R. K. Software Development

Unity Package Asset Index v0.9.9.2 (Beta)

Last Edited On: 10/23/2016 9:32 PM

Last Edited By: R. Keown (robert.keown@rk-softwaredev.net (mailto:robert.keown@rk-softwaredev.net?subject=UPAI Documentation v0.0.4.7))

Unity Versions: Windows only (currently), v5.X.X

Submitted to Asset Store: 10/23/2016 10:00 PM

Submission Status: *Waiting on approval...*

Emergency Fix

This version addresses a namespace conflict issue, between other versions of *Newtonsoft.Json.dll*, and the version included with the UPAI. Because the version that is included with my package, is not intended for re-use, and doesn't serve as a replacement for the version currently on the Asset Store, I have opted to simply replace the namespace from *Newtonsoft.Json* to *RKGamesDev.Systems.Sereialization.Json* . All of the source code and credit remains with the original author, as only the functioning namespace has been updated. This version of the UPAI also includes a System Cleaner script that searches and deletes old UPAI files no longer needed. the cleanup is restricted to the folder paths and filenames included with my Package. This allows you to continue to use the existing versions of *Newtonsoft.Json.dll* that are included with other packages on the Asset Store. I am also going to submit this with an earlier version of the Unity Editor, so as not to force new users to have to upgrade, unnecessarily.

This version includes fixes for the **Online Document** link going to the correct URL, from within the editor.

Asset Description

The Unity Package Asset Index (UPAI for short), is a searchable index of all assets that are contained in unity package files, that currently live inside of the Asset Store folders on your computer. You do not actually have to import the packages into the Unity Editor , in order for them to be searched. The system works by scanning all package files, and the included assets, within them, and then stores all of the necessary meta data inside of a Lucene Index.   The system provides a search interface (Windows version v5.0.0 and above only) for both Packages and their contained Assets, either for importing the entire package, or now individual assets and their required dependencies.

NOTE: This utility doesn't track any Standard Assets nor Project Settings Files. This is due to the large numbers of these files that can be included with within Unity Packages purchased from the Asset Store.

Please note, the first time that you run the UPAI, you will need to initialize the system, which includes scanning all Packages in the Asset Store folder, extracting their contents, and analyzing all for dependencies. This can be a very time consuming process, based on the number of Packages that you currently have stored in the Asset Store folder, as well as their size and included Asset Counts. During alpha testing, the average Package Scan time for 100 MB Package with 20-30 Assets was around 1-2 minutes, per Package. This system has been stress tested with Package Counts/Sizes of 500+ Packages (25GB Total) and 3,000 Packages (500+ GB Total). The range for systems with this amount of Packages and Assets was 3 hours to 11 hours. Please not, that again, this is only for the system initialization phase, as checking for updates will ONLY process those packages which have been changed or updated, significantly reducing the amount of time to scan. Once the system is initialized, the scan times will significantly reduce to more reasonable time frames (15-30 minutes, with the exception of new/updated packages being discovered during the scan).

With this in mind, depending on the amount of Packages and their sizes, you may want to set aside a significant amount of time, in order for the system to initialize. Some users, due to the massive amount of packages and assets, decided to initialize the system at night, and then returning to use it the next morning.
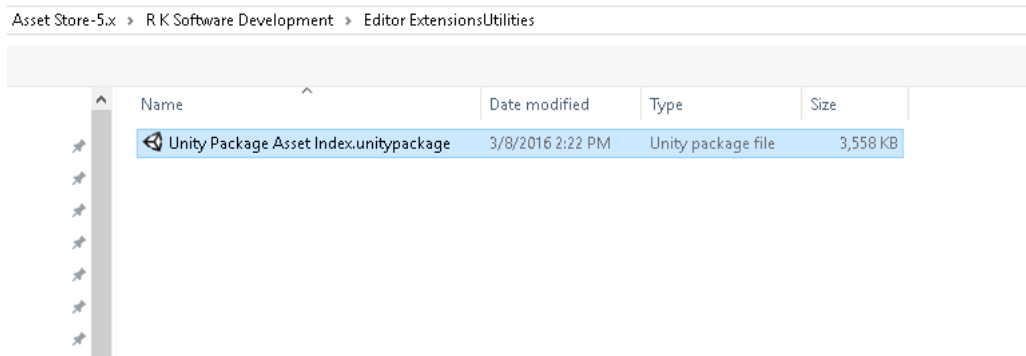
Getting Started

1. Open the Unity Editor

2. Click on the 'Assets' menu, then select 'Import Package' -> 'Custom Package...'
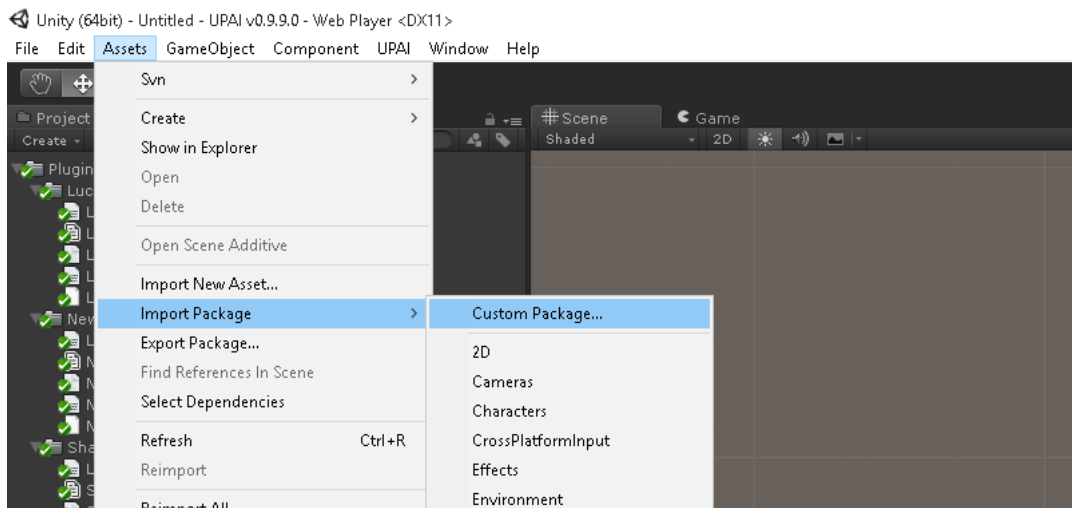
3. Browse to the following folder structure under the Unity Asset Store-5x folder:

     \R. K. Software Development\Editor ExtensionsUtilities

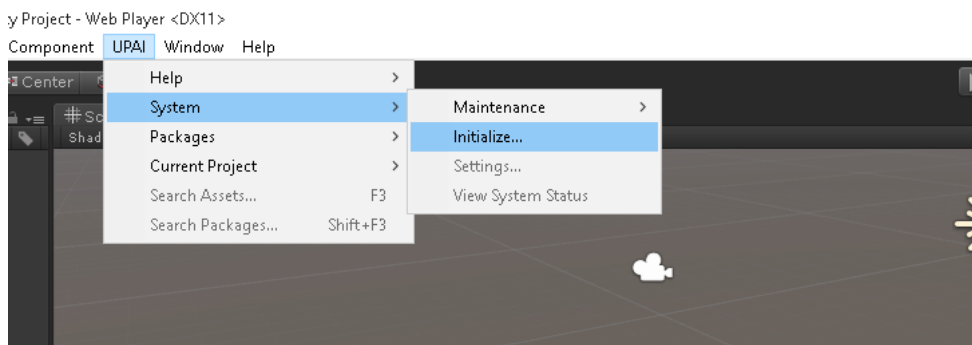4. Select the '**Unity Package Asset Index-Beta.unitypackage** ' file, and click on '**Open**'

5. Make sure that all included assets are selected, if they aren't, by clicking on the 'All' button.
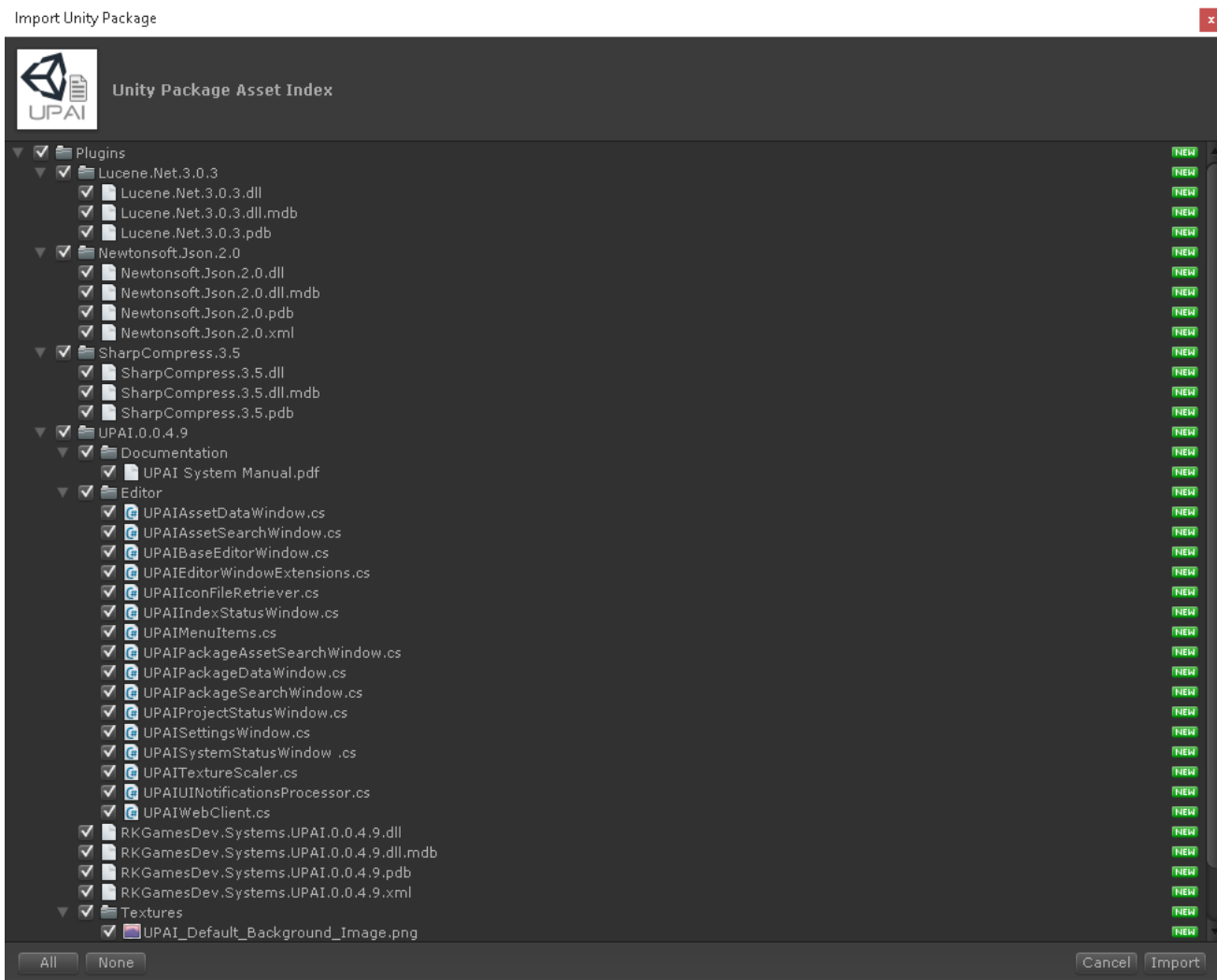
6. Once the UPAI package has been successfully imported, you should see a new top level menu, in the Editor window, called 'UPAI'
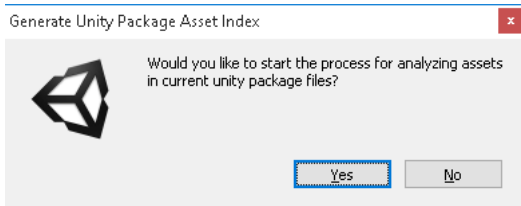
7. Click on 'UPAI' -> 'System' -> 'Initialize...'

8. When prompted for starting the analysis process, click on 'Y es'

If you don't, the system wont have any data for you to search on, until you've completed an initial system package scan.

If you did select 'No', you can start the scan by clicking on 'UPAI' -> 'Packages' -> 'Check for Updates' menu item.

9. You can follow the progress of the scan via the Progress bar indicator, and/or the Console status window, in the Unity Editor.
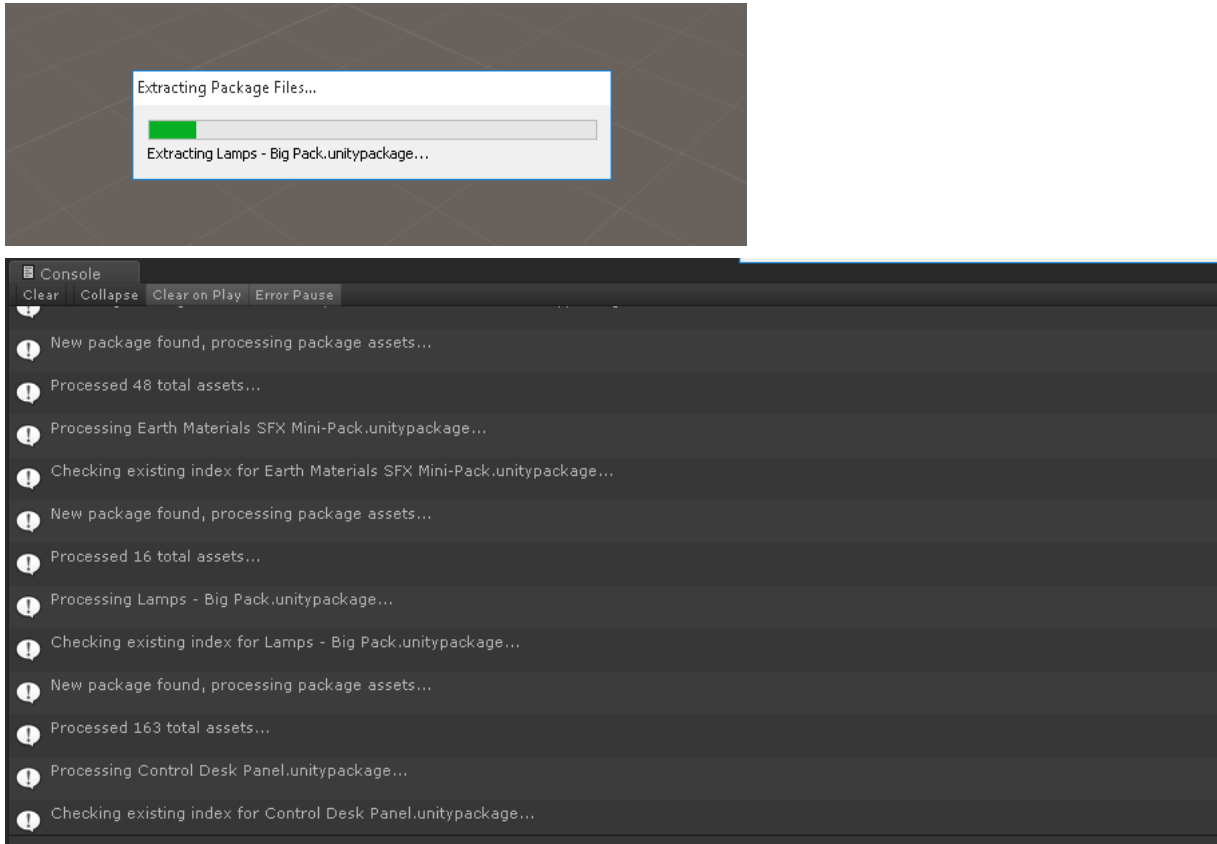

10. Once the initial scan has been completed, the system will make a backup copy of the current index files, and then run an optimization routine, to speed up the searching response times.

