Vr Games Dev

D.D.u.A. Dynamic Downloader using Addressables

October 2021

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1. ONCE UPON A TIME…

We are very glad you decided to give us the opportunity to help you build a great game or app. We try to make the best technology, easy, useful and well documented. Nevertheless, we are aware everything can be improved and enhanced, so we are more than happy to receive a comment, question or just drop us a line at least to say Hi.

Best regards, GG, GL HF
Hakari
October 2021

1.1 Technical Support

You can get technical support at the following email:

unity.support@vrgamesdev.com

1.2 Online documentation

We want to keep this documentation up to date and the most detailed possible, since we cannot edit and improve a document already published, we provide the latest documentation online at the following URL:

https://www.vrgamesdev.com/

1.3 Demo

You can download the app from this tutorial from this URL:

https://vrgamesdev.itch.io/ddua

2. OVERVIEW

When you create a light app, you also increase the user retention and the initial download size plays a very important role in this step. You want to improve these steps by every single bit, having a better effective cost per click, cost per Mile and your cost per acquisition, you will have a more successful game.
Download the content as your application needs it. You only need to upload the changes of the assets you modify, getting EASIER and FASTER dev cycle iterations.

DDuA includes the following functionalities that will help you to achieve a light app:

- Detect and verify Network connection to internet
- Check for new catalogues to update
- Slideshow waiting screens for promotional, hints, seasonal and mini games
- Pre-download all the content for the next scene
- Detailed UI progress bar
- Smooth transitions between scenes
- Idle download to accelerate future loading times.
- Announcement system to inform the players of the changes and updates
- Detailed beautiful logs in html of the asynchronous processes
- Local configuration or Remote config for easier updates

2.1 TL: DR

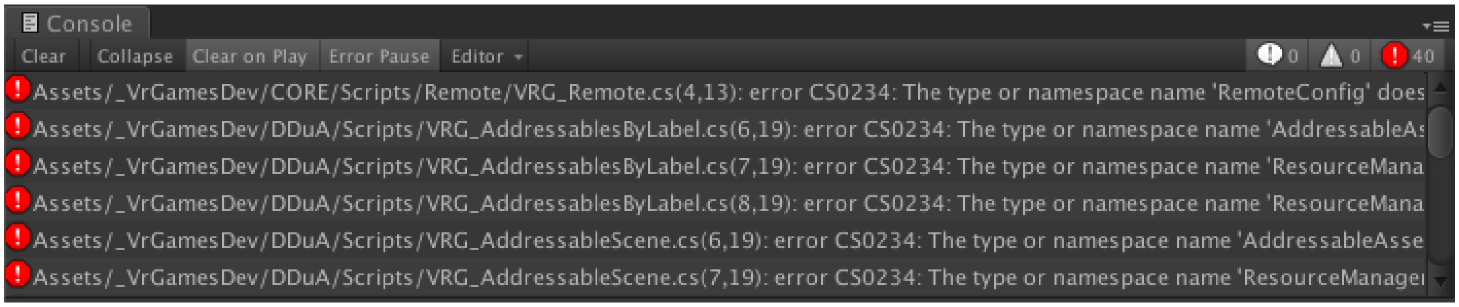
1) Download and install Unity Addressables Assets System (Remote config optional)
2) Open the DDuA window ***(Tools->Vr Games Dev->DDuA->Create new DDuA Project)***
3) Select the project name, and its setting options.
4) Click "Create new"
5) Play the new project
6) Check the 20+ examples to have a better grasp how it works

2.2 DDuA Components

1) ***VRG_Addressable:*** The class that check if an address exists, its size, its path, download, load into memory and instantiation.
2) ***VRG_Loader:*** This class checks for internet connection, update the catalogs, and download and launch the ***VRG_DDuA*** prefab.
3) ***VRG_DDuA:*** The main class, it handles the communication and the interaction between all the VRG modules, the Remote servers, and the addressable systems.
4) ***VRG_Slide:*** Add this prefab to add any addressable to the slideshow rotation.
5) ***VRG_Scene:*** The module that loads the Addressables scenes, It loads asynchronous its elements, and make sure everything is ready before the scene is fully loaded.
6) ***VRG_Bhel:*** It allows to save events to understand and debug the asynchronous activity
7) ***VRG_Remote:*** The main setting configuration it allows to load from local settings or cloud Unity remote config

3. SET UP

When you download this package you have some errors, it's normal, lets fix them.



```
Assets/_VrGamesDev/CORE/Scripts/Remote/VRG_Remote.cs(4,13): error CS0234: The type or namespace name 'RemoteConfig' does
Assets/_VrGamesDev/DDuA/Scripts/VRG_AddressablesByLabel.cs(6,19): error CS0234: The type or namespace name 'AddressableA:
Assets/_VrGamesDev/DDuA/Scripts/VRG_AddressablesByLabel.cs(7,19): error CS0234: The type or namespace name 'ResourceMana
Assets/_VrGamesDev/DDuA/Scripts/VRG_AddressablesByLabel.cs(8,19): error CS0234: The type or namespace name 'ResourceMana
Assets/_VrGamesDev/DDuA/Scripts/VRG_AddressableScene.cs(6,19): error CS0234: The type or namespace name 'AddressableAsse
Assets/_VrGamesDev/DDuA/Scripts/VRG_AddressableScene.cs(7,19): error CS0234: The type or namespace name 'ResourceManage
```

This project uses and needs you to implement the Unity Addressable Asset System

3.1 Unity Addressable Asset system

The Addressable Asset system provides an easy way to load assets by "address". It handles asset management overhead by simplifying content pack creation and deployment.

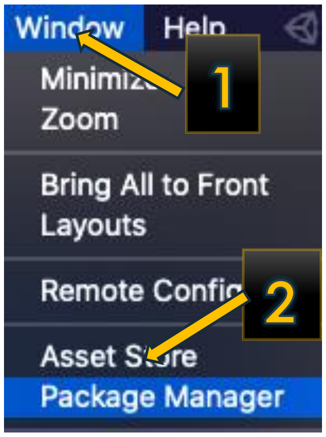
The Addressable Asset system uses asynchronous loading to support loading from any location with any collection of dependencies. Whether you use direct references, traditional asset bundles, or Resource folders for asset management, Addressable Assets provide a simpler way to make your game more dynamic.

Documentation: You can read more about this module here
https://docs.unity3d.com/Packages/com.unity.addressables@1.9/manual/index.html

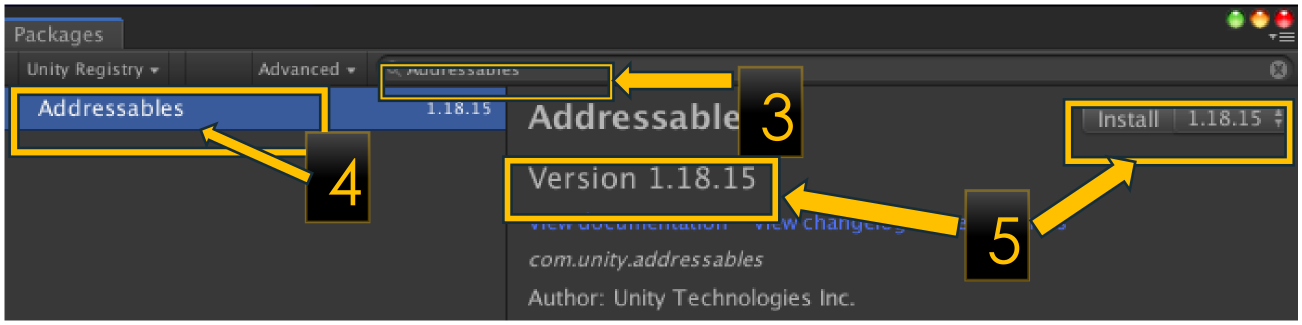
Minimum Version: 1.18.15

How to install it:

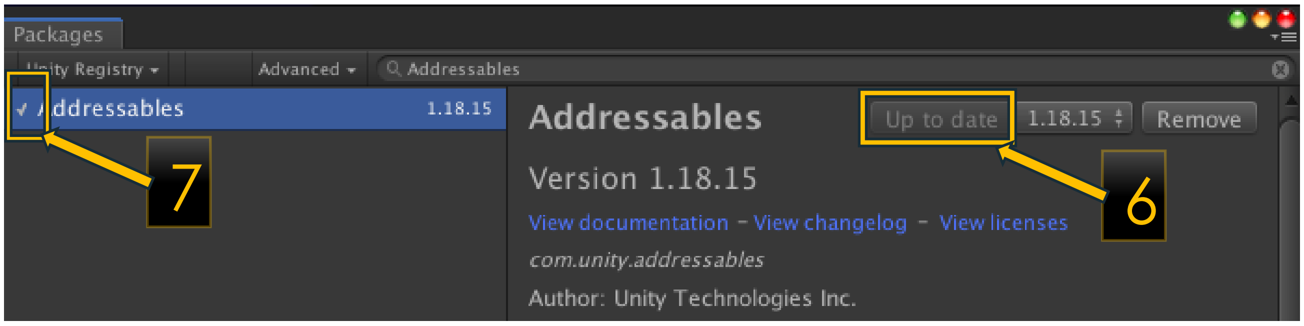
1) Open the Windows menu option
2) Select the option Package Manager



3) A new window will open, in the search box, Search for "Addressables"
4) Select the package "Addressables"
5) Click Install, the version that was tested with this package was the most recent (1.18.15) at the creation of this documentation.

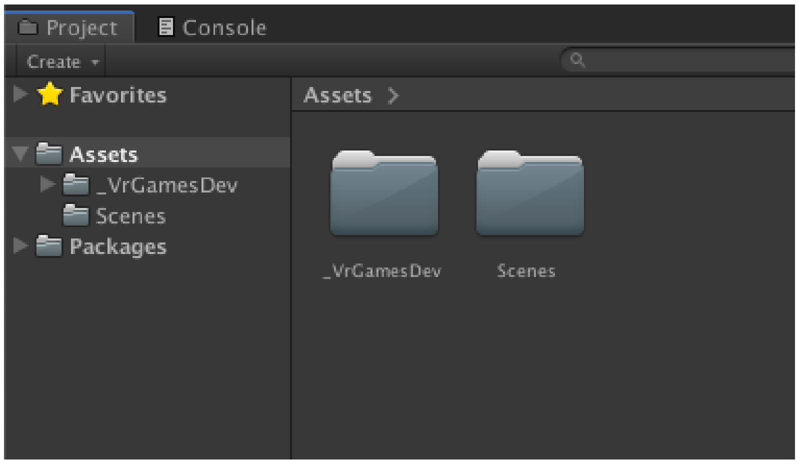


6) When you finish the installation, you will have the module installed and up to date, if it is not up to date, click the update button
7) The name will have a tiny check mark that indicates it was successfully installed



3.2 Configuring Addressables

We have no compile errors, and our project looks like the image below, with 2 folders, the "*_VrGamesDev*" folder and the "*Scenes*" default folder when you create a new project.

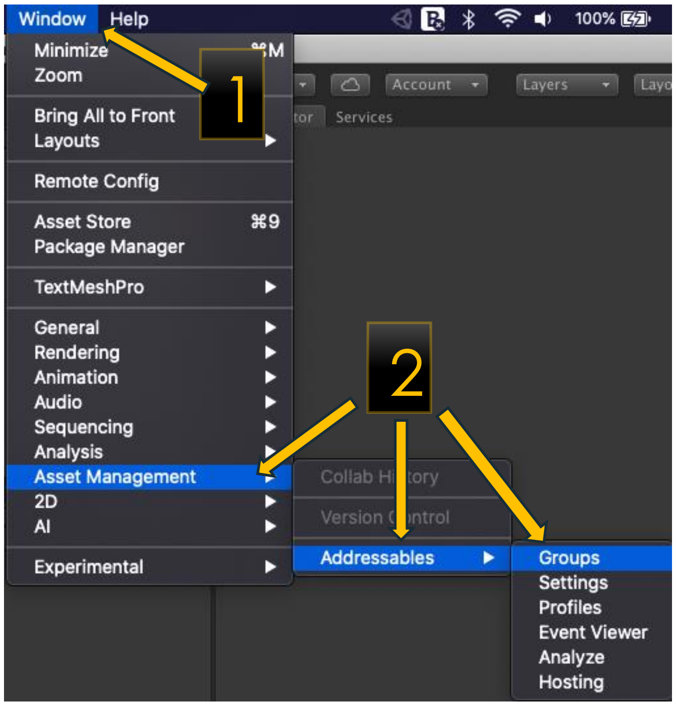


Now let's create our Addressables Groups

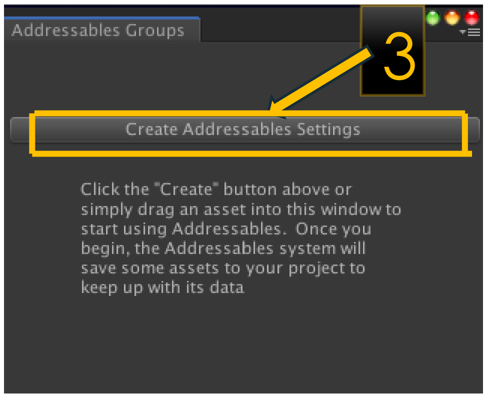
3.3 Addressable Groups window

An asset is content that you use to create your game or app. Common examples of assets include Prefabs, textures, materials, audio clips, and animations. Making an asset "Addressable" allows you to use that asset's unique address to call it from anywhere. Whether that asset resides in the local application or on a content delivery network, the Addressable Asset System locates and returns it. You need to configure the assets to become addressables in the group window.

1) Open the ***Windows*** menu option
2) Select the option Asset Managment->Addressables->Groups

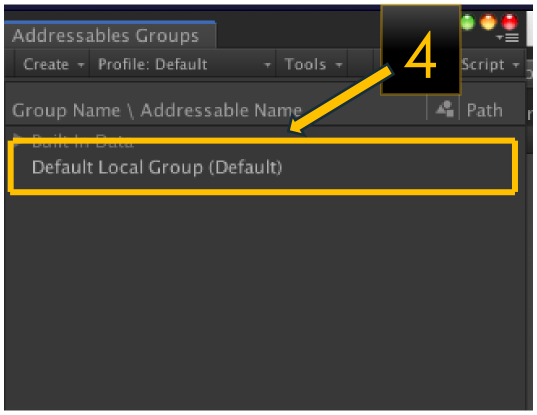


3) A pop-up window named "Addressables Groups" will appear, click the "Create Addressables Settings" button.

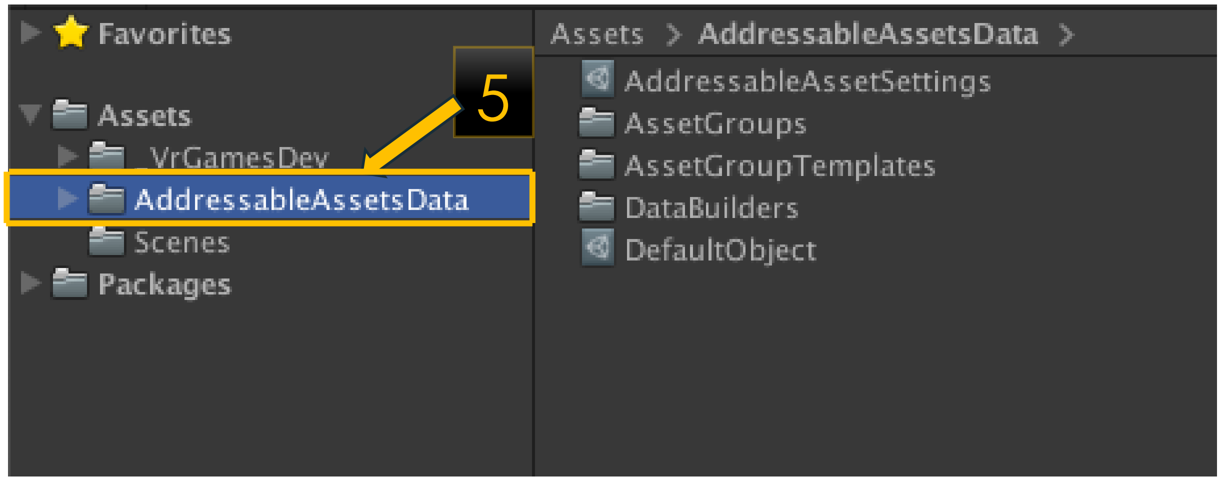


Click the "Create" button above or simply drag an asset into this window to start using Addressables. Once you begin, the Addressables system will save some assets to your project to keep up with its data

4) After it finished installing, you will have an addressable usable group named **"Default Local Group (Default)"**



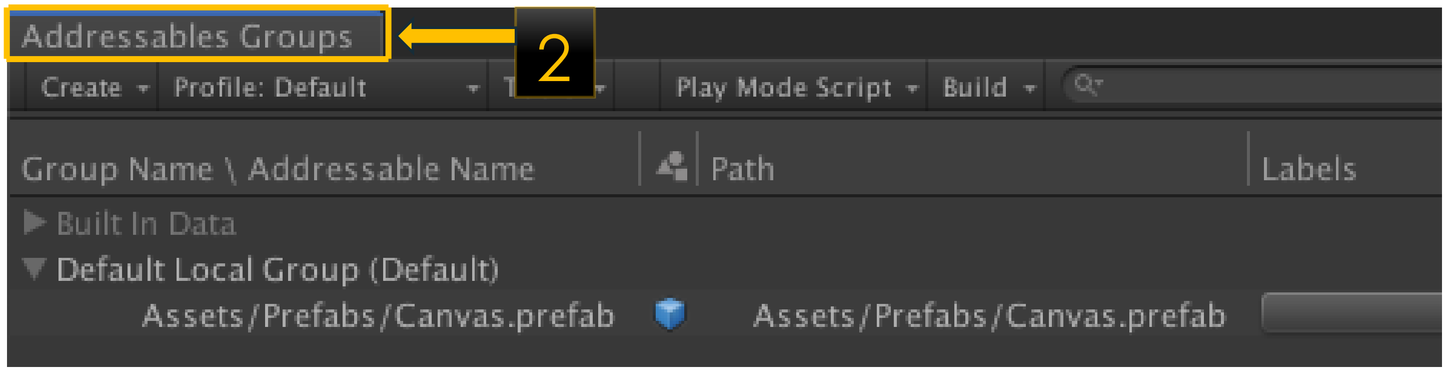
5) A new folder named "**AddressableAssetsData**" was created by the package Unity Addressables, you can read more about this functionality here: https://docs.unity3d.com/Packages/com.unity.addressables@1.9/manual/AddressableAssetsOverview.html



3.4 Name Simplified Addressables

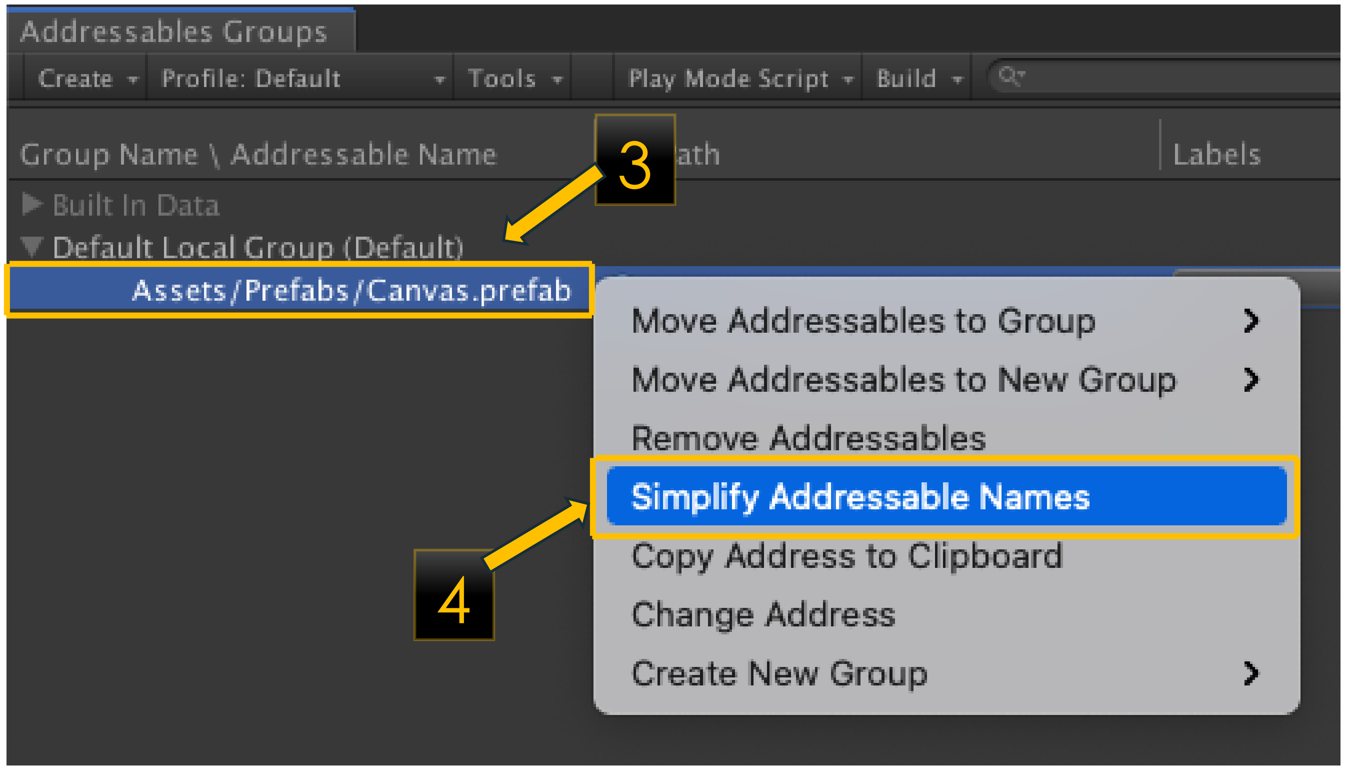
All the assets used in the examples of this package are name simplified, you can simplify any amount of addressables:

1) Open the ***Windows*** menu option
2) Select the option Asset Managment->Addressables->Groups

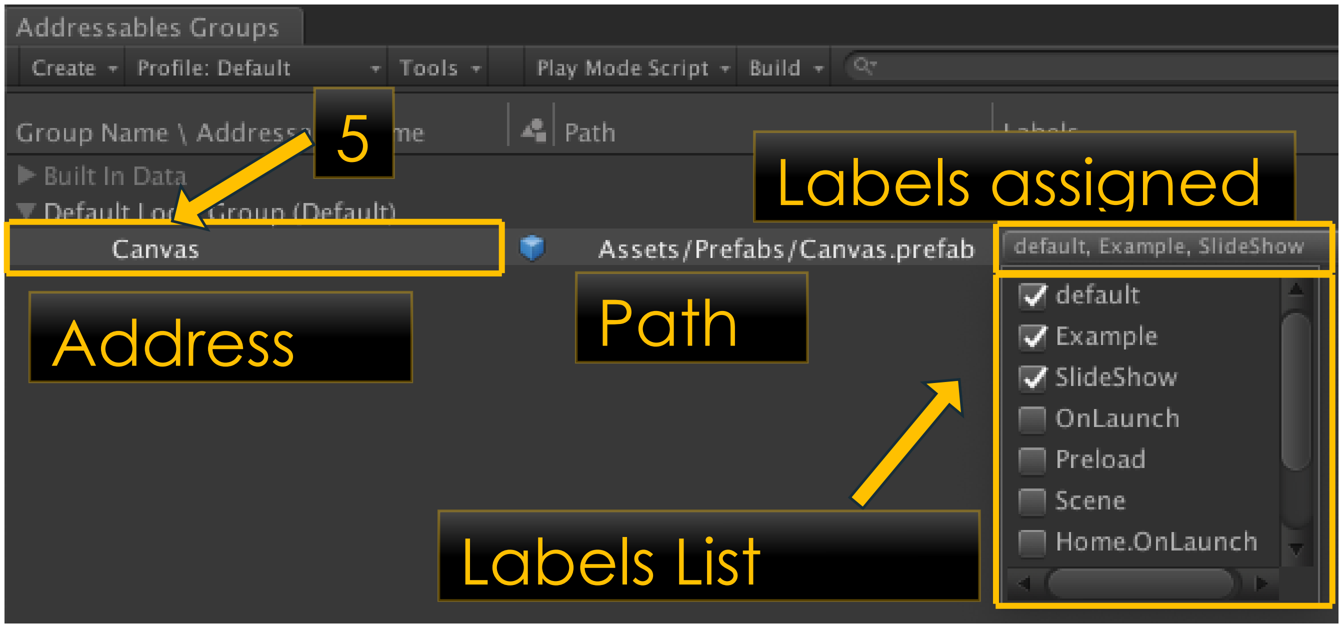

Addressables Groups
2
Create
Profile: Default
Play Mode Script
Build
Group Name \ Addressable Name
Path
Labels
Built In Data
Default Local Group (Default)
Assets/Prefabs/Canvas.prefab
Assets/Prefabs/Canvas.prefab

