

# Achievement System

## User Guide (V 2.0)

### Overview

Achievement System is a tool which allows developers to easily create and manage in-game achievements.

**Itch.io:** <https://samcarey.itch.io/achievements-system-unity-tool>

**Download:**

<https://assetstore.unity.com/packages/templates/systems/achievement-system-151624>

**Website:** [www.samcarey.tech](http://www.samcarey.tech)

**Support:** [contact@samcarey.tech](mailto:contact@samcarey.tech)

### Features

- Progress and Goal achievements.
- Intuitive editor window for creating and monitoring achievement values.
- Ability to hide spoiler achievements from the player.
- In-game menu to show the players progress.
- Automatic achievement saving between game loads.
- Customisable progress display frequency.

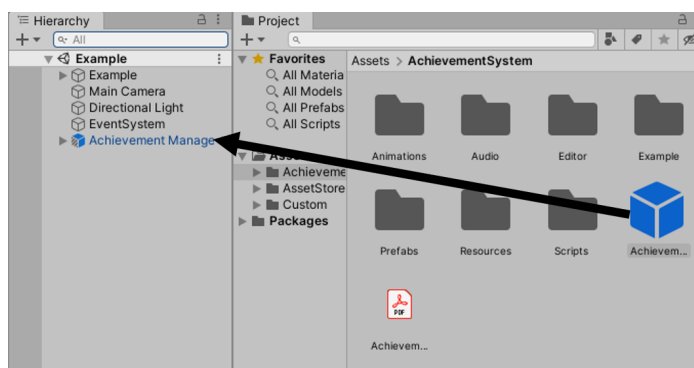
### Getting Started

#### Achievement Manager Prefab

To use the achievement system the starting scene must include an Achievement Manager object.

This can be found at : **/Assets/AchievementSystem/**

The Achievement Manager is the object responsible for all developer interaction with the system. Note - This item only needs to be included once as it will remain persistent through scene loads.



## Achievement Manager Settings

Within the first tab, there is a list of settings which can be used to adjust the behaviour of the manager.

The screenshot displays the 'Achievement Manager (Script)' interface. It features two tabs: 'Settings' and 'Achievement List'. The 'Settings' tab is active, showing various configuration options. Below the settings, there is a list of achievements with their current states and progress bars. At the bottom, there are buttons for 'Manual Save' and 'Reset All States'. The interface also includes a status bar at the bottom with an 'Audio Source' indicator.

Setting	Value
Display Time	3
Number On Screen	3
Display Achievements	<input checked="" type="checkbox"/>
Spoiler Achievement Message	Hidden
Stack Location	Bottom Right
Show Exact Progress	<input checked="" type="checkbox"/>
Auto Save	<input checked="" type="checkbox"/>
Progress Made Sound	Example_ProgressSound
Achieved Sound	Example_UnlockSound

Index	Goal Name (Script Name)	State	Progress
[0]	Goal Example (GoalExample)	True	
[1]	Progression Example (ProgressionExamp)		100 / 100 (100%)
[2]	Overlay Example 1 (OverlayExample1)	False	
[3]	Overlay Example 2 (OverlayExample2)		100 / 1000 (10%)
[4]	Spoiler Example (SpoilerExample)		0 / 10 (0%)
[5]	Completionist (Completionist)	False	

Manual Save      Reset All States

Audio Source

Achievement Manager Properties	
Setting	Description
<b>Display Time</b>	The number of seconds an achievement will display on the screen once unlocked or progress is made.
<b>Screen Count</b>	The total number of achievements which can be on the screen at any one time.
<b>Display Achievements</b>	If <b>true</b> , achievement unlocks / progress update notifications will be displayed on the players screen.
<b>Spoiler Achievement Message.</b>	The message which will be displayed on the UI