> ***The Backup/Optimize processes are enabled after Package Scanning, by default.***

> ***The only times these processes need to run is after running the 'UPAI' -> 'Packages' -> 'Check for Updates' menu item.***

UPAI Menu Structure - Unity 3D Editor
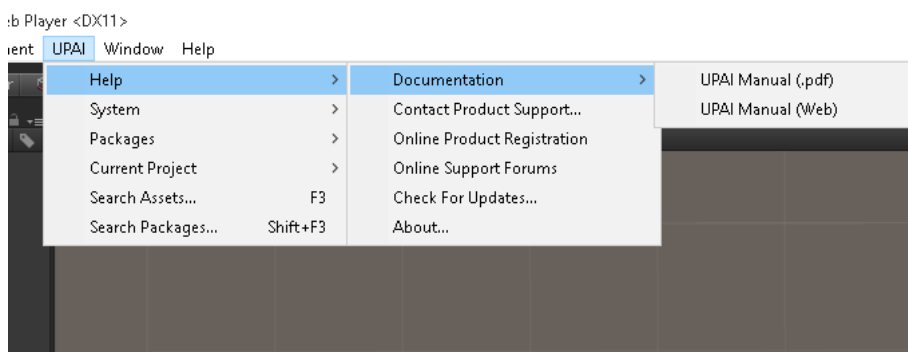
**Help Menu System ('UPAI' -> 'Help')**

- **Documentation**
  - *View system manual, either local .pdf or current version on web*

- **Contact Product Support...**
    - *Opens a new email message window (based on your email editor config on your local machine).*
    - *Automatically populates email address and subject line!!!!*
- **Online Product Registration**
    - *Register your product online*
    - *Allows access to pre-Asset Store release packages (Early access)*
    - *Allows you to post new messages on the support forums*
- **Online Support Forums**
- **Check for Updates...**
    - *Checks to see if you're running the latest version of the system*
- **About...**
    - *General system information*
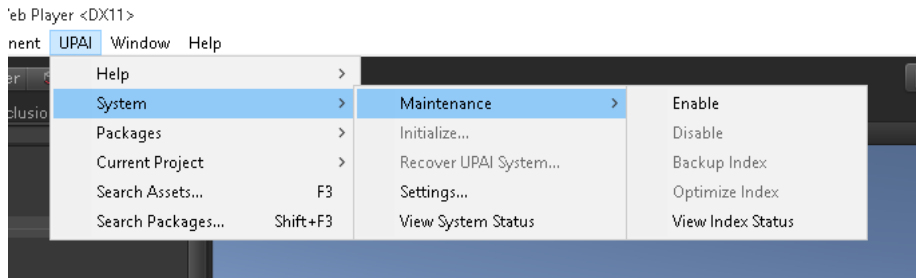
System Menu System ('UPAI' -> System')

- **Maintenance**
    - **Enable**
        - *Enables maintenance mode, allowing you to run Backup and Optimization processes, manually .*
    - **Disable**
        - *Disables maintenance mode.*
    - **Backup Index**
        - *Run a manual backup of the Index Files*
            - *Allows for restoration of Index, in case the index should become corrupted.*
            - *Added as a precautionary measure, due to having to rebuild the index from scratch...*
    - **Optimize Index**
        - *Increase performance and reduce wait times for Package and Asset searches to complete.*
        - *Both Backup and Optimization processes are automatically run, by default, post successful completion of checking for new and updated Packages. (See Updating Package Files)*
    - **View Index Status**
        - *Allows you to view the number of Packages and Assets (By Asset T ype), that are currently stored in the Index files, themselves.*
- **Initialize...**
    - *Only executed the first time you run the UPAI system.*
- **Recover UPAI System...**
    - *This allows the user to restore all previously open UPAI Windows, prior to importing an Asset and/or Package that included scripts. (See Script File Import W arning)*
- **Settings...**
    - *Configure the individual components/modules of the UPAI (See Configuring the UPAI)*
        - *Searching*
        - *Processing*
        - *Logging*
- **View System Status**
    - *Allows you to view the current System Folder Sizes*
    - *Allows you to view the total/Individual Package File Sizes*
    - *Allows you to list the current Index Backup Files*
        - *The **Restore Process** is expected to be launched in v0.9.9.3*
    - *Allows you to view current UPAI Log Files*
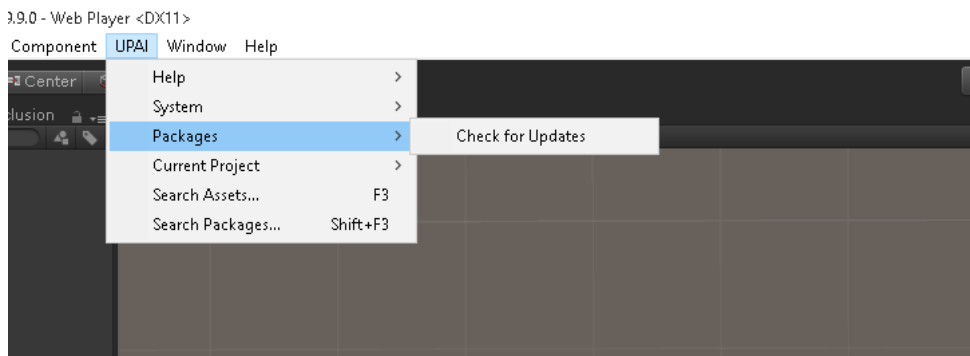
Packages Menu System ('UPAI' -> 'Packages')

- **Check for Updates**

- *This starts the process of scanning all of your Package files that exist in the Asset Store-5x folder*
- *Only New/Updated Packages will be processed for content*
- *If only a Date/Time difference is found, but none of the actual Package Meta Data has changed inside of the unity package file itself, this is not considered to be a new Package.*
  - *Instead, it's MetaData in the Index Files is only updated with the new Date/Time information of the Package File, and it is not processed for new Assets.*
    - *This was added due to some Asset Developers updating only the information about the asset itself on the Asset Store, and not actually updating a new Package file to go along with it.*
    - *This can be seen in the Asset Store download window of the Unity Editor, as after updating a package from the Asset Store, it still indicates that an update is available.*
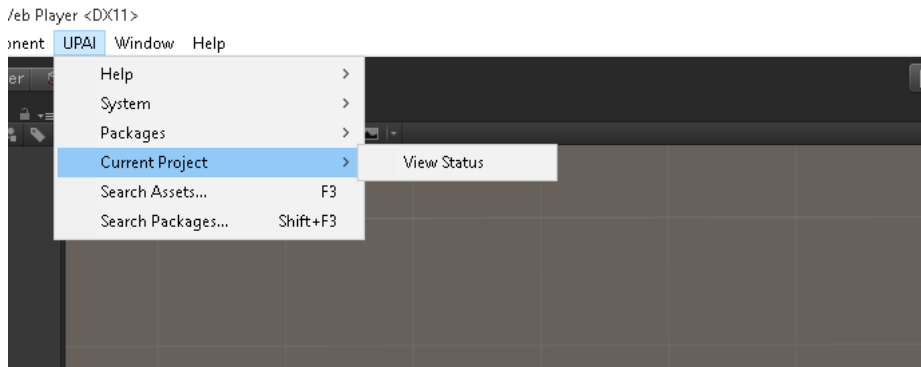
**Project Menu System ('UPAI' -> 'Current Project')**

- **View Status**
  - Currently under development, expected to be launched prior to v1.0.0.0
  - Intended to allow you to see if there any new/updated Assets from your downloaded package files, that are currently imported in your Unity Project.

  UPAI Menu System ('UPAI')

- **Search Assets**
  - Keyboard Shortcut -> *'F3'*
  - Opens up the Asset Search window
- **Search Packages**
  - Keyboard Shortcut -> *'Shift+F3'*
 - Opens up the Package Search window

Configuring the UPAI

Currently the required folder structure for the UPAI cannot be modified. It currently lives in the same folder structure, that Unity itself uses for storing information about Packages as well. This is expected to change in a future release (unscheduled), due to the disk space requirements for Unity Package files, and the needed disk space for the UPAI to store the Index Files, Included Package/Asset Preview Icons, as well as process the unity package files, during the Check for Updates processing.
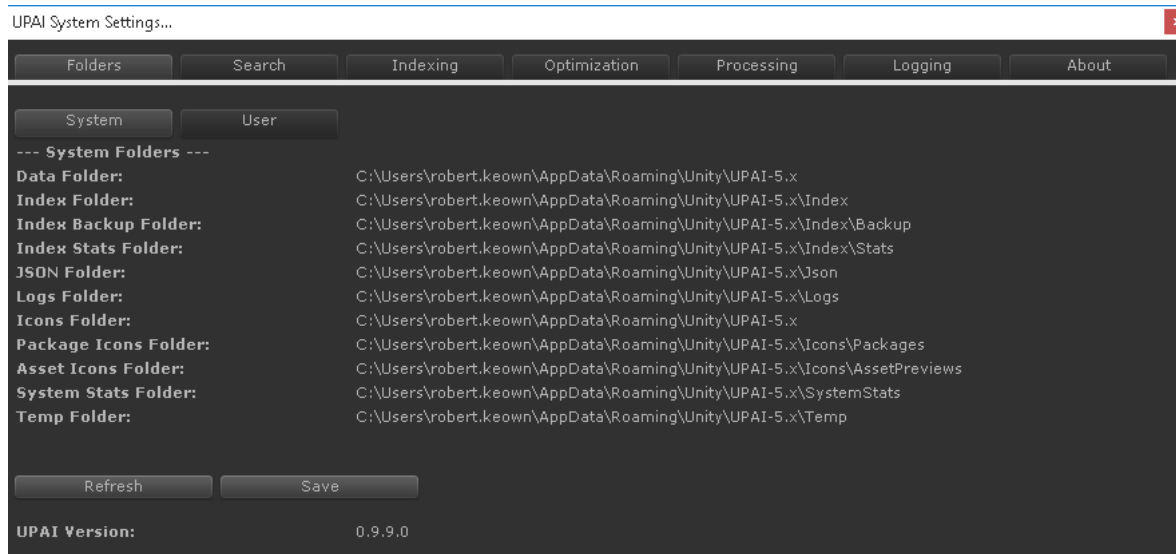
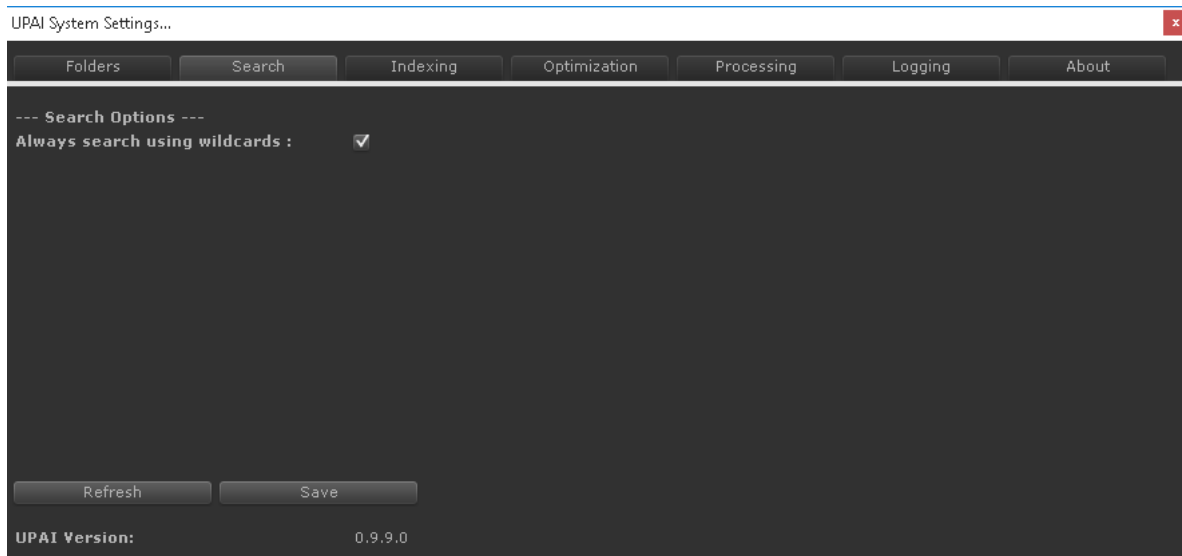**Folder System Settings - System**

- This is the current folder structure that the UPAI uses in order for you to be able to search for Packages and Assets.
- To prevent corruption to the Index Files, the only UPAI System Folder you should ever go into, is the Logs Folder. this is only needed for submitting Log Files to Support, if need be.

- You should NEVER attempt to open or view the contents of the Index Files that reside in the Index Folder itself. This can cause the Index Files to become corrupted, and can only be restored if you have a current backup.
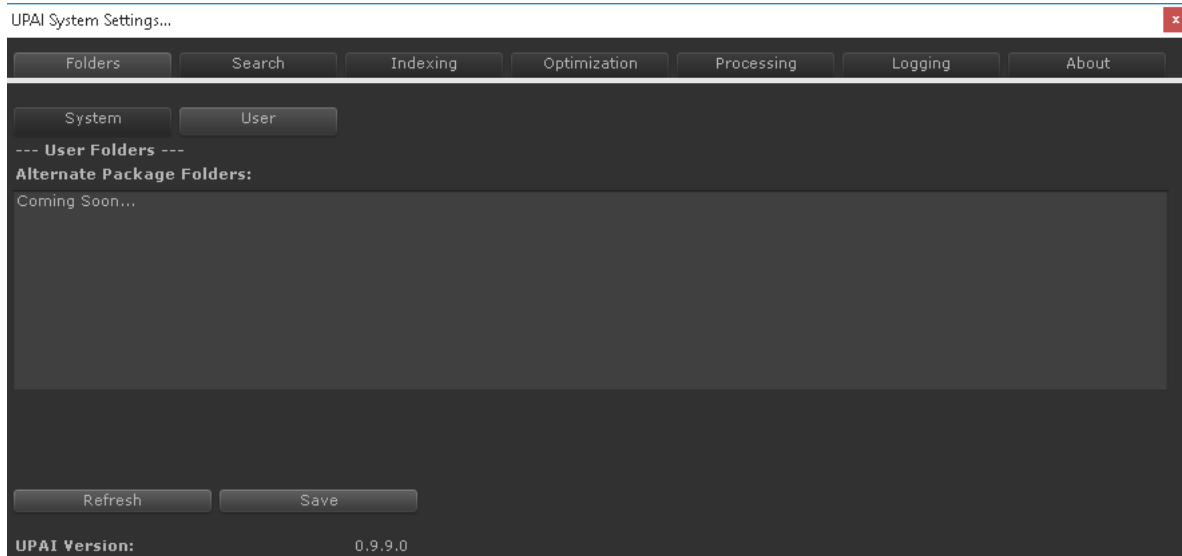
Folder System Settings - User Folders

- This is currently under development, and will allow you to add additional folder paths to the system, to be scanned for new/updated packages, that reside outside of the normal Asset Store-5x storage folder.
- This is expected to be launched prior to v1.0.0.0
- Any data entered in here, currently, will not be saved, until the component has been released

Search System Settings

- **Always search using wildcards**

UPAI System Settings...						x
Folders	Search	Indexing	Optimization	Processing	Logging	About

--- Indexing Options ---
Common Filename Limit: 20
Optimize After Updating :   ☑
Process Assets Asynchronously :   ☐
Process Packages Asynchronously : ☐

Refresh   Save

UPAI Version: 0.9.9.0
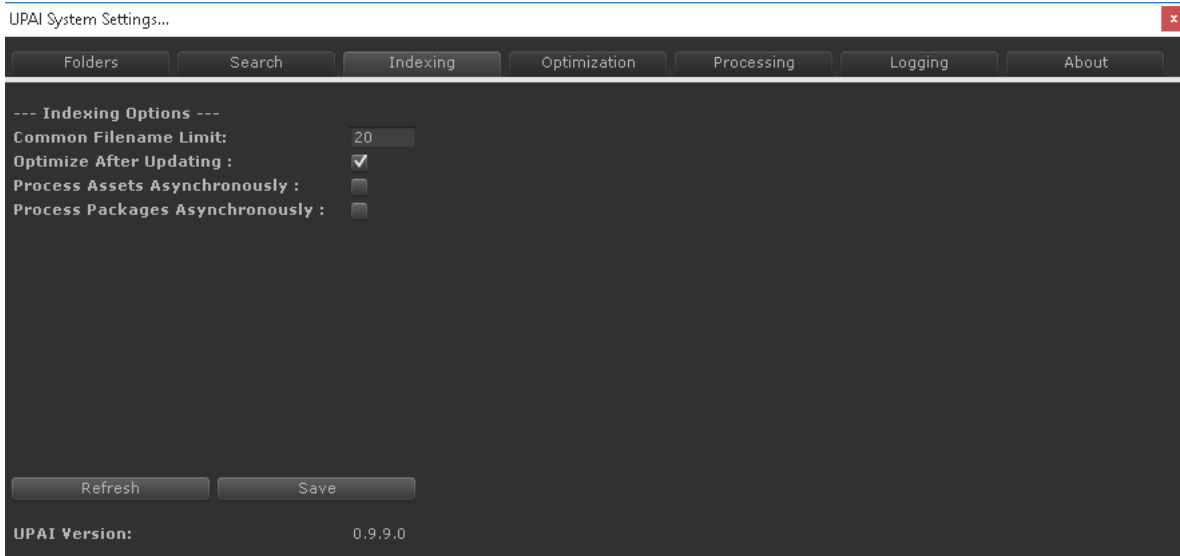
Indexing System Settings