3) Right click any number of addressables

4) Click the "Simplify addressable names"

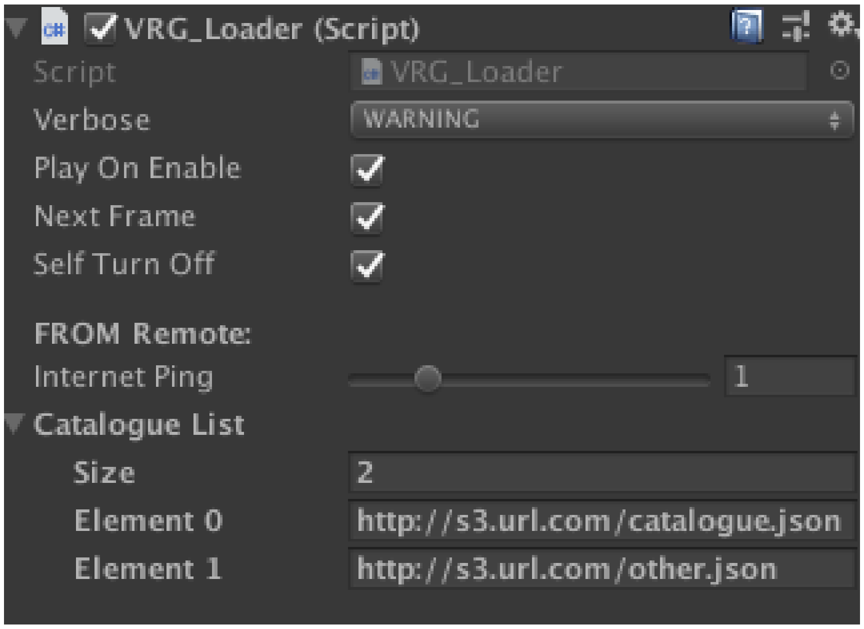

Addressables Groups
Create
Profile: Default
Tools
Play Mode Script
Build
Group Name \ Addressable Name
ath
Labels
3
Built In Data
Default Local Group (Default)
Assets/Prefabs/Canvas.prefab
Move Addressables to Group
Move Addressables to New Group
Remove Addressables
Simplify Addressable Names
Copy Address to Clipboard
Change Address
Create New Group
4

5) Your addressable is now easily readable and simplified



4. VRG_LOADER

This class is the main loader of ***VRG_DDuA*** system, it also waits if there is no internet until a connection is available, and load the additional catalogues besides the main.
The first block of configurable data, is the data inherited from VRG_Base, you can set:



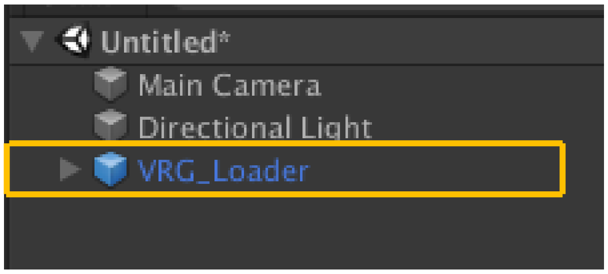
Script: VRG_Loader
Verbose: WARNING
Play On Enable: ✓
Next Frame: ✓
Self Turn Off: ✓

FROM Remote:
Internet Ping: 1
Catalogue List
Size: 2
Element 0: http://s3.url.com/catalogue.json
Element 1: http://s3.url.com/other.json

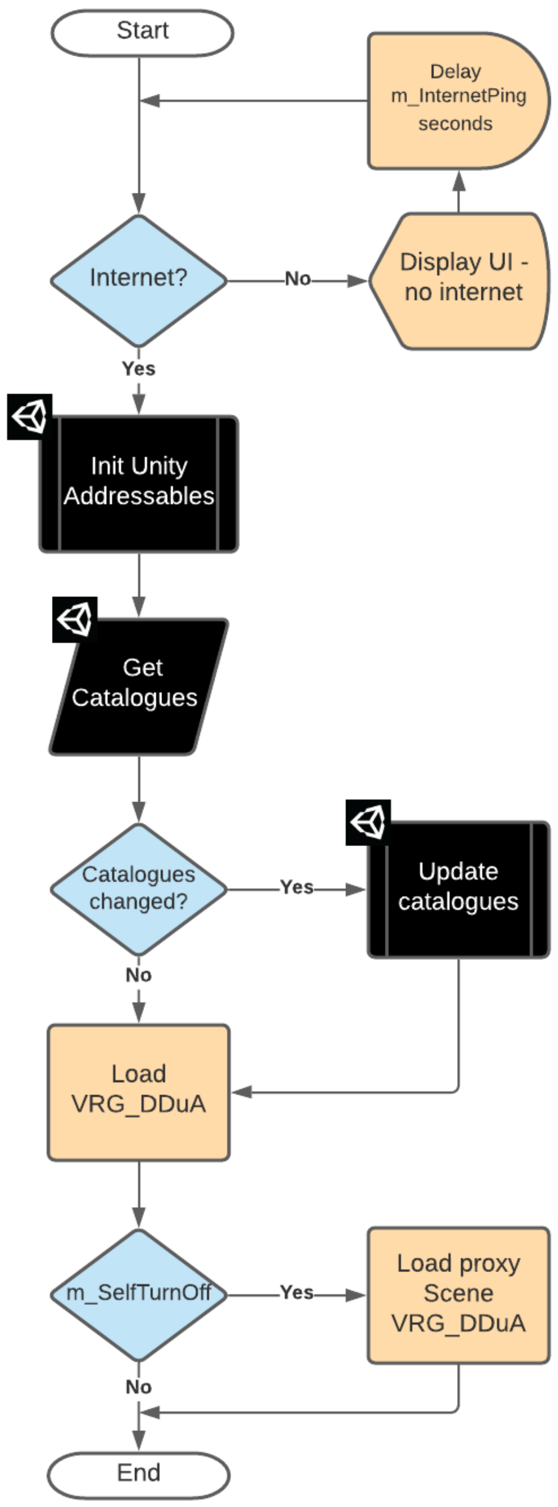
1) **Verbose:** The level of the detail when saved into the BHEL log system, you can choose between none, warning, error, logs, debug and all options.
2) **Play On Enable:** If True, when this prefab is enabled, it will do its thing, get the internet connection status, update catalogues and download ***VRG_DDuA***, if it is false, you need to call the "Play()" method later
3) **Next Frame*:*** You can choose to wait 1 frame before it starts, sometimes you need another object to exists before everything is ready.
4) **Self Turn off:** If true, it will destroy itself when a ***VRG_DDuA*** is created, and load the VRG_DDuA_Proxy Scene.
5) **Internet Ping:** The delay time in seconds to wait before checking if internet is available.
6) **Catalogue List*:*** The list of extra catalogues you will update and download, you can update this list dynamically using Remote Config

4.1 Setup

You can add to your app a VRG_Loader prefab, from the menu tools, go to ***Tools->Vr Games Dev->DDuA->Setup->VRG_Loader***.



4.2 Process Diagram

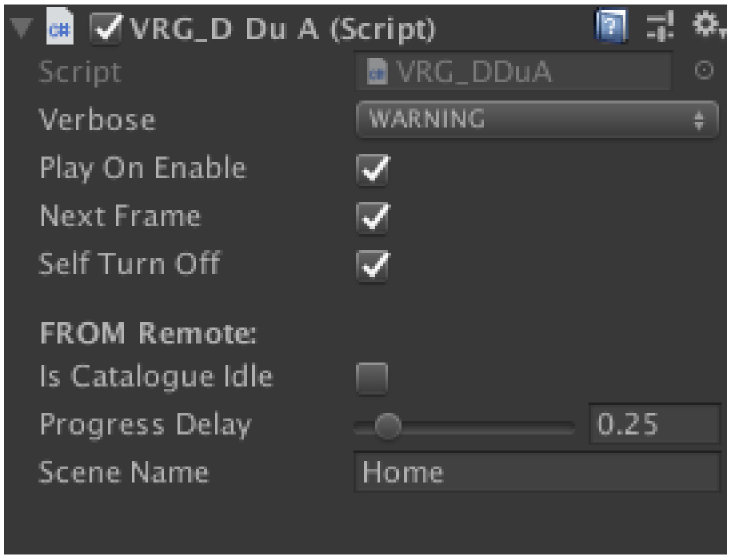


4.3 Examples

1) VRG_DDuA: VRG_Loader
2) VRG_DDuA: HelloWorld
3) VRG_DDuA: VRG_Scene

5. VRG_DDUA

This prefab is the core class of the package, it handles the Addressable technology, including, scenes, prefabs, slideshow and control the flow of the download, informing the player with a loading slider bar.



VRG_D Du A (Script)

Script: VRG_DDuA
Verbose: WARNING
Play On Enable: ✓
Next Frame: ✓
Self Turn Off: ✓

FROM Remote:
Is Catalogue Idle: ☐
Progress Delay: 0.25
Scene Name: Home

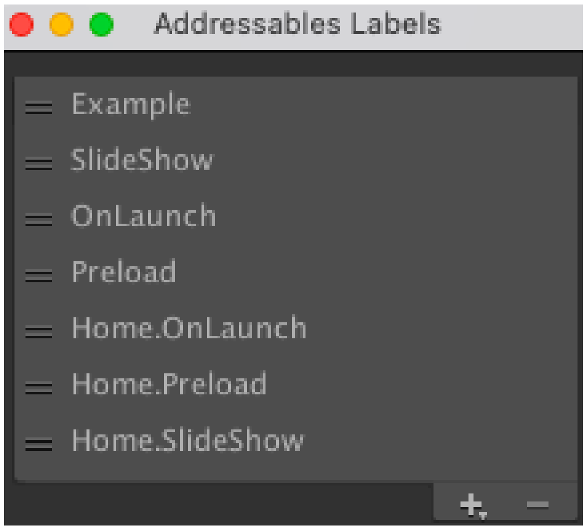
1) **Verbose:** The level of the detail when saved into the BHEL log system, you can choose between none, warning, error, logs, debug and all options.
4) **Play On Enable:** If True, when this prefab is enabled, it will do its thing, if it is false, you need to call the "Play()" method later
5) **Next Frame:** You can choose to wait 1 frame before it starts, sometimes you need another object to exists before everything is ready.
6) Self Turn off: Unused.

   From Remote:
7) **Is Catalogue Idle:** True, If you want to enable the idle download
8) **Progress Delay:** The time in seconds it takes to update the progress bar UI
9) **Scene Name:** The name of the scene to load, Home by default is the first scene

5.1 DDuA Addressable Labels

There are some labels used with DDuA, they are used to auto-load addressables in certain steps of the process. You assign the labels in the addressable groups window

- *https://docs.unity3d.com/Packages/com.unity.addressables@1.19/manual/Labels.html*
- *https://docs.unity3d.com/Packages/com.unity.addressables@1.19/manual/Groups.html*
- *https://docs.unity3d.com/Packages/com.unity.addressables@1.19/manual/AddressableAssetsOverview.html*



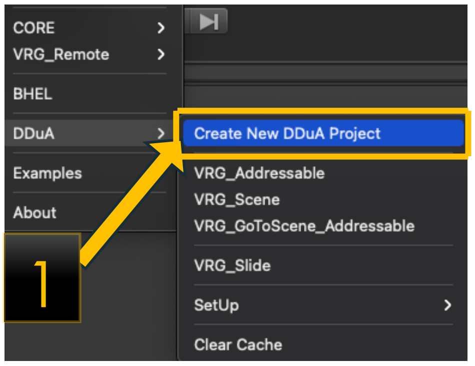
1) **Example:** This label is used by the examples in the DDuA, it is added by every example on its own addressables, you can remove all the prefabs and content with the menu ***Tools->Vr Games Dev -> Examples -> DDuA -> clear example data***
2) **SlideShow:** Add this label to any prefab you want to add to the Slideshow, it will add a button to load it, and can play it automatically If you add a ***VRG_Slide***
3) **OnLaunch:** Add this label if you need anything instantiated before the game fully launches, sometimes you need objects to run before any scene is loaded, like UI, Sound, Audio, GameManager, SceneManagers and other singletons and managers.
4) **PreDownload:** Add this label to any prefab you need to download before anything is loaded, it is useful for assets you will need in many scenes, that way you make sure it is predownload in every single scene

You can add and load prefabs and addressables in any scene, using the following label structure, ***{Scene_name} . Slideshow / OnLaunch / PreDownload*** the default DDuA configuration add the following three labels, for the default scene, "home"

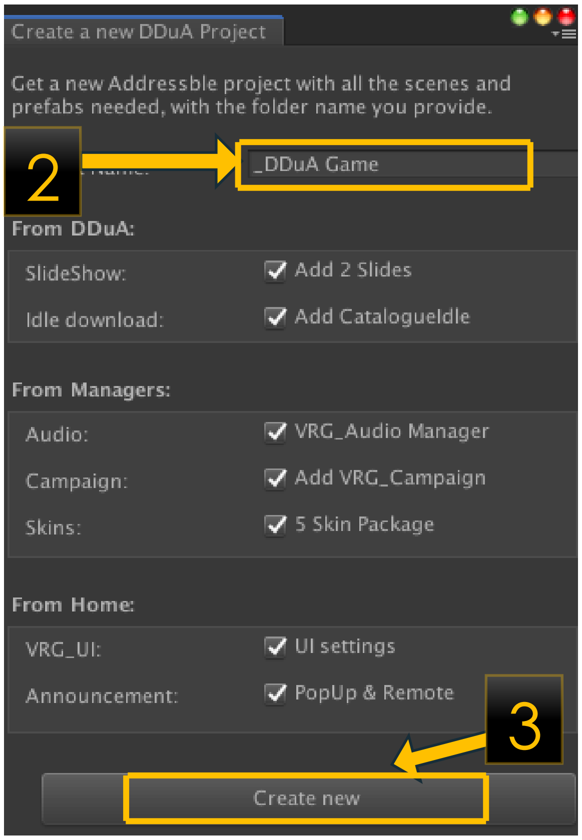
5) **Home.SlideShow:** This prefab is added to the SlideShow when "Home" scene is loaded
6) **Home.OnLaunch:** This prefab is instantiated when the home scene is loaded
7) **Home.PreDownload:** This prefab is predownloaded BEFORE the scene is loaded.

5.2 Create New DDuA Project

You can easily create a new DDuA project from the menu, you will get a folder with all the addressables needed to run a project, and the addressables group configured properly



1) Open the DDuA window ***(Tools->Vr Games Dev->DDuA->Create new DDuA Project)***
2) Select the project name, and its setting options.
3) Click "Create new"



Get a new Addressble project with all the scenes and prefabs needed, with the folder name you provide.

_DDuA Game

From DDuA:

SlideShow: ✓ Add 2 Slides

Idle download: ✓ Add CatalogueIdle

From Managers:

Audio: ✓ VRG_Audio Manager

Campaign: ✓ Add VRG_Campaign

Skins: ✓ 5 Skin Package

From Home:

VRG_UI: ✓ UI settings

Announcement: ✓ PopUp & Remote

From DDuA:

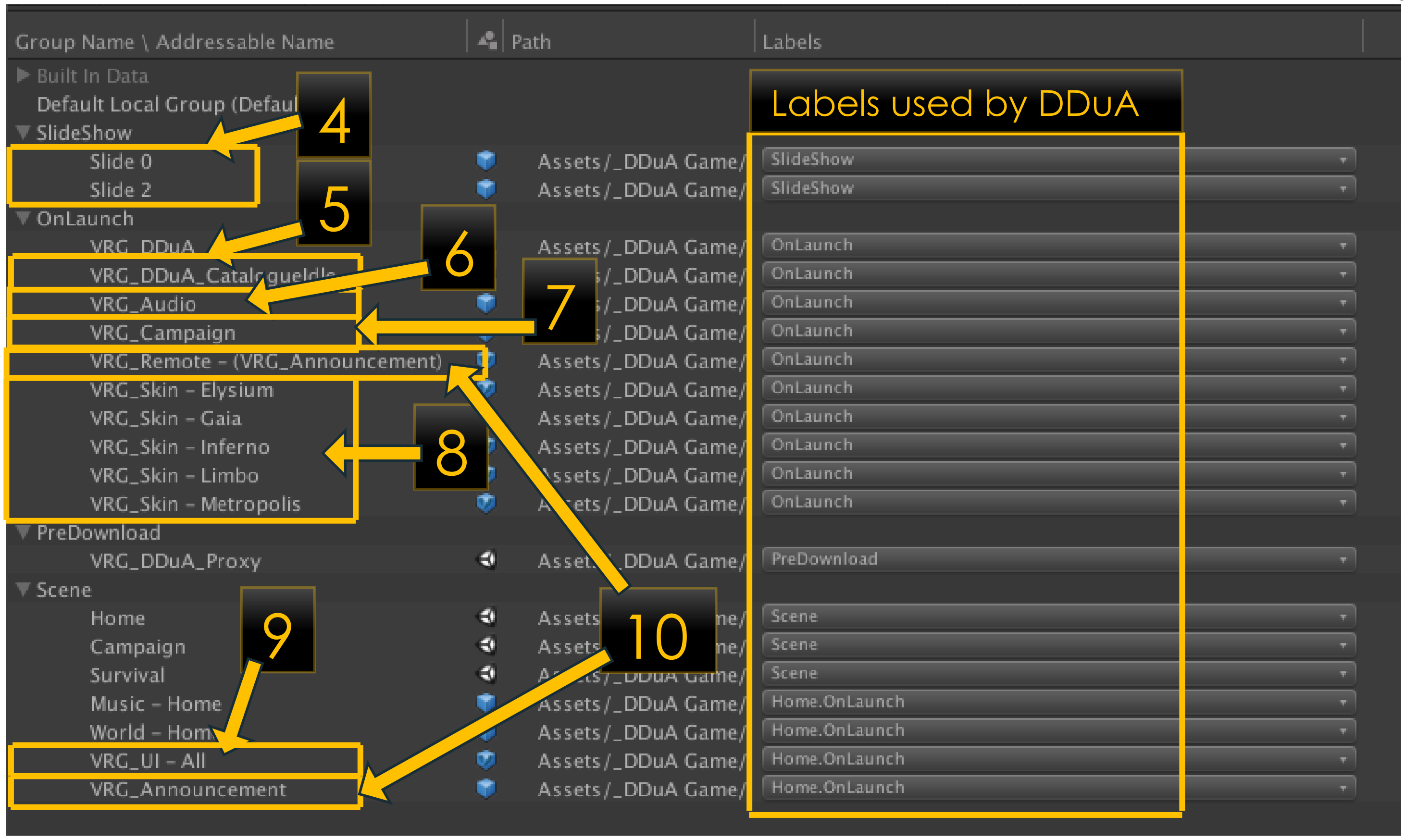
4) **SlideShow**: Add two slides to the SlideShow, and labeled as "Slideshow"
5) **Idle download**: Add the download ide prefab, your player can download all the prefabs while idle, it also adds the UI button.

From Managers:

6) **Audio**: Add a music background and Audio Manager to control from the VRG_UI menu audio controls.
7) **Campaign**: Add a VRG_Campaign manager module, for more information about this module refer to the CORE documentation in the _VrGamesDev/Documentation/CORE/Manual.pdf folder
8) **Skins**: Add 5 skins and the UI button to manage the skin assigned, refer to the CORE documentation for more information.

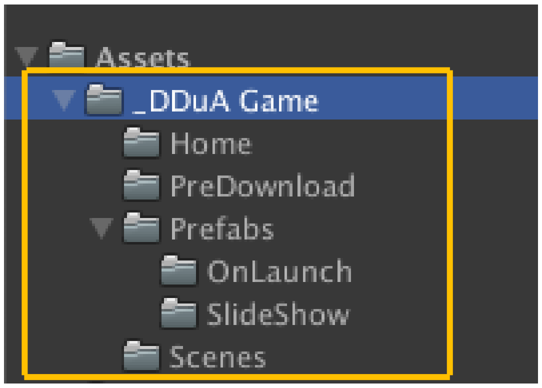
From Home:

9) **VRG_UI**: Add a logo, and full User Interphase with the controls to handle, audio, company information, credits.
10) **Announcement**: Add an Announcement module, you need to install the Remote config from unity, refer to the CORE documentation for more information.



