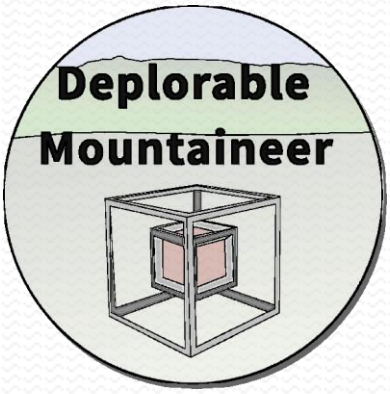

Themed UI

Summary

The Themed UI package for Unity allows the creation of UI canvases modifiable by choosing a theme. Several example themes are provided, but the game maker can easily create new themes. While designing the UI can be done in the Unity editor by dragging and dropping, making the UI do something requires programming.

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Demo

The Demo scene is found in the Assets under Themed UI -> Scenes -> Demo. With the demo, you can select the Theme Canvas game object in the Hierarchy (double click it to center the canvas in the Scene so you can see it, then zoom in as much as you like) and then, in the inspector, find the Theme (Script) copmponent and change the theme. After changing the theme, click the Preview box to update the preview. You can look through the hierarchy of the Demo scene for examples of how to set up various widgets. For additional practice, the next section shows how to create an example UI step by step.

Example: Creating a UI

Create a new empty project with the Themed UI package installed

1. Open Unity Hub.
2. Create a new 2D project by clicking the blue New button and selecting the 2D template. Give the project the name “UI Example” and choose a directory to put it it.
3. Click the blue Create button.
4. Give Unity a time to set the project up, then open the Asset Store tab (Window->Asset Store).
5. Click the icon near the top right that looks like a shopping bag with a downward-pointing arrow on it (“My Assets”).
6. Find the Themed UI asset (it must be purchased if you do not have it) and click the Import button. (If there is an Update button, click that first and after updating, then you will see the Import button.)
7. An Import Unity Package popup will appear. Make sure all relevant items are checked (by clicking All) and then click Import. After a minute or so, a Themed UI folder will appear in the Project browser window.
8. Select the Scene tab (Window->General->Scene).

Set up a blank themeable canvas

9. In the Project browser window (Window->General->Project), from the top Assets level, double-click the Themed UI folder to open it.
10. Drag the Theme Canvas into the Hierarchy (if the Hierarchy is not visible, use Window->General->Hierarchy to open it first). It should not be a child of any other game object in the hiearchy.
11. Double click the Theme Canvas entry now in the Hierarchy to make it appear centered on the screen. Zoom in if desired.
12. Click the Create button at the top of the Hierarchy, and select UI then EventSystem. This is needed to make the UI interactable.
13. In the Project browser, double-click the Widgets folder to open it.
14. Find the Tiled UI Background prefab and drag it onto the Theme Canvas in the Hierarachy so that Tiled UI Background is now a child of Theme Canvas. The canvas in the Scene view will now fill with (by default) a rusty diamond-plate metal texture.

15. You can try other themes to see other backgrounds. With Theme Canvas selected in the Hierarchy, go to the Inspector window (Window->General->Inspector) and find the Theme (Script) coponent of the Theme Canvas. For the Theme property, click the circle with a dot in it (all the way to the right…it is called the "selector") and choose the Neon Theme. It will not look different yet.
16. Below the Theme property is the Preview property checkbox. Click the checkbox. The background will change to a dark blue suitable for putting neon UI elements on. Try other themes as you like, clicking the preview checkbox to see what they look like.

Add a panel with title

17. While still in the Assets->Themed UI->Widgets folder of the Project browser, find the Panel Vertical prefab and drag it onto the Tiled UI Background item in the Hierarchy to make the Panel Vertical a child of the Tiled UI Background.
18. Let us shrink the panel a little. Select the Panel Vertical item in the Hierarchy, and in the Inspector, find the Rect Transform conmponent. Find the Anchors property drawer and change Min x to .05 and Min y to .05. Also change Max x to .95 and Max y to .95
19. While still in the Assets->Themed UI->Widgets folder of the Project browser, find the Text (TMP) prefab and drag it onto the Panel Vertical item in the Hierarchy to make the Text (TMP) a child of Panel Vertical. You will be asked to import the Unity-provided Text Mesh Pro needed for this package. Go ahead and click Import TMP Essentials, and when it is done installing, click Import TMP Examples & Extras and wait for it to install. Then close the TMP Importer popup window.
20. In the Hierarcy, select the Text (TMP) game object and change its name to Title (Right-click, then Rename, then type the new name).
21. Click the gray triangle to the left of the Title game object to open up the hierarchy.
22. Select the "Text" child of the Title game object.
23. In the Inspector, find the Text Mesh Pro UGUI (Script) component, and change the Text property from "Sample Text" to "Themed UI Example"
24. Still in the inspector, find the Set Widget Color (Script) component and change the Color Tag property to Blue.
25. To preview the change, click on Theme Canvas in the Hierarcy and click the Preview checkbox of the Theme (Script) component.
26. Optionally, try some new themes, again clickikng the Preview checkbox to see what they look like.
27. Select File->Save to save your work.