- **Common Filename Limit**
  - *This feature is currently under development, along side the Project Status component/module.*
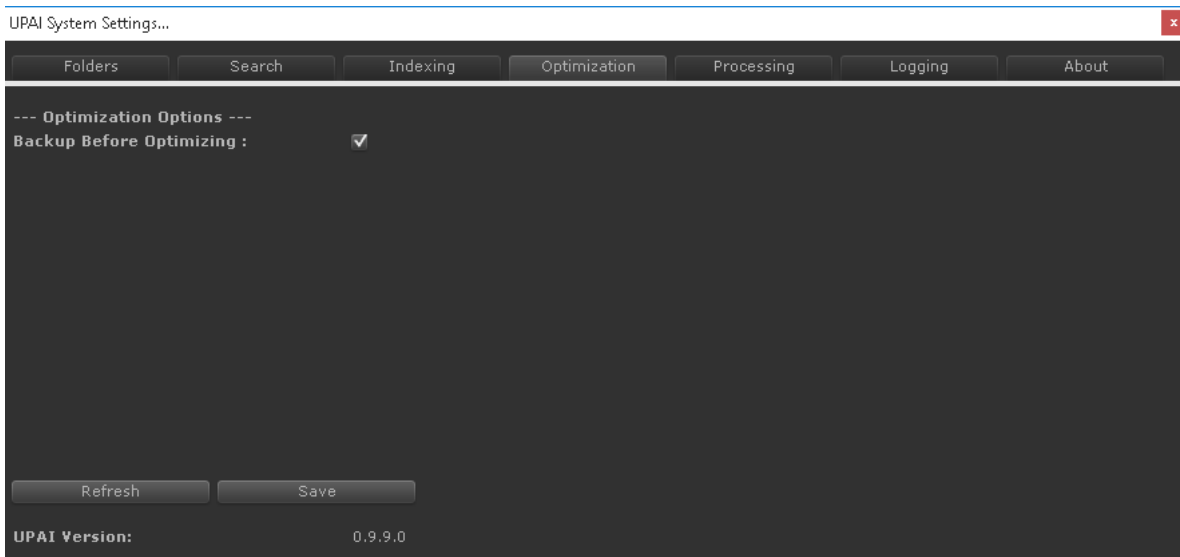 - *Its intended use is to limit Asset Search results, with regards to commonly named assets, that may exist in between Packages developed by other users.*
  - *This will be needed for determining what source Package an Asset came from, that wasn't imported with the UPAI.*
  - *This doesn't refer to Standard Assets, as those are ignored by the system, when processing Asset data from new/updated Packages.*
- **Optimize After Updating**
  - *Tells the UPAI system to automatically optimize the Index Files, post completing a new/updated Package check.*
  - *If this is disabled, you will need to run this process manually , which is not advised.*
- **Process Assets Asynchronously**
  - *Currently under development with not scheduled ETA.*
  - *Intended to speed up the process for checking new/updated Packages.*
  - *May not be needed*
- **Process Packages Asynchronously**
  - *Currently under development with no scheduled ETA.*
  - *Intended to speed up the process for checking new/updated Packages.*
  - *May not be needed*

UPAI System Settings...						x
Folders	Search	Indexing	Optimization	Processing	Logging	About

--- Optimization Options ---
Backup Before Optimizing :   ☑

Refresh   Save

UPAI Version: 0.9.9.0

Optimization System Settings

- Backup Before Optimization
  - This tells the UPAI system to execute a backup of the current Index files, prior to executing an optimization routine.
  - This is because the Index Files themselves are modified during the optimization process
    - Should an issue occur during the Optimization process, the non-optimized index Files can be restored
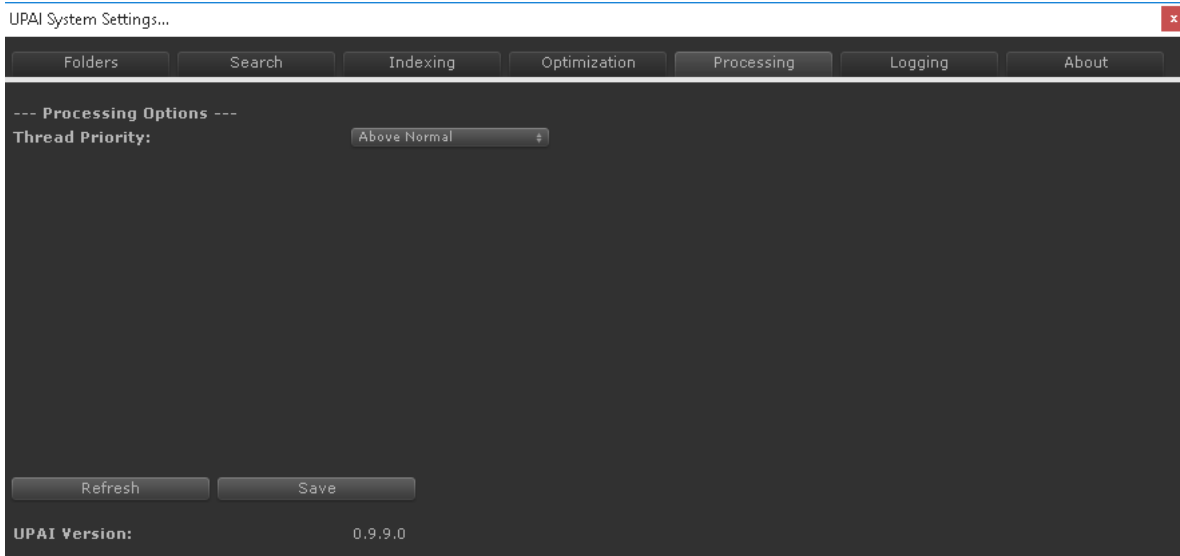
Processing System Settings

- Thread Priority
  - Below Normal (Default Setting)
  - Because the UPAI system is multi-threaded, and the majority of it's processing is executed otuside of the normal Unity Editor thread, you can choose what priority level you want the UPAI system to execute background process threads.
  - This is to allow you to customize processing, so not as to interfere with other processes you may be running ith unity in parallel (Prevent Editor Slow Downs/Lockups)
    - Currently, it is not recommended to go use 'Highest',a s this can cause issues with the Unity editor becoming slow or unresponsive.   The majority of the users have found that setting this value to 'Above Normal' is the optimal settings for using the UPAI on a system with 4 cores or more.
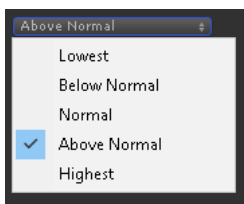
- *Available Thread Priority Settings*
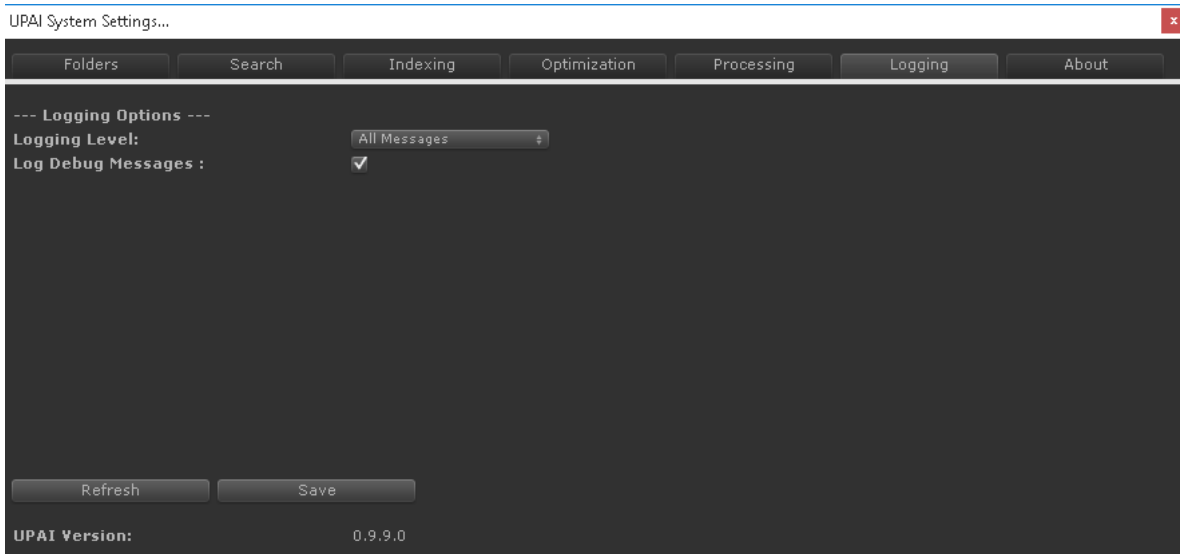
Logging System Options

- **Logging Level**
  - Allows you to customize the amount of data that is logged by the UP AI system.
    - If disk space is a concern, select 'Errors Only'
    - This will tell the UPAI System to only log the pertinent data needed to troubleshoot the error.
      - Support may have you enable 'All Messages' while troubleshooting, in order to gather more detail about what was occurring at the time of the error.
- **Log Debug Messages**
  - Assists support in debugging errors that may occur during use of the UP AI System.
  - Safe to disable
    - Support may have you re-enable this option, while troubleshooting any reported errors.
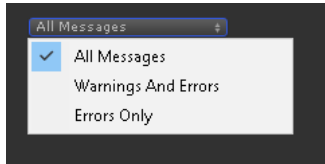
Currently Available Logging Options

- **None** will most likely be added, after the launch of v1.0.0.0
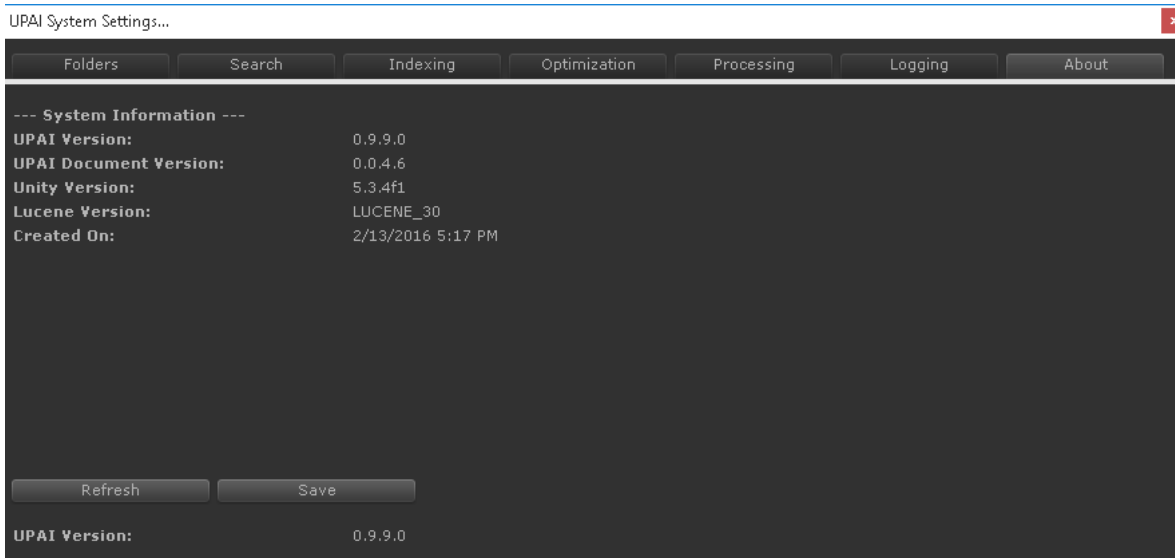
About System Settings

- **UPAI Version**
  - Current System Level version of the UPAI
- **UPAI Document Version**
  - Current UPAI Document Format Version
  - Assists in determining what data is available for both Assets and Packages
  - An update system will allow you to receive updated format specifiers, that will allow additional data to be stored and searched, without having to update the assemblies (.Dll files)
    - Currently under development, with no scheduled ETA.
- **Unity Version**
  - Current version of the Unity editor
- **Lucene Index V ersion**
  - Current version of the Lucene Index that the UPAI is using
  - The latest version of Lucene.Net port from the Lucene project that is currently available, is v3.0.3.
- **Created On**

Searching for Packages and Assets

Searching for Packages

1. To begin searching for Packages, select 'Search Packages...' from the 'UP AI' menu.

2. An alternative to using the menu system, is to press and hold 'Shift+F3'.
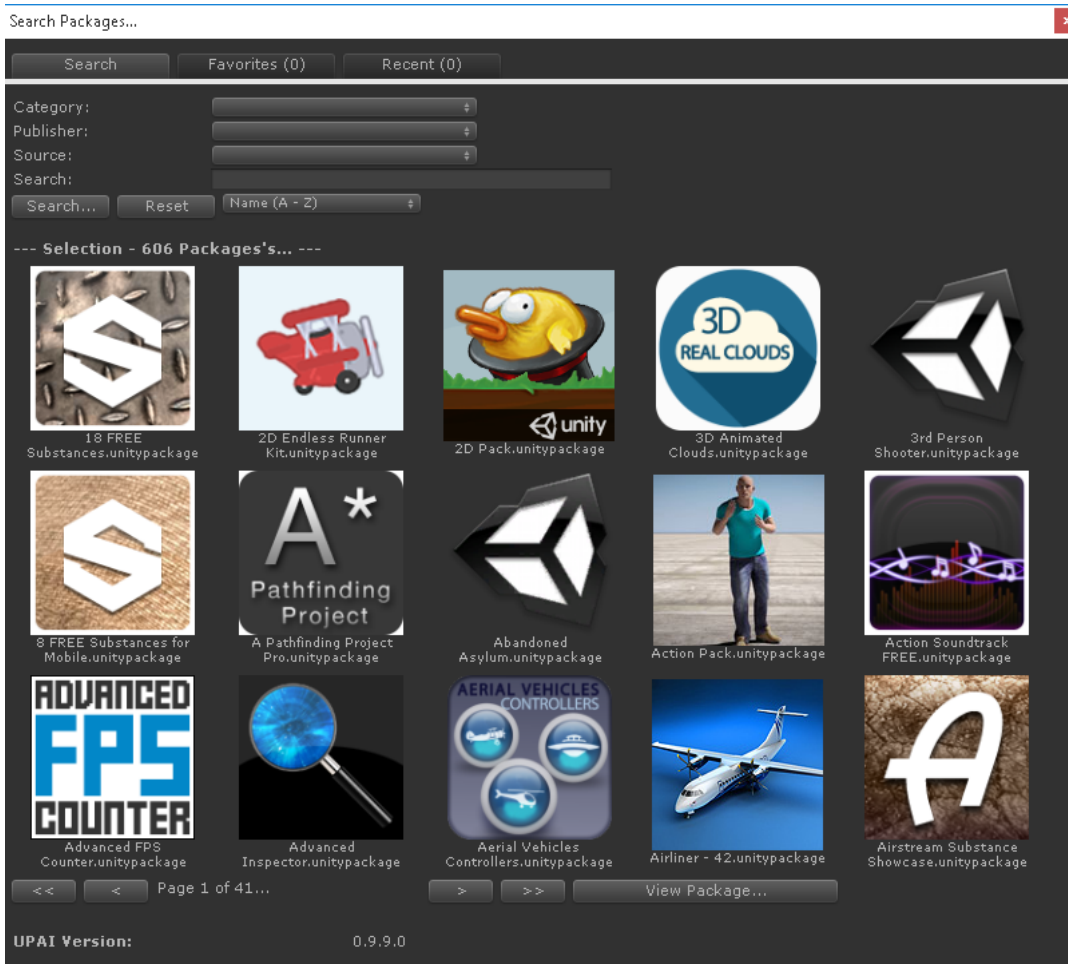
- The 'Package Search' window allows for easy access to all of the unity package files that have successfully been indexed on your computer .
 - You can filter packages by Category, Publisher and/or Source
  - Package Source indicates how the unity package file was generated.
    - Asset Store Package (Publisher Tools)
    - Package Export
    - Other
- You can also search for packages, by entering the keywords that you want to search for , and then clicking on the 'Search' button.
  - You can also activate the search function, by entering your keywords, and pressing and holding the 'Enter' key , until the search begins
- To reset all Filters back to their defaults and to clear out the 'Search' text box, click on the 'Reset' button.
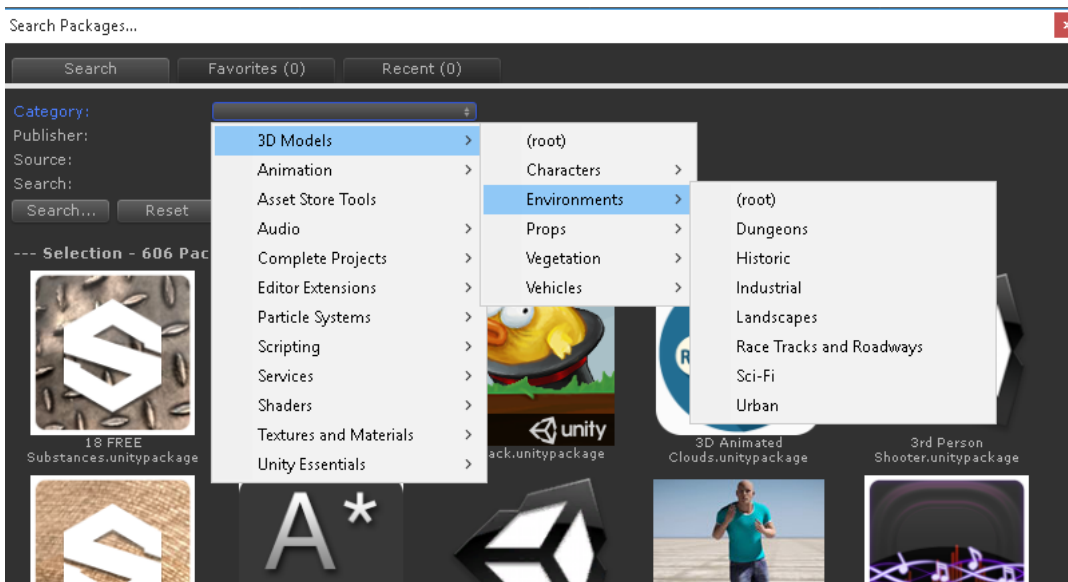
- The *Category* filter allows you to select a specific category to display all packages that are a member of that category .
  - If the Category you want, has a '>' sign at the end, simply click on '(root)', in order to show all packages for the top level category .
  - **Example:**
    - To show all packages that are in the main ' *3D Models*' category, you will need to select ' *3D Models > (root)*' from the filter list.

