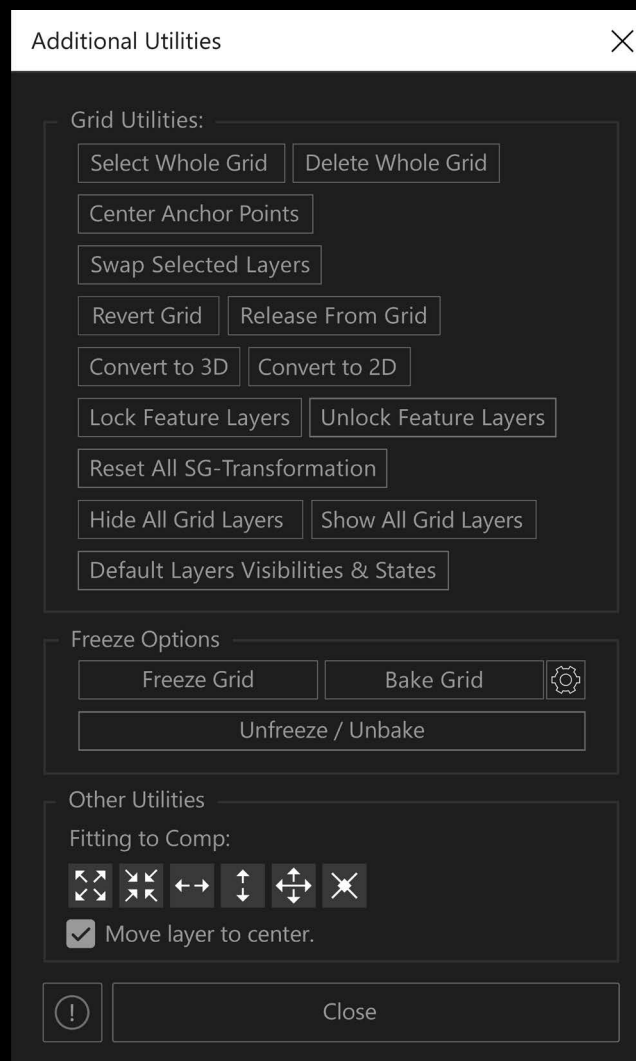
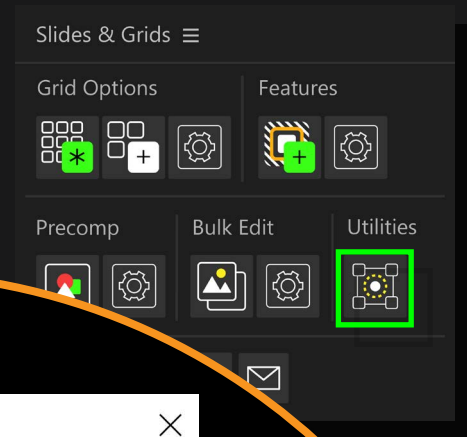
- **Fit to Frame** – If enabled then all frame features (mask, stroke, bg) will be set around the grid frame and will get adjusted with frame size in x and y. When disabled, these features are set around the item (not the frame anymore) and frame size won't affect these features now.
- **Scale with Item** – When disabled then each item will get scaled within its frame and frame features will not get scaled with the item. Enabling this will scale all frame features with the items as well.

Works with scale from the "Transform & Animate" property of "Grid Controls" preset.

- **Shrink / Expand - Frame** – To shrink or expand all frame features from the actual frame size. This is a base property and changing this will affect all features (mask, stroke, and backgrounds). All frame features can shrink or expand individually from their own property groups but their values are relative to this base property.
- **Roundness** – To make the frame edges round so all frame features will have round edges as well.
- **Mask Settings** – These are base frame background settings and you can make frames visible using a specific background color. This is helpful if you want to have a background behind transparent or empty pixels around grid items within its frame.
 - **Mask / Frame Visibility** – To enable/disable the frame background's visibility.
 - **Color** – To set a color for the frame's background.
 - **Opacity** – Change opacity for the frame's background.