Add a Dropdown widget

28. In the Assets->Themed UI->Widgets folder of the Project browser, find the Dropdown (TMP) prefab and drag it onto the Panel Vertical item in the Hierarchy so that the Dropdown (TMP) is a child of Panel Vertical, below the Title item.
29. Select the Dropdown (TMP) item in the Hierarchy and click the right-pointing triangle to open it up. Select the Dropdown child and find the TMP_Dropdown (Script) component. Find the Options property and change the Option A text to "Easy", the Option B text to "Normal" and the Option C text to "Hard". Just above the options is the Value property: change it to 1 so the default is "Normal".

30. To preview the change, click on Theme Canvas in the Hierarcy and click the Preview checkbox of the Theme (Script) component.
31. Optionally, try some new themes, again clickikng the Preview checkbox to see what they look like.
32. Select File->Save to save your work.
33. Click the right-pointing Play arrow above the scene to test the UI and see that you can change the dropdown selection. Note how the color changes if it is selected or not selected, pressed or not pressed, hovered over or not hovered over.

Add a File Selector widget

34. In the Assets->Themed UI->Widgets folder of the Project browser, find the File Selector Widget prefab and drag it onto the Panel Vertical item in the Hierarchy so that the File Selector Widget is a child of Panel Vertical, below the Dropdown (TMP) item.
35. Select the File Selector Widget item in the Hierarchy. Find the File Selector Widget (Script) component in the Inspector and play with the settings under File Browser Popup Settings at will (but do not change the File Selector Prefab from File Selector Popup). Hovering over properties gives tooltips for what they are for. Try adding some items to the Create if Not Present to give you some choices to choose from.
36. To preview the change, click on Theme Canvas in the Hierarcy and click the Preview checkbox of the Theme (Script) component.
37. Optionally, try some new themes, again clickikng the Preview checkbox to see what they look like.
38. Select File->Save to save your work.
39. Click the right-pointing Play arrow above the scene to test the UI. Click the Choose button to show a popup letting you select another file.

Add a Color Picker widget

40. In the Assets->Themed UI->Widgets folder of the Project browser, find the Color Picker Widget prefab and drag it onto the Panel Vertical item in the Hierarchy so that the Color Picker Widget is a child of Panel Vertical, below the File Selector Widget item.
41. Select the Color Picker Widget item in the Hierarchy. Click the right-pointing triangle next to the item to open it. Select the Button child. Find the Image (Script) component of the button and change its color property to whatever you want (the starting color).
42. To preview the change, click on Theme Canvas in the Hierarcy and click the Preview checkbox of the Theme (Script) component.
43. Optionally, try some new themes, again clickikng the Preview checkbox to see what they look like.
44. Select File->Save to save your work.
45. Click the right-pointing Play arrow above the scene to test the UI. Click on the color to show a popup letting you change the color.

Other widgets

46. As an exercise, try adding the following widgets: Input Field (TMP), Slider, Toggle (TMP), Button Invisible (TMP) (this one is good for menu items), and Button (TMP).

Add a Row of Buttons

47. In the Assets->Themed UI->Widgets folder of the Project browser, find the Empty Horizontal prefab and drag it onto the Panel Vertical item in the Hierarchy.
48. Drag a Button (TMP) onto the Empty Horizontal to make it a child.
49. Drag two more Button (TMP) prefabs onto the Empty Horizontal to make a total of three buttons in a row.
50. Open up the hierarchy of the first button and select the Button child one level in, and find the Set Widget Color (Script) component in the Inspector. Change its color tag to Green.
51. Open up the Button's hierarchy and select the Text (TMP) child (two levels in). Change the text to Apply.
52. Open up the hierarchy of the second button and select the Button child one level in, and find the Set Widget Color (Script) component in the Inspector. Change its color tag to Caution.
53. Open up the Button's hierarchy and select the Text (TMP) child (two levels in). Change the text to Cancel.
54. Open up the hierarchy of the third button and select the Button child one level in, and find the Set Widget Color (Script) component in the Inspector. Change its color tag to Extreme Danger.
55. Open up the Button's hierarchy and select the Text (TMP) child (two levels in). Change the text to "Revert to Default".
56. To preview the change, click on Theme Canvas in the Hierarcy and click the Preview checkbox of the Theme (Script) component. Note that Caution gives the button a yellow color, and Extreme Danger a magenta or purple color.
57. Optionally, try some new themes, again clickikng the Preview checkbox to see what they look like.
58. Select File->Save to save your work.
59. Click the right-pointing Play arrow above the scene to test the UI. The buttons change color when hovered over, pressed, or one is the "selected" button. Use the Tab key to cycle through selections.

Additional Information in Brief

Programming is required to make the Uis work. For buttons and most other widgets, they work the same as the built-in Unity widgets. For example, if you click the blue "book" icon on the Button component you open your browser with details on how to use the button. The On Click property can be used to connect the button to your code and make something happen when the button is clicked.

For the *Color Picker Widget*, the *ColorWidget* script component has a public method *GetColor()* which returns the currently-selected color. For the *File Selector Widget*, the *FileSelectorWidget* script component has a public method *GetFile()* which returns the currently-selected file.

Creating a New Theme

Navigate in the Project browser to a folder where you want to store the new theme. Right-click in the browser, and select Create, then “Theme Settings” (the item is available for projects in which the Themed UI package has been imported). This will create a new theme object. Change its name to whatever you want. (Alternatively, you can go to Assets -> Themed UI -> Themes and copy one of the sample themes.)

With the theme object selected, you can change the settings at will in the Inspector. You can change colors, font materials (advanced: create your own font materials), and images for widgets (Use GIMP or your favorite image editor to make your own).