- This is due to a limitation in unity , in which a menu item, that also has sub-menu items, cannot be clicked on.
- (root) is a custom solution that I've implemented, in order to simplify the Category filter .
- The *Category* filter will always remain fully populated, as a top level menu.
  - The exception to this rule, is when performing a search for specific keywords, the the category list is filtered to show only those Categories found to contain packages found during the search.
- When a *Category* is changed, both the Publisher and Source filters are rebuilt to limit the selection, based on the packages located in the selected Category .
- Selecting different *Publishers* and Sources will **NOT** rebuild the Category filter, as this is a top level filter.
  - This is by design
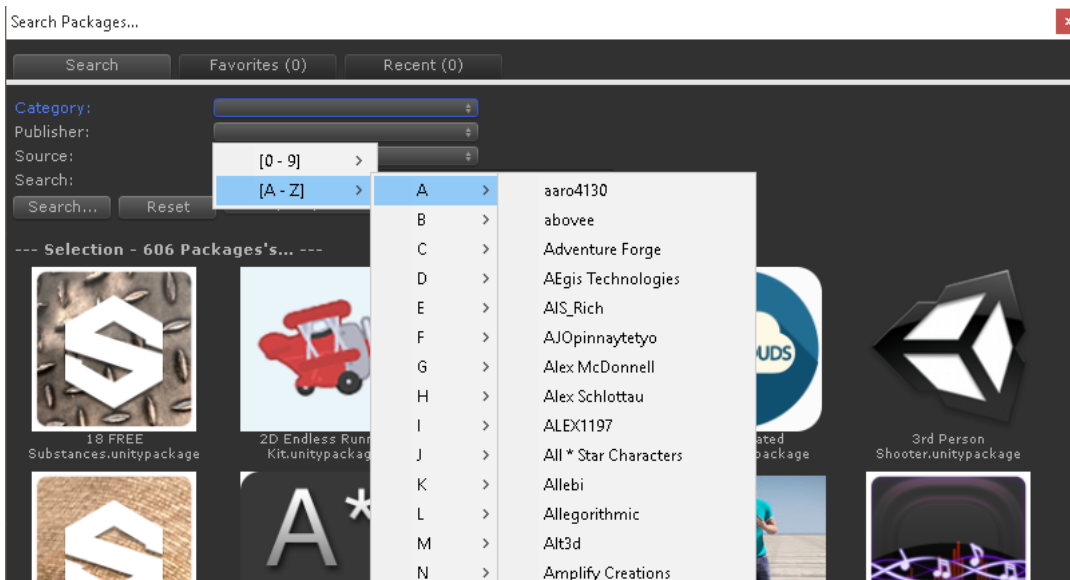
- The *Publisher* filter allows you to display all Packages that were published by a specific developer .
  - To simplify the list of *Publishers* , they are first broken down by the first character in their name.
    - Numeric characters are then consolidated as sub-menu items, under under '[0 - 9]', then again by the first character of their name.
    - Alphabetic characters are then consolidated as sub-menu items, under '[A - Z]', then again by the first character of their name.
- Selecting a different *Publisher* will cause the *Source* filter to be rebuilt, limiting the selection of *Package Sources* to the filtered results
  - This will **NOT** cause the *Category* filter to be rebuilt
  - This is by design.
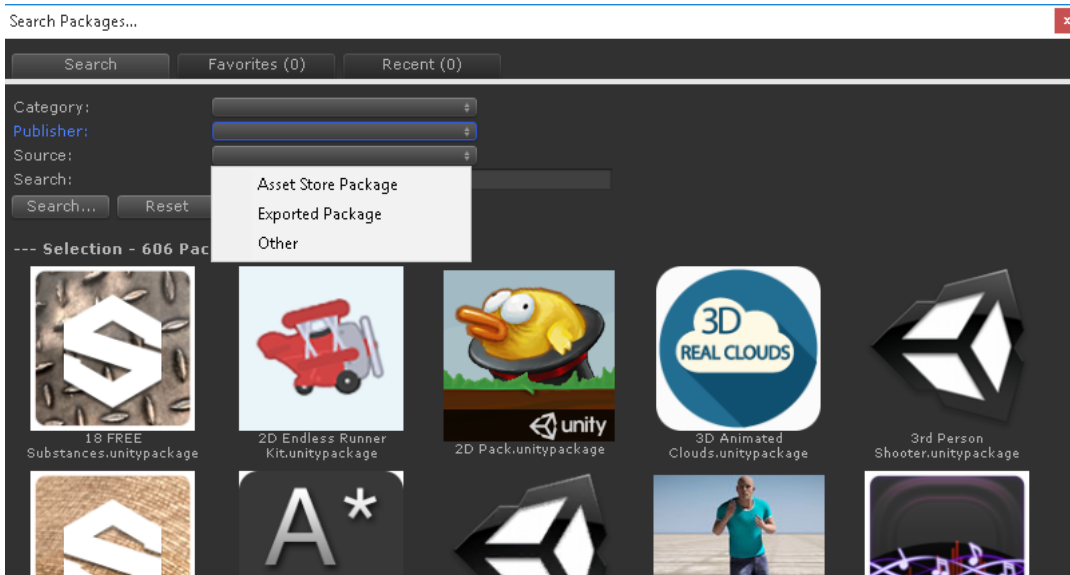
- The *Source* filter allows you to select from how the Package Files were generated.
  - Asset Store Package (Publisher Tools)
  - Exported Package
  - Other
- Selecting a different *Source* will cause the *Publisher* filter to be rebuilt, limiting the selection of *Publishers* to the filtered results.

## Importing a Package/Viewing Package Data and Assets

1. Select the Package that you wish to import

2. Click on the 'View Package' button.
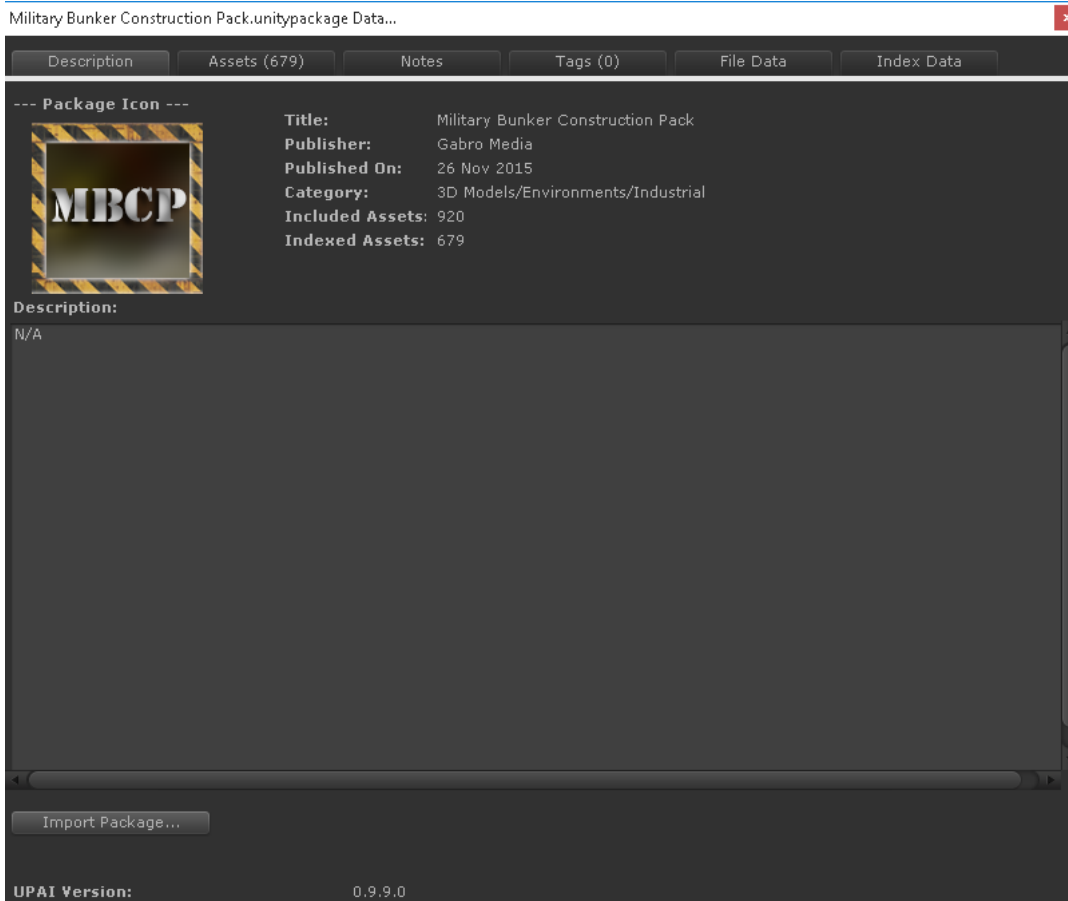
3. To import the current package, click on the 'Import Package...' button.

- This is the main Package information window.
- This includes the following information
  - **Title**
  - **Publisher**
  - **Date Published**
  - **Category**
  - **Total Asset Count**
    - This represents the total number of assets that are included in the Package
      - This includes *Standard Assets*, *Project Settings Files*, and *Publisher Devleoped Assets*
  - **Indexed Asset Count**
    - This represents the total number of Publisher Developed Assets, that can be searched and imported bu the UPAI System.
      - The UPAI system does **NOT** track *Project Settings Files* nor *Standard Assets*
    - This is by design.
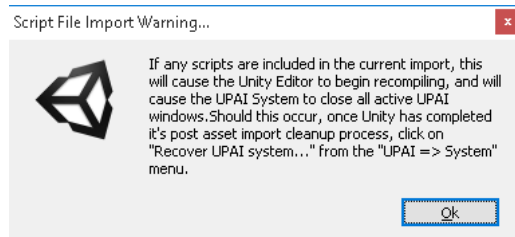
- If the current Package contains any script files, you will receive the above warning.
  - This is because when Unity Imports new Script files, it automatically re-compiles all Scripts that are included in the current project.
  - Because the UPAI system utilizes Unity Editor Scripts, Unity's re-compiling causes the UPAI Windows to reset and lose all of the current configuration data.
  - The UPAI Systems includes a component that tracks all of the UPAI Windows that were open at the time of the import, and serializes this data to the file system, prior to Unity starting the re-compiling of the project scripts.
  - If the UPAI data windows do close, you can restore all of them, by selecting 'UPAI' -> 'System' -> 'Recover UPAI System...'
    - This will restore all of the previously open UPAI windows, and allow you to continue to use the UPAI System, uninterrupted.

- This is the Package Asset window
    - Here you can view all of the Publisher Developed Assets that are included in the Package.
        - You can filter by '*Asset Type*' or choose to display '*All*' Assets
            - If the results from the Asset Type filter contain different file formats, you can select the the file format by selecting it's file extension from the 'File T ype' filter.
                - This allows you to see what file formats are available for the select Asset Type.
                    - If only one File Format is available, then the '*File Type*' filter will **NOT** be displayed.
    - You can also perform keyword searches against the Assets that are included in the Package, itself.
        - To reset all Filters back to their defaults, and to clear out the 'Search' text box, click on the 'Reset' button.

Military Bunker Construction Pack.unitypackage Data...   [x]

| Description | Assets (679) | Notes | Tags (0) | File Data | Index Data |

Publisher Notes:

N/A

UPAI Version: 0.9.9.0
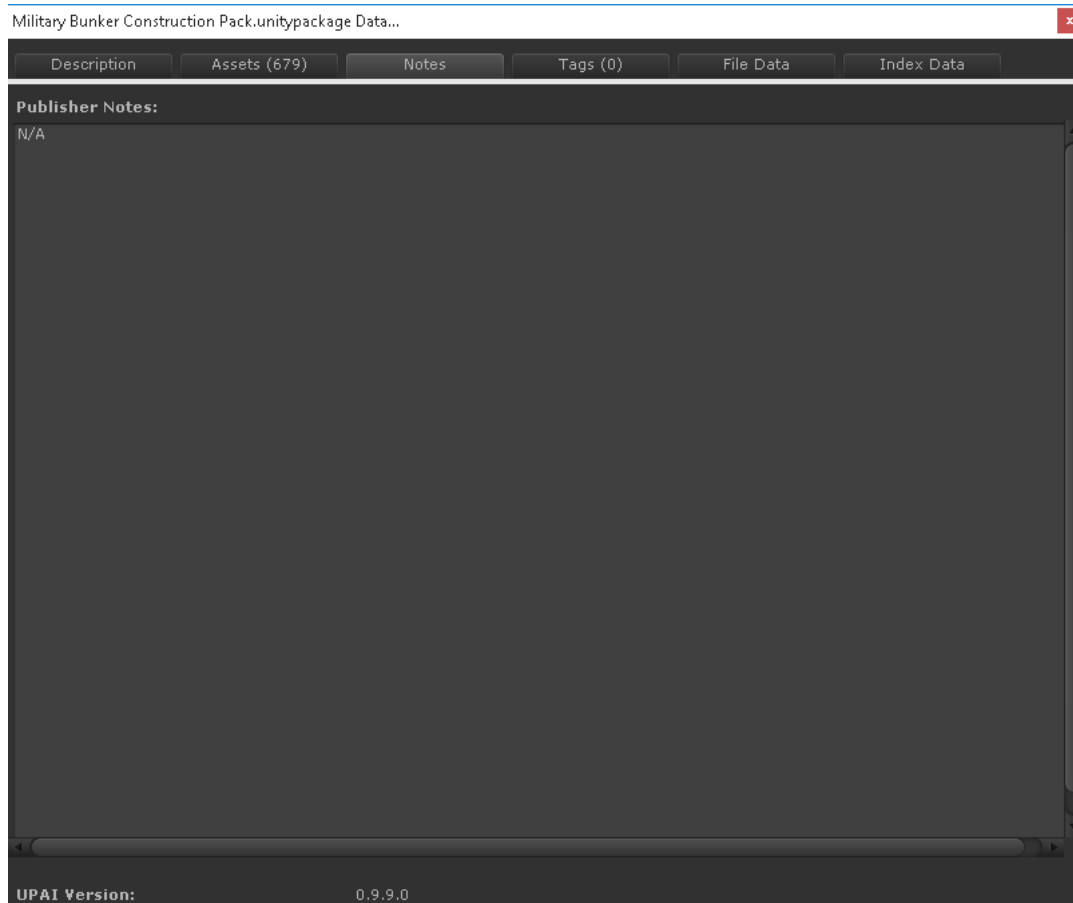
- This is the Publisher Notes window
  - If the Publisher of the Package included any notes regarding the reason for the package file update, they will be displayed here.
    - This is read-only

Military Bunker Construction Pack.unitypackage Data...   [x]

| Description | Assets (679) | Notes | Tags (0) | File Data | Index Data |

Tags:

Coming Soon...

