Welcome to Week 2 - Unity Intro!

This week is all about learning how to set up and find your way around the Unity 3D Game Engine. Unity is a very powerful tool that we use here at the EAC to develop and deploy applications for WebGL and our extensive collection of hardware in the lab.

Unity can be an extremely overwhelming software to learn for newcomers. So if you are struggling to wrap your head around it at first, don't worry! We are all in the process of learning new and interesting ways to harness its capabilities. Often times you may find that there is more than one way to complete a task, so if you discover a new and interesting feature, feel free to create a Confluence page explaining your findings.

Do not hesitate to do independent research or ask EAC members for help.

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Part 1 - Unity Setup

1.1 - Install and Download

- Make and register a Unity ID: http://id.unity.com
- Download the Unity Hub: https://unity3d.com/get-unity/download
- Download the corresponding version of Unity for the project:
  https://store.unity.com/#plans-individual
  - Before you download the latest version of Unity, ask your project lead what version your team is currently building applications on.
- Select Individual → Student or Personal to specify the type of account.
  - Student and Personal accounts are currently free of charge, so if you run into a pay wall talk to your project manager.

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1. Make a Unity ID.
2. Set up your Unity Account
3. Download the Unity Hub
4. Download Unity version 2019.3.5f1.
5. Make sure that **Desktop**, **Android**, and **WebGL** building tools are installed.

Part 2 - Importing Packages

2.1 - Import Packages

- Make sure that you have access to the EAC Shared Drive: https://eac-ualr.atlassian.net/wiki/spaces/TES/pages/914391053
- Read this document: https://eac-ualr.atlassian.net/wiki/spaces/3DOC/pages/993067072
- Based on what you have read, locate the C360 Package in the EAC Shared drive.
- If you are not importing the C360 package, see **Part 5 - Asset Store**.
- Download a **copy** of the package.
- Open the Unity Hub.
- Select "New" and name your Unity Project.
- See here for naming conventions: https://eac-ualr.atlassian.net/wiki/spaces/3DOC/pages/993034258
- Launch your new Unity project from the Unity Hub.
- Locate the folder on your hard drive containing the C360 Package and drag it into your Unity "Assets" Folder.
- Locate the **DigitalSalmon** package folder under Assets.

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1. Access the EAC Shared Drive, locate, and download a copy of the base C360 Package.
2. Import the C360 Package into Unity.

Part 3 - Unity Learn

- [Unity Learn](#) is a free and definitive resource for learning the ins and outs of Unity Game Engine.
- The Unity Learn modules allow you to track your learning progress over time, which is an invaluable resource for identifying strengths and weaknesses.

Part 4 - Unity Interface

4.1 - Project
- Assets - where all components created in or imported into Unity project are stored
- Packages - all Unity packages installed via the **Package Manager**

4.2 - Console
- View warnings and application errors

4.3 - Hierarchy
- Contains the current scene and its objects.

4.4 - Inspector
- Shows all adjustable parameters for the selected object.
- Use the lock icon in the top left corner to remain in Inspector view for one object while selecting another.

4.5 - Scene
- This is where you edit and view your scene.

4.6 - Game
- Allows you to preview your game from the chosen camera perspective.
Make sure to specify the exact position, perspective, and behavior of your camera before using the Game view. Everything you see in your project is relative to the camera that is viewing it.

4.7 - Unity Editor Exercise
Tabs can be added next to the Scene and Game tabs by selecting Window, choosing an option, and then dragging that tab next to the Game tab...etc
1. Spend time clicking around the Unity Editor interface, researching any terminology that interests you.

2. Configure the user interface to a layout of your liking by dragging the tabs to any compatible location and adjusting the dimensions.

Part 5 - Asset Store

5.1 - Access the Asset Store

- Follow this [link](#).
  Remember that the EAC does not own any asset downloaded from the asset store. If you would like to purchase an asset for any EAC project, discuss it with your project manager. This process must be documented so that proper permissions can be obtained from the asset creators.

5.2 - Download and Install Assets

- Open the Unity project where you would like to add assets.
- With the project open on your computer, select "Add to My Assets"
- Select "Open in Unity"
- The Package Manager in Unity will open automatically. Select "Download"
- The "Download" button will change to "Import" when the assets are located. Select "Import"
- The Import Unity Package menu will appear. From here you can choose the assets in the package individually or just import the entire thing.

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1. Locate and import two or more free Unity Assets from the Asset Store.
2. Add them to your Unity project and enter play mode.
3. If there are any error messages in the console, delete the asset and try another one.

Part 6 - John Lemon Tutorial

1. Follow this link: https://learn.unity.com/project/john-lemon-s-haunted-jaunt-3d-beginner
2. Select your installed Unity version on the tutorial screen.
3. Download the materials: https://assetstore.unity.com/packages/templates/tutorials/3d-beginner-complete-project-143846
4. Download the assets: https://assetstore.unity.com/packages/templates/tutorials/3d-beginner-tutorial-resources-143848

Always check to see if **Play Mode** is turned off before making changes in your Unity project.

Any changes made while in **Play Mode** will be lost when it is turned off.

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1. Follow the tutorial from beginning to end, performing each task as you go.
2. Make sure to stop and double check your steps if something does not work correctly.
3. When the project is completed, report your findings.