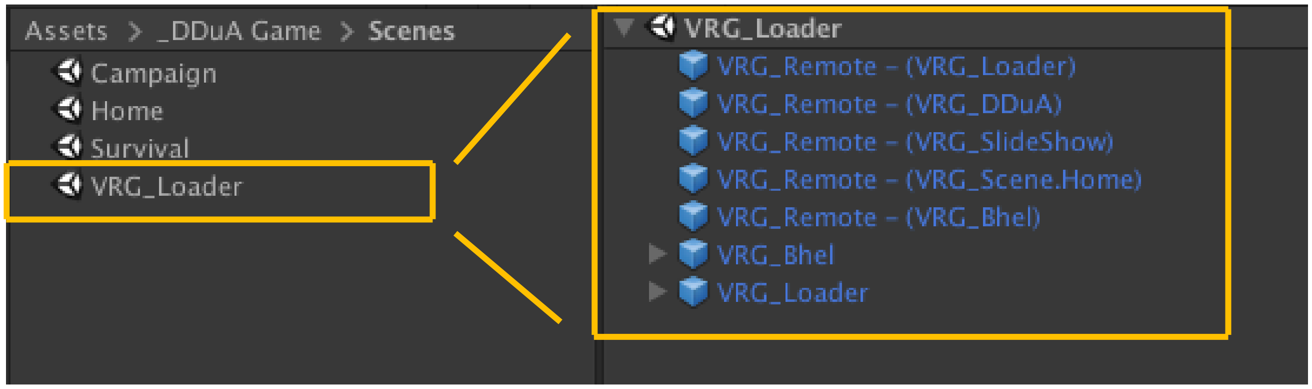
Group Name \ Addressable Name	Path	Labels
▶ Built In Data		
Default Local Group (Defaul		
▼ SlideShow		
Slide 0	Assets/_DDuA Game/	SlideShow
Slide 2	Assets/_DDuA Game/	SlideShow
▼ OnLaunch		
VRG_DDuA	Assets/_DDuA Game/	OnLaunch
VRG_DDuA_CatalogueIdle	s/_DDuA Game/	OnLaunch
VRG_Audio	s/_DDuA Game/	OnLaunch
VRG_Campaign	s/_DDuA Game/	OnLaunch
VRG_Remote - (VRG_Announcement)	Assets/_DDuA Game/	OnLaunch
VRG_Skin - Elysium	Assets/_DDuA Game/	OnLaunch
VRG_Skin - Gaia	Assets/_DDuA Game/	OnLaunch
VRG_Skin - Inferno	Assets/_DDuA Game/	OnLaunch
VRG_Skin - Limbo	ssets/_DDuA Game/	OnLaunch
VRG_Skin - Metropolis	A ets/_DDuA Game/	OnLaunch
▼ PreDownload		
VRG_DDuA_Proxy	Asset DDuA Game/	PreDownload
▼ Scene		
Home	Assets ne/	Scene
Campaign	Assets ne/	Scene
Survival	A ts/_DDuA Game/	Scene
Music - Home	Assets/_DDuA Game/	Home.OnLaunch
World - Home	Assets/_DDuA Game/	Home.OnLaunch
VRG_UI - All	Assets/_DDuA Game/	Home.OnLaunch
VRG_Announcement	Assets/_DDuA Game/	Home.OnLaunch

11)You get a copy of all the files needed inside the folder name you wanted.



```
▼ Assets
  ▼ _DDuA Game
      Home
      PreDownload
    ▼ Prefabs
        OnLaunch
        SlideShow
      Scenes
```

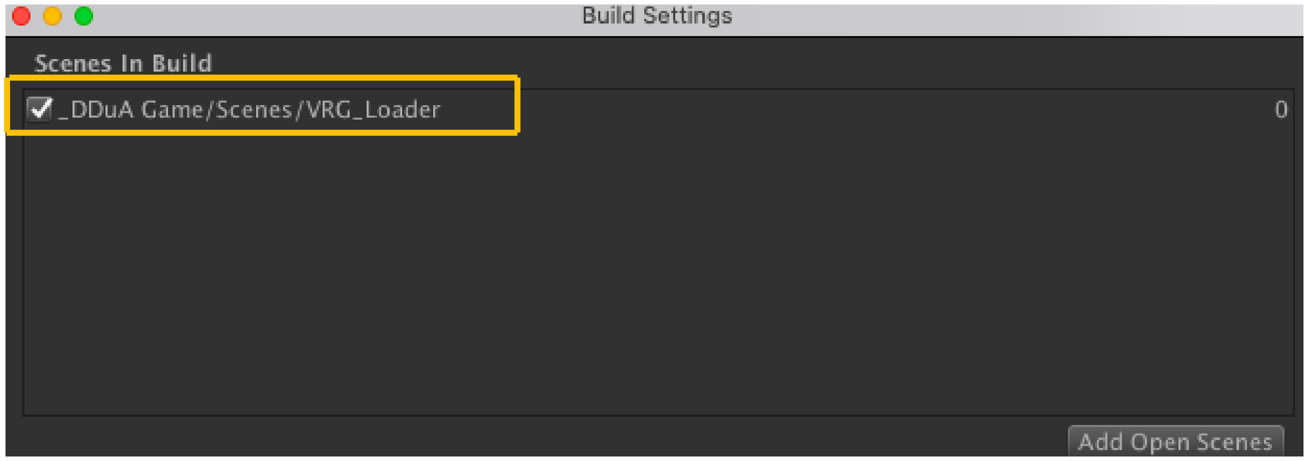
12)You will get a ***VRG_Loader*** scene loaded with ***VRG_Remote*** support and ***BHEL*** logs.



```
Assets > _DDuA Game > Scenes
  Campaign
  Home
  Survival
  VRG_Loader
```

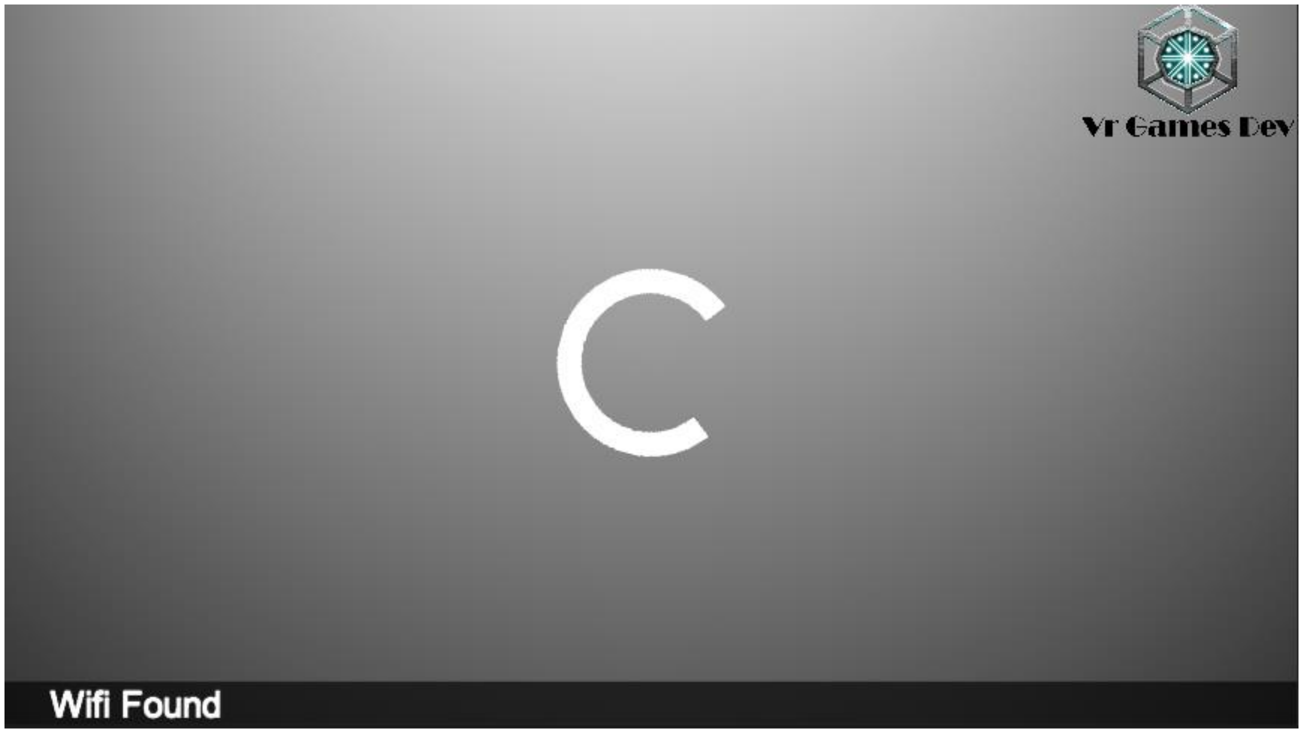
```
▼ VRG_Loader
    VRG_Remote - (VRG_Loader)
    VRG_Remote - (VRG_DDuA)
    VRG_Remote - (VRG_SlideShow)
    VRG_Remote - (VRG_Scene.Home)
    VRG_Remote - (VRG_Bhel)
  ▶ VRG_Bhel
  ▶ VRG_Loader
```

13) The Build settings are configured to have the first scene, the ***VRG_Loader***, remember to only have the minimum scenes possible when you are creating an asynchronous application, this scene will load all the components needed later.

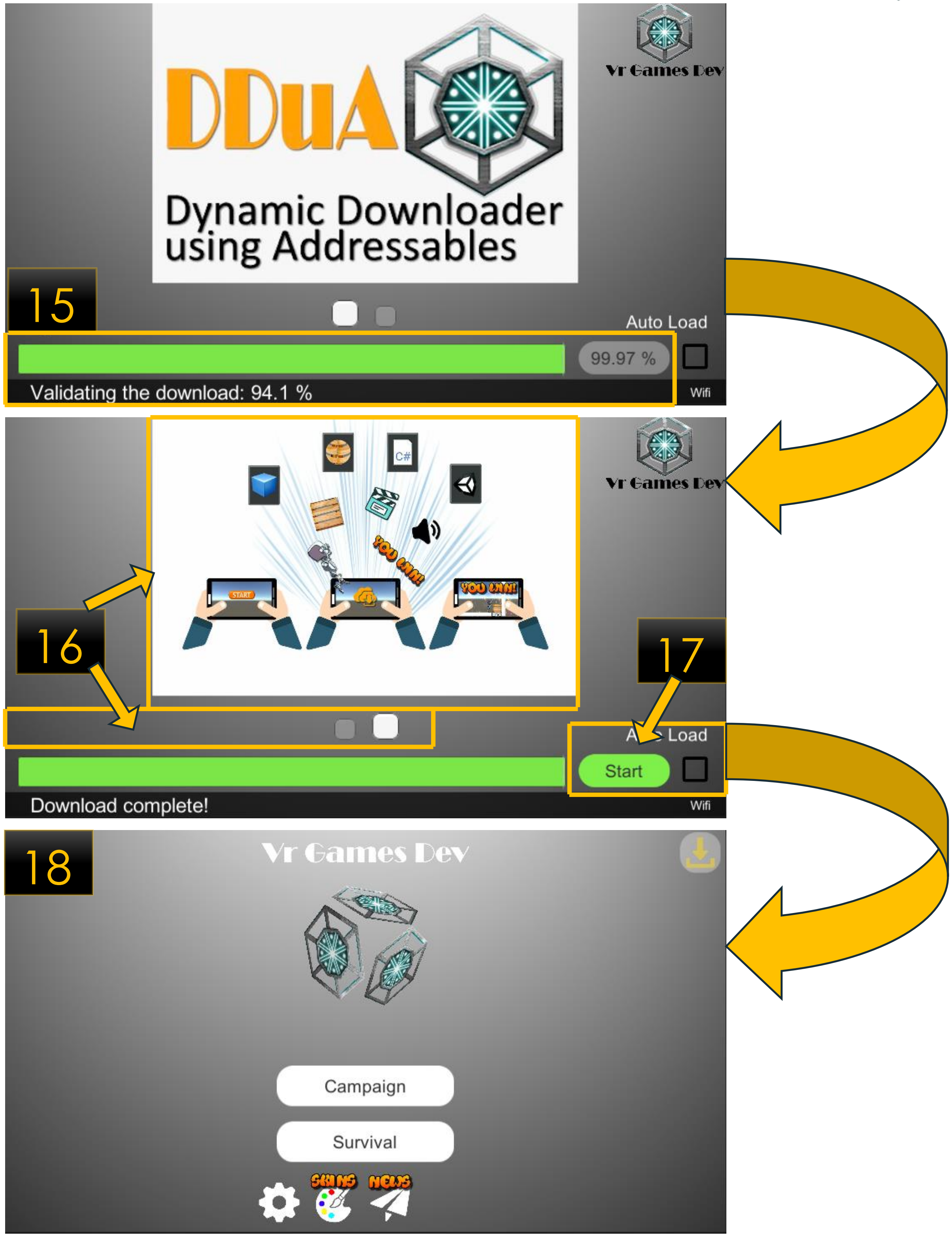


_DDuA Game/Scenes/VRG_Loader 0

14) Play the ***VRG_Loader*** scene, check the previous chapter to understand what it does.

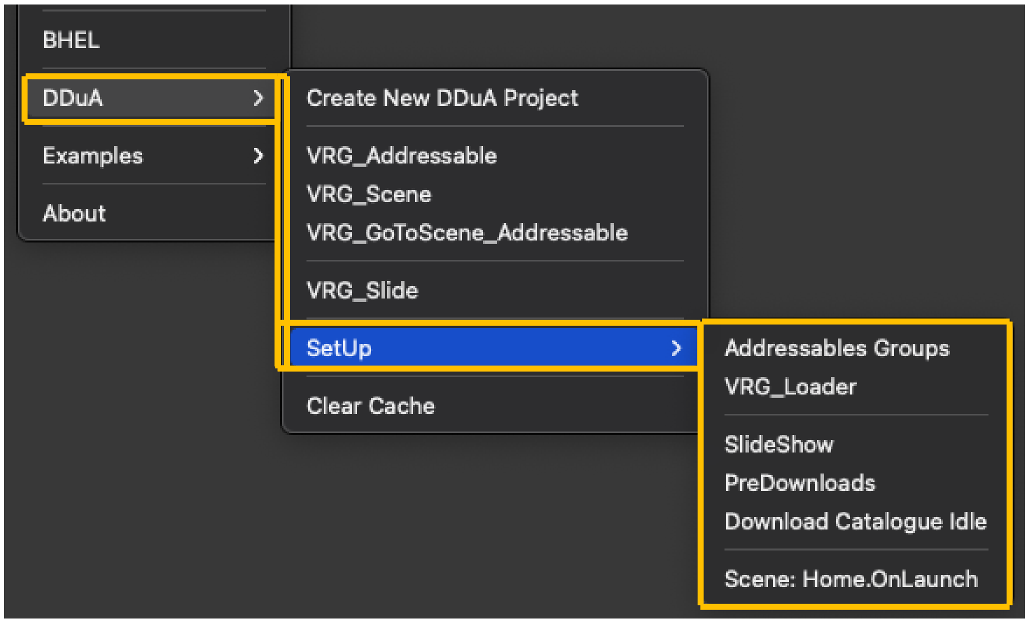


15) That will load the ***VRG_DDuA*** prefab and it will download all the prefabs labeled as "OnLaunch" and "PreDownload" as explained in the chapter ***5.1 DDuA Addressable***
16) The DDuA itself will display the SlideShow until you press the "Start" button when the download is ready and completed as explained in the chapter ***6 VRG_Slide*** .
17) Press the Start Button when you are ready
18) Now you have a fully loaded Addressable project, try to load it to your CDN to test it.


DDuA
Dynamic Downloader using Addressables
Vr Games Dev
15
Auto Load
99.97 %
Validating the download: 94.1 %
Wifi
16
17
Auto Load
Start
Download complete!
Wifi
18
Vr Games Dev
Campaign
Survival
SKINS
NEWS

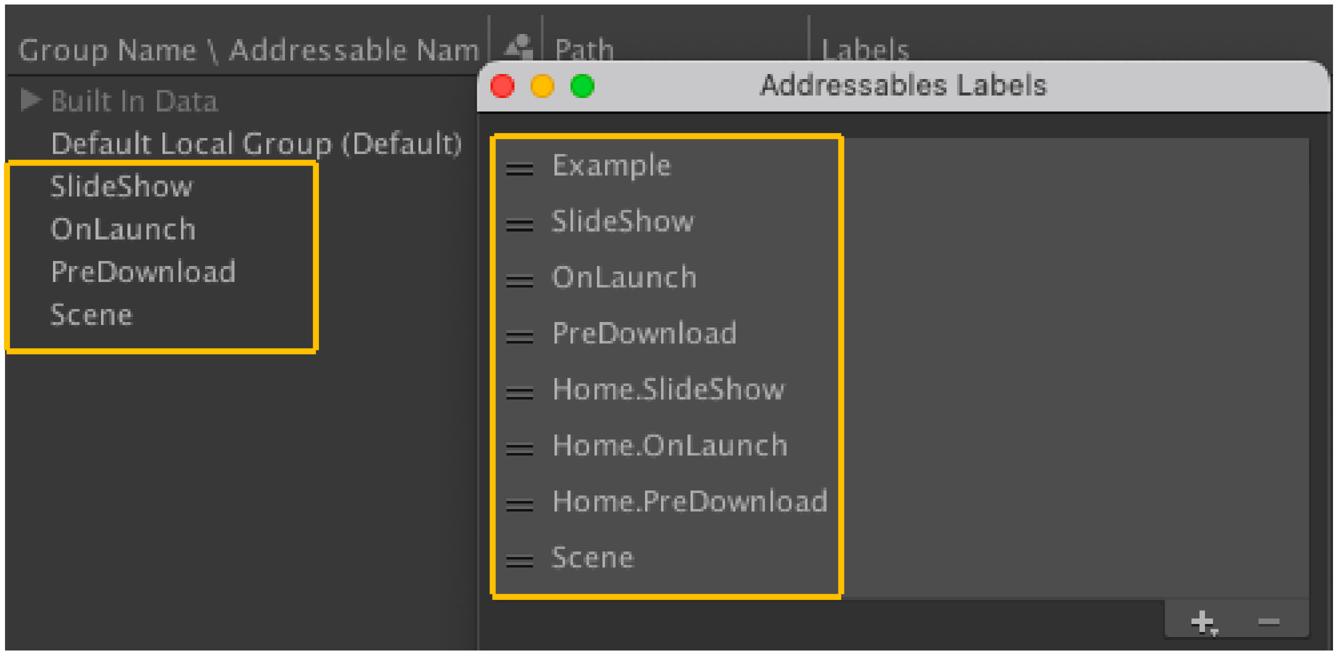
5.3 Setup

The easiest and fastest way to to have a fully implemented Addressable project is to create a New DDuA, like explained in the previous ***5.2 Create New DDuA Project*** chapter. But you can create add some components to create your own implementation, that is what the Setup menu option is for, go to ***Menu -> Tools-> Vr Games Dev-> DDuA -> Setup***



Addressables Groups:

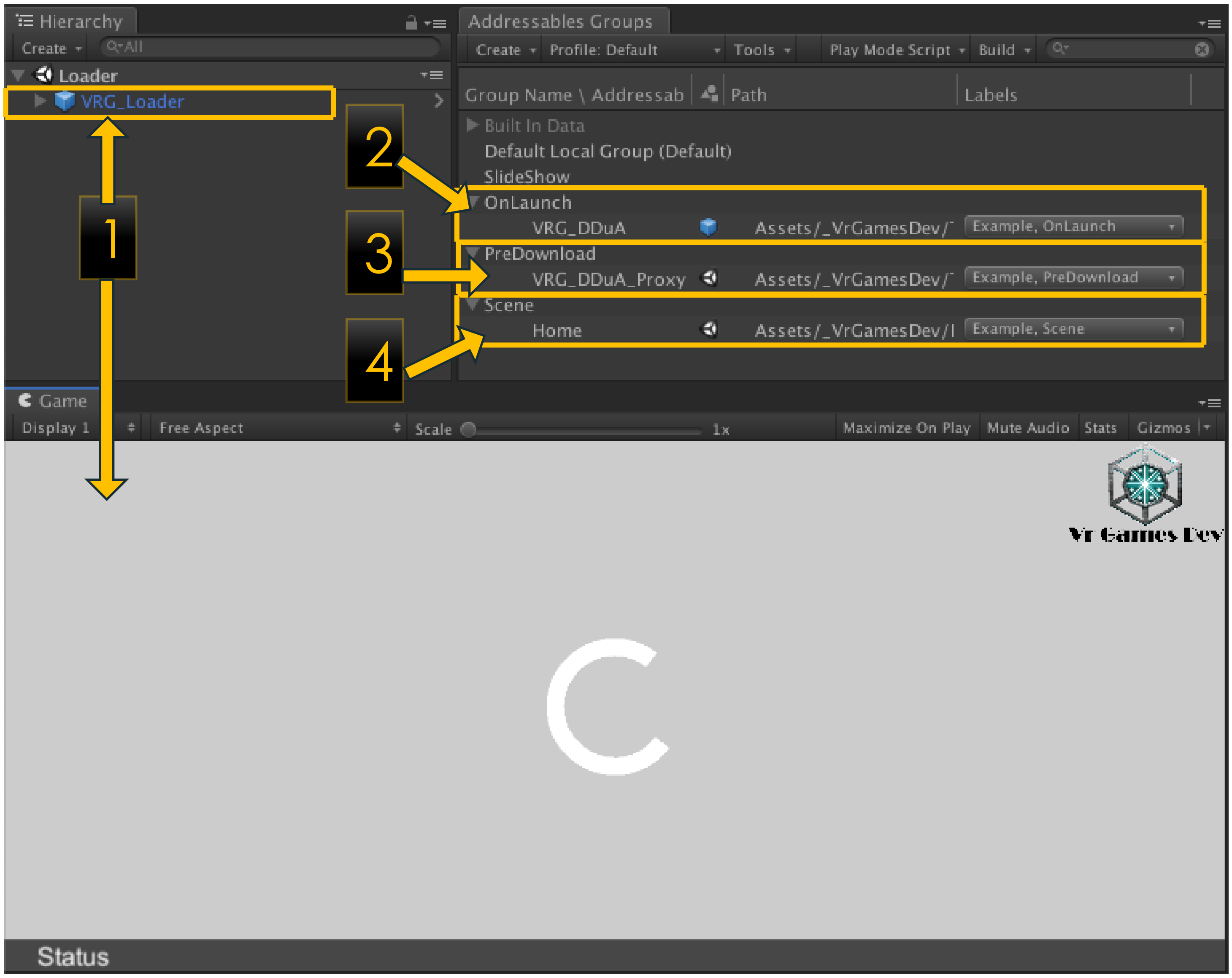
The ***VRG_DDuA*** class needs some groups and labels to work properly as explained in the previous section, this option adds the basic groups (SlideShow, OnLaunch, PreDownload and scene to the addressable groups and the labels to the Addressables Labels.



VRG_Loader:

This is the most basic project of Unity Addressables using DDuA, you will add all the elements needed to load an empty scene (named Home), you can then add anything you want to create your game in that Home scene (or any scene named "Home" by default).
You will get with this setup:

1) A ***VRG_Loader*** prefab loaded into your current Scene
2) A name-simplified ***VRG_DDuA*** prefab, and added to the Addressables group with the label ***OnLaunch***
3) A name-simplified VRG_DDuA_Proxy Scene, it is used to proxy on Scenes transitions with the label ***PreDownload***
4) A name-simplified Home scene, this scene is empty, just to demonstrate how to load the first scene, by default is named Home, you can change the name of the first scene to load in your ***VRG_DDuA*** prefab as explained at the beginning of this chapter.