UPAI Version: 0.9.9.0
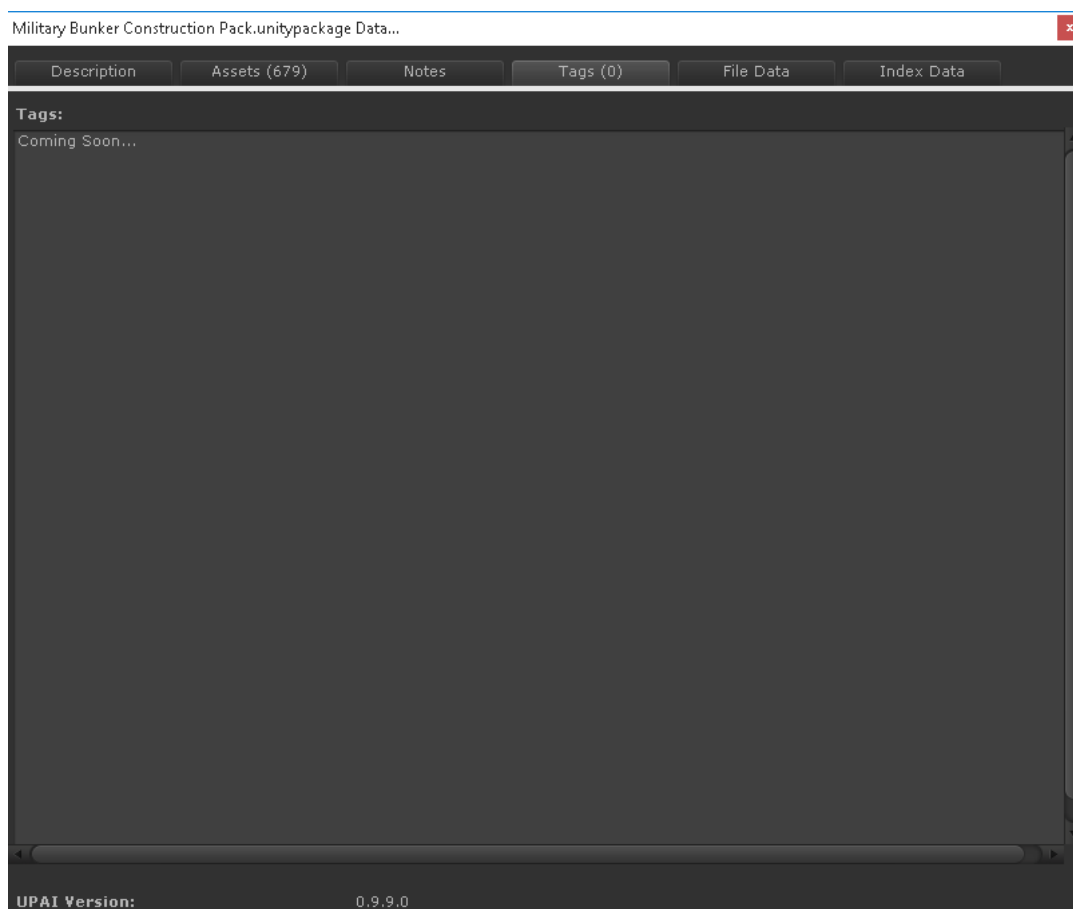
- This is the Package Tags window
  - This is intended to allow you to assign Tags to the unity package file
    - This is currently under development, and no ETA is currently scheduled.
    - The ultimate goal is to integrate with *Unity Technologies* new *Package Tagging* system that was recently implement in the Asset Store downloads folder .
      - A support ticket has been opened with unity Technologies regarding this integration.

Military Bunker Construction Pack.unitypackage Data...

| Description | Assets (679) | Notes | Tags (0) | File Data | Index Data |

Path: \Gabro Media\3D ModelsEnvironmentsUrban\Military
Size: 660.77 MB
Downloaded On: 3/19/2016 10:40 AM
MD5 Hash: 8cae67a4a979c739e690332949de9143

UPAI Version: 0.9.9.0
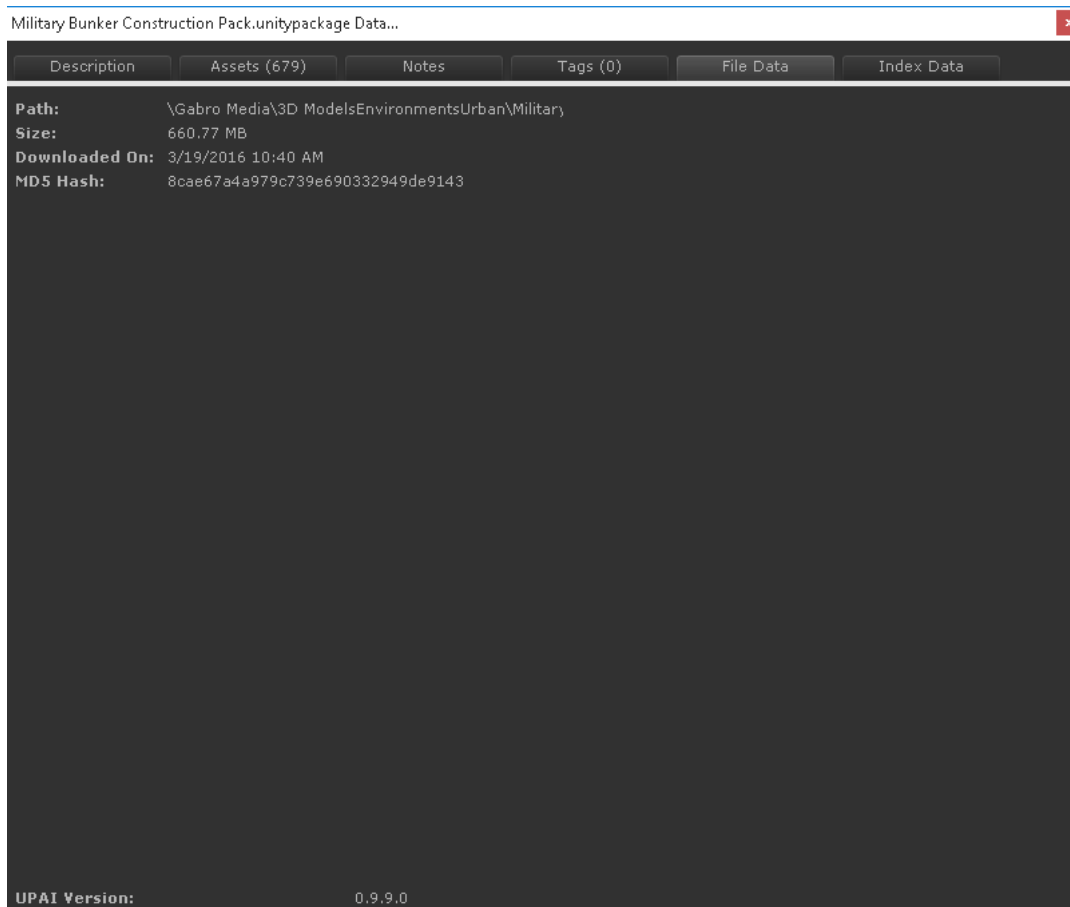
- This is the Package File Data window
  - Here you can see the following information:
    - **Asset Store folder**
      - This represents the name of the directory that contains the physical unity package file
    - **File Size**
    - **Download Date**
      - This represents the date that you physically downloaded the current version of the Package file.
    - **MD5 Hash**
      - *This is generated by the UPAI system for assisting in the tracking of Package file updates.*

Military Bunker Construction Pack.unitypackage Data...

| Description | Assets (679) | Notes | Tags (0) | File Data | Index Data |

Document ID: 50544-11114-1.0-149566

UPAI Version: 0.9.9.0
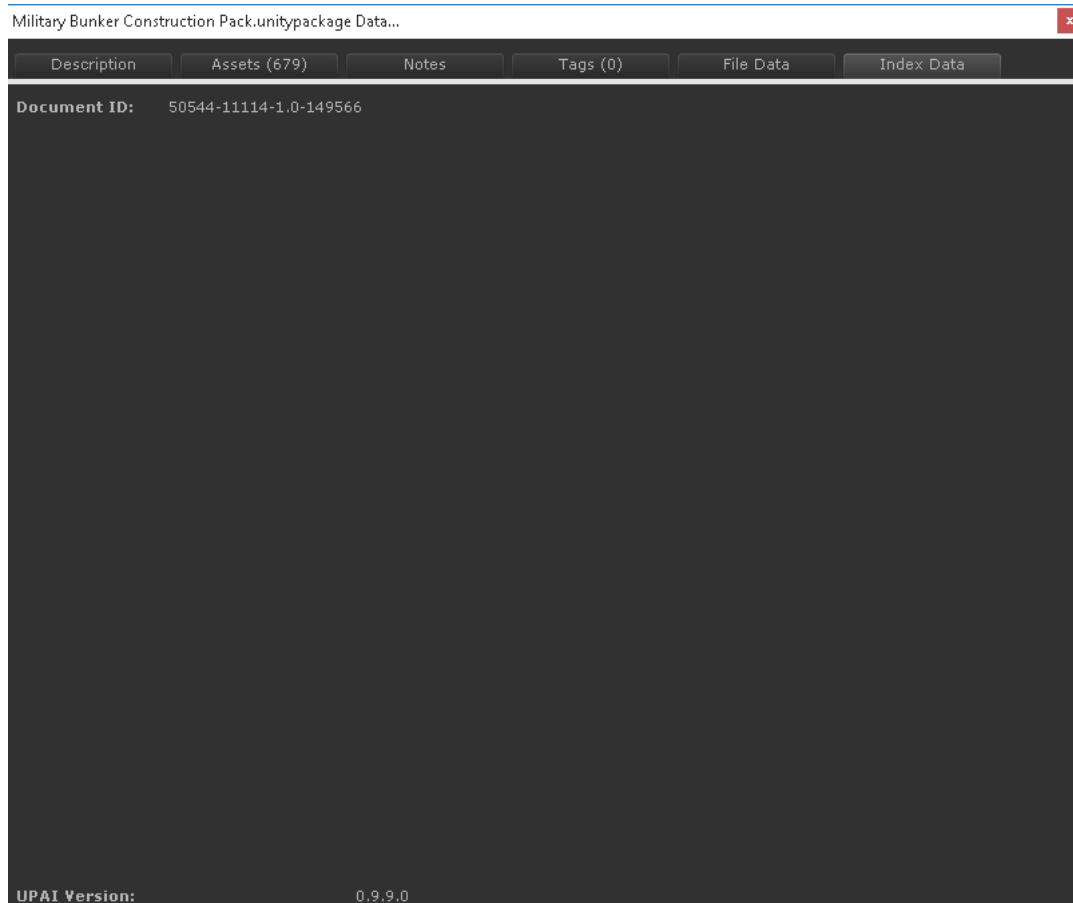
- This is the Package Index window
  - This displays the indexes key that is used to track the package.

Searching for Assets

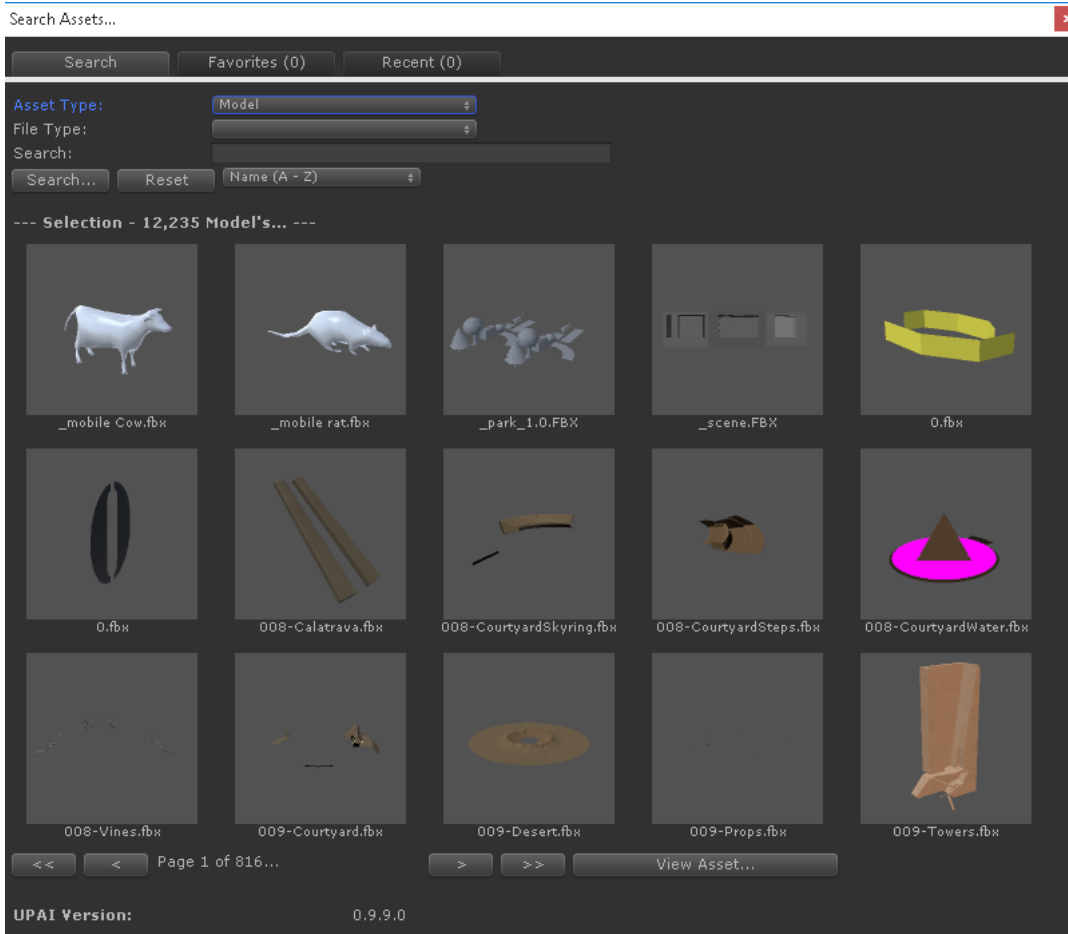1. To begin searching for Assets, select 'Search Assets...' from the 'UP AI' menu.