- **Stroke Settings** – To adjust stroke width, offset, dashes, and other settings here.
 - **Enable Stroke** – To enable/disable stroke visibility.
 - **Color – Stroke** – Choose any stroke color from here.
 - **Width – Stroke** – To adjust width for the stroke.
 - **Shrink / Expand – Stroke** – To shrink or expand the stroke from the base frame size.
 - **Opacity – Stroke** – To change the opacity for stroke.
 - **Dashes Settings** – To add or animate dashes for the stroke. You need to adjust the dash length and gap to view it in action.
 - ◊ **Length – Dash** – Length of dashes for stroke.
 - ◊ **Gap – Dash** – To adjust the gap between dashes.
 - ◊ **Offset – Dash** – To animate or offset the stroke dashes.
- **Background Settings** – This is an additional background below the mask/frame background. It is helpful if you want to use two backgrounds at the same time, you just need to increase its expansion to view it below the mask/frame background.
 - **Enable Background** – To enable/disable background visibility.
 - **Color – BG** – To change the color of the background.
 - **Shrink / Expand – BG** – To shrink or expand the background from the base frame.
 - **Opacity – BG** – To change opacity for the background.

ADDITIONAL UTILITIES



General Info – About Additional Utilities

In the additional utilities dialog, there are some utilities mostly belonging to the grid and you can perform different operations to make your workflow faster. There are also some utilities available for other types of layers as well.

To perform grid utilities, any layer from the grid can be selected and the whole grid will be detected automatically to perform any utility operation.

Addition Utilities – Dialog

Grid Utilities

- **Select Whole Grid** – It will select all grid layers in case you want to perform any action on the whole grid.
- **Delete Whole Grid** – To delete the whole grid.
- **Center Anchor Points** – When you create a grid, it automatically centers anchor points for all layers and it is necessary for layers to position properly inside the grid. In case you have changed their contents and that is the case when you edit text or shape layers that shift their anchor points and the layer is no longer in its right position within the grid's frame. So, you can center anchor points for all the grid layers using this option.

There are 2 methods to center anchor points:

- ◊ **Click – Apply by Value** – It will calculate anchor point values and apply those to grid layers as static values. (It also removes any keyframe on anchor point properties and will disable any expressions.)

You can also use keyboard shortcut “Ctrl + Alt + Home / Cmd + Opt + Home” to center anchor point values.

- ◊ **Ctrl/Cmd + Click – Apply by Expressions** – It will apply expressions to all grid layers which will calculate their anchor points dynamically and no matter if you change the content of any layer it will always remain in the center.
- **Swap Selected Layers** – You can easily change the order of grid layers using this option. You can choose two or more layers to swap at once.

There are 2 methods to swap layers in a grid:

- ◊ **Click – Reverse Order** – It will reverse the items in the order you've selected. For example, you selected grid items with grid item indices (8, 4, 10, 12), after reversing order these will be in the order of (12, 10, 4, 8).
- ◊ **Ctrl/Cmd + Click – Change sequence as selected** – This method allows you to sequence items in the order you've selected them (but within the selected item's frame's ascending order).

For example, you've selected grid items with indices in order (4, 10, 2, 1, 5), so the ascending order of these frames within the grid is (1, 2, 4, 5, 10).

This way above selected items will be sequenced within these frames like so:

items indices = [4, 10, 2, 1, 5] ---> frames ascending order = [1, 2, 4, 5, 10]

item 4 -> frame 1

item 10 -> frame 2

item 2 -> frame 4

item 1 -> frame 5

item 5 -> frame 10

Check tutorial here: <https://youtu.be/bACnZO9D93c?t=255>

- **Revert Grid** – To dissolve the whole grid and release all items from it.
- **Release From Grid** – To release only selected items from the grid. (It will remove its feature layers as well if any exist.)
- **Convert to 3D** – To convert the whole grid to 3D.

It is helpful if you want to use the grid's zoom feature properly (in "Grid Controls" preset), so the zoomed layer will always show on top of other grid items.

- **Convert to 2D** – To convert the whole grid to 2D.
- **Lock Feature Layers** – To lock all feature layers (mask, stroke, backgrounds).

It will help to select grid layers without feature layers getting in the way.

- **Unlock Feature Layers** – If you want to unlock all feature layers (mask, stroke, backgrounds) for any purpose. You can unlock these all with this button.
- **Reset All SG-Transformation** – This button will reset all additional transformation overrides if you've done any from the "#SG-Transform" preset on any grid layer. It will also remove all keyframes from these preset properties.
- **Hide All Grid Layers** – This option is helpful to hide all the grid layers with one click, so you don't need to select all layers to do that.
- **Show All Grid Layers** – To show the current grid completely. It will reset the visibilities of all grid layers to their defaults.
- **Default Layers Visibilities & States** – In case you've changed the default states, switches, colors, visibilities, etc of any grid layer. It will revert all to their default states.

Freeze Options

- **Freeze Grid** – To freeze all the expressions and keyframes of a grid to static values.