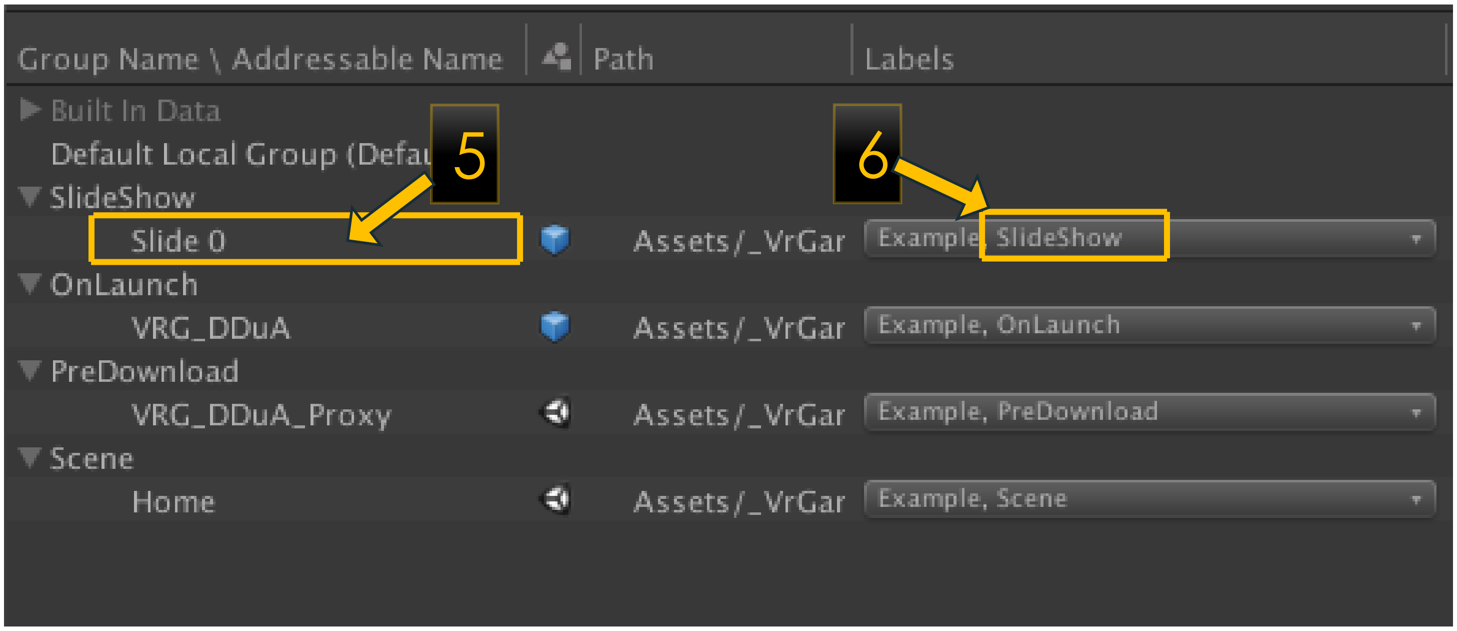


Group Name \ Addressab	Path	Labels
Built In Data		
Default Local Group (Default)		
SlideShow		
OnLaunch		
VRG_DDuA	Assets/_VrGamesDev/	Example, OnLaunch
PreDownload		
VRG_DDuA_Proxy	Assets/_VrGamesDev/	Example, PreDownload
Scene		
Home	Assets/_VrGamesDev/I	Example, Scene

SlideShow:

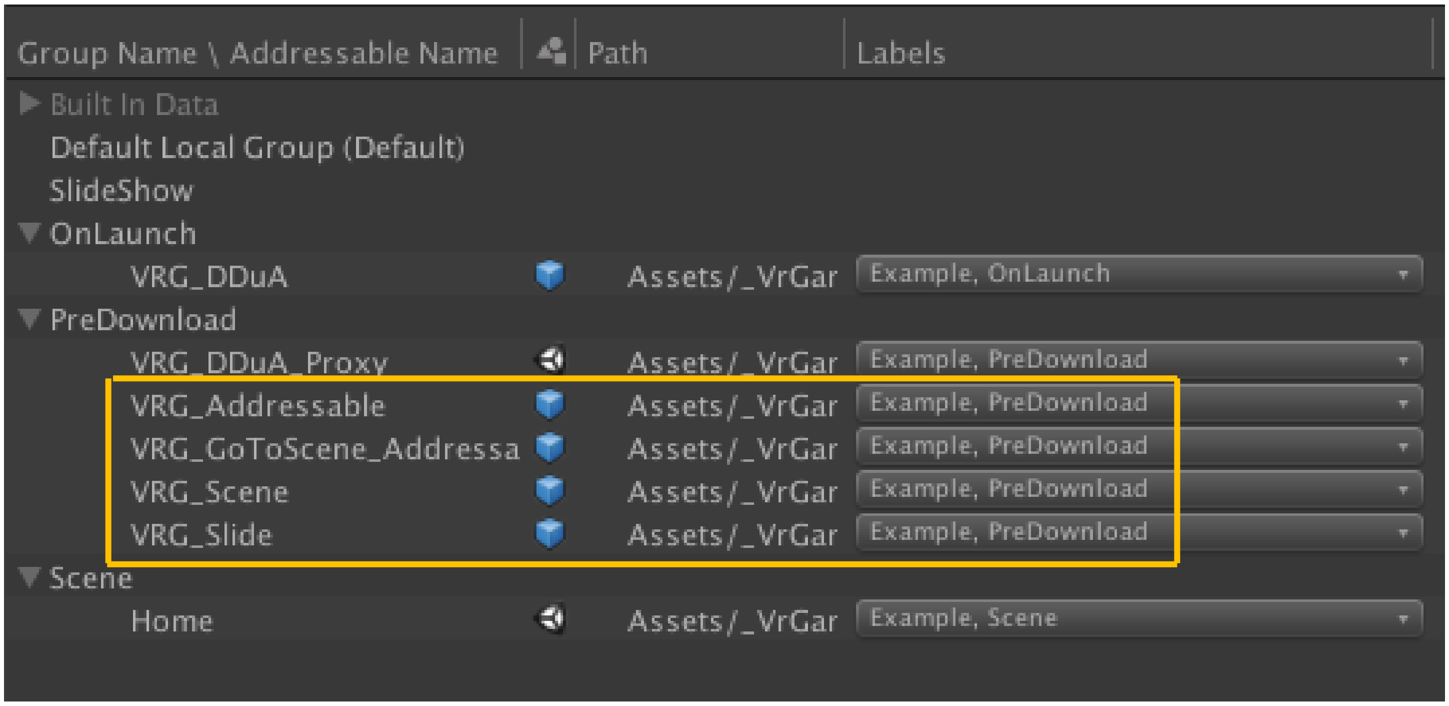
Like its name implies, this setup the slideshow, add the proper labels to the Addressable labels list

5) Add a name simplified Slide 0 (DDuA Logo) to the addressables group
6) Added the Slideshow label, every asset that gets this label added, will trigger the SlideShow routines when it is launched



Group Name \ Addressable Name	Path	Labels
▶ Built In Data		
Default Local Group (Defau		
▼ SlideShow		
Slide 0	Assets/_VrGar	Example, SlideShow
▼ OnLaunch		
VRG_DDuA	Assets/_VrGar	Example, OnLaunch
▼ PreDownload		
VRG_DDuA_Proxy	Assets/_VrGar	Example, PreDownload
▼ Scene		
Home	Assets/_VrGar	Example, Scene

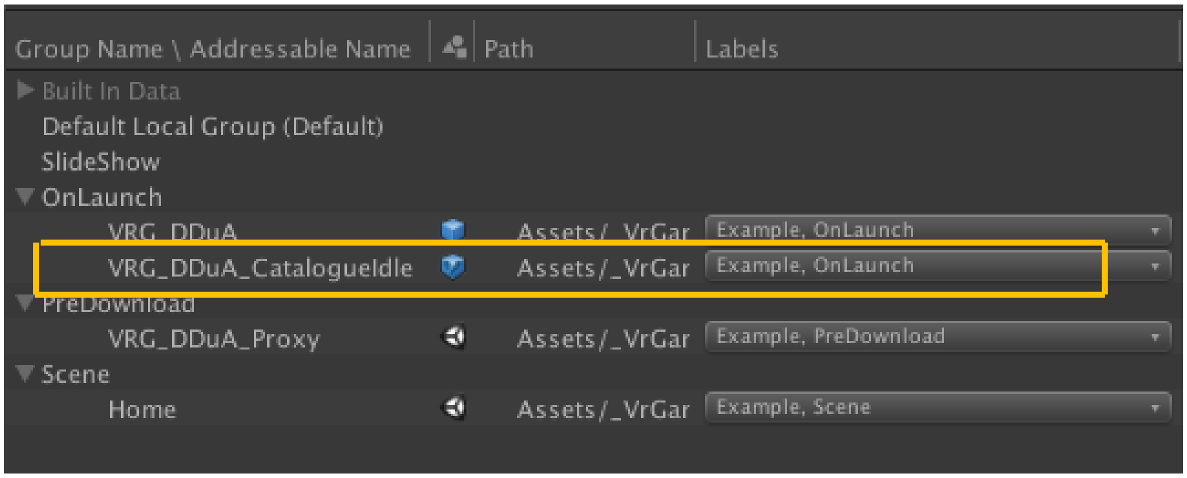
PreDownloads:
Added to the addressables group window, all the default prefabs used in many of the DDuA projects as explained in this document: ***VRG_Addressable, VRG_GoToScene_Addressable, VRG_Scene, VRG_Slide***



Group Name \ Addressable Name	Path	Labels
▶ Built In Data		
Default Local Group (Default)		
SlideShow		
▼ OnLaunch		
VRG_DDuA	Assets/_VrGar	Example, OnLaunch
▼ PreDownload		
VRG_DDuA_Proxy	Assets/_VrGar	Example, PreDownload
VRG_Addressable	Assets/_VrGar	Example, PreDownload
VRG_GoToScene_Addressa	Assets/_VrGar	Example, PreDownload
VRG_Scene	Assets/_VrGar	Example, PreDownload
VRG_Slide	Assets/_VrGar	Example, PreDownload
▼ Scene		
Home	Assets/_VrGar	Example, Scene

Download Catalogue Idle:

You can let your player to download the game on the background while idling, you just need to add this prefab and enable it.

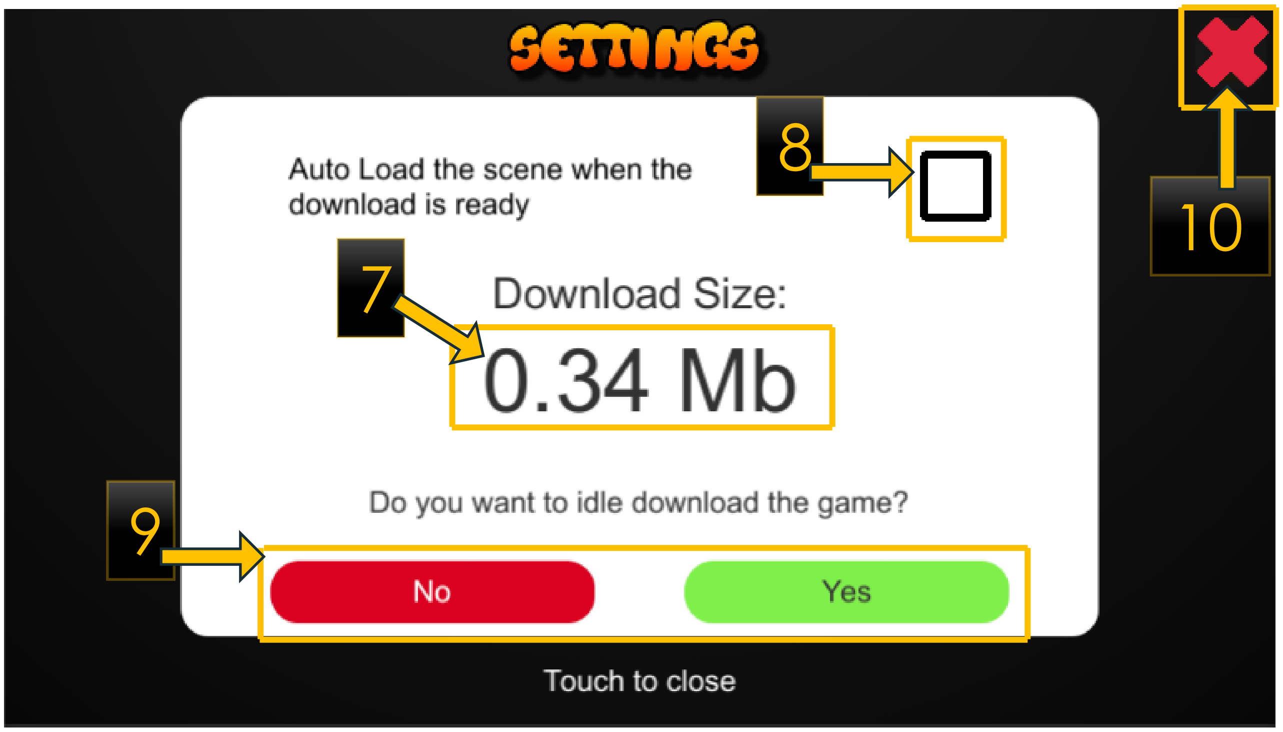


Group Name \ Addressable Name	Path	Labels
Built In Data		
Default Local Group (Default)		
SlideShow		
OnLaunch		
VRG_DDuA	Assets/_VrGar	Example, OnLaunch
VRG_DDuA_CatalogueIdle	Assets/_VrGar	Example, OnLaunch
PreDownload		
VRG_DDuA_Proxy	Assets/_VrGar	Example, PreDownload
Scene		
Home	Assets/_VrGar	Example, Scene

It is loaded and instantiated in the OnLaunch phase, this will trigger the auto download if you have something to download. The following UI icons in your game at the top left corner.

If you click it, it will display the following pop up window:

7) The download size information you need to download to have the latest version
8) The toggle option to auto load when the progress bar is at 100%
9) The button options, if you choose no, you will close this window
10) Close this window



Auto Load the scene when the download is ready

Download Size:

0.34 Mb

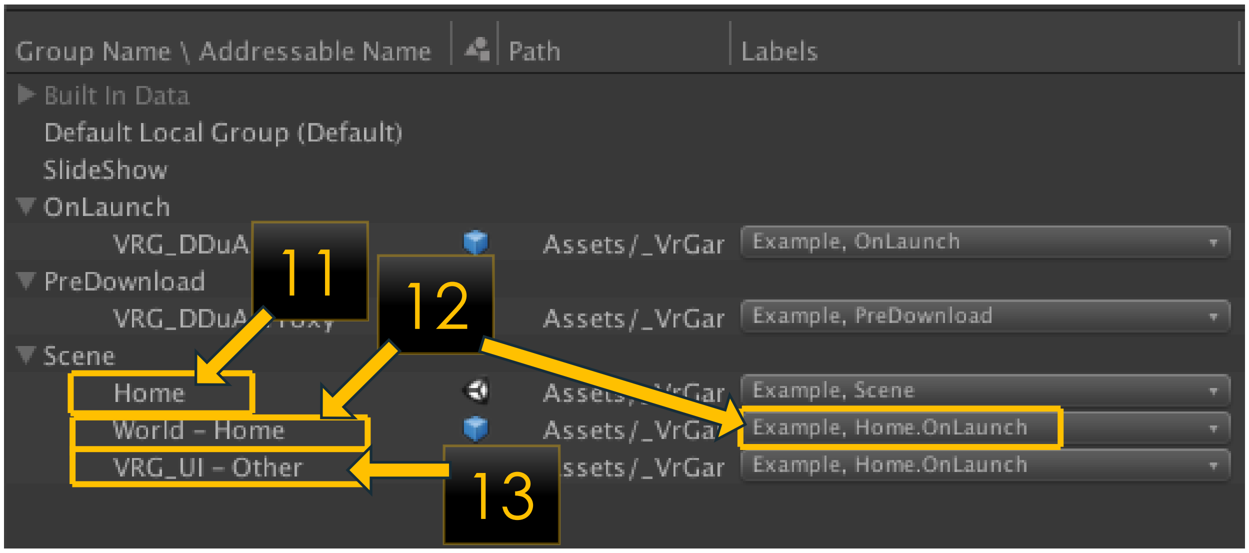
Do you want to idle download the game?

Touch to close

Scene Home.OnLaunch:

This prepare and use the labels of the scenes as explained in the chapter previous,

11) A name simplified Empty Home scene
12) A name simplified rotating Company logo (just to show how you can load anything with this label) with the label ***Home.OnLaunch***
13) A name simplified company name UI with the label ***Home.OnLaunch***



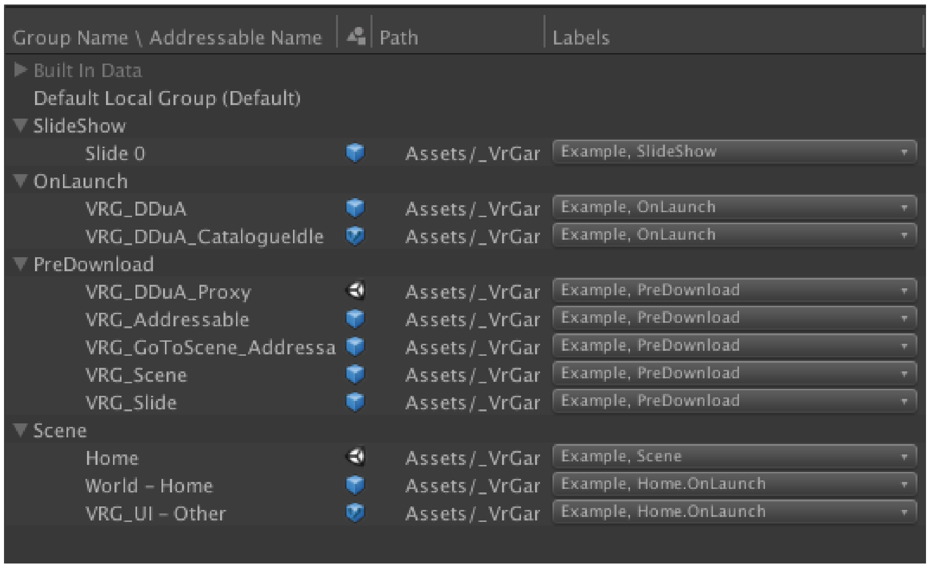
Group Name \ Addressable Name	Path	Labels
▶ Built In Data		
Default Local Group (Default)		
SlideShow		
▼ OnLaunch		
VRG_DDuA	Assets/_VrGar	Example, OnLaunch
▼ PreDownload		
VRG_DDuA roxy	Assets/_VrGar	Example, PreDownload
▼ Scene		
Home	Assets/_VrGar	Example, Scene
World – Home	Assets/_VrGa	Example, Home.OnLaunch
VRG_UI – Other	ssets/_VrGar	Example, Home.OnLaunch

When you load this scene (an original empty scene) DDuA will instantiate the World – home, and the VRG_UI – Other prefabs.

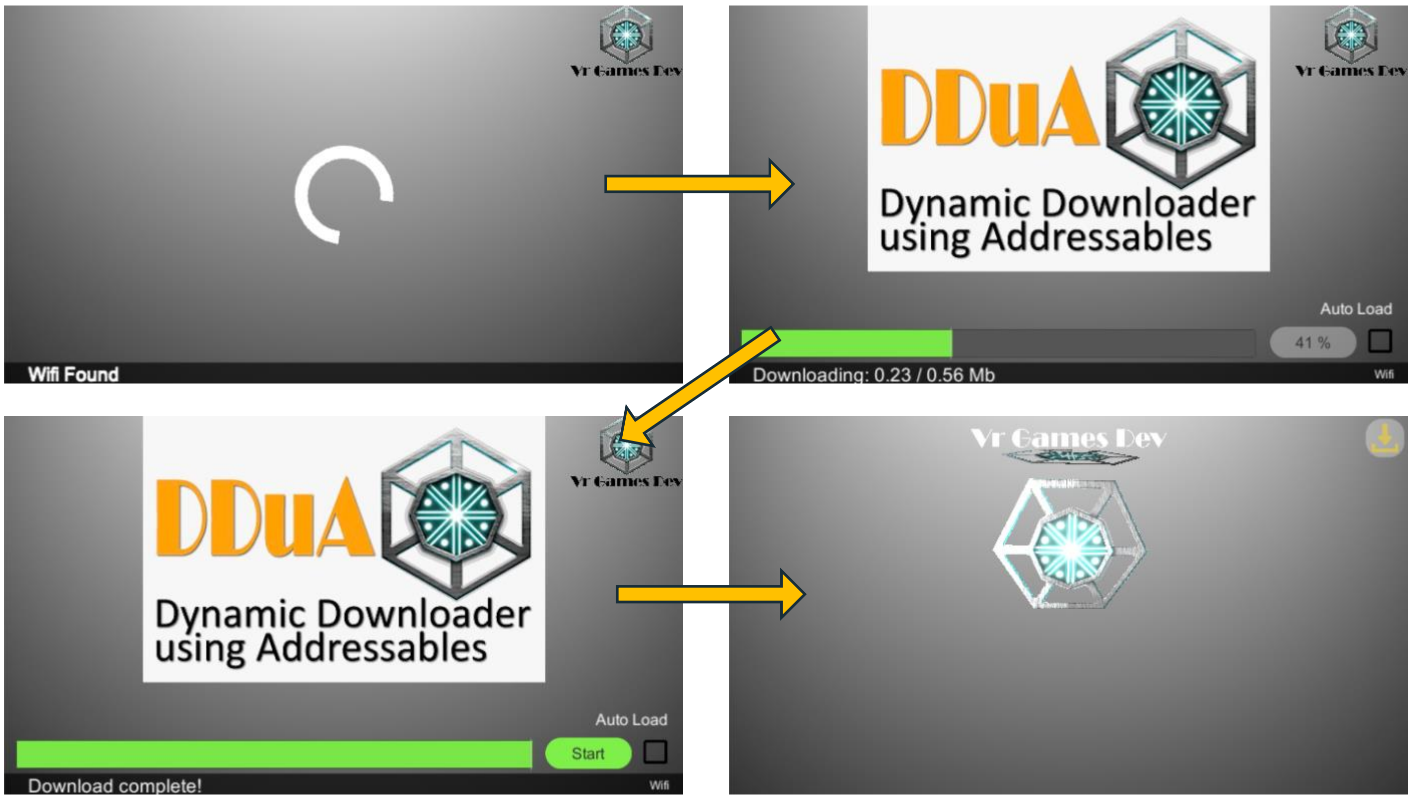
Vr Games Dev

5.4 Setup: Everyoneeee

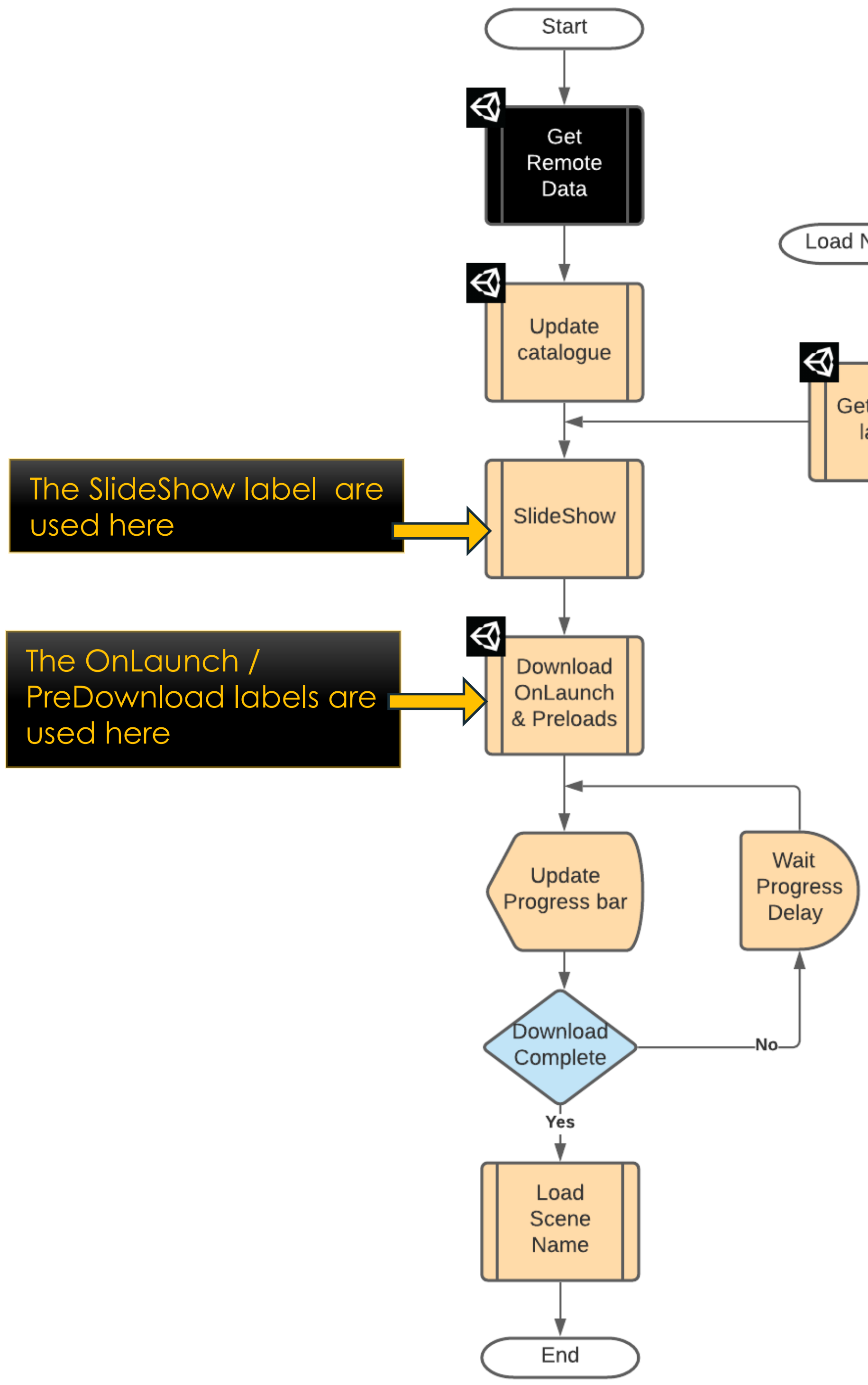
You can load all the setup options, and you will have a sample of the components needed to run an easy to deploy addressable project. Remember that the labels help you to have more organized project and DDuA uses some of them: ***SlideShow, OnLaunch, PreDownload***.