2. An alternative to using the menu system, is to press 'F3'.

- The asset Search window allows you to search through all of the Publisher Developed Asset files that are contained within all of the unity package files on your local Hard Drive.
  - The purpose of this is to identify where your assets live, without having to import each individual package to locate them.
    - Once you've located an Asset that you want to view and/or import, click on the ' *View Asset...*' button. **(See Importing Individual Assets)**
  - You can filter on what type of Asset that you want to search for , by selecting it from the 'Asset T ype' filter.
    - This filter is only populated with the types of Assets that were found in your local package files.
    - Additionally, if an '*Asset Type*' allows for multiple file formats, you can also filter on the '*File format*' by selecting its ' *File Extension*' from the '*File Type*' filter.
  - The '*All*' Asset Types is not available when using the main '*Asset Search*' window
    - *This is due to the large number of Assets*
  - The '*Search*' text box allows you to search for specific keywords, that the selected 'Asset T ype' could contain.
  - The following fields are searched:
    - **Asset File Name**
    - **Asset Name**
    - **Asset Path**
    - **Asset Meta Data**
      - *This includes tags assigned to the Asset by the Publisher*
      - *This data is retrieved and then cached in the Index Files, during the 'Packages' -> 'Check for Updates...' process.*
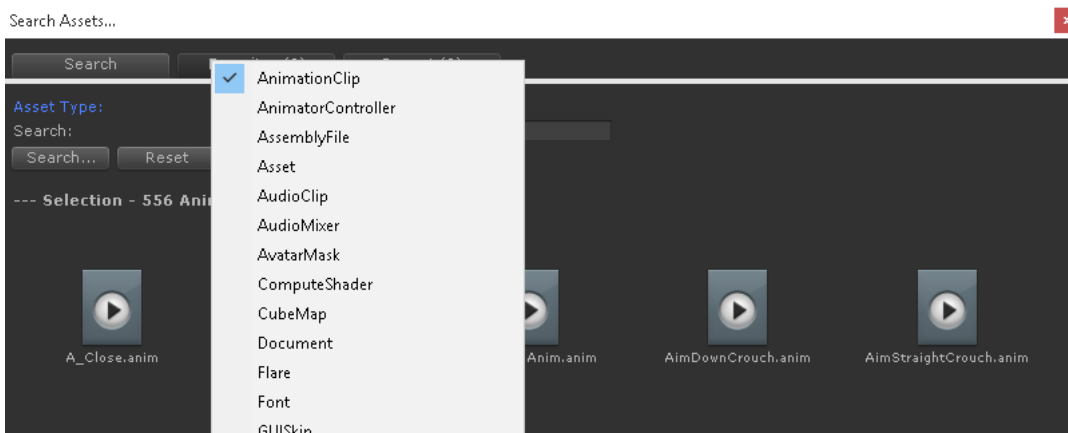
- This is the 'Asset Type' filter.
  - This allows you to filter on all of the different Asset Types that Unity supports.
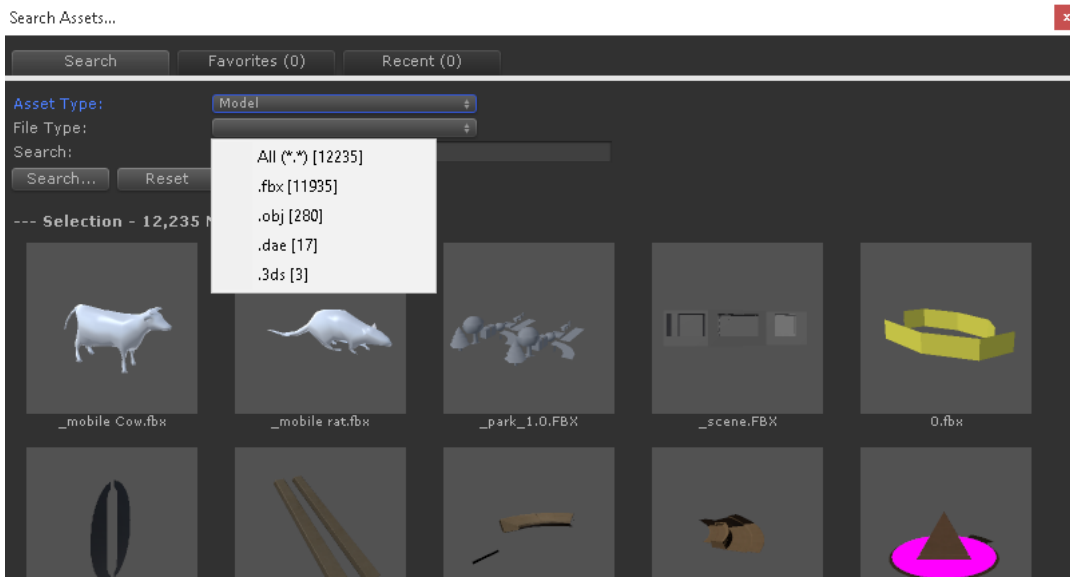
- This is the 'File Type' filter
  - This allows you to filter the current 'Asset Type' by 'File Format'.
    - The 'File Type' filter only appears if more than one 'File Format' is available for the selected 'Asset Type'
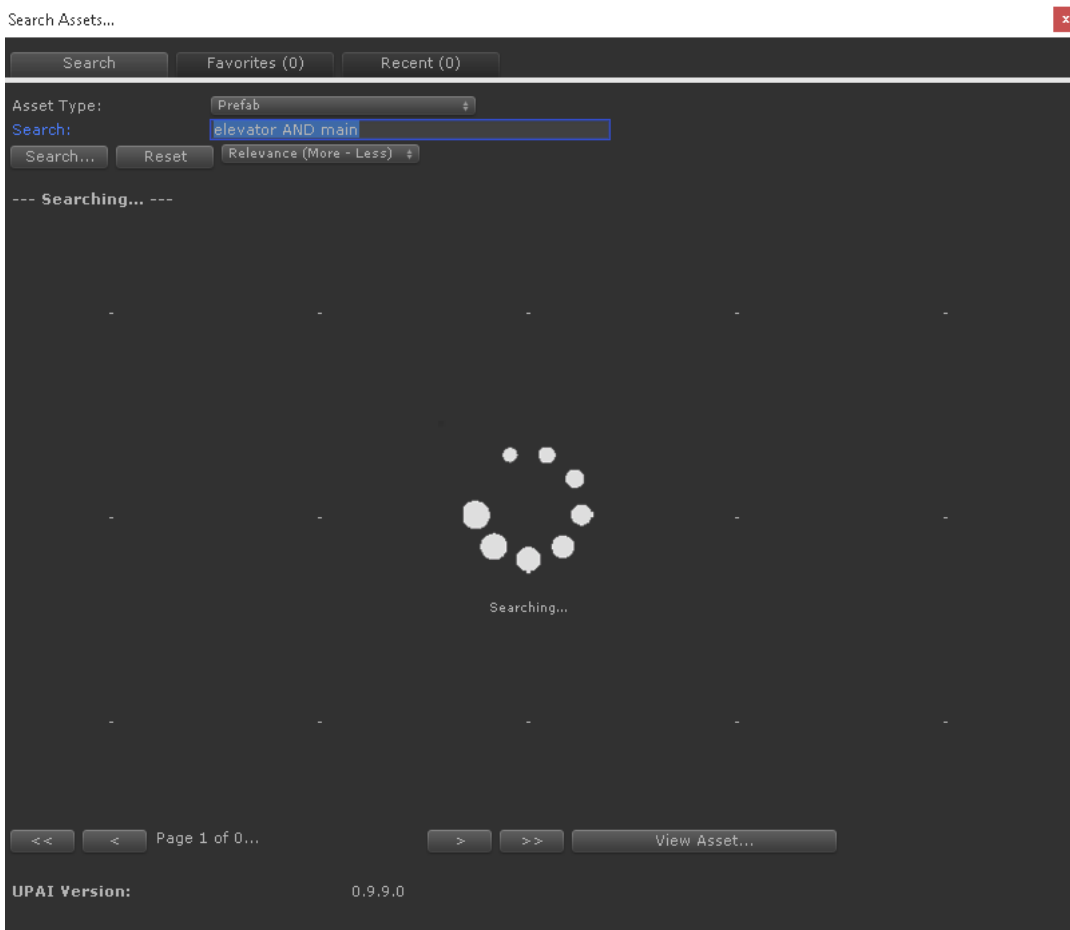
3. Select the Asset Type and enter and keywords that you want to search for.

4. Click on the 'Search' button.

5. Alternatively, pressing and holding the 'Enter' key will also initiate the search.

Search Assets...   [x]

| Search | Favorites (0) | Recent (0) |

Asset Type: Prefab   ⇕
Search: elevator AND main
Search...   Reset   Relevance (More - Less) ⇕

--- Selection - 1 Prefab's... ---

Elevator_Main.prefab

<<   <   Page 1 of 1...   >   >>   View Asset...

UPAI Version: 0.9.9.0
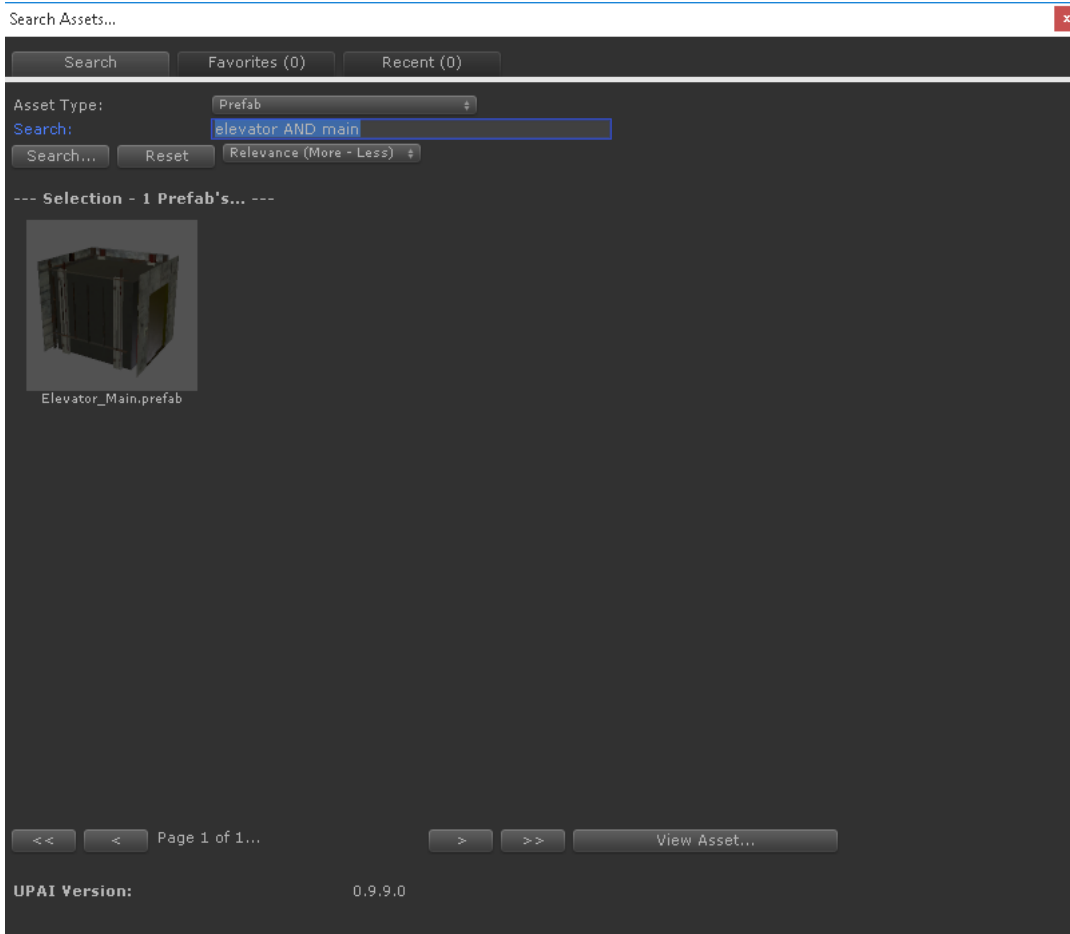
6. Select the Asset that you want to view/import, then click on the 'V iew Asset...' button.

Elevator_Main.prefab Data (Prefab)...   [x]

| Description | Dependencies (35) | MetaData | Tags (0) | File Data | Index Data |

--- Preview Image ---

Name: Elevator_Main.prefab
Type: Prefab
Path: Assets/MBCP/Prefabs/Construction
GUID: 0cb27345bdb5fe94baadd2c268d15fd1
Dependency Checked: Yes
Is Resource: No

Import Asset...   Import Package...   View Package...

UPAI Version: 0.9.9.0
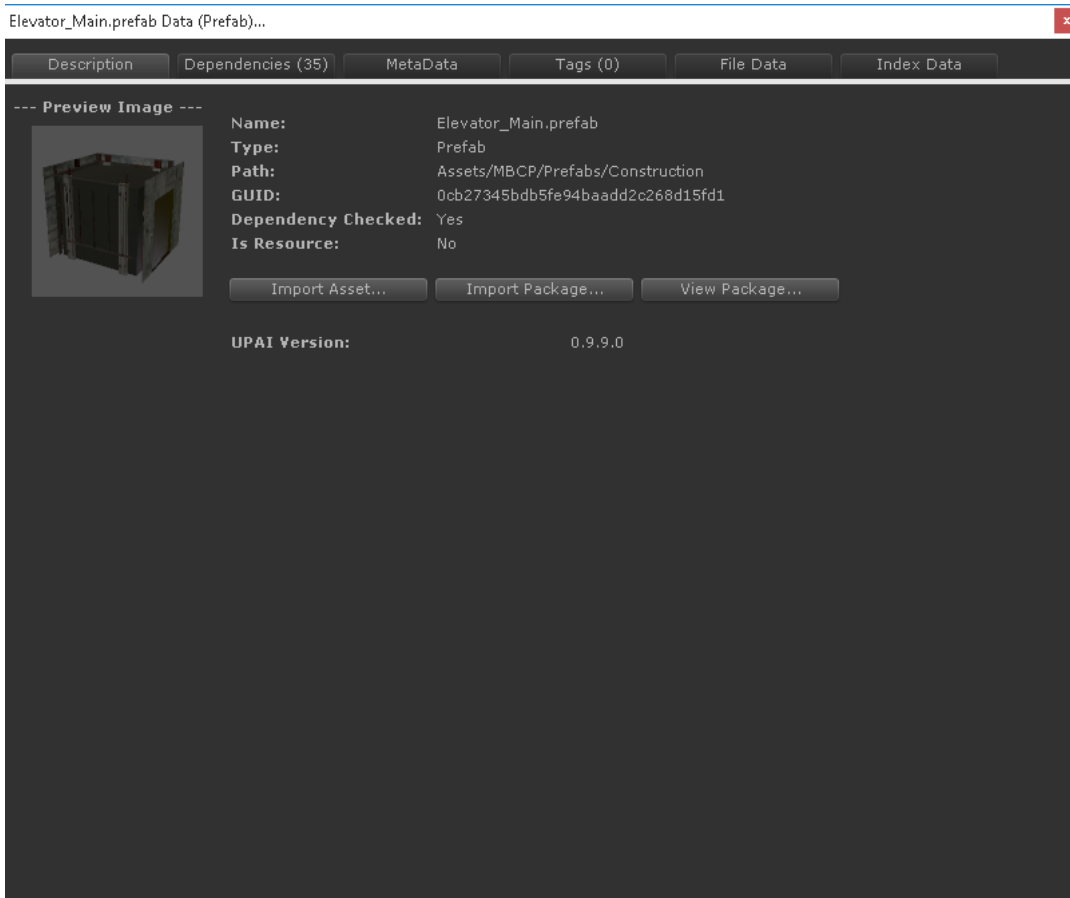
- This will open up the '*Asset Data*' window, for the selected asset.
  - Here, you can choose to do the following:
    - **Import Asset...**
      - This will begin the process of importing the individual asset
        - If the asset references any dependencies, it will import the dependent asset(s) first, then itself, to maintain the dependency relationship.
          - The asset dependencies are determined during the '*Packages*' -> '*Check for Updates...*' process.
        - If the Package was added to the system, prior to **v0.0.4.8**, and has not been updated, the system will then begin the process of building the Asset Dependencies, prior to beginning any imports
          - This was added so the Index files don't have to be rebuilt with each new update.
    - **Import Package...**
      - This will tell the Unity Editor to start importing the Package that the Asset is associated with.
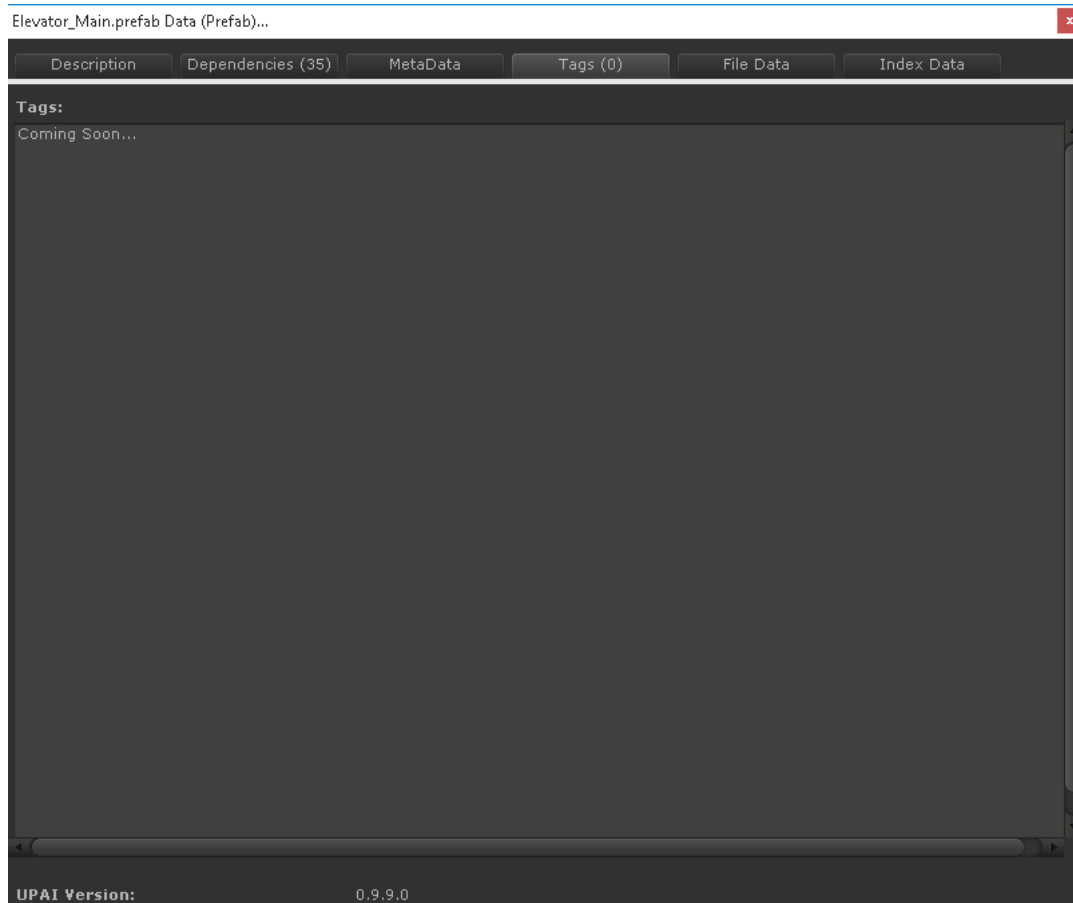   - This is <u>**NOT**</u> a silent import, and allows you to control what Assets are imported via Unity's built-in Import Process.
    - **View Package...**
      - This open's up the UPAI Package Asset Data window, for the Package that the Asset is associated with.
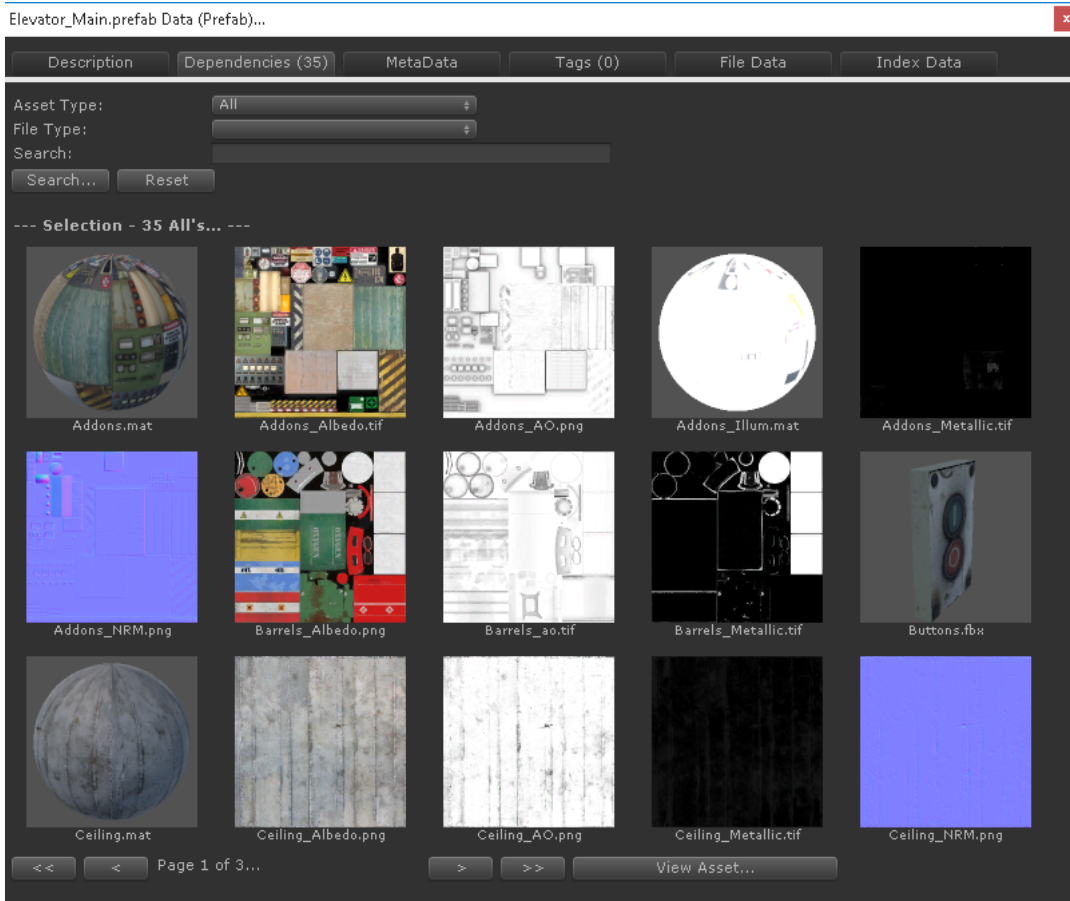
- This is the '*Asset Dependencies*' window
  - Here you can view all other assets from the Package, that the selected asset currently depends on.
    - You can filter by '*Asset Type*'
    - You can filter by '*File Type*'
      - This will only display if current '*Asset Type*' has multiple formats avaialble
    - You can search for assets containing specific keywords
      - The '*All*' filter is available on this window, and you can perform keyword searches against all dependencies of the selected asset.
      - The results set is limited to known dependencies of the selected asset
      - This is by design.
    - You may also choose to view the asset dependency in it's own '*Asset Data*' window.
      - This will give you access to the individual components that it may depend on as well.

