

## SO1 Swappable Data

You are working on a game project that uses a lot of UI elements. It's still early on in the development process of the game and the graphic artists haven't really decided on a graphic style for the UI elements yet. You decide to prevent a future headache by making a system, that makes it very easy to swap out UI elements.

### Exercise

- Create a UI Prefab with different UI Images.
- Create a Script called UIImageController that has a reference to the UI Image components and a UI Data Scriptable Object.
- The UIImageController must not contain any logic for selecting the right sprite. All of this logic should be made in the Scriptable Object.
- The UI Data Scriptable Object should be made in such a way that the graphic artist very easy can add the different sprites to the Scriptable Object.
- Use the Scriptable Object to assign each UI Image with the corresponding sprite from the Scriptable Object when the game loads.
- Create two different Scriptable Objects and see what happens when you replace one Scriptable Object with another.

### Example:

I have 3 UI Images where the game object is named Primary, Secondary, and Optional. I also have 3 sprites that are Red, Green, and Blue. With this solution the system should be able to load the Red sprite on the Primary image, Green in the Second image, and Blue as the Optional image.

### Hit:

You can just create some placeholder sprites with one color for this exercise.

### Optional Exercises:

1. The graphic artists want to be able to just change the Scriptable Object in one place. How would you manage to do that?
2. The graphic artists wanted to be able to swap out the UI graphics at Runtime. How would you implement such a feature?