

Resource Reloading

You are able to support swapping sets of assets at runtime effortlessly. This could be used for swapping between low/high resolution assets, or switching themes. Let's work through an example of switching between high and low resolution assets.

Setting up a new project

To help you work through this tutorial, first [create a new blank project using the init script](#).

The assets

Download these two sprite textures and save them to a data\texture\lowres folder in your project.



Download these two sprite textures and save them to a data\texture\highres folder in your project.



Remove the - hires from the filenames before saving.

Setting up resources

Edit the config file and replace the Resource section with:

```
[Resource]
Texture = @ResourceLowRes
Sound   = @ResourceLowRes

[ResourceHighRes]
Texture = ../data/texture/highres
Sound   = ../data/sound/highres

[ResourceLowRes]
Texture = ../data/texture/lowres
Sound   = ../data/sound/lowres
```

This sets the texture and sound resources as a default to the lowres paths. Notice that sound is also defined, but we won't be covering sound in the tutorial.

Setting up the Buggy and Oil objects

Replace the Object section in the config with:

```
[Object]
Graphic      = @
Texture      = buggy.png
Pivot        = center
```

Compile and run. You will see the lowres buggy displayed on screen.

Add an Oil object for the car to avoid. Nice to have a second object. Add this to the config:

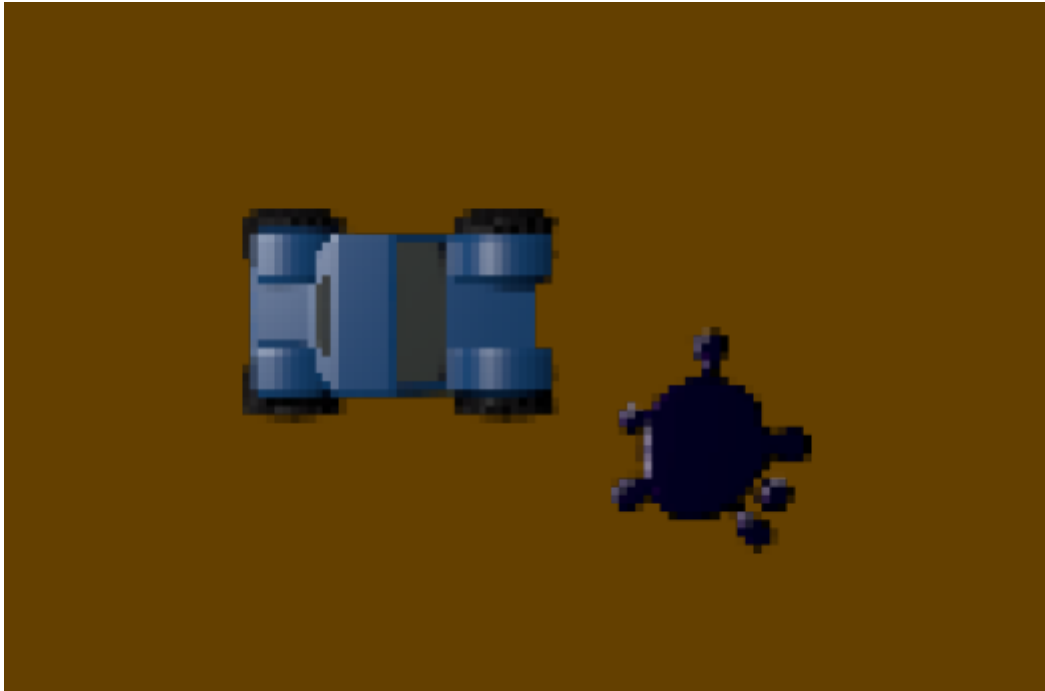
```
[Oil]
Graphic      = @
Texture      = oil.png
Pivot        = center
Position     = (150, 60)
```

And add the Oil object to the scene with:

```
[Scene]
ChildList    = Object # Sound # Oil
```

Just for aesthetics, let's change the background color to contrast the darker object colors:

```
[MainViewport]
Camera       = MainCamera
BackgroundColor = (100, 64, 0)
```



Swapping to high-res using Commands

While the app is running, press the '~' key (tilde) to open the Orx Console.