Elevator_Main.prefab Data (Prefab)...   **x**

| Description | Dependencies (35) | MetaData | Tags (0) | File Data | Index Data |

MetaData:

```
fileFormatVersion: 2
guid: 0cb27345bdb5fe94baadd2c268d15fd1
labels:
- Elevator
- Shaft
- Wall
- Floor
- Ceiling
timeCreated: 1447010507
licenseType: Store
NativeFormatImporter:
userData:
assetBundleName:
assetBundleVariant:
```

UPAI Version: 0.9.9.0
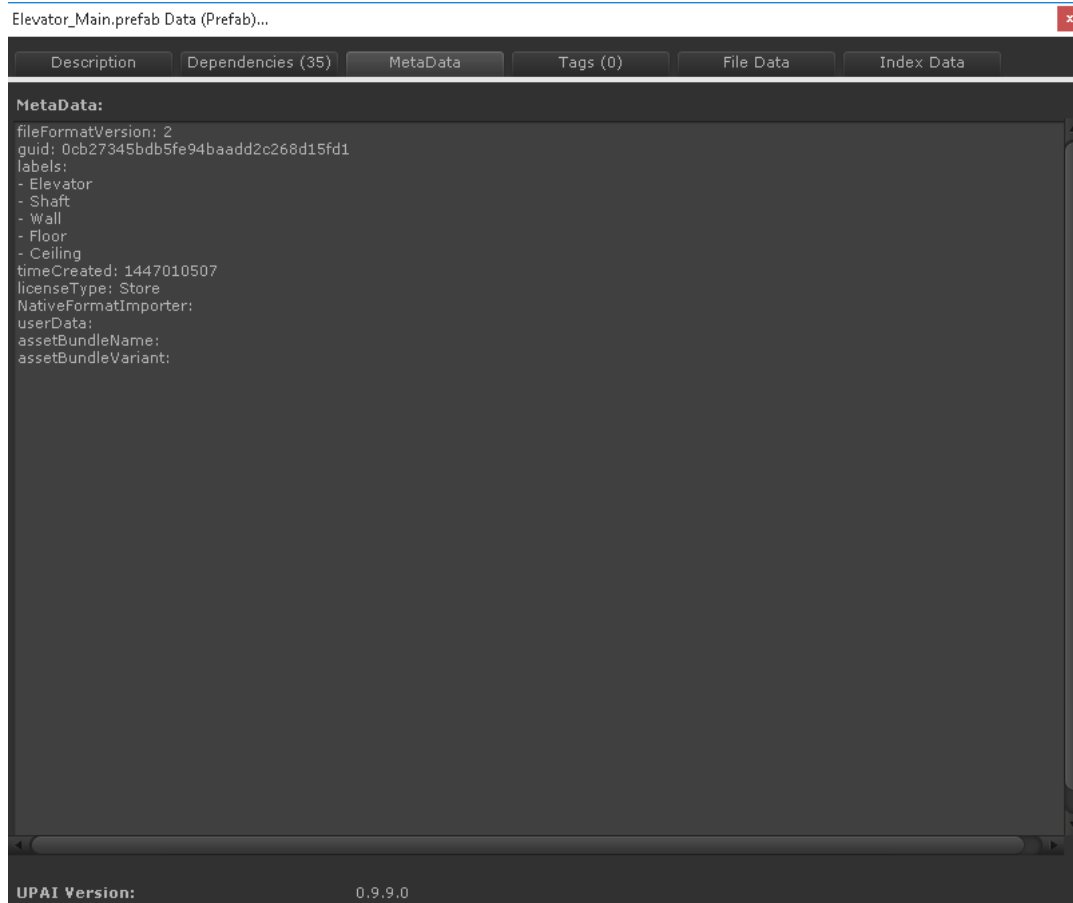
- This is the '*Asset MetaData*' window
  - Here you can see information about how the asset will be imported into Unity.
    - This is generated by Unity itself
    - This is read-only.

Elevator_Main.prefab Data (Prefab)...   x

| Description | Dependencies (35) | MetaData | Tags (0) | File Data | Index Data |

Tags:

Coming Soon...

UPAI Version: 0.9.9.0

- This is the '*Asset Tags*' window
  - This is intended to allow you to assign Tags to the individual asset file
    - This is currently under development, and no ETA is currently scheduled.
  - The tags will be added to the UPAI Search Index for future reference.
  - The other intention is to also include these tags, alongside those tags already assigned by the Publisher .
    - This will allow you to search for the same tags within the Unity Editor , once the asset is imported.
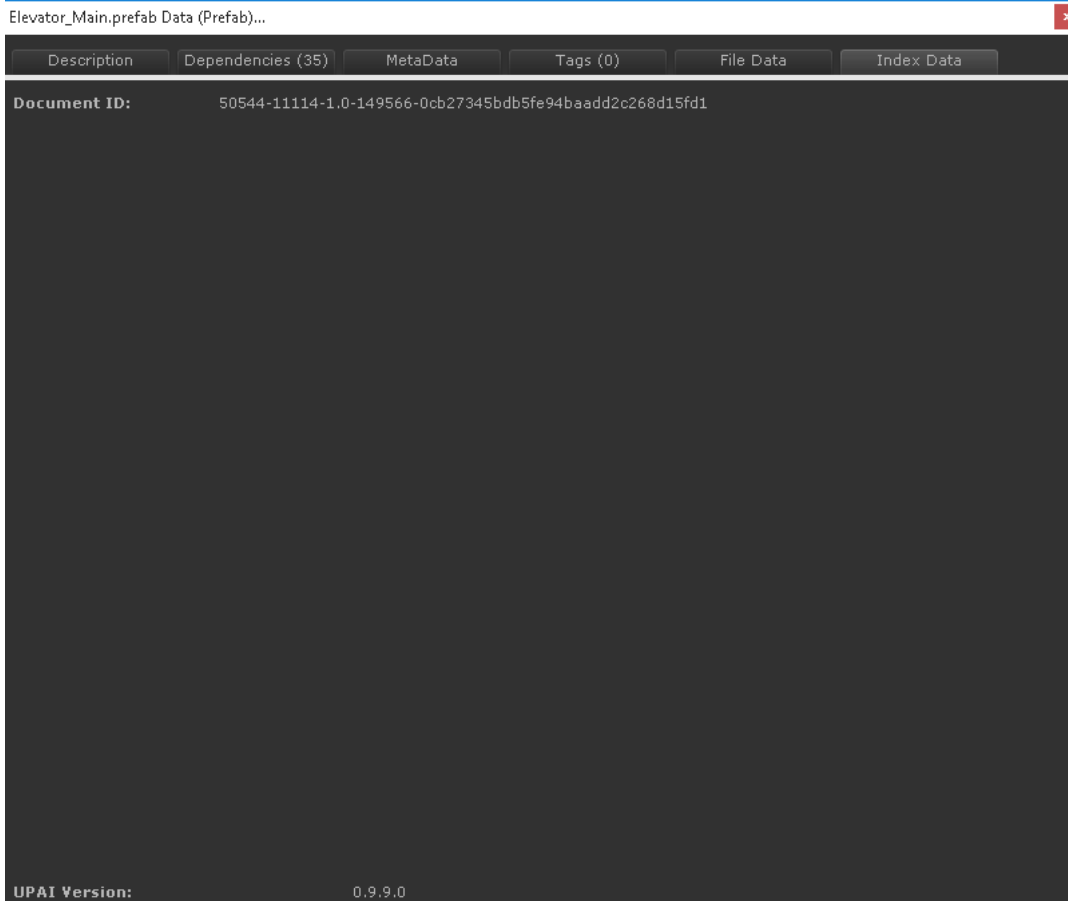
Elevator_Main.prefab Data (Prefab)...　　　　　　　　　　　　　　　　　　　　　　　　　　x

| Description | Dependencies (35) | MetaData | Tags (0) | File Data | Index Data |

Path:　　　　　　　　{PackageData}\0cb27345bdb5fe94baadd2c268d15fd1
Size:　　　　　　　　19.70 KB
Date:　　　　　　　　3/22/2016 4:28 PM
MD5 Hash:　　　　　82c1b16ea145dcf9caf58554bf133862

UPAI Version:　　　　　　　　0.9.9.0

- This is the 'Asset File Data' window
  - This allows you to see the following information:
    - **Path**
      - This is the root physical location to all source files in the unity package file
    - **File Size**
      - This is the uncompressed size
      - This doesn't include the sizes of it's Asset Dependencies.
    - **File Date**
      - This is the date the file was last modified
      - This is from the unity package file data
    - **MD5 Hash**
      - This is generated by the UPAI System

Elevator_Main.prefab Data (Prefab)...   [x]

| Description | Dependencies (35) | MetaData | Tags (0) | File Data | Index Data |

Document ID: 50544-11114-1.0-149566-0cb27345bdb5fe94baadd2c268d15fd1

UPAI Version: 0.9.9.0
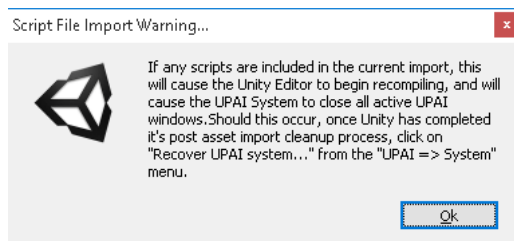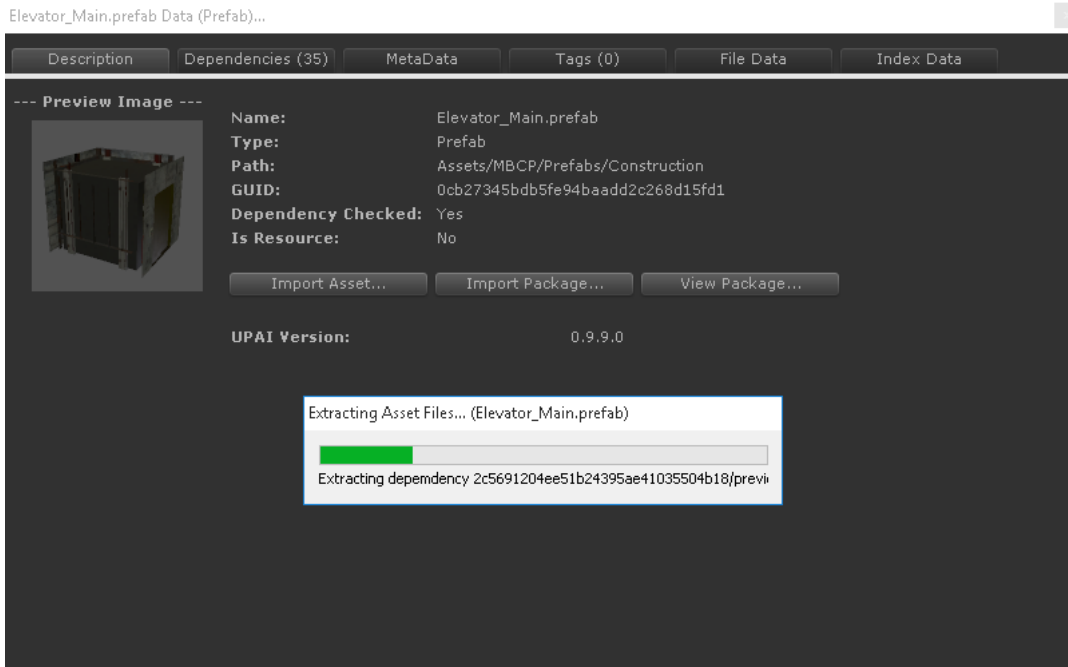
- This is the 'Asset Index Data' window
  - This represents the index document key, used to track updates to this asset.
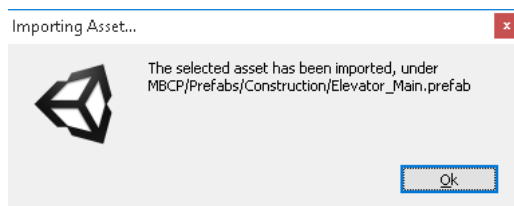   - This is generated by the UPAI System.