It can be helpful if you want to freeze the grid temporarily in case you are working on a heavy project. Or if you don't want to animate the grid so it won't calculate expressions while working or rendering.

There are two freeze methods available:

- ◊ **Click – Also Keeps Keyframes** – It will freeze the grid and will keep keyframes if any exist on the grid layers properties. But it will apply expressions to the keyframed properties using calculated static values at the current time, so they become frozen and don't animate.

Although these keyframes won't work when grid expressions are working. So, you can choose if you want to keep these for later use when you revert the grid or release any layer from the grid.

- ◊ **Ctrl/Cmd + Click – Also Removes Keyframes** – It will freeze the grid and also removes all the keyframes and expressions by converting those to static values at the current time.

It is useful if you want to animate the grid items manually.

- **Bake Grid** – If you bake a grid then it will convert all expressions to keyframes. There are two baking methods:
Click – Bake Accurate (Slow) – This baking method is slow but accurate as it detects the value changes over time and will add keyframes there.

If there are a lot of items or feature layers, then it may take longer to calculate.

Ctrl/Cmd + Click – Bake Optimum (Experimental) – This is the fastest but less accurate baking method. (It is recommended to always try this one first.)

The reason is that it tries to merge keyframes from different animated properties of the grid control presets to grid layers.

As the same property (e.g. position, rotation, etc) is linked with different properties in the controller preset so it may cause conflict with the keyframes easing types or may generate extra keyframes in-between that may affect overall easing.

But it will work correctly if the animated preset control properties don't conflict or you haven't applied keyframes to those properties which can cause conflict.

- **Bake Settings Dialog** – Here you can adjust some settings for the bake operation.

- ◊ **Bake Accurate Settings** – As bake accurate is slow to calculate but you can reduce time by limiting the timeline area for the baking process to take place.

It is better to enable all these three to reduce calculation area as much as possible unless you need to look for the entire composition or beyond that.

- ◊ **Limit to Work Area** – To limit the calculation within the comp's work area.
- ◊ **Limit to Layer Duration** – It will limit the calculation for baking within the layer's in and out points.

If it is not checked then it will ignore layer's in and out points and will take into consideration the empty area around as well because the properties with expressions, calculate on each frame throughout the comp.

- ◊ **Limit to Comp Duration** – It will set the calculation area inside the whole comp and won't go outside in case any of the layer's in or out points go.

- **Unfreeze / Unbake Grid** – To unfreeze or unbake the grid and make it dynamic again as it was before. It re-applies expressions to all properties and links them with preset controls.

The grid controllers will take back control over freezed or baked properties and override any manual edits or keyframes.

There are three methods for unfreezing or unbaking:

- ◊ **Click – Also Keeps Keyframes** – It will retain all keyframes but will take over control of all the freezed or baked properties.
- ◊ **Ctrl/Cmd + Click – Also Removes Keyframes** – It will remove all keyframes from all of the freezed or baked properties and will apply expressions to unfreeze or unbake them.
- ◊ **Alt/Opt + Click – Force Update Expressions Only** – It will just update all layer's expressions inside the grid.

It works even when the grid is not freezed or baked.

It could be helpful to update all the expressions in case something got messed up or some expressions were not working as usual.