Group Name \ Addressable Name	Path	Labels
▶ Built In Data		
Default Local Group (Default)		
▼ SlideShow		
Slide 0	Assets/_VrGar	Example, SlideShow
▼ OnLaunch		
VRG_DDuA	Assets/_VrGar	Example, OnLaunch
VRG_DDuA_CatalogueIdle	Assets/_VrGar	Example, OnLaunch
▼ PreDownload		
VRG_DDuA_Proxy	Assets/_VrGar	Example, PreDownload
VRG_Addressable	Assets/_VrGar	Example, PreDownload
VRG_GoToScene_Addressa	Assets/_VrGar	Example, PreDownload
VRG_Scene	Assets/_VrGar	Example, PreDownload
VRG_Slide	Assets/_VrGar	Example, PreDownload
▼ Scene		
Home	Assets/_VrGar	Example, Scene
World - Home	Assets/_VrGar	Example, Home.OnLaunch
VRG_UI - Other	Assets/_VrGar	Example, Home.OnLaunch



5.5 Process Diagram

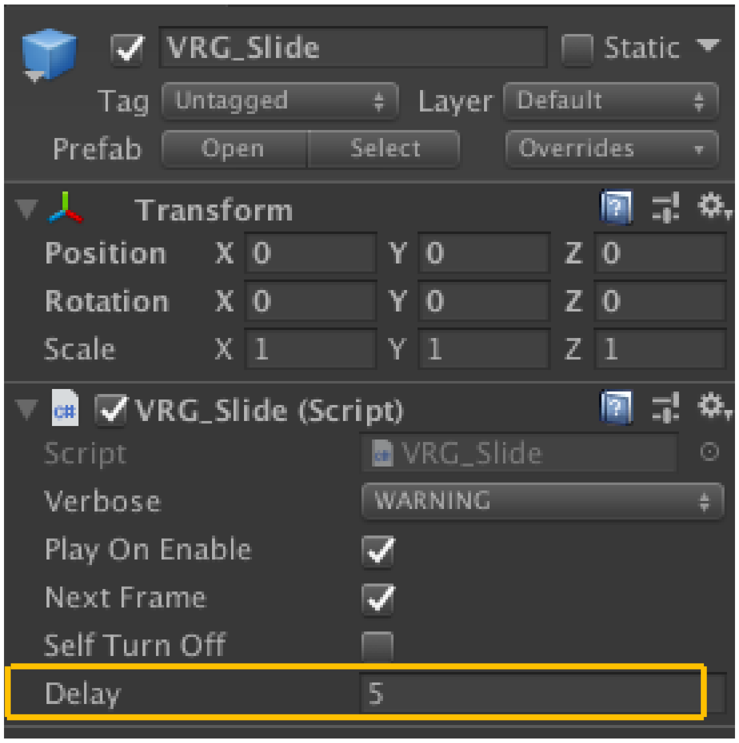


5.6 Examples

1) VRG_DDuA: OnLaunch Label
2) VRG_DDuA: PreDownload Label
3) VRG_DDuA: Skins
4) VRG_DDuA: Self Download

6. VRG_SLIDE

Add this element to any prefab and it will be added and delayed into the slideshow within DDuA Main process. The property "delay" in seconds is the time it will be displayed, 0 for infinity.



VRG_Slide
Static
Tag: Untagged
Layer: Default
Prefab: Open | Select | Overrides

Transform

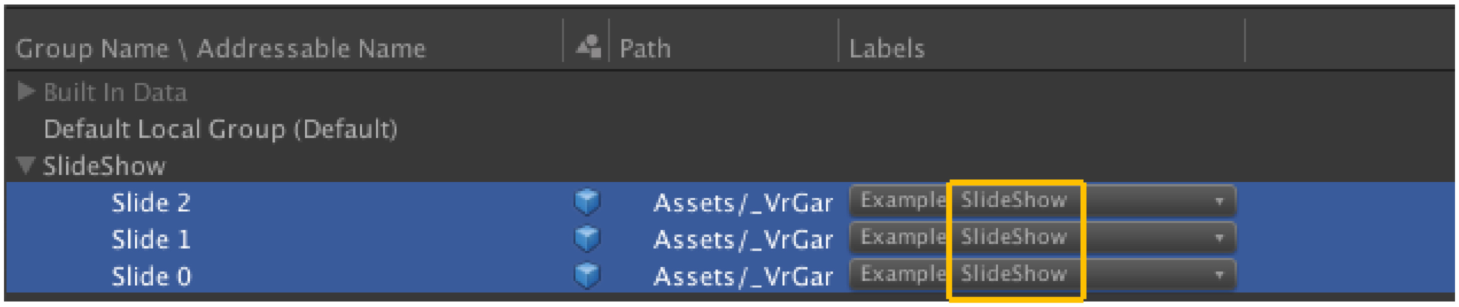
Position	X	0	Y	0	Z	0
Rotation	X	0	Y	0	Z	0
Scale	X	1	Y	1	Z	1

VRG_Slide (Script)

Script	VRG_Slide
Verbose	WARNING
Play On Enable	✓
Next Frame	✓
Self Turn Off	
Delay	5

6.1 Slideshow label

To add any prefab addressable to the slideshow you just need to add the "Slideshow" label



Group Name \ Addressable Name	Path	Labels
Built In Data		
Default Local Group (Default)		
SlideShow		
Slide 2	Assets/_VrGar	Example SlideShow
Slide 1	Assets/_VrGar	Example SlideShow
Slide 0	Assets/_VrGar	Example SlideShow

6.2 Examples

You can test this functionality in the following examples:

1) VRG_DDuA: VRG_Slide
2) VRG_DDuA: SlideShow Label
3) VRG_Scene: SlideShow

7. VRG_SCENE

Unity is super flexible, to the point where there are essentially an infinite number of ways of doing things. A lot of the time the technique you end up choosing is more of a personal style issue than anything, though sometimes there can be performance trade-offs.

"A scene" in unity is a kind of a component, it is a file that save within itself all the game objects and prefabs and its interactions and relationships. A scene is a self-contained game entity (i.e. a scene should hold references only to assets and not to other scenes)

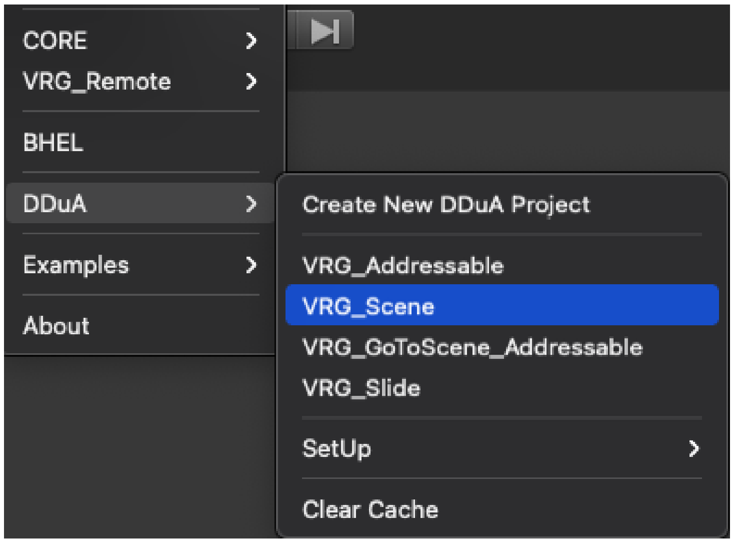
Scenes are intended for things like levels where you want to set up a bunch of stuff ahead of time and have a very clear "I am either here or not" kind of situation during gameplay.

using UnityEngine.SceneManagement;
https://docs.unity3d.com/ScriptReference/SceneManagement.SceneManager.html

Unity ADDRESSABLE uses a different way to load a scene instead of *SceneManagement.load*, when you are using remote loading, you need to use Addressables.LoadSceneAsync

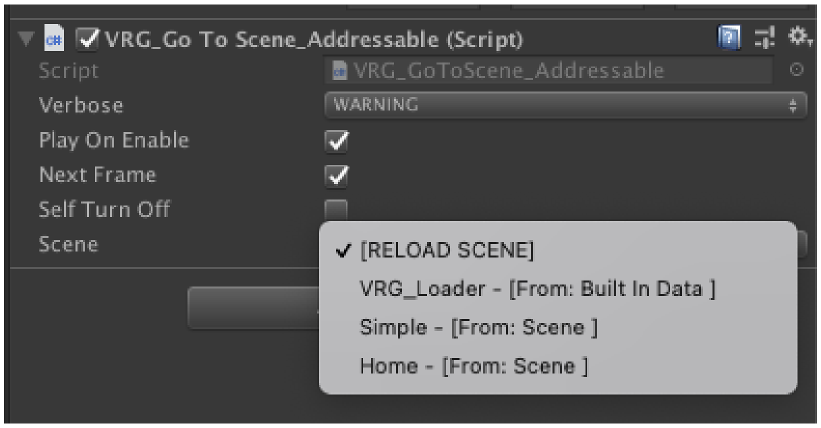
- *https://learn.unity.com/tutorial/addressables-scene-loading*
- *https://docs.unity3d.com/Packages/com.unity.addressables@1.19/manual/LoadSceneAsync.html*

You need to add to every scene a VRG_Scene prefab, go to the main menu ***Tools->VrGamesDev->DDuA->VRG_Scene***



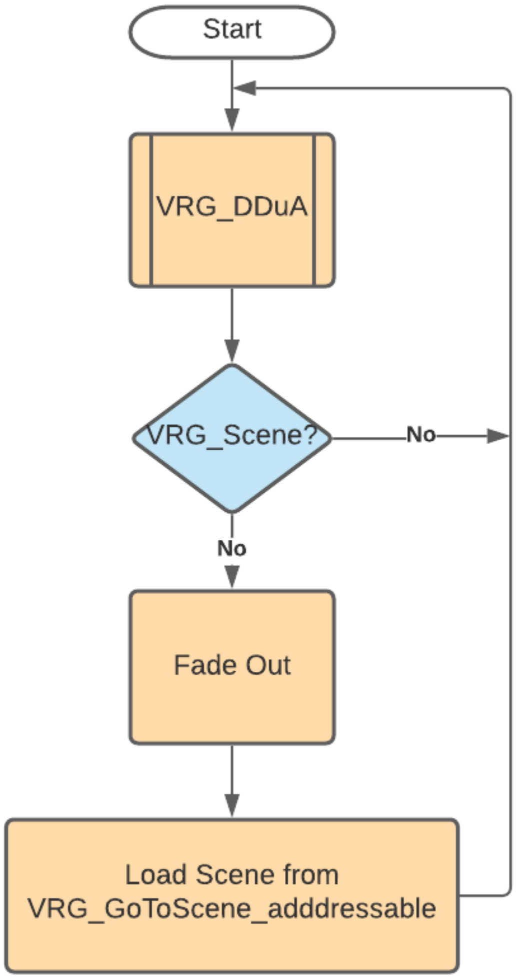
7.1 VRG_GoToScene_Addressable

You can load a new scene using the object ***VRG_GoToScene_Addressable*** just load it from the tools menu, and select the scene to load, the scenes listed in the inspector are the scenes marked as addressables in the addressable groups



VRG_Go To Scene_Addressable (Script)
Script: VRG_GoToScene_Addressable
Verbose: WARNING
Play On Enable: ✓
Next Frame: ✓
Self Turn Off:
Scene: ✓ [RELOAD SCENE]
VRG_Loader - [From: Built In Data]
Simple - [From: Scene]
Home - [From: Scene]

7.2 Process diagram



7.3 Examples

You can test this functionality in the following examples:

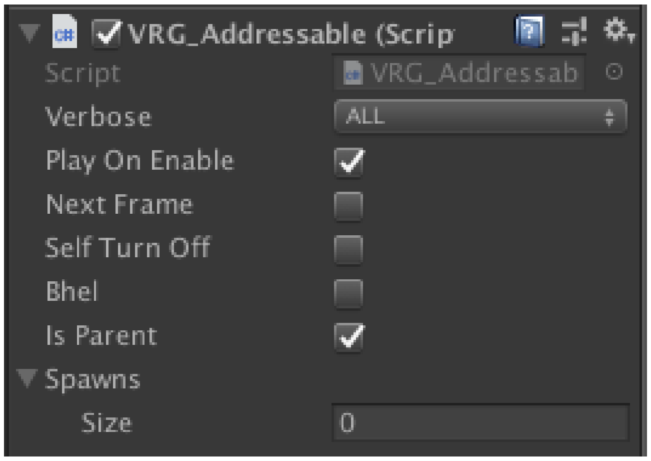
1) VRG_Scene: VRG_GoToScene
2) VRG_Scene: SlideShow
3) VRG_Scene: Download

8. VRG_ADDRESSABLE

The ***VRG_Addressable*** class handles the flow and all the data to download any address. You can create a prefab from the menu with the route: ***Tools -> Vr Games Dev -> DDuA -> VRG_Addressable***.

You can configure the following data of the ***VRG_Addressable*** prefab:

The first block of configurable data, is the data inherited from ***VRG_Base***, you can set where the addressable will spawn, and when.


VRG_Addressable (Scrip
Script: VRG_Addressab
Verbose: ALL
Play On Enable: ✓
Next Frame: ☐
Self Turn Off: ☐
Bhel: ☐
Is Parent: ✓
Spawns
Size: 0

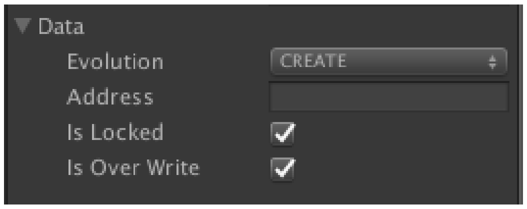
1) **Verbose:** The level of the detail when saved into the BHEL log system, you can choose between none, warning, error, logs, debug and all options.
2) **Play On Enable:** If True, when this prefab is enabled, it will do its thing, get the addressable size, download the prefab and/or create an instance, if it is false, you need to call the "Play()" method later
3) **Next Frame:** You can choose to wait 1 frame before it starts, sometimes you need another object to exists before the ***VRG_Addressable*** starts.
4) **Self Turn off:** If true, it will destroy itself when a game object is created.
5) **Is Parent:** If true, when the Addressable is created, this prefab will be its parent, it will spawn in the same position as its parent, if false, the prefab will spawn in the root of the hierarchy
6) **Spawns:** The prefabs spawned are listed here.
7) **Data:** A ***VRG_AddressableSerializable***, all the addressable magic is done with this class, it holds and save all the data and the process to download and instantiate. You can check the details in the following section.

8.1 VRG_AddressableSerializable

This class is the flesh and bone of the package, it gets the size (evolution = SIZE), download it (evolution = DOWNLOAD) and instantiate (evolution = CREATE). This class is serializable in the inspect, and is the Data.

8.2 Data Editable

The second block of configurable data, is the last data you can edit, you specify the name, the evolution of the download and if it is locked or not.

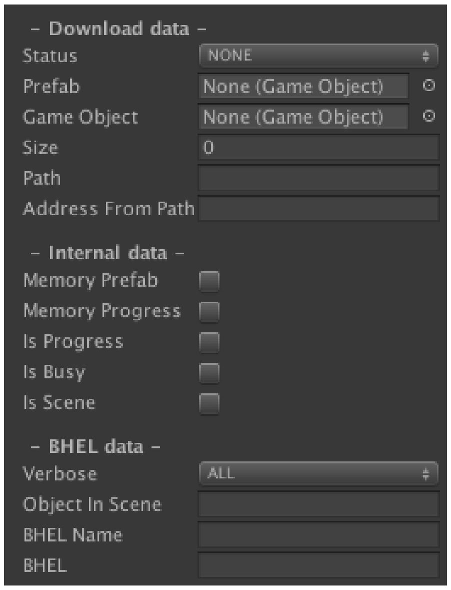


▼ Data	
Evolution	CREATE
Address	
Is Locked	✓
Is Over Write	✓

1) **Data->Evolution:** You can set the download evolution to 4 levels:
2) **Size:** The size of the download and the path of the addressable are filled, 0 size means the addressable is already cached
3) **Download:** The asset is downloaded and cached
4) **Ready:** You get the asset ready to instantiate
5) **Create:** You instantiate a prefab you can get as many as you need from this point
6) **Address:** The address to query, if this property is null, you will try to download the name of the gameObject in the scene
7) **Is Locked:** If True, you can't change the address data, or get a new prefab, if false you can change the address and redownload a new address.
8) **Is Overwrite:** If true, you will spawn new instances and you will destroy the previous one.

8.3 --- DEBUG: Do not edit below ---

The following data is not editable, it is just displayed to follow up the evolution of the download of the addressable, it shows the internal data and process, variables, prefabs and gameobjects



– Download data –	
Status	NONE
Prefab	None (Game Object)
Game Object	None (Game Object)
Size	0
Path	
Address From Path	
– Internal data –	
Memory Prefab	☐
Memory Progress	☐
Is Progress	☐
Is Busy	☐
Is Scene	☐
– BHEL data –	
Verbose	ALL
Object In Scene	
BHEL Name	
BHEL	

Download Data

After this block of data, you should not edit anything unless you understand what is going on. This section just displays what is happening inside the class, this block shows you the download data, like its size, its status and the path of the addressable invoked.

9) **Status:** The address to query, if this property is null, you will try to download the name of the gameObject in the scene:
10) ***NONE***: It haven't started, it is empty and uninited
11) ***FAILED***: It tried, but failed, since it couldn't continue, the error was logged to BHEL
12) ***DESTROYED***: The gameObject was destroyed, it could restart and create a new one
13) ***PATHING***: The path of the addressable is being queried
14) ***PATH_NOT_FOUND*:** The address is not valid, the path was not found
15) ***MORE_THAN_ONE_PATH*:** There are more than one possible address, please check your group
16) ***SIZING***: The addressable is being queried to get its size
17) ***SIZED***: The addressable was sized, check the size property to get its value
18) ***DOWNLOADING***: The addressable is downloading, when it is done, the status will be DOWNLOADED
19) ***DOWNLOADED***: The addressable was downloaded, check the prefab property to get its value
20) ***LOADING_MEMORY***: The addressable is loaded into memory
21) ***PREFAB***: The addressable is ready, the prefab is loaded waiting to get instantiated
22) ***SCENE_LOADED*** : The addressable was a scene and is now ready and loaded
23) **Prefab:** What prefab instantiate, if it is ready,
24) **GameObject:** The latest instantiated gameObject
25) **Size:** Its size in bytes (long datatype)
26) **Path:** The path in your project
27) **Address From Path:** The simplified name of the address from the path

Internal Data

Flags and states, true or false to know what is happening inside

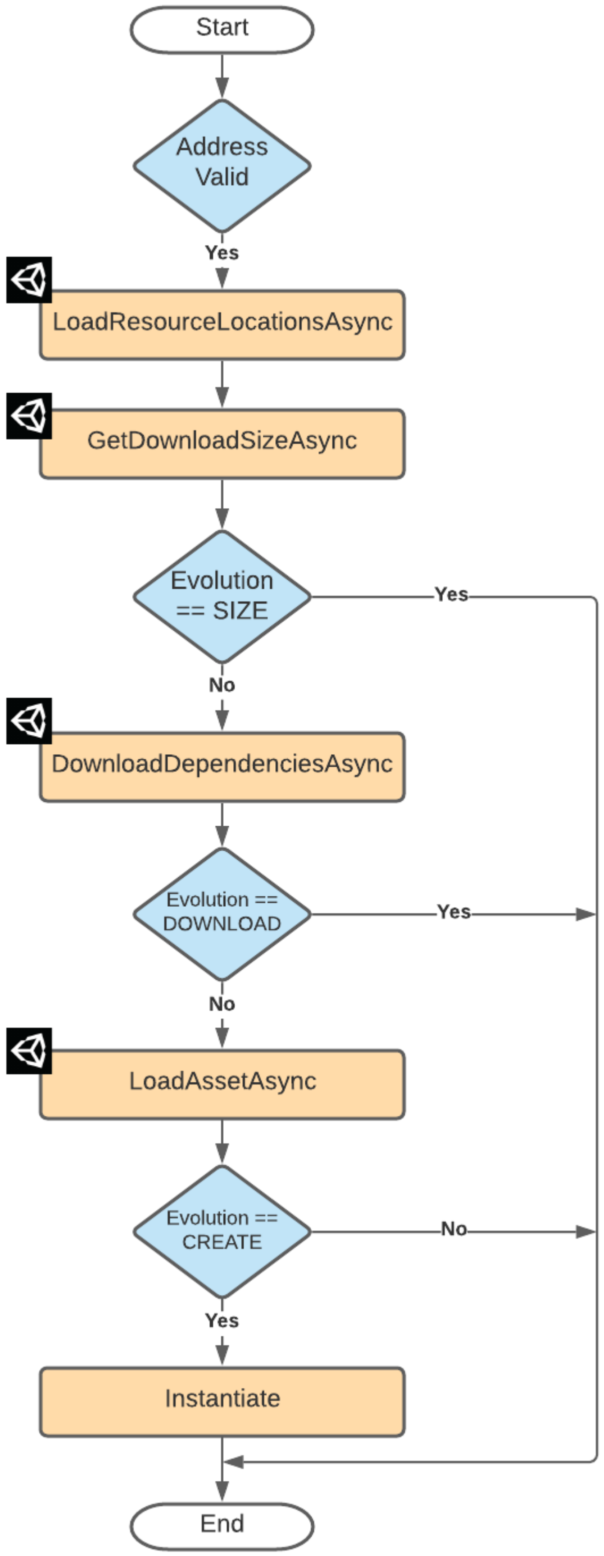
28) **Memory Prefab:** If true, it means the prefab is loaded into memory
29) **Memory Progress:** If true, It means there is a progress handler being processed
30) **Is Progress:** If true, It means it will add its download to the UI progress bar
31) **Is Busy:** if true, it means it is already processing a download, it can't process two at the same time
32) **Is Scene:** If true, it means the asset is a Scene

BHEL Data

The ***VRG_Addressable*** send its data to the VRH_Bhel module, here you can inspect what is sending.