Enter the following commands to switch to the high resolution assets:

```
Resource.RemoveStorage Texture
```

This removes all storages for Texture.

```
Set Resource Texture @ResourceHighRes
```

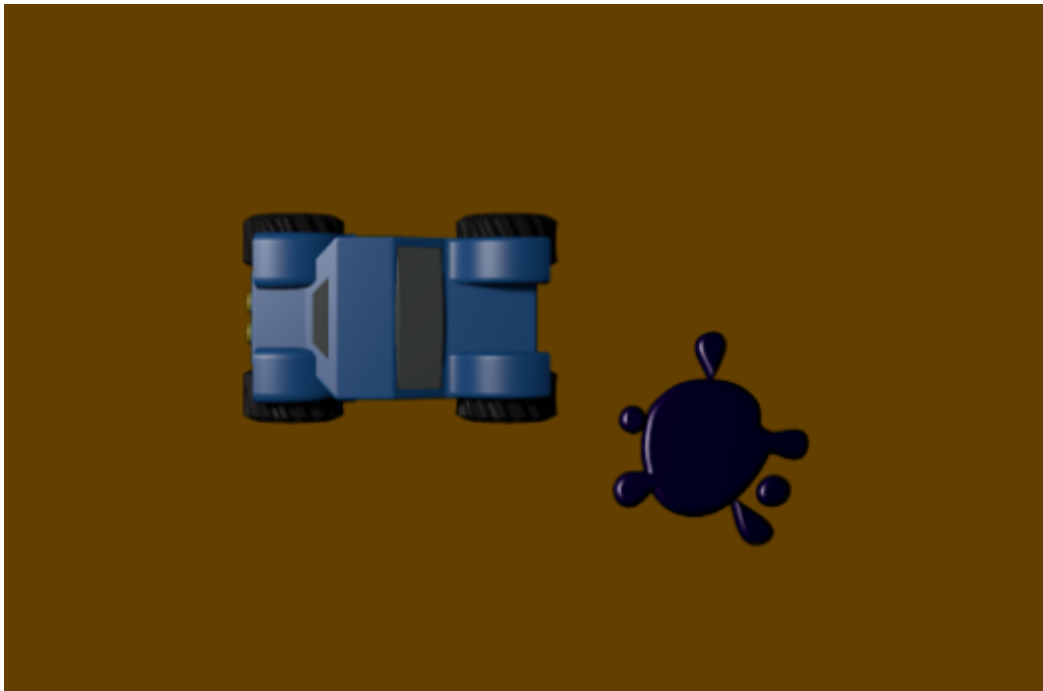
Set the Texture property in the Resource section in the config to point to the ResourceHighRes section.

```
Resource.ReloadStorage
```

Reloading storages from the config.

```
Resource.Sync
```

As soon as the resource sync is triggered, all the currently used textures would be replaced. And the new texture not yet loaded would now come from data/texture/highres instead of data/texture/lowres.



This works with any kind of resource, not just textures. And can be used to swap themes, for example.

Swapping to high-res using Code

In code it would be the same procedure. Add this to the end of the Init() function:

```
orxResource_RemoveStorage("Texture", orxNULL);  
  
orxConfig_PushSection("Resource");  
orxConfig_SetString("Texture", "@ResourceHighRes"); // Switch to the high-res textures  
orxConfig_PopSection();  
  
orxResource_ReloadStorage(); // Reloads storages from config  
orxResource_Sync(orxNULL); // Syncs all resources from all groups
```

Rules and Notes

1. For this to all work, the resources themselves should have the same names, just located at different places (for example: data/texture/high versus data/texture/low).
2. `orxResource_Sync(const orxSTRING _zGroup);` can be restricted to particular object groups if you wish.
3. `orxResource_RemoveStorage(const orxSTRING _zGroup, const orxSTRING _zStorage)` can optionally be restricted to both a particular resource group and a particular resource storage.

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