Other Utilities

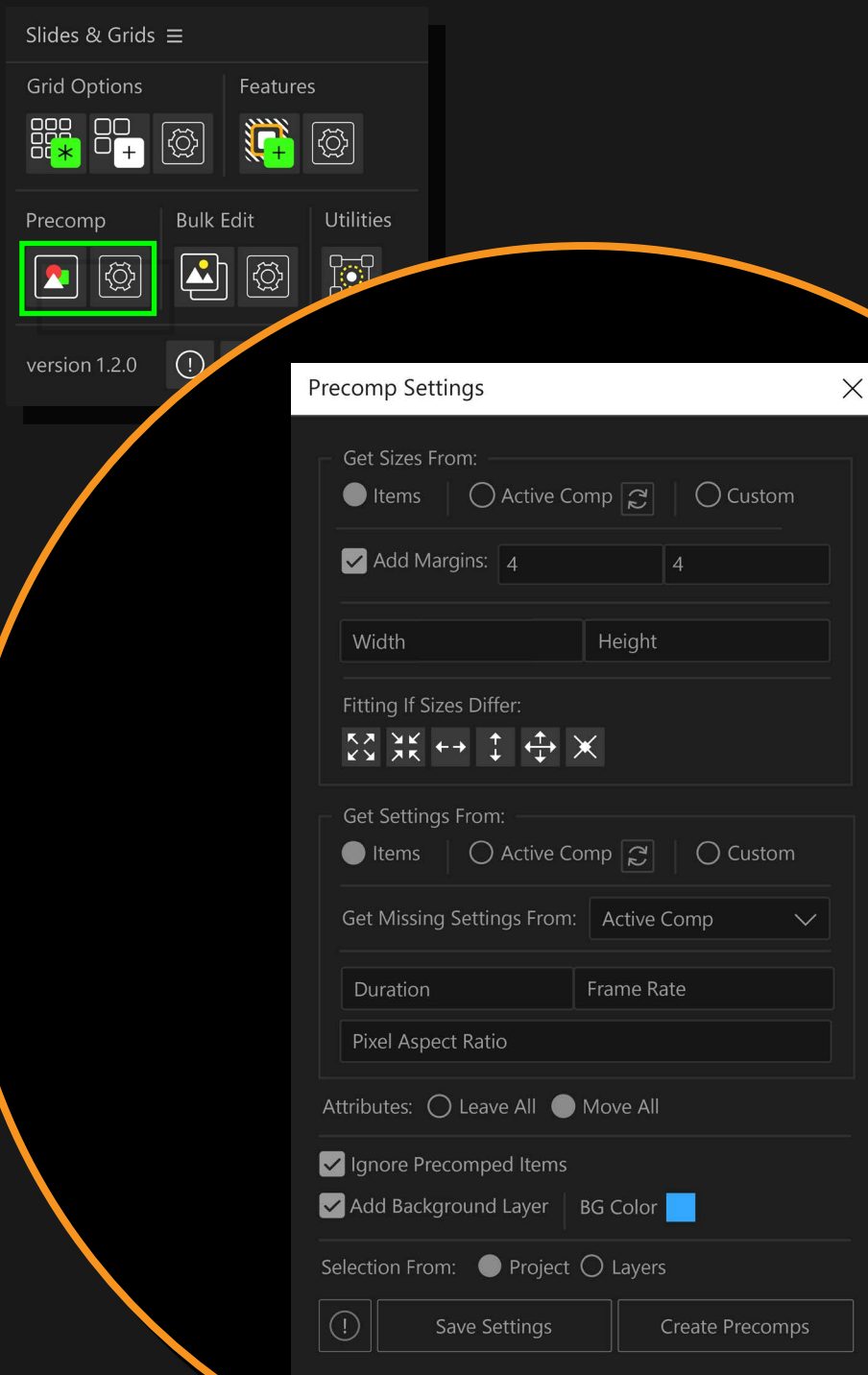
- **Fitting to Comp** – To fit any selected layers to the composition and also move them to the center if enabled.



- ◊ **Fill the Comp** – It will fill the entire comp by resizing the layers proportionally and push extra pixels outside the comp's boundary if exceeded.
- ◊ **Fit to Comp** – It will fit the layers to the comp edges by scaling it proportionally. If the layer's width or height is not proportionally equal to the comp's width or height, then it will introduce some empty area.
- ◊ **Fit by Width** – To fit each layer by its width to the comp width and will scale the height proportionally.

- ◇ **Fit by Height** – It will fit each layer by its height to the comp height and will adjust the width proportionally.
- ◇ **Stretch to Fit** – To stretch the layer's width and height to fit exactly to the comp width and height. It won't maintain the proportions.
- ◇ **Reset Original Scale** – It will set the scale value to 100 of the layers and will remove keyframes from the scale property if any exist.
- ◇ **Move Layer to Center** – To move the layers to the center of the composition along any fitting option that you choose.

CREATING AND EDITING PRECOMPS



General Info – About Precomping

With the precomp items function, you can precomp selected items or layers individually.

Supported Layer Types:

All layers with valid video source including text/shape layers, compositions, video footages, solid layers, etc can be precomped.

Each time you run the precomp operation, it will generate a unique ID similar to the grid ID and will create its unique ID folder in the project panel “#SG-(Comps) > #SG-[unique-ID]” to save these new precomps.

Precomp Settings – Dialog

- **Get Sizes From** – To set size for precomps based on these three size options:
 - **Items** – All precomps will have comp size based on each individual item’s size.
 - **Active Comp** – The new precomps will have the size of the currently active comp.
 - **Custom** – To use a custom size instead for the precomps.