33) **Verbose:** The maximum detail level to send to the BHEL
34) **Object In Scene:** The object that is using the BHEL log, it is the scene object
35) **BHEL Name:** The colored name to save in the BHEL Logs (Green for prefab, Blue for scene)
36) **BHEL:** The latest message logged

8.4 Diagram process

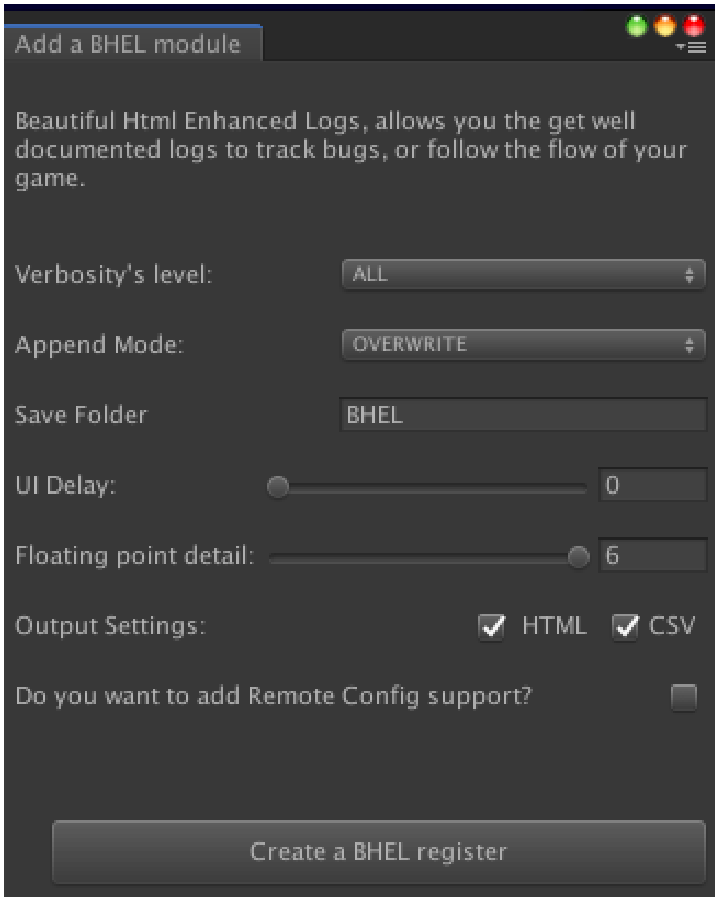


8.5 Examples

1) All the VRG_Addressables examples

9. VRG_BHEL

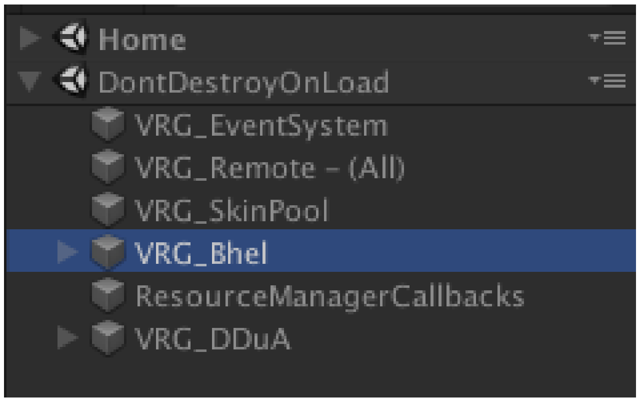
You can check the general documentation of this module in the API documentation in the Assets/_VrGamesDev/Documentation/Bhel/Manual.pdf for more information, basically you add it to any DDuA project and you will have a nice html log report for the asynchronous data, to add a BHEL element just click the ***Tools->Vr Games Dev->Bhel*** menu option.



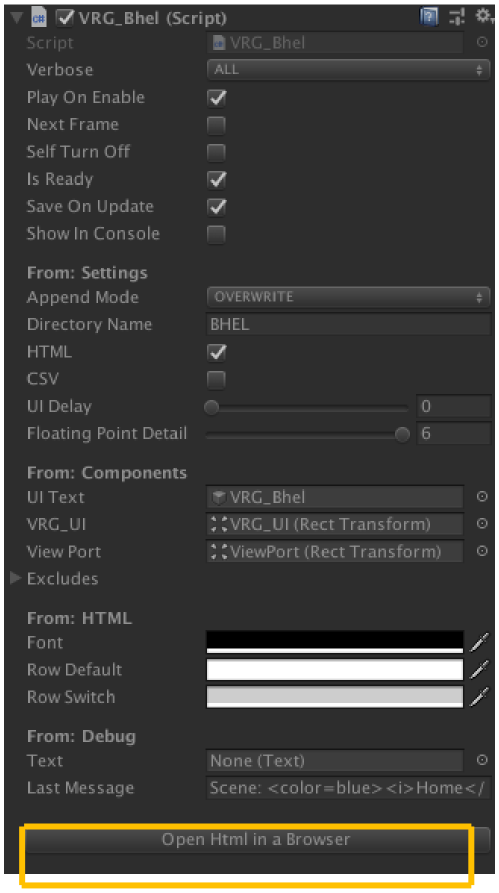
Beautiful Html Enhanced Logs, allows you the get well documented logs to track bugs, or follow the flow of your game.

Verbosity's level: ALL
Append Mode: OVERWRITE
Save Folder: BHEL
UI Delay: 0
Floating point detail: 6
Output Settings: ☑ HTML ☑ CSV
Do you want to add Remote Config support? ☐

And you will add a Bhel module to your project in the hierarchy



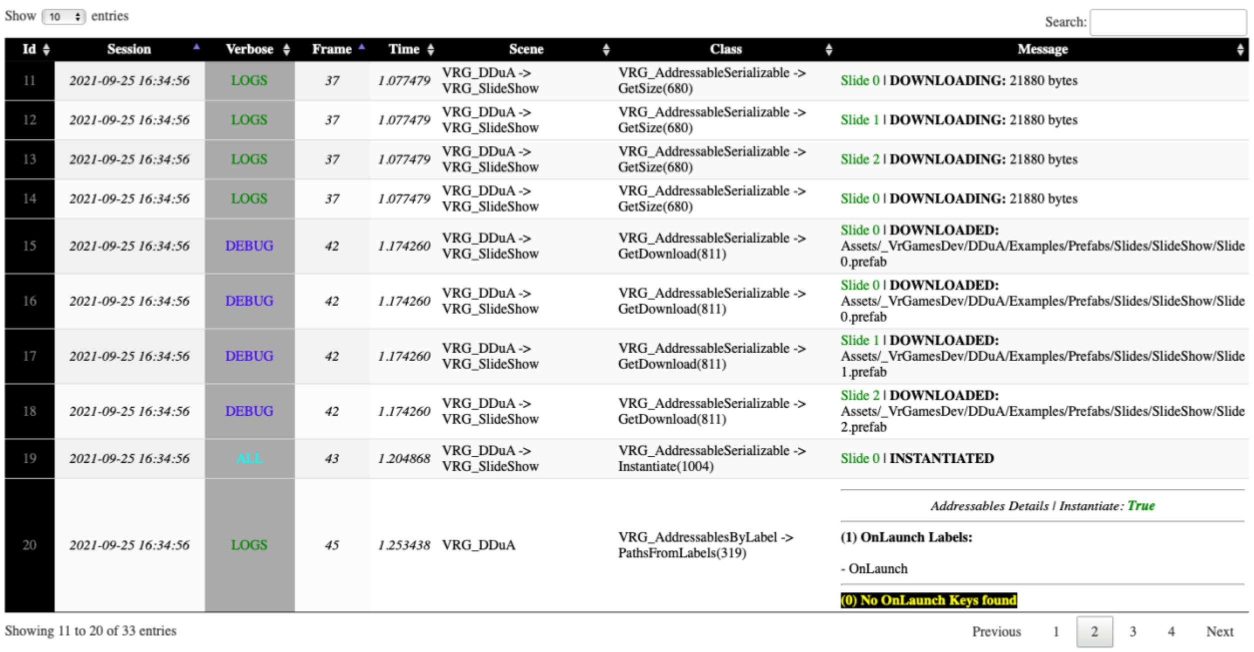
You can check the BHEL log clicking the "Open html in a browser" button in the inspector



VRG_Bhel (Script)

Script	VRG_Bhel
Verbose	ALL
Play On Enable	✓
Next Frame	
Self Turn Off	
Is Ready	✓
Save On Update	✓
Show In Console	
From: Settings	
Append Mode	OVERWRITE
Directory Name	BHEL
HTML	✓
CSV	
UI Delay	0
Floating Point Detail	6
From: Components	
UI Text	VRG_Bhel
VRG_UI	VRG_UI (Rect Transform)
View Port	ViewPort (Rect Transform)
Excludes	
From: HTML	
Font	⬛
Row Default	⬜
Row Switch	▨
From: Debug	
Text	None (Text)
Last Message	Scene: <color=blue><i>Home</

You can enjoy and analyze the asynchronous communication in a beautiful html log



Show 10 entries Search:

Id	Session	Verbose	Frame	Time	Scene	Class	Message
11	2021-09-25 16:34:56	LOGS	37	1.077479	VRG_DDuA -> VRG_SlideShow	VRG_AddressableSerializable -> GetSize(680)	Slide 0 | **DOWNLOADING:** 21880 bytes
12	2021-09-25 16:34:56	LOGS	37	1.077479	VRG_DDuA -> VRG_SlideShow	VRG_AddressableSerializable -> GetSize(680)	Slide 1 | **DOWNLOADING:** 21880 bytes
13	2021-09-25 16:34:56	LOGS	37	1.077479	VRG_DDuA -> VRG_SlideShow	VRG_AddressableSerializable -> GetSize(680)	Slide 2 | **DOWNLOADING:** 21880 bytes
14	2021-09-25 16:34:56	LOGS	37	1.077479	VRG_DDuA -> VRG_SlideShow	VRG_AddressableSerializable -> GetSize(680)	Slide 0 | **DOWNLOADING:** 21880 bytes
15	2021-09-25 16:34:56	DEBUG	42	1.174260	VRG_DDuA -> VRG_SlideShow	VRG_AddressableSerializable -> GetDownload(811)	Slide 0 | **DOWNLOADED:** Assets/_VrGamesDev/DDuA/Examples/Prefabs/Slides/SlideShow/Slide 0.prefab
16	2021-09-25 16:34:56	DEBUG	42	1.174260	VRG_DDuA -> VRG_SlideShow	VRG_AddressableSerializable -> GetDownload(811)	Slide 0 | **DOWNLOADED:** Assets/_VrGamesDev/DDuA/Examples/Prefabs/Slides/SlideShow/Slide 0.prefab
17	2021-09-25 16:34:56	DEBUG	42	1.174260	VRG_DDuA -> VRG_SlideShow	VRG_AddressableSerializable -> GetDownload(811)	Slide 1 | **DOWNLOADED:** Assets/_VrGamesDev/DDuA/Examples/Prefabs/Slides/SlideShow/Slide 1.prefab
18	2021-09-25 16:34:56	DEBUG	42	1.174260	VRG_DDuA -> VRG_SlideShow	VRG_AddressableSerializable -> GetDownload(811)	Slide 2 | **DOWNLOADED:** Assets/_VrGamesDev/DDuA/Examples/Prefabs/Slides/SlideShow/Slide 2.prefab
19	2021-09-25 16:34:56	ALL	43	1.204868	VRG_DDuA -> VRG_SlideShow	VRG_AddressableSerializable -> Instantiate(1004)	Slide 0 | **INSTANTIATED**
20	2021-09-25 16:34:56	LOGS	45	1.253438	VRG_DDuA	VRG_AddressablesByLabel -> PathsFromLabels(319)	*Addressables Details | Instantiate: **True*** **(1) OnLaunch Labels:** - OnLaunch **(0) No OnLaunch Keys found**

Showing 11 to 20 of 33 entries Previous 1 2 3 4 Next

9.1 Examples

1) VRG_Addressable: Bhel

10. UNITY REMOTE CONFIG AND VRG_REMOTE

You can install and modify this module using the remote config system provided by unity, DDuA is preconfigured to work seamlessly with it.

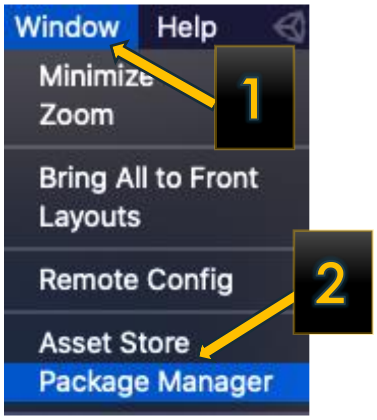
Unity Remote Config is a cloud service that allows you to tune your game design without deploying new versions of your application.

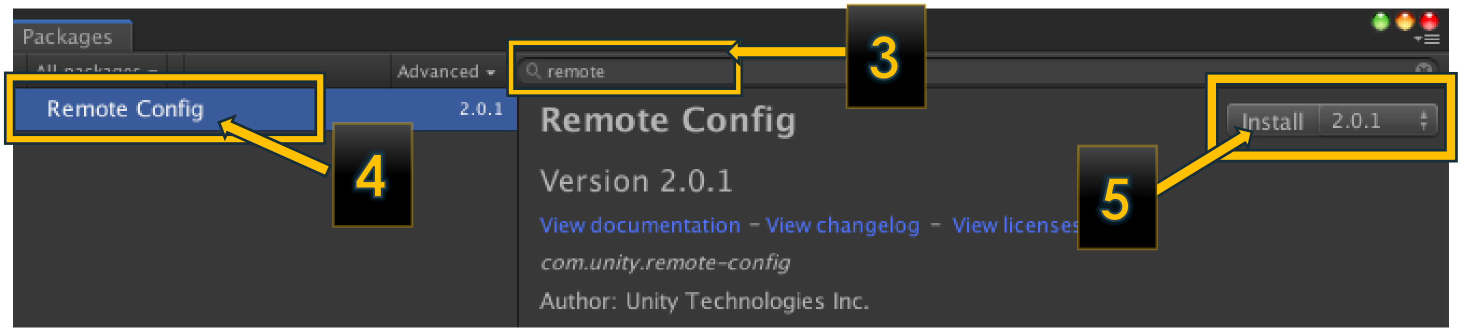
Documentation: You can read more about this module here:
https://docs.unity3d.com/Packages/com.unity.remote-config@2.0/manual/index.html

Minimum version: 2.0.1

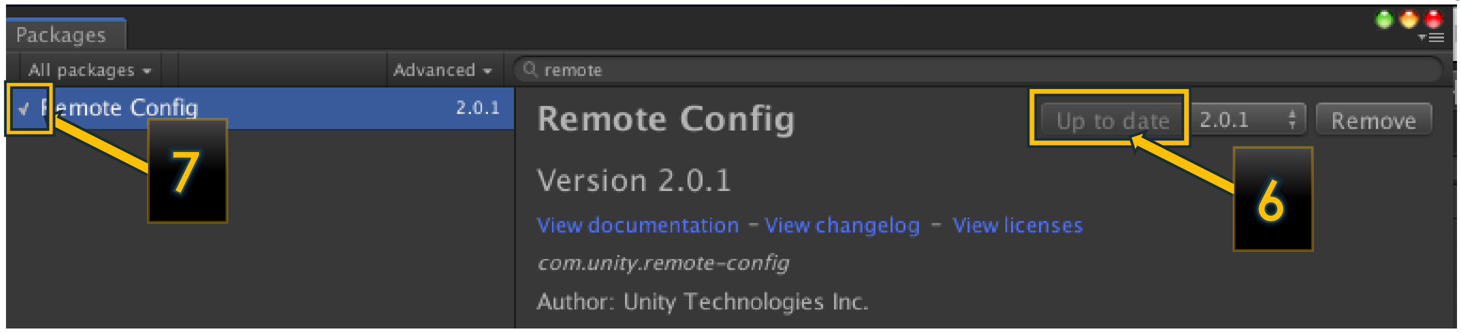
How to install it:

1) Open the Windows menu option
2) Select the option Package Manager
3) A new window will open, in the search box, Search for "Remote Config"
4) Select the package "Remote Config"
5) Click Install, the version that was tested with this package was the most recent (2.0.1) at the creation of this documentation.





6) When you finish the installation, you will have the module installed and up to date.
7) The name will have a tiny check mark that indicates it was successfully installed.



Remote Config

Version 2.0.1

View documentation – View changelog – View licenses

com.unity.remote-config

Author: Unity Technologies Inc.

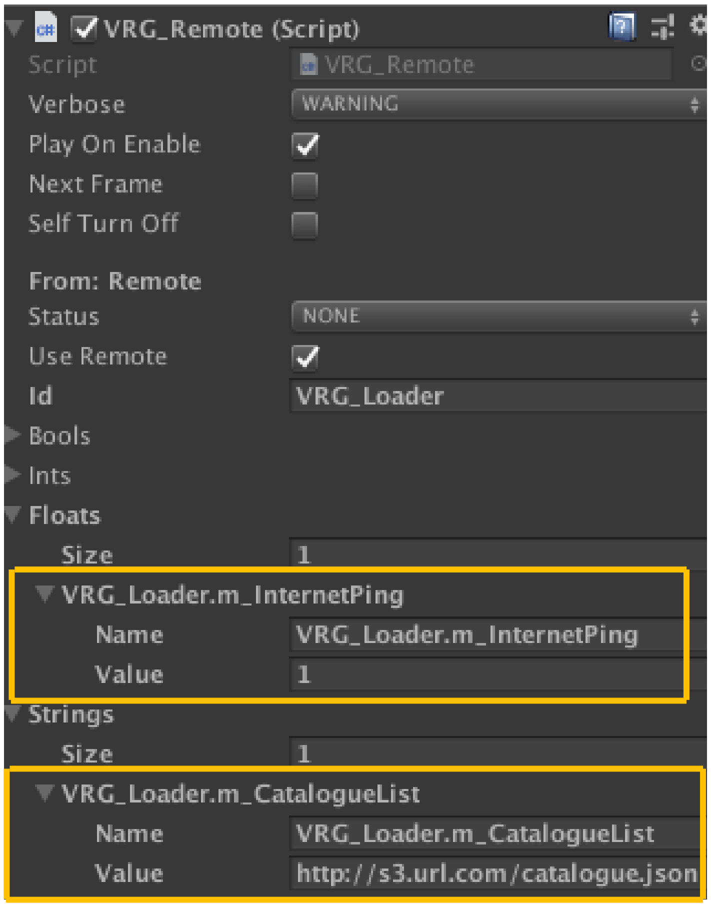
8) Congratulations, it's fully installed. We recommend you read the official documentation to understand the power of this module.

10.1 VRG_Remote

Check the VRG_Remote documentation in:
_VrGamesDev/Documentation/CORE/Manual.pdf -> VRG_Remote

10.2 VRG_Loader

You can add support to your VRG_Loader to update from Remote config, add a VRG_Remote component from the menu tools, go to ***Tools->Vr Games Dev->VRG_Remote->VRG_Loader***.

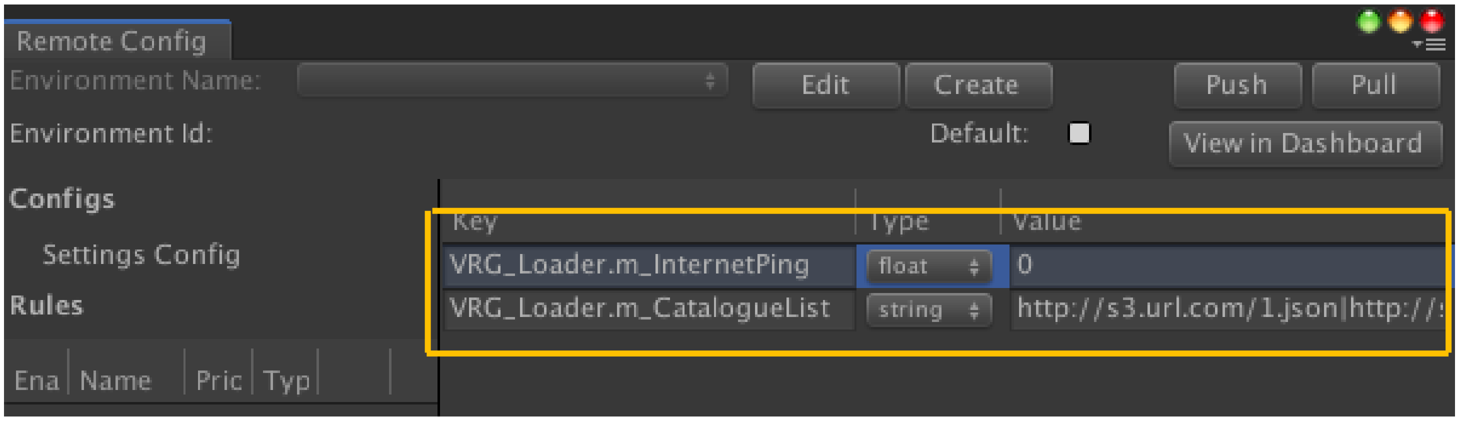


VRG_Remote (Script)

Script	VRG_Remote
Verbose	WARNING
Play On Enable	✓
Next Frame	
Self Turn Off	
From: Remote	
Status	NONE
Use Remote	✓
Id	VRG_Loader
Bools	
Ints	
Floats	
Size	1
VRG_Loader.m_InternetPing	
Name	VRG_Loader.m_InternetPing
Value	1
Strings	
Size	1
VRG_Loader.m_CatalogueList	
Name	VRG_Loader.m_CatalogueList
Value	http://s3.url.com/catalogue.json

10.3 Remote Config

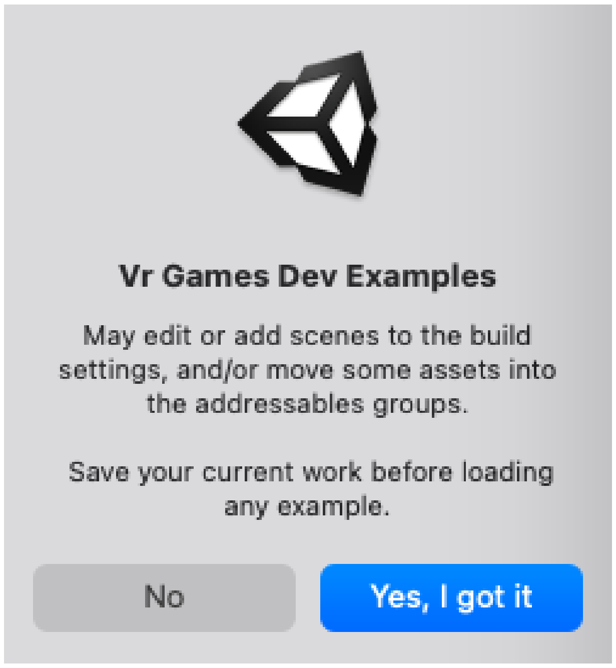
9) Add to your remote config a float key: VRG_Loader.m_InternetPing
10) Add to your remote config string key: VRG_Loader.m_CatalogueList, and separate every catalogue URL with a pipe character (|)



Key	Type	Value
VRG_Loader.m_InternetPing	float	0
VRG_Loader.m_CatalogueList	string	http://s3.url.com/1.json|http://

11. LEARN WITH EXAMPLES

For your easy usage, we have added all the examples needed to fully understand how to use this package under the Tools menu option. Install DDuA in a new project to test and fully understand how to configure the project and settings. Please make sure you backup your work before running anything. The examples may edit or add scenes into the build settings, and / or move assets into the addressables groups.

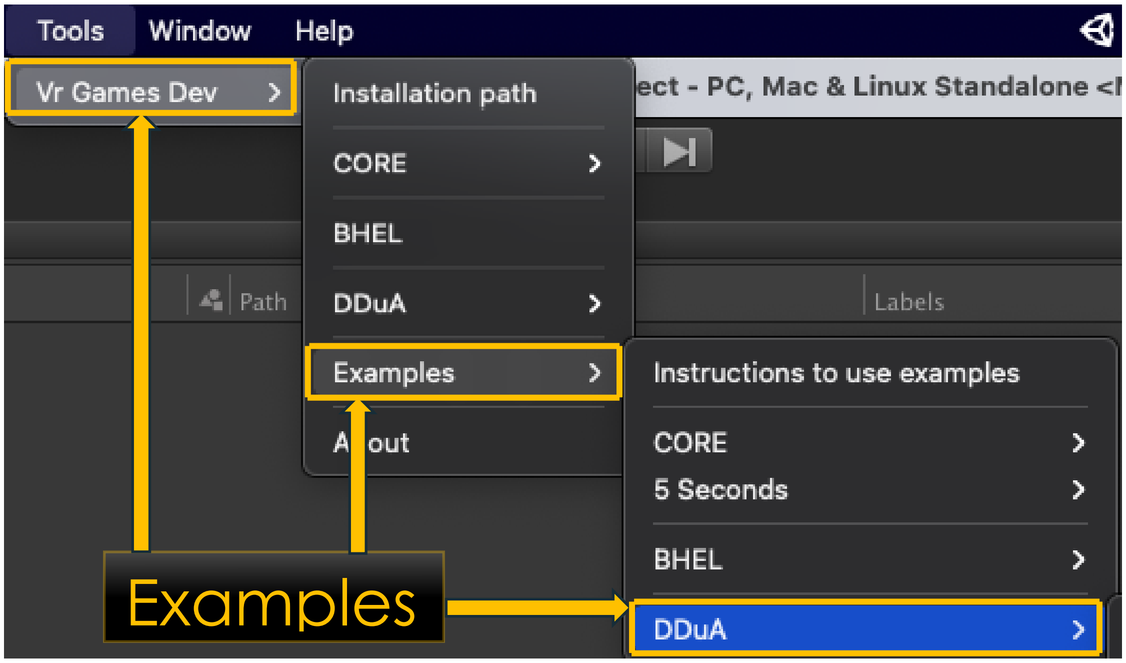


Vr Games Dev Examples

May edit or add scenes to the build settings, and/or move some assets into the addressables groups.