Importing an Individual Asset

1. Click on the 'Import Asset' button.

Script File Import Warning...   [x]

If any scripts are included in the current import, this
will cause the Unity Editor to begin recompiling, and will
cause the UPAI System to close all active UPAI
windows.Should this occur, once Unity has completed
it's post asset import cleanup process, click on
"Recover UPAI system..." from the "UPAI => System"
menu.

                                                        [Ok]

- If the current Asset depends on any script files, you will receive the above warning.
  - This is because when Unity Imports new Script files, it automatically re-compiles all Scripts that are included in the current project.
  - Because the UPAI system utilizes Unity Editor Scripts, Unity's re-compiling causes the UP AI Windows to reset and lose all of the current configuration data.
  - The UPAI Systems includes a component that tracks all of the UP AI Windows that were open at the time of the import, and serializes this data to the file system, prior to Unity starting the re-compiling of the project scripts.
  - If the UPAI data windows do close, you can restore all of them, by selecting 'UP AI' -> 'System' -> 'Recover UPAI System...'
    - This will restore all of the previously open UPAI windows, and allow you to continue to use the UPAI System, uninterrupted.

Elevator_Main.prefab Data (Prefab)...

| Description | Dependencies (35) | MetaData | Tags (0) | File Data | Index Data |

--- Preview Image ---

Name: Elevator_Main.prefab
Type: Prefab
Path: Assets/MBCP/Prefabs/Construction
GUID: 0cb27345bdb5fe94baadd2c268d15fd1
Dependency Checked: Yes
Is Resource: No

Import Asset...   Import Package...   View Package...

UPAI Version: 0.9.9.0

Extracting Asset Files... (Elevator_Main.prefab)

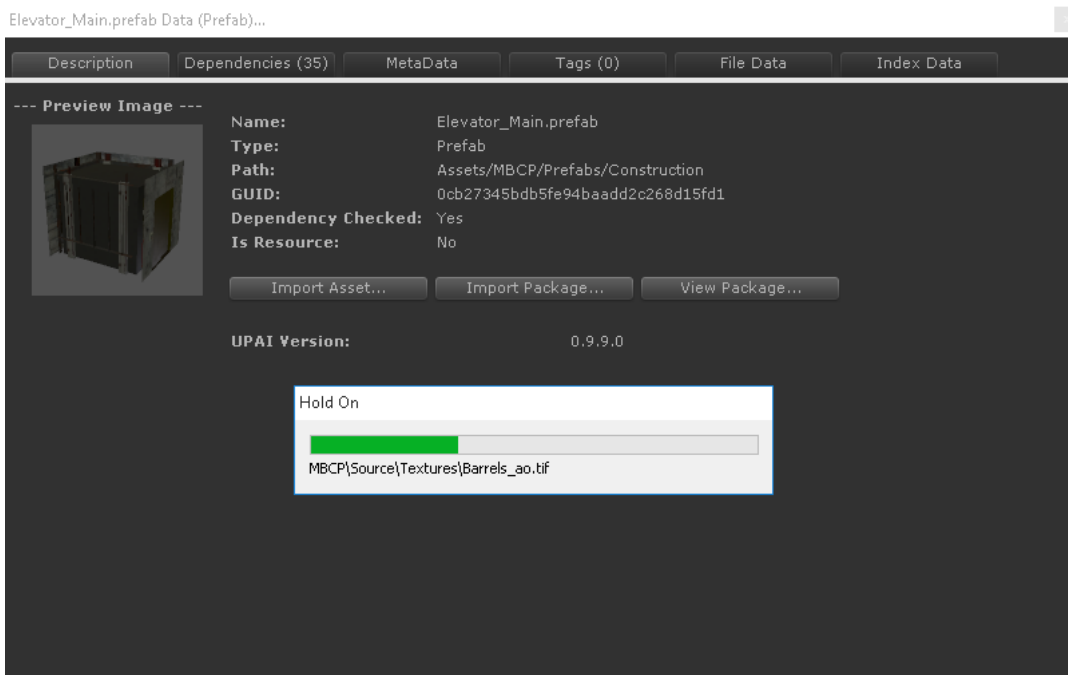Extracting depemdency 2c5691204ee51b24395ae41035504b18/previ

- The system will now begin enumerating any/all known asset dependencies
- All known Asset Dependencies will be imported in the proper order, in order to main dependency relationships after being imported into Unity.
- The last Asset to be imported, is the requested asset itself.

Importing Asset...

The selected asset has been imported, under
MBCP/Prefabs/Construction/Elevator_Main.prefab

Ok

- Once the import process has been completed, you will receive the above prompt detailing where the asset has been imported to.
  - Currently, the UPAI uses the specified folder paths provided by the Publisher, in order to maintain proper dependency relationships.
   - This is by design.

3. Click on the 'Ok' on the 'Importing Asset...' dialog window.

4. Unity will now begin it's post asset import cleanup process

Elevator_Main.prefab Data (Prefab)...

| Description | Dependencies (35) | MetaData | Tags (0) | File Data | Index Data |

--- Preview Image ---

Name: Elevator_Main.prefab
Type: Prefab
Path: Assets/MBCP/Prefabs/Construction
GUID: 0cb27345bdb5fe94baadd2c268d15fd1
Dependency Checked: Yes
Is Resource: No

Import Asset...   Import Package...   View Package...

UPAI Version: 0.9.9.0

Hold On

MBCP\Source\Textures\Barrels_ao.tif

- This is a screenshot of the Unity post asset import cleanup process.

5. Once the post import cleanup process has been completed, the UP AI System will then instruct the Unity Editor to show you where the asset has been physically imported to.
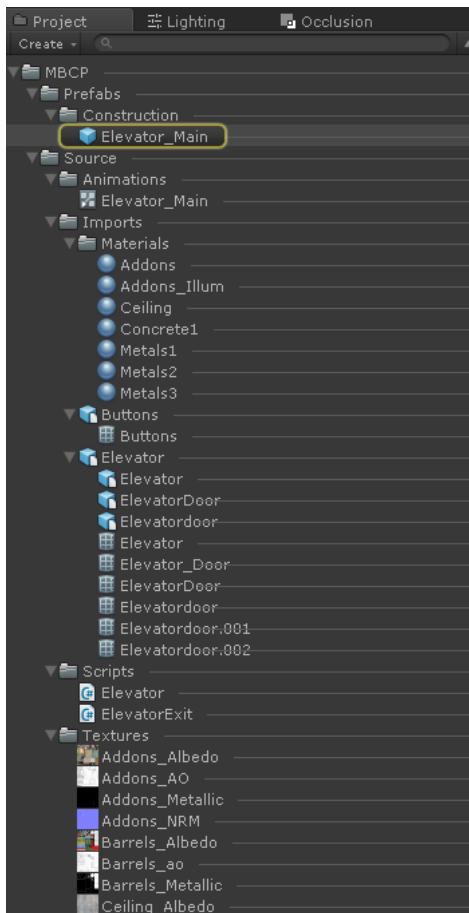
- If you should happen click on the 'Import Asset...' again, the UP AI will first check the current Project Hierarchy window to see if the asset has already been imported into the project.
- If so, the following window will be displayed, and the the asset will be highlighted in the Project Hierarchy, once again.
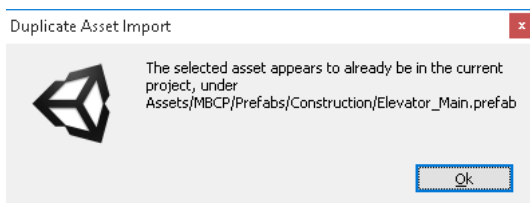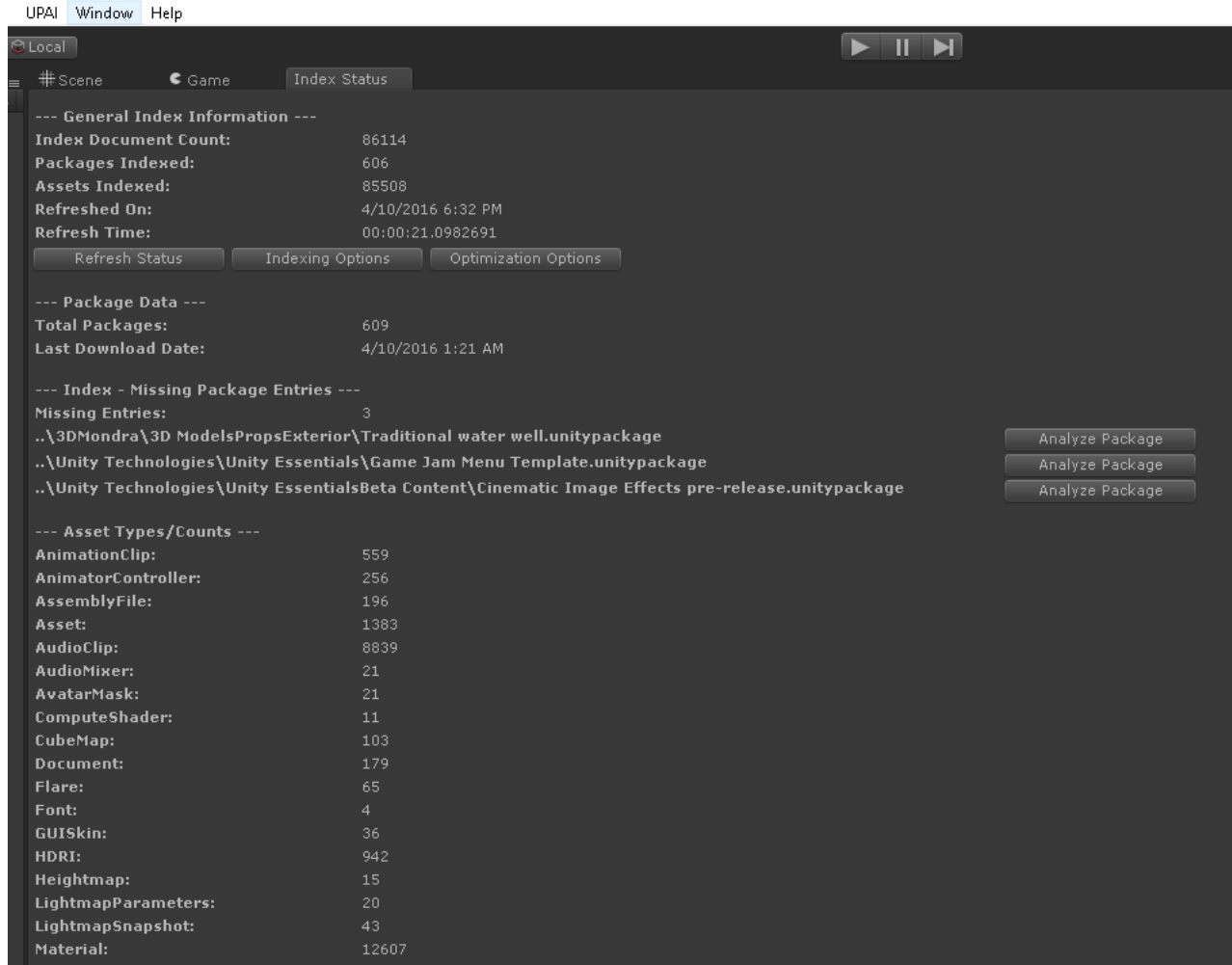

This completes the Asset Import Process

Additional System Features

Viewing the current status of the Index Files

1. Click on 'View Index Status...' from the 'UPAI' -> 'System' -> 'Maintenance' menu structure.

2. A new tabbed window, called 'Index Status' will appear.

3. If no data is currently on the screen, click on the 'Refresh Status' button.

4. A progress bar will display indicating the progress of the index status refresh.

   - The progress bar represents the current time elapsed.
   - The message below the progress bar indicates how long the process took the last time the index status was refreshed.
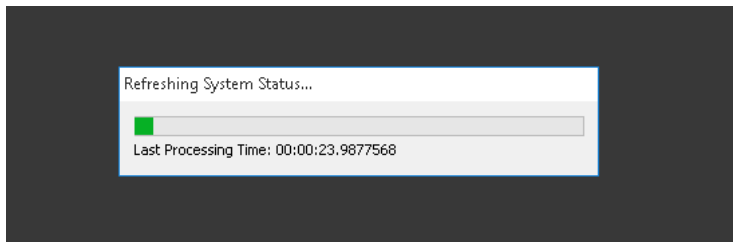   - This is represented as *'HH;mm:ss'*

layer <DX11>
UPAI   Window   Help

--- General Index Information ---
Index Document Count: 86114
Packages Indexed: 606
Assets Indexed: 85508
Refreshed On: 4/10/2016 6:32 PM
Refresh Time: 00:00:21.0982691
[Refresh Status]   [Indexing Options]   [Optimization Options]

--- Package Data ---
Total Packages: 609
Last Download Date: 4/10/2016 1:21 AM

--- Index - Missing Package Entries ---
Missing Entries: 3
..\3DMondra\3D ModelsPropsExterior\Traditional water well.unitypackage   [Analyze Package]
..\Unity Technologies\Unity Essentials\Game Jam Menu Template.unitypackage   [Analyze Package]
..\Unity Technologies\Unity EssentialsBeta Content\Cinematic Image Effects pre-release.unitypackage   [Analyze Package]

--- Asset Types/Counts ---
AnimationClip: 559
AnimatorController: 256
AssemblyFile: 196
Asset: 1383
AudioClip: 8839
AudioMixer: 21
AvatarMask: 21
ComputeShader: 11
CubeMap: 103
Document: 179
Flare: 65
Font: 4
GUISkin: 36
HDRI: 942
Heightmap: 15
LightmapParameters: 20
LightmapSnapshot: 43
Material: 12607

- This is the '*Index Status*' window
  - Here you can see some of the statistics regarding all of the Packages and Assets that exist in your ' *Asset Store-5x*' folder
    - **Index Document Count**
      - A document is the storage method used by Lucene for serializing individual aspects of data about an object
        - 1 document is used for each Package File
          - *There is a Parent-Child relationship established between a Package File and each individual asset file that it contains.*
        - 1 document is used for each Asset contained in a Package File
    - **Total Packages**
      - Total number of Package documents in the Index Files
    - **Total Assets Indexed**
      - Total number of Asset documents in the Index Files
    - **Refreshed On**
      - The last time the index status was refreshed on
    - **Refresh Time**
      - The amount of time needed to parse all of the data in the Index Files, for display on the Index Status window.
  - If any packages fail to be added to the index, you will see them listed under ' *Missing Package Entries* '.
    - Currently, the only known reason for a package to not be included in the index, is if all assets discovered in the package file, itself, are prefixed with the path of '*Assets/Standard Assets/* '
      - This is by design.
    - '*Analyze Package*' process is currently under development, in order to assist support in determining if there are any other reasons a package was not included in the index.
      - This is expected to be launched prior to v1.0.0.0
    - **Asset Types/Counts**
      - Listing of all discovered '*Asset Types*' and the total number of them found in the Index Files.

Viewing the current status of the UPAI System Files

1. Click on 'View System Status...' from the 'UPAI' -> 'System' menu structure.

2. A new tabbed window, called 'SystemStatus' will appear.

3. If no data is currently on the screen, click on the 'Refresh Status' button.

4. A progress bar will display indicating the progress of the system status refresh.

- The progress bar represents the current time elapsed.
- The message below the progress bar indicates how long the process took the last time the system status was refreshed.
  - This is represented as *'HH;mm:ss*

- This is the 'System Status' window
- Here you can see how much disk space is being utilized to the UPAI System.
- Here you can also see how much disk space is being utilized for the unity package file storage.
- Here you can also choose to restore a previous set of Index Files
  - You can also delete them to fee up disk space, if need be.
- You can also view and/or delete log files from here as well.
- The UPAI System using the following folder structure for storing data:
- **\UPAI-5x**

- **\Icons**
  - **\Asset Previews**
  - **\Packages**
- **\Index**
  - **\Backup**
  - **\Stats**
- **\Json**
- **\Logs**
- **\Settings**
- **\SystemStats**
- **\Temp**

- **It is advised not to go inside of the UPAI System folders, unless instructed to do so, by support.**
  - **Doing so could possibly corrupt the system, and you may have to revert to a backup, or build your index files from scratch, which is a time consuming process.**

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