If item size is different than the selected size then the item may not fit the comp properly. It may be intentional but you can also fit the items to their comps using any fitting option.
- **Add Margins** – To add additional margins around the precomp size. Even if the item has exact size as the precomp size it will have additional margins around it. Also if any fitting option is selected, then the item will fit within the comp size and will still have additional empty margins around it. Only the background option mentioned below will cover these margins.
- **Fitting If Sizes Differs** – To set any fitting type for the items so they fit as you want inside their new precomps.



- **Fill the Comp** – It will fill the entire comp by resizing the item proportionally and push extra pixels outside the comp’s boundary if exceeded.
- **Fit to Comp** – It will fit the item to the comp edges by scaling it proportionally. If an item’s width or height is not proportionally equal to the comp’s width or height, then it will introduce an empty area there.
- **Fit by Width** – To fit each item by its width to the comp width and will scale the height proportionally.
- **Fit by Height** – It will fit each item by its height to the comp height and will adjust the width proportionally.
- **Stretch to Fit** – To stretch the item width and height to fit exactly to the comp width and height. It won’t maintain its proportions.
- **Reset Original Scale** – It will set the scale value to 100 of the item inside the new precomp and will remove keyframes from the scale property if exist.
- **Get Settings From** – There are some additional settings for precomps that you can set here as you need. These include duration, frame rate, and pixel aspect ratio.
 - **Items** – All precomps will get these settings from each item individually.
 - **Active Comp** – The new precomps will have settings of the currently active comp.

- **Custom** – If this is enabled then we can set custom settings for the duration, frame rate, and pixel aspect ratio.
- **Get Missing Settings From** – As some item types like shape, text, and some others don't include all these settings. So, whatever setting is missing, it will try to get this setting from "Active Comp" or "Custom Defined" based on the selected option.
- **Attributes** – You can select if you want to leave or move all attributes while creating precomps. It works similarly to how we precomp an item in After Effects. But as for some layer types like shape, text, and some others, we can't set them to leave all attributes. So, leave all attributes option here will try to fake it by copying all transform properties (including some other properties and switches) and will apply those on the new precomp outside.
These attribute options will always keep the layers in the center inside their new precomps without shifting their positions outside. So, it is convenient to use with individual layers.
- **Ignore Precomped Items** – It will not precomp comp items and will just ignore them.
- **Add Background Layer** – To add a background layer inside the precomps.
- **BG Color** – To set a color for background layers inside each precomp.
- **Selection From** – Choose here from where you'd like to use selected items to precomp. These could be in the project panel or in the layers panel.

How To Create and Update Precomps

Method to Precomp

Select the items you want to precomp, from the project or layers panel then choose desired settings for new precomps in the precomp settings dialog.

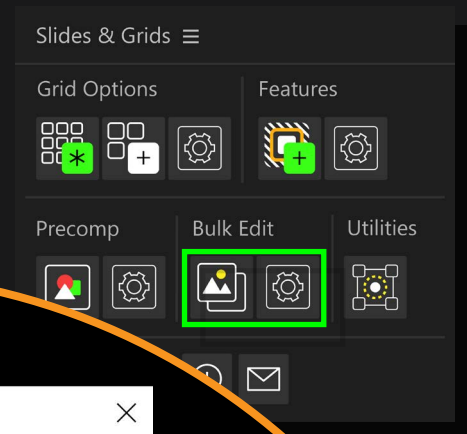
Now click the "Create Precomps" button and It will create precomps that will be added to the active comp automatically.

All new precomps will be collected in a folder "#SG-(Comps) > #SG-[unique-ID]" in the project panel with its unique ID. (A unique ID folder is generated each time you run this operation.)

Updating Precomps

There is a second function in the "Create Precomp" button (Ctrl/Cmd + Click) that will update the size, duration, frame rate, pixel aspect ratio, and bg layer for selected comps.

BULK EDITING FOR MULTIPLE COMPS



Bulk Edit (For Comps) ✕

Method
☒ Add ☐ Remove ☐ Replace ☐ Visibility

Selection Mode: ☐ Active Comp ☒ Multiple Comps

Segregation Method: Project vs. Layers Panel Items ▼

Comps In: ☐ Project ☒ Layers

Items From: ☒ Project ☐ Layers

☒ Repeat Items if less Distribution: Per Layer ▼

Items Sequence (in each comp): Continuous ▼

Fitting to Comp:
☒ Fit to Comp ☐ Fit to Layer ☐ Fit to Frame ☐ Fit to Parent ☐ Fit to Width ☐ Fit to Height ☐ Fit to Aspect ☐ Fit to None

☒ Paste in Place ☐ Paste in Center

Set Target:
☒ Selected Layers ☐ With Index ☐ With Name

Add item: ☐ Before ☒ After ☒ Add to comp start

Layer Index ?