Save your current work before loading any example.

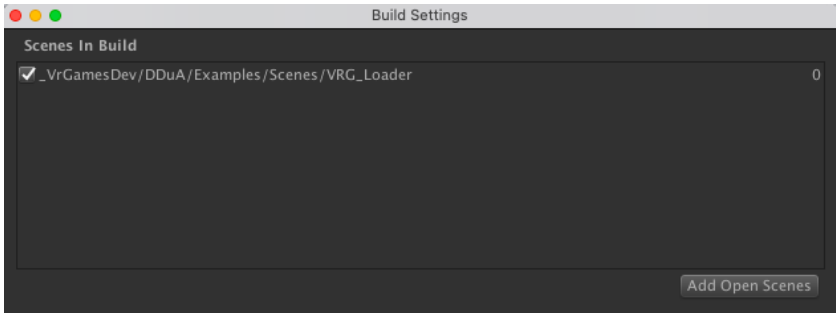
To use the examples just select the option you want to review, they run out of the box, just go to ***Menu -> Tools -> Vr Games Dev -> Examples -> DDuA.***



When you launch any example, you may expect some changes in any of the following areas:

11.1 File -> Build Settings

Any example may add or remove scenes from the build settings, you may also be prompted to save your current work and load a new scene, you can find this option in the menu option ***"File->Build Settings"***


Build Settings

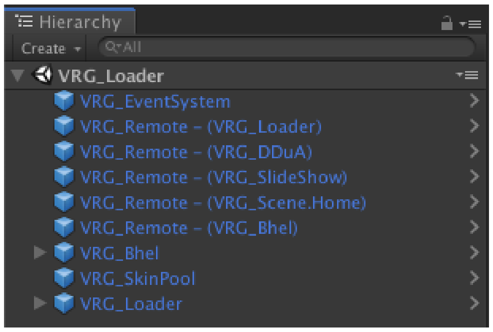
Scenes In Build

☑ _VrGamesDev/DDuA/Examples/Scenes/VRG_Loader 0

Add Open Scenes

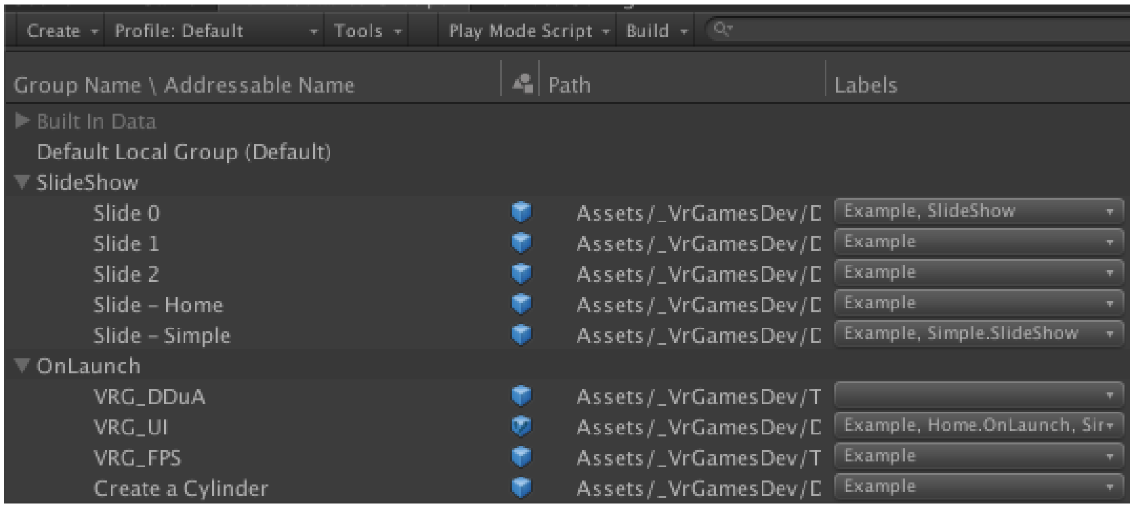
11.2 Scene Loaded - Hierarchy

A new scene could be loaded, needed objects to run the example will appear here


Hierarchy
Create
VRG_Loader
- VRG_EventSystem
- VRG_Remote - (VRG_Loader)
- VRG_Remote - (VRG_DDuA)
- VRG_Remote - (VRG_SlideShow)
- VRG_Remote - (VRG_Scene.Home)
- VRG_Remote - (VRG_Bhel)
- VRG_Bhel
- VRG_SkinPool
- VRG_Loader

11.3 Addressable groups

Most of the changes will occur in this panel, the examples would create and destroy new groups, will load and unload addressable assets and add or remove labels. All the examples assets will have the *label* "**Example**", and you can remove all the examples label with the menu option: "**Clear Example data**" in the **Vr Games Dev -> Examples -> DDuA option**.

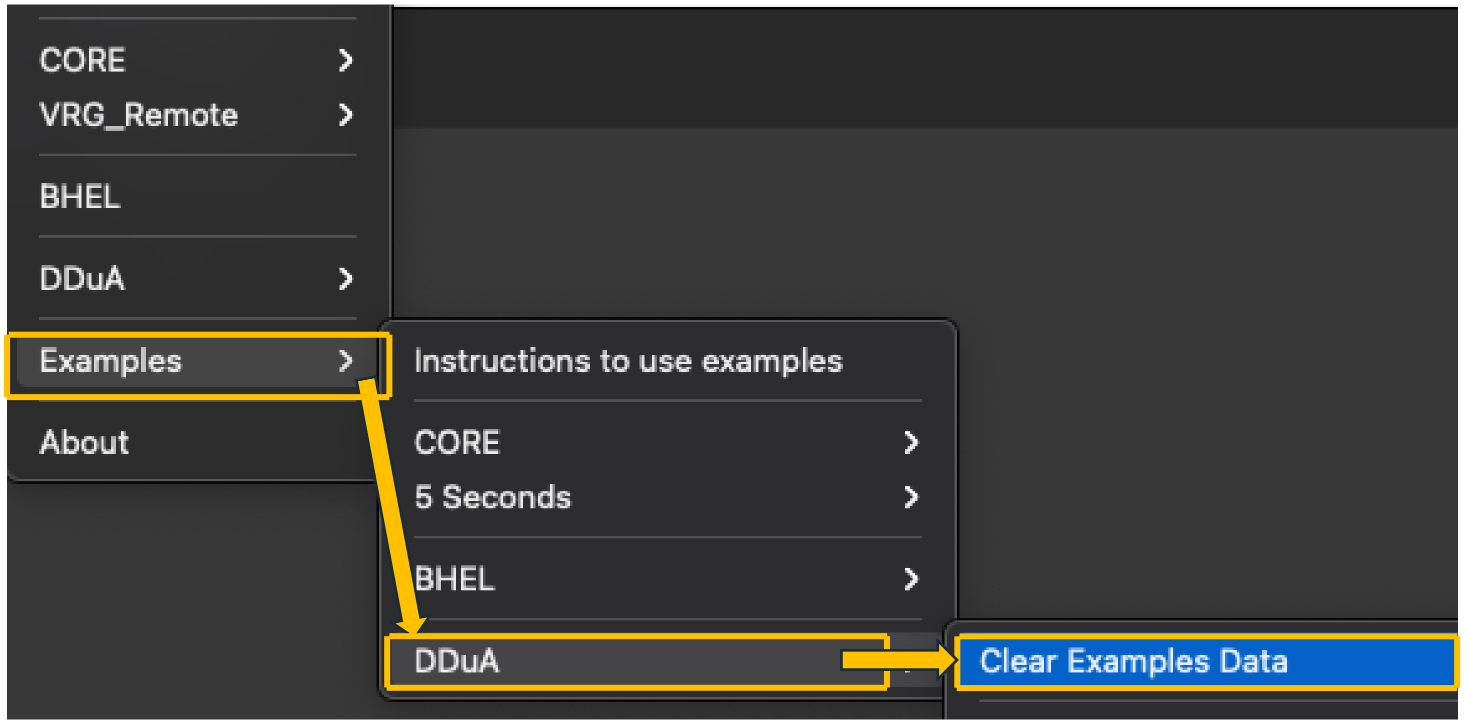


Group Name \ Addressable Name	Path	Labels
Built In Data		
Default Local Group (Default)		
SlideShow		
Slide 0	Assets/_VrGamesDev/D	Example, SlideShow
Slide 1	Assets/_VrGamesDev/D	Example
Slide 2	Assets/_VrGamesDev/D	Example
Slide - Home	Assets/_VrGamesDev/D	Example
Slide - Simple	Assets/_VrGamesDev/D	Example, Simple.SlideShow
OnLaunch		
VRG_DDuA	Assets/_VrGamesDev/T	
VRG_UI	Assets/_VrGamesDev/D	Example, Home.OnLaunch, Sir
VRG_FPS	Assets/_VrGamesDev/T	Example
Create a Cylinder	Assets/_VrGamesDev/D	Example

11.4 Clear Example Data

You can test any example, and you can remove and clear any examples data loaded, every addressable has the "Example" label added.

To clear the example data, just use the ***"Menu -> Tools -> Vr Games Dev -> Examples -> DDuA -> Clear examples data"*** option.



11.5 VRG_Addressable

The ***VRG_Addressable*** examples show the functionality of every aspect of the core element of the DDuA package, so you can use them in your own game. To use the examples just select the option you want to review, they run out of the box, just go to ***Menu -> Tools -> Vr Games Dev -> Examples -> DDuA.***

a) ***Hello World:*** The most basic example ever, a classic Hello World, this example displays a UI message "Hello world" loaded as an addressable, loaded from outside the build.
b) ***Created by name:*** Like the "VRG_Addressable: Hello World" example, but you can load an address using the name instead of the "address" property.
c) ***Play and Destroy:*** Shows how to load and destroy using a UI button element.
d) ***Self Turn Off:*** When the addressable is loaded, the ***VRG_Addressable*** self destroys.
e) ***Is Locked:*** You can load different addressables using one prefab.
f) ***BHEL:*** Same as "Is Locked" but you Logs everything to a web page
g) ***Is Parent:*** Decide where it will spawn, in the ***VRG_Addressable*** or root
h) ***Is Overwrite:*** Keep spawning without destroying the previous gameObject
i) ***When Complete:*** Subscribe to event "when complete" and you can alter the spawned gameObject
j) ***By Script:*** If you like to code, here are examples to use everything.

11.6 VRG_DDuA

The ***VRG_DDuA*** examples show you how to use the core functionality of the package, you will learn how to load the core class, display a SlideShow, pre-download assets before any scene and load a home scene.
To use the examples just select the option you want to review, they run out of the box, just go to ***Menu -> Tools -> Vr Games Dev -> Examples -> DDuA.***

a) ***VRG_Loader:*** Load the main Class, check for internet connection and download / update catalogues (main and others)
b) ***HelloWorld:*** auto Load the home scene
c) ***VRG_Scene:*** Use this prefab to inform ***VRG_DDuA*** it is an addressable scene.
d) ***VRG_Slide:*** Learn how to create slides to be use in the slideshow.
e) ***SlideShow Label:*** You can add any addressable to the slide show using the label
f) ***OnLaunch Label:*** Download and instantiate any addressable before any scene is loaded, just use the OnLaunch label.
g) ***PreDownload Label:*** You will need it in many scenes or in many prefabs, so why not download it before anything else
h) ***Skins:*** Learn about the skins, a preconfigured feature.

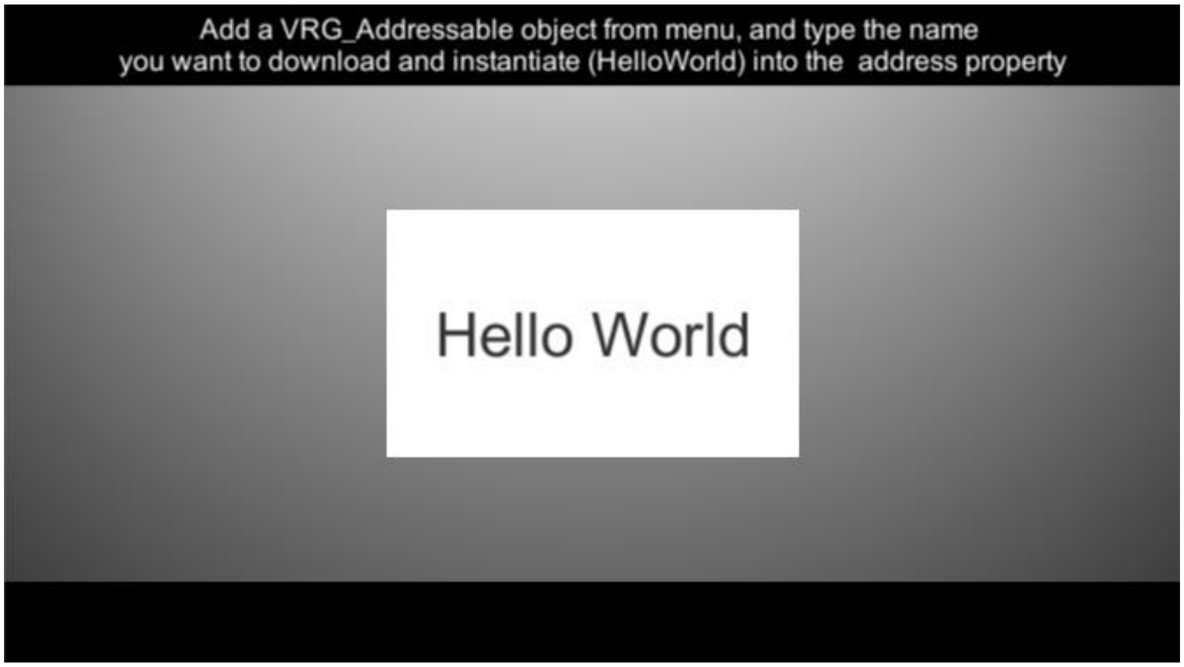
11.7 VRG_Scene

The VRG_Scene examples shows you how to pre-download and instantiate per scene, including OnLaunch, Download, and slideshows. To use the examples just select the option you want to review, they run out of the box, just go to ***Menu -> Tools -> Vr Games Dev -> Examples -> DDuA.***

a) ***OnLaunch:*** Learn to instantiate any addressable when any scene is loaded, just use the label ***<scene_name>.OnLaunch*** and it will be ready just before the scene fade in.
b) ***VRG_GoToScene:*** Switch between scenes back and forth.
c) ***SlideShow:*** Shows a dedicates SlideShow element when a scene is loaded
d) ***Download:*** Pre-download what you will use in the scene later, so it will spawn immediately when needed and instantiated
e) ***Idle Download:*** User Interphase, to download the rest of the game in the background while idle, so all the loading screens are zero wait.

12. EXAMPLES STEP BY STEP

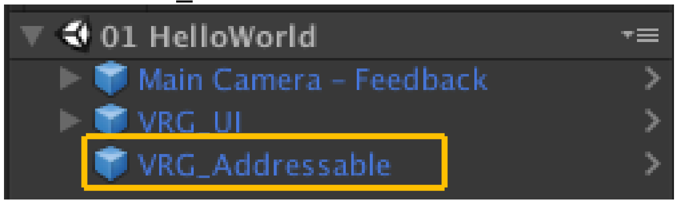
12.1 VRG_Addresable: Hello World



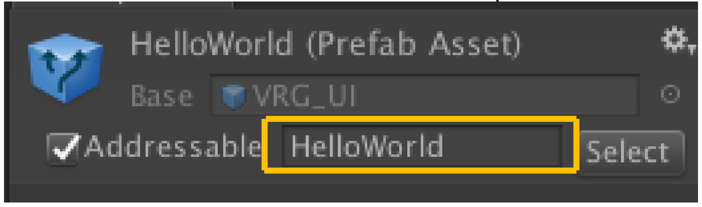
Add a VRG_Addressable object from menu, and type the name you want to download and instantiate (HelloWorld) into the address property

Are you a wizard?

1) Loaded the scene 01 Helloworld, which contains a camera, a UI explaining the scene and a VRG_Addressable.

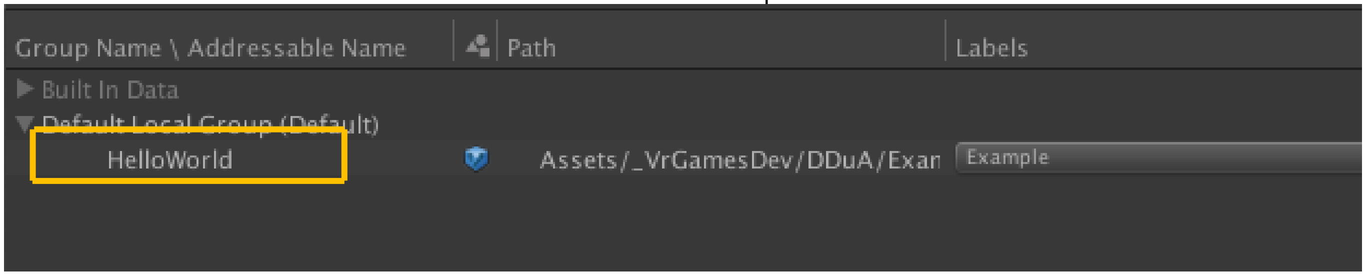


2) Turned a canvas -> UI into a simplified-name addressable named HelloWorld



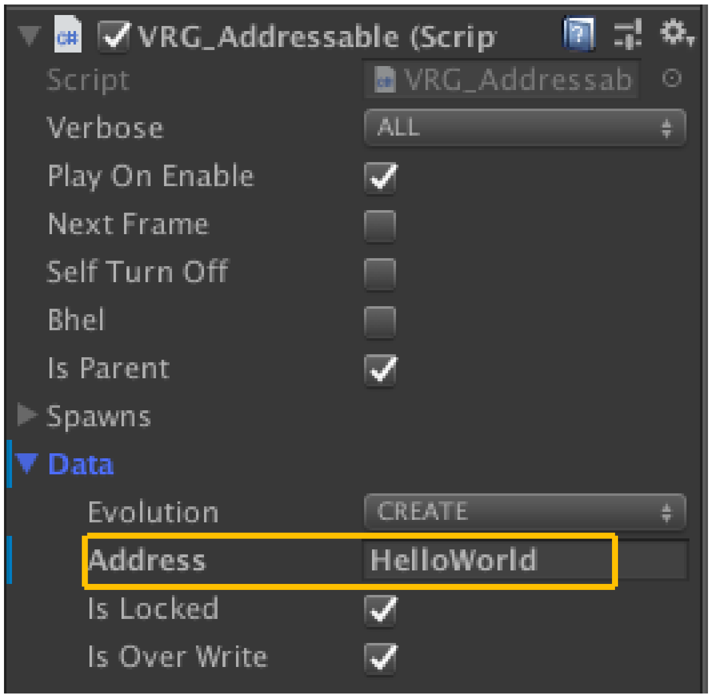
HelloWorld (Prefab Asset)
Base VRG_UI
✓ Addressable HelloWorld Select

3) Added "HelloWorld" addressable with the "Example" label



Group Name \ Addressable Name	Path	Labels
▶ Built In Data		
▼ Default Local Group (Default)		
HelloWorld	Assets/_VrGamesDev/DDuA/Exan	Example

4) Used a VRG_Addressable prefab to load the UI "Hello World" addressable



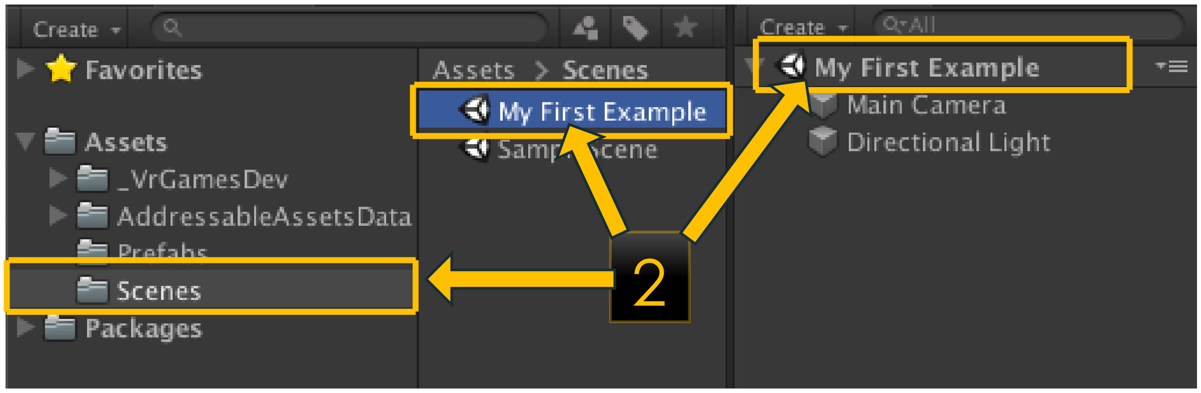
VRG_Addressable (Scrip

Script	VRG_Addressab
Verbose	ALL
Play On Enable	✓
Next Frame	
Self Turn Off	
Bhel	
Is Parent	✓
Spawns	
Data	
Evolution	CREATE
Address	HelloWorld
Is Locked	✓
Is Over Write	✓

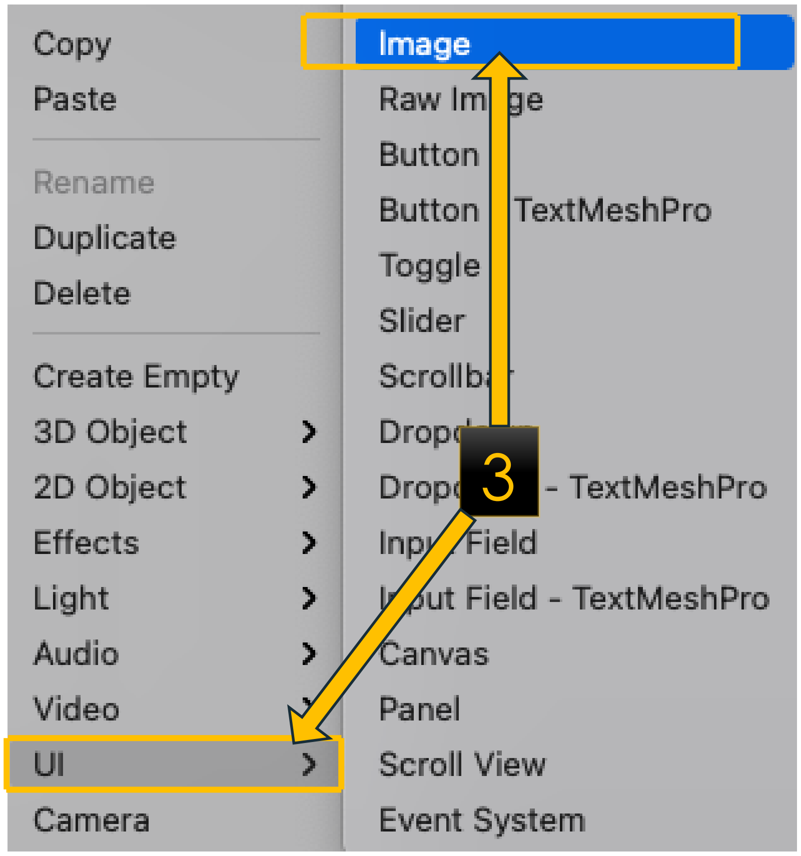
What's the catch?