☒ Use max available if exceeds

☐ Contains ☐ Start With ☐ End With ☒ Use RegEx

Find in name..

☒ Use First Match Only

! Save Settings Bulk Add

General Info – About Bulk Edit

This function allows you to easily edit multiple comps. It is very useful for editing templates, adding, replacing, or removing footages or layers, and making temporarily visible any target layer from these comps for fast render preview while working on other aspects of the project.

It works by targeting a layer by index or searching in the names of the layers from all selected comps and then can apply any bulk operation to these.

Bulk Edit – Dialog

Selection & Distribution of Items

- **Selection Mode** – To select between Active Composition and Multiple Compositions selection modes to make it easier to use according to the requirement.
 - ◊ **Active Comp** – In this mode the current composition will be affected by the bulk edit operations.
It will take the items from the project panel by default depending on the selected bulk edit method if required. Also, in the “Replace” method, it will set the distribution to “Per Layer” by default to replace all layers individually with different items selected from the project panel for convenience. If you want to replace all layers with one single item then choose that one item from the project panel and ensure “Repeat Items” is enabled.
 - ◊ **Multi Comps** – To apply bulk edit operations in multiple compositions at once.
- **Segregation Method** – We can set here how the script should differentiate between the items to add/replace and the comps that we want to edit inside. Both methods can be used and helpful in different situations.

Only usable with “Add” and “Replace” methods. Other methods (“Remove, Visibility”) don’t need these settings.

- ◊ **Project vs. Layers Panel Items** – The advantage of using this method is that we can use comp items to add or replace inside other comp items.
As the script won’t be able to differentiate if both selections exist in one single panel (like layer or project) at the same time.
So, this segregation type will help the script to use comps or items to add/replace from one panel and comps in which we want to add/replace these from the other panel.
- ◊ **Comp vs. Other Item Types** – If we select this method then it doesn’t matter if we select both item types (items to add/replace, comps to edit) from the same panel or from different panels.
The limitation is we cannot use comp items to add/replace as it will confuse the script to decide which comp items to add/replace and in which comps to add/replace these.
We can use footage, video, text/shape, and other layer types which have a valid video source but not a comp item.
- **Comps In** – Select here if the comps to edit belong to project panel or layers panel.
- **Items From** – Select here if items to add/replace belong to project or layers panel.
- **Repeat Items If Less** – If this checkbox is enabled then no matter if we select less number of items than the editable comps, it will repeat the selected items for all additional comps.

- **Distribution** – To set how items (to add/replace) should distribute inside the selected editable comps.
 - ◊ **Per Comp** – With this option selected you will be able to assign a single item per comp. And no matter if in any comp more than one target layers are found, they all will have this single item that is assigned to this comp. And the next item will be assigned to the next composition in the selection.
 - ◊ **If Couldn't Find Any Target** – In case any composition doesn't have any target layer then we can decide how to handle this comp's assigned item.
 - ◊ **Skip Item with Comp** – If no target layer is found in an editable comp then this comp's assigned item will get skipped and the next item will be assigned to the next comp.

If the repeat items checkbox is disabled then the operation will stop if all items are used once (including skipped ones).

- ◊ **Continue Sequence** – With this method in case if no target layer was found in an editable comp then the assigned item will not get skipped and will rather be assigned to the next composition.
- ◊ **Per Layer** – This option will assign a new item to each target layer inside a single comp even if more than one target layers were found.

With this method, items will be assigned to target layers instead of comps.

- ◊ **Items Sequence (in each comp)** – To decide how items should be distributed inside the selected editable compositions.
 - ◊ **Start Over** – Items sequence will restart inside each editable comp. So, the first target layer will get item #1, the second target layer will get item #2, and so on. This way the next composition will have its own items sequence starting from the first item.

In this method repeat items checkbox will work inside each comp and will continue to the next comp instead of stopping the whole operation (when number of items were less than the target layers found in a single comp).

- ◊ **Continuous** – Items cycle will not start from the first item inside each comp but instead it will continue from where it left in the last composition.

If the repeat items is enabled then it will restart items if all are used and continue the new sequence while moving to the next target layers or compositions.

If the repeat items checkbox is disabled then it will stop the whole operation if all items were used once against any target layers found during the whole operation. (Previous comp's target layers will also count towards the total number of target layers and items used.)

Check the tutorial here: https://youtu.be/y8anKDhm_H8?t=304

Fitting & Placement

- **Fitting to Comp** – To set fitting type for the items after adding/replacing, so they'll fit inside the comp they are used in.



- ◊ **Fill the Comp** – It will fill the entire comp by resizing the item proportionally and push extra pixels outside the comp's boundary if exceeded.
- ◊ **Fit to Comp** – It will fit the item to the comp edges by scaling it proportionally.

If an item's width or height is not proportionally equal to the comp's width or height, then it will introduce an empty area there.

- ◇ **Fit by Width** – To fit each item by its width to the comp width and will scale the height proportionally.
- ◇ **Fit by Height** – It will fit each item by its height to the comp height and will adjust the width proportionally.
- ◇ **Stretch to Fit** – To stretch the item width and height to fit exactly to the comp width and height. It won't maintain its proportions.
- ◇ **Reset Original Scale** – It will set the scale value to 100 of the item and will remove keyframes from the scale property if any exist.
- **Paste in Place** – To paste the items with their original positions in the "Add" method, and at the target layer's position in the "Replace" method (it will also use the item's original position in "Replace" method if a valid replaceable source was not found).
- **Paste in Center** – It will paste the items in the center of the composition. It calculates position values based on the current time.
If any position keyframes were found then they will be moved with the items. (The layer may still get off the center, if the position value is changed with keyframes before or after the current time.)

The method "Paste in Center" takes more calculation time than "Paste in Place".

Targeting Layers

- **Set Target** – To set target layers inside each selected composition which will then be affected by any of the bulk edit operations you perform.

If multiple target options are enabled then it will only set any layer as a target if all searching criteria are matched.

Let's say if you enable "Selected Layers" and "With Name" at the same time, then it will only set those layers as targets which will have the given string in their names and also be selected. The same way other set target combinations work.

- ◇ **Selected Layers** – To affect/target only selected layers from all of the selected compositions.
- ◇ **With Index** – To set the target layer by index inside each selected comp.
 - ◇ **Use max available if exceeds** – It will help you target the last layer in the composition if the target index exceeds the number of layers.

Targeting Last Layer:

To target the last layer you can type "last" in the index field.

Or you can also use a higher index number (if use max index is enabled), then it will target the last found layer in each comp.

- ◇ **With Name** – It will check layer names to set them as targets.
 - ◇ **Contains** – If the layer name contains the search string at any position.
 - ◇ **Start With** – The layer name should start with the search string. (If it exists in any other position then it will be ignored.)
 - ◇ **End With** – The layer name should end with the search string.
 - ◇ **Use RegEx** – To search layer names using a RegEx string.
 - ◇ When you enable this option, it will disable (Contains, Start With, and End With) because they are no longer needed and you can use RegEx match strings for these criteria as well.
 - ◇ **Use First Match Only** – It will stop checking for the next target layer within the same composition if one is found. Otherwise, you can have multiple target layers inside a single composition.

Bulk Edit Methods

There are 4 methods available to edit selected comps.

- **Add** – To add new layers or items before or after the target layers in all comps.
 - ◊ **Add Item (Before / After)** – To set if new items should be added before each target layer or after it.
 - ◊ **Add to comp start** – To add the items at the start inside each editable comp. This is the case by default for project panel items. But in case you've selected layer panel's items to add/replace, then they may start at different times. So, by enabling this option all layers will be added at the start inside the comps. If this option is disabled then all layer panel items will be added with their original start times.
- **Remove** – It can be used to remove or only keep target layers in selected comps.
 - ◊ **Remove Target** – It will remove all target layers from the selected compositions.
 - ◊ **Remove Others** – It will just keep the target layers and will remove all other layers. (Inverse of "Remove Target".)
- **Replace** – To replace target layers with the selected items. By default, the layer with valid video and replaceable sources can be replaced. Like images, footages, compositions, etc which are getting their sources from the project panel. Some other layers like text/shape etc which don't have a linked/replaceable source from project panel are not replaceable without enabling "Force Replace" checkbox.
 - ◊ **Force Replace (For Non-Replaceable Source)** – To force replace layers which do not have valid replaceable sources by removing a target layer and adding a new item in its place at the target layer's start time.

If an item and a target layer have valid replaceable sources then the item will get all attributes (keyframes, other properties and effects, etc) of the target layer (similar to how replace layers works in After Effects).

But on the other hand, if it is force replaced then a new item will be added with its original attributes and will not retain any target layer's attributes.

- **Visibility** – We can make target layers visible by hiding all other layers. It will save the current visibility state as a text layer in selected comps and can be used to restore original visibility states at any time later (it will save with the project). We can save multiple visibility states.

Where to use it?

It can be very helpful if you are editing a template where multiple slides or placeholders are used.

So, in case they are render heavy compositions (containing a lot of layers or effects inside them), and you are working in the main composition where all placeholders exist.

Then you have the option to make only specific layers visible for reference temporarily and make others hidden so they won't render while previewing and you can work easily with those scenes in the main composition.

In case there isn't any layer that can be used for reference, then you can add (using "Add" method) new layers/images in comps temporarily at the first index (to target later easily) and remove these after use (using the "Remove" method).

- ◊ **Save Over Existing States** – If enabled then you can create multiple visibility states and these will save as new text layers at the end in those compositions. If disabled and any visibility state already exists in any composition then will make no changes in that composition.

Restore Existing States – You can restore saved visibility states using the “Restore Existing States” button and it will find the last text visibility layer to restore from and will remove this text layer after use.
Repeat this process if there are more than one visibility states.

CONTACT

Feel free to contact me for any queries, bug reports, feature requests, or suggestions.

Zohaib Malik

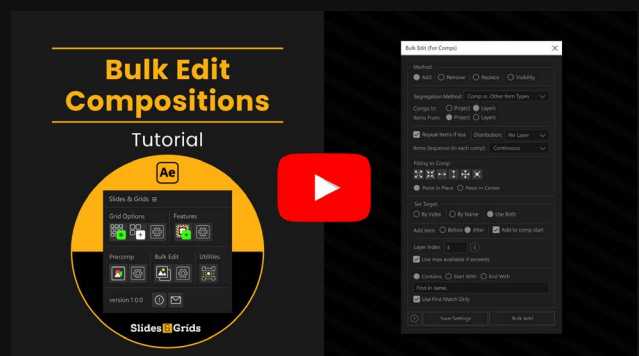
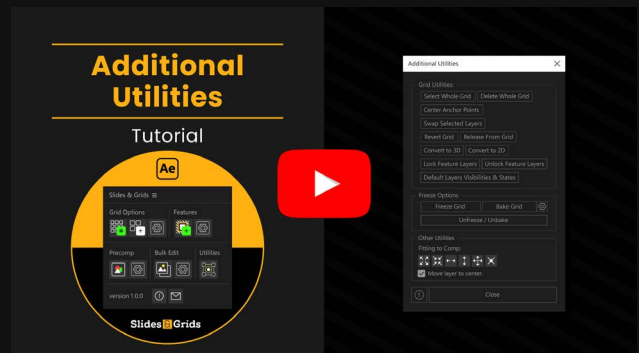
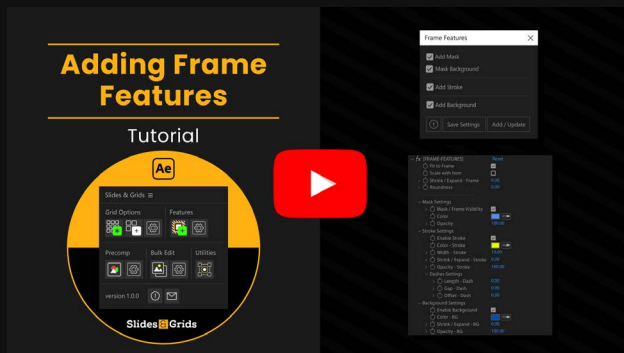
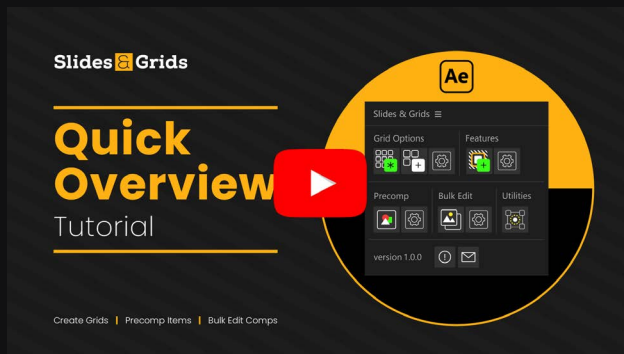
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Thanks & Regards,
Have fun!

Tutorials



Check out "Slides & Grids" update 1.2 tutorial here: <https://youtu.be/oTiSFEGljDg>