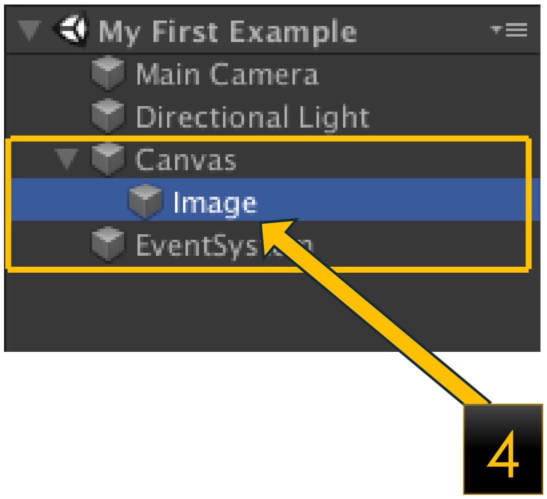
Let's recreate this example from scratch, follow these instructions:

1) Clear examples data
2) Create a new scene and save it as "My First Example" in the Scenes folder
   https://docs.unity3d.com/Manual/scenes-working-with.html

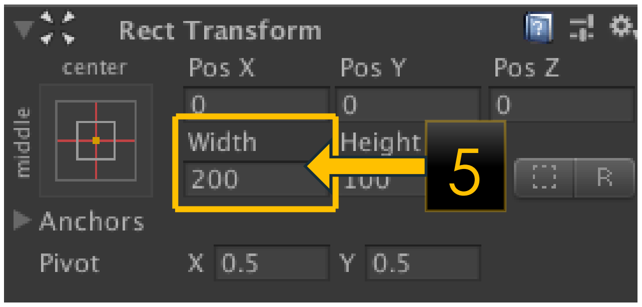


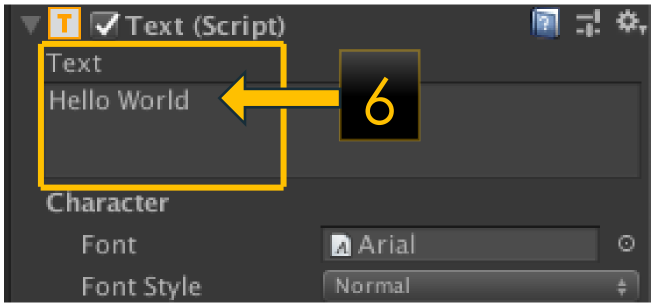
3) Add a UI Image to the scene (Right click in the Hierarchy window, and select the UI -> Image option)
   https://docs.unity3d.com/2020.3/Documentation/Manual/UIVisualComponents.html
4) You got a Canvas Object and an EventSystem gameObject added:



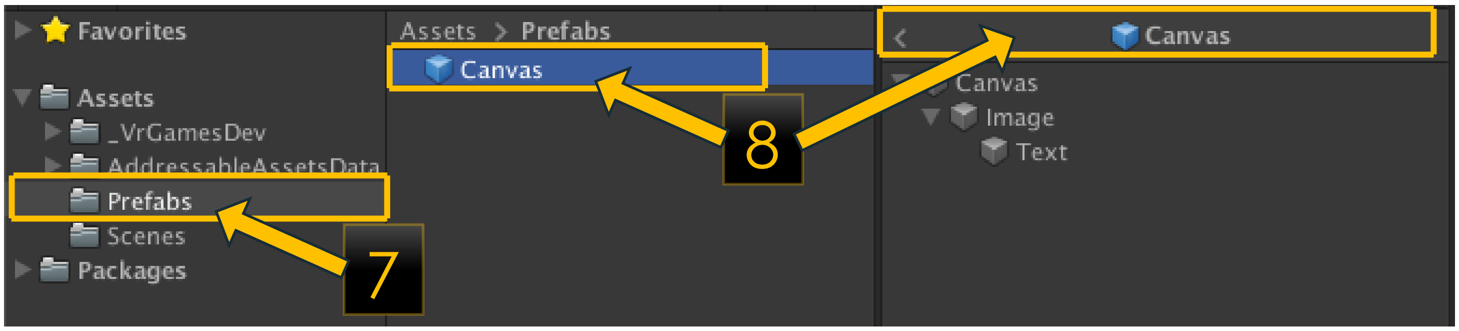


5) Select the Image added and change its width: 200px
6) Add UI text as a child of the image and set its text value to "Hello World"

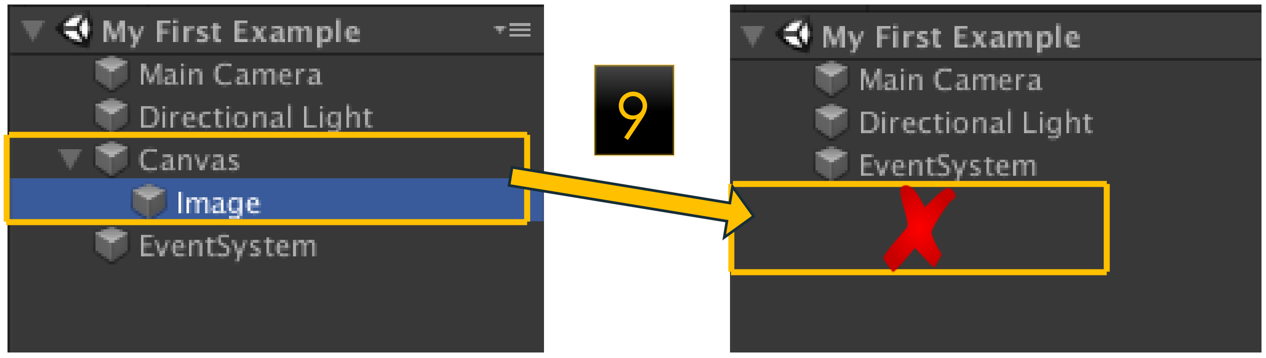




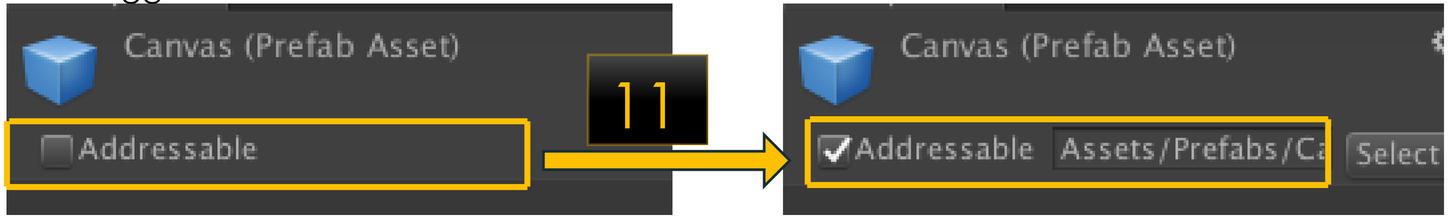
7) Create a folder named "Prefabs"
8) Create a prefab of the Canvas in the scene, and add it to the folder named "Prefabs"
https://docs.unity3d.com/Manual/CreatingPrefabs.html



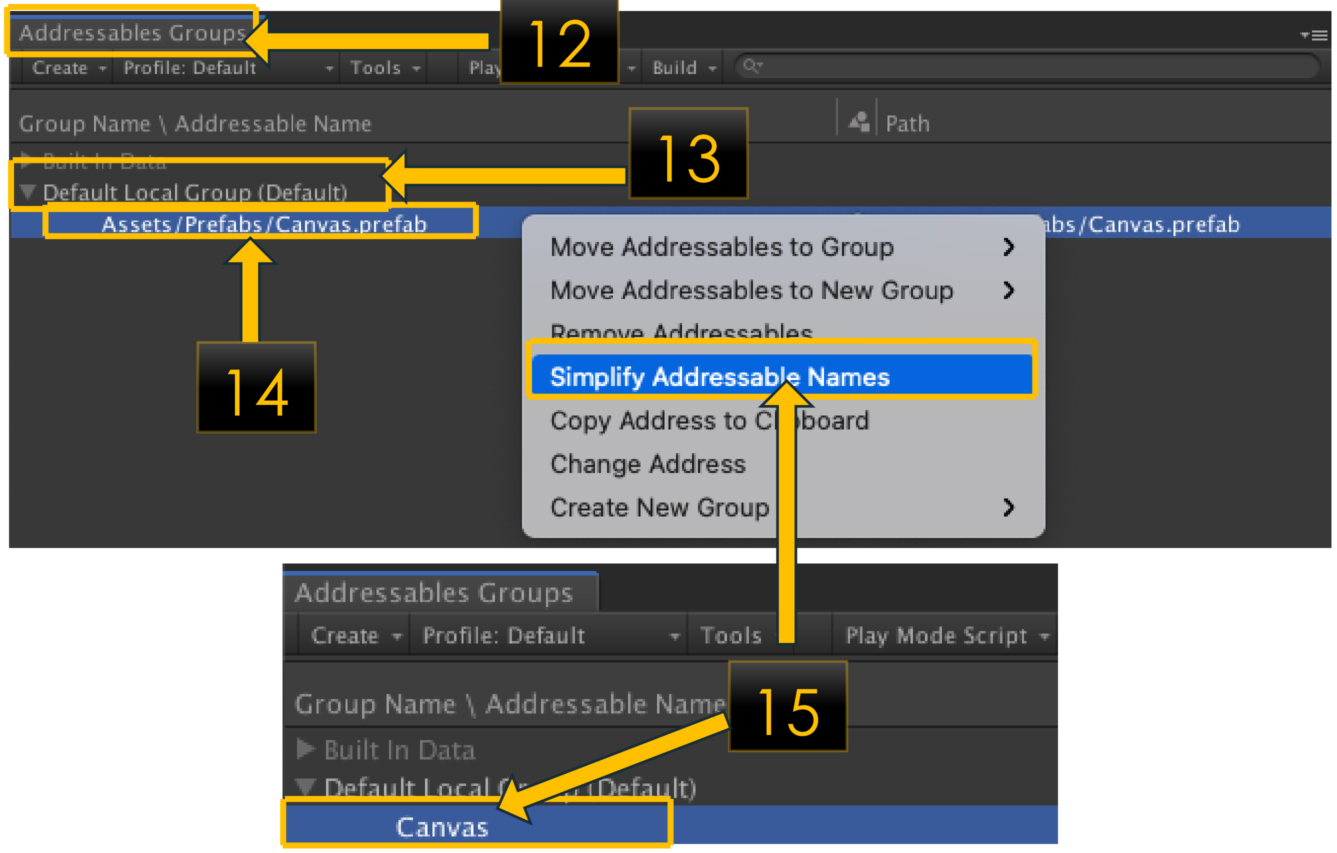
9) Delete the Canvas gameObject in your scene



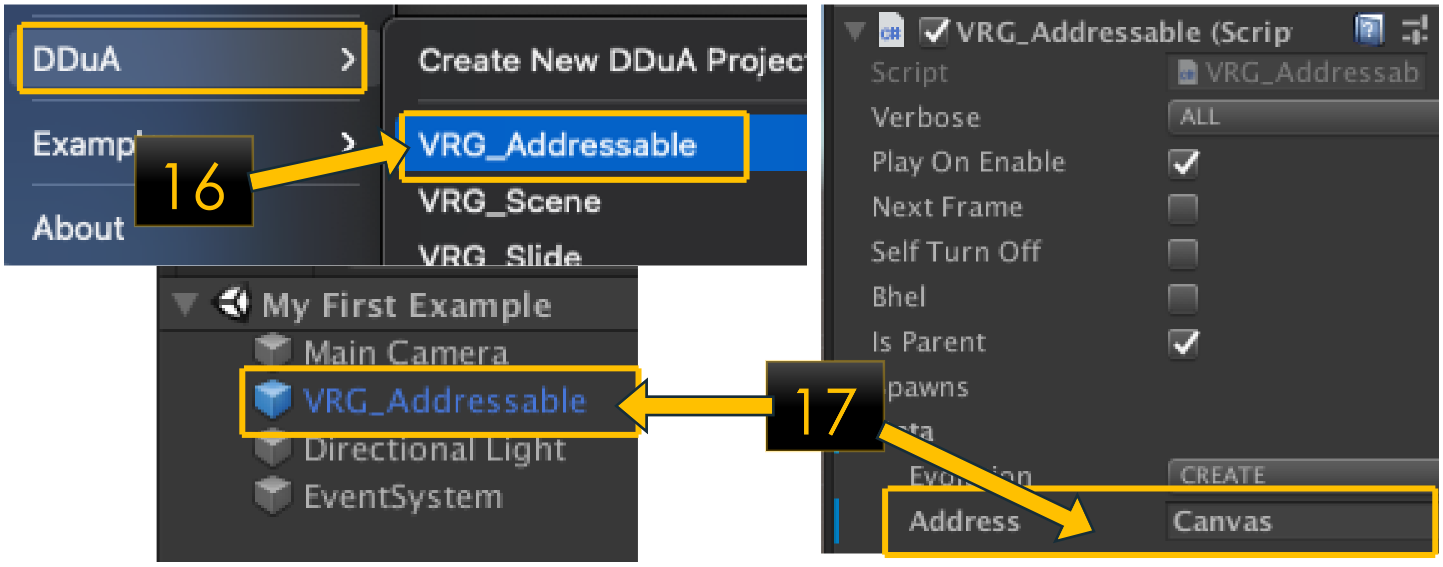
10)Select the just created "Canvas" prefab
11)In the inspector window, you will have a new functionality, "Addressable" option and toggle it On.



12)Open the Addressable groups window
13)You will have a new entry in the "Default Local Group (Default" group
14)Select the "Assets/Prefabs/Canvas.prefab" prefab just added
15)Right click and select the option "Simplify addressable names", renamed as "Canvas"

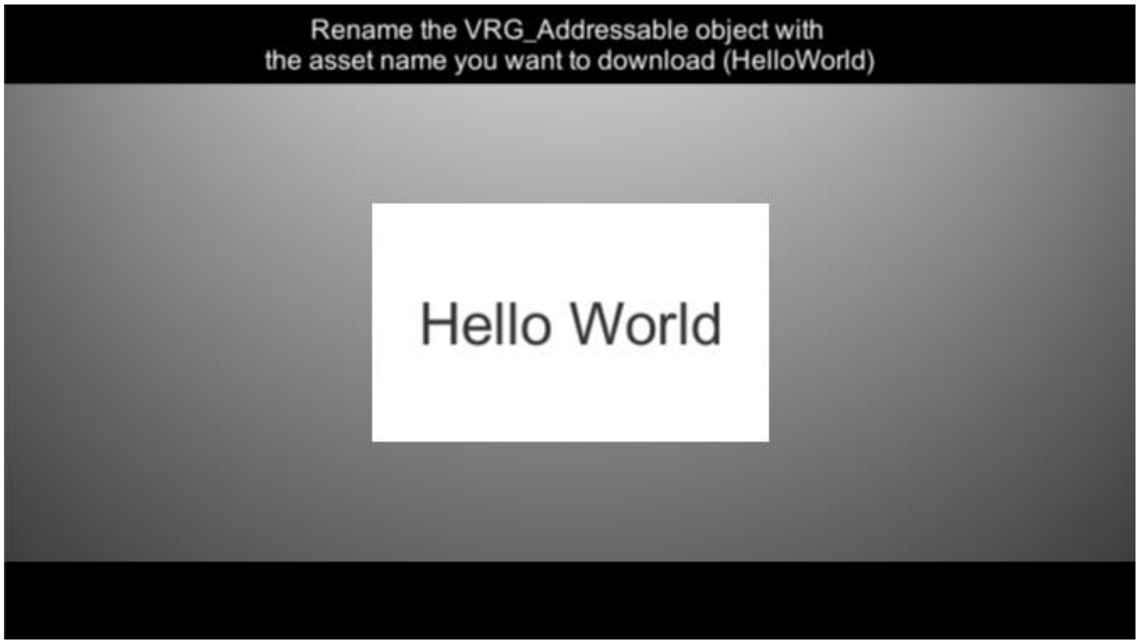

Addressables Groups
Create
Profile: Default
Tools
Play
Build
12
Group Name \ Addressable Name
Path
Built In Data
Default Local Group (Default)
Assets/Prefabs/Canvas.prefab
abs/Canvas.prefab
13
14
Move Addressables to Group
Move Addressables to New Group
Remove Addressables
Simplify Addressable Names
Copy Address to Clipboard
Change Address
Create New Group
Addressables Groups
Create
Profile: Default
Tools
Play Mode Script
Group Name \ Addressable Name
15
Built In Data
Default Local Group (Default)
Canvas

5) Add a ***VRG_Addressable*** (Menu->***Tools->Vr Games Dev->DDuA->VRG_ Addressable***)
16)Select the newly added prefab, and change the property Data->Address to "Canvas"
17)Play the scene.



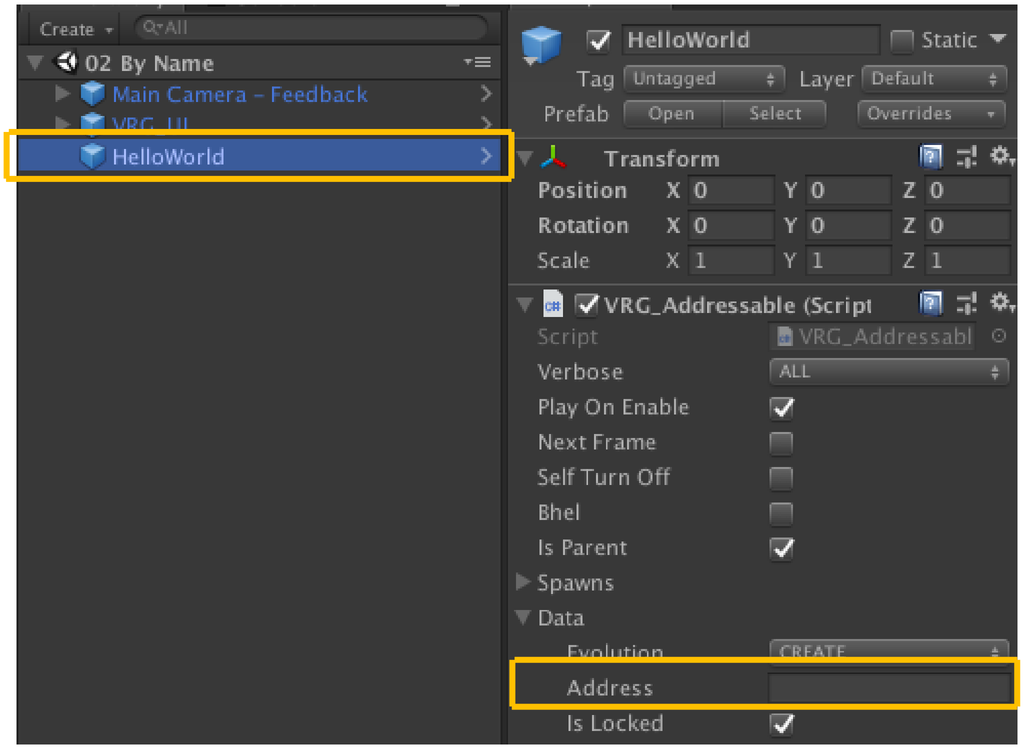
Script VRG_Addressab
Verbose ALL
Play On Enable ✓
Next Frame
Self Turn Off
Bhel
Is Parent ✓
pawns
ta
Evo ion CREATE
Address Canvas

12.2 VRG_Addresable: Created by name


Rename the VRG_Addressable object with
the asset name you want to download (HelloWorld)

Are you a wizard?

1) The ***VRG_Addressable*** has address empty, but its name is the addressable to load.



02 By Name
Main Camera – Feedback
VRG_UI
HelloWorld

HelloWorld
Static
Tag Untagged Layer Default
Prefab Open Select Overrides

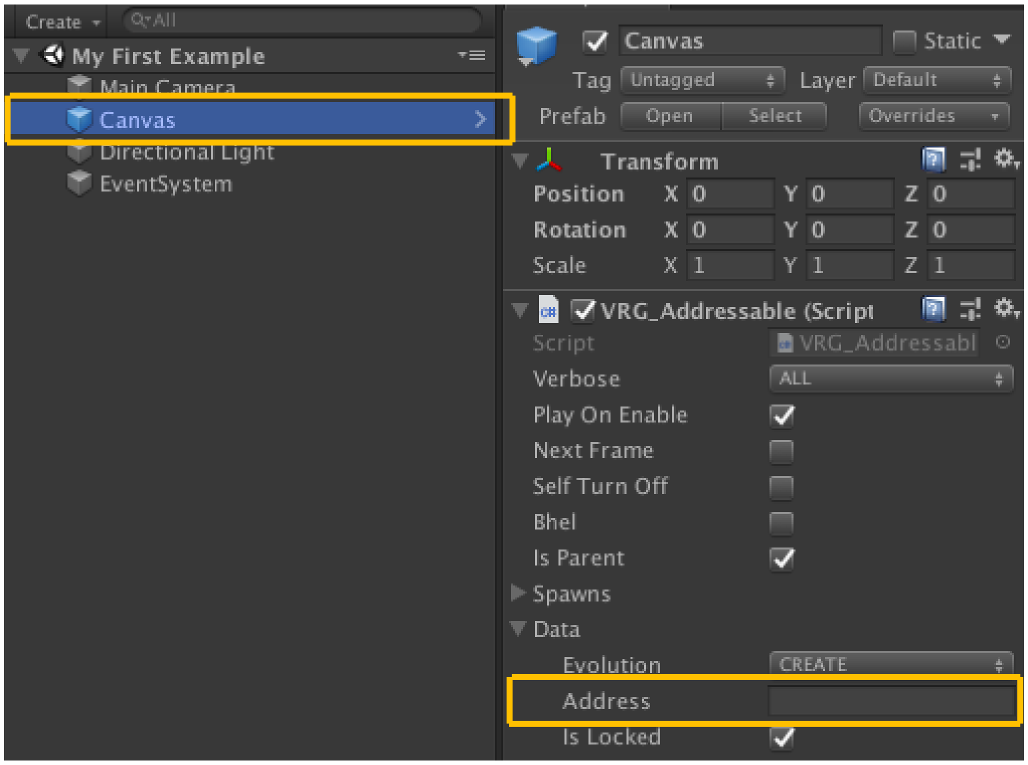
Transform
Position X 0 Y 0 Z 0
Rotation X 0 Y 0 Z 0
Scale X 1 Y 1 Z 1

VRG_Addressable (Script)
Script VRG_Addressabl
Verbose ALL
Play On Enable ✓
Next Frame
Self Turn Off
Bhel
Is Parent ✓
Spawns
Data
Evolution CREATE
Address
Is Locked ✓

What's the catch?

Let's recreate this example from scratch, follow these instructions:

1) Follow the instructions of the example "Hello world" up to step 16
2) Step 17, name the ***VRG_Addressable*** with "Canvas".
3) Play the scene.



My First Example
Main Camera
Canvas
Directional Light
EventSystem

Canvas
Static
Tag Untagged Layer Default
Prefab Open Select Overrides

Transform
Position X 0 Y 0 Z 0
Rotation X 0 Y 0 Z 0
Scale X 1 Y 1 Z 1

VRG_Addressable (Script)
Script VRG_Addressabl
Verbose ALL
Play On Enable ✓
Next Frame
Self Turn Off
Bhel
Is Parent ✓
Spawns
Data
Evolution CREATE
Address
Is Locked ✓

13. … AND THEY LIVED HAPPILY EVER AFTER

I hope this package will help you to develop faster and easier, our goal is to help you create a great game, drop me a line, I will always be happy to talk to my customers and if you enjoy it and feel like it, a 5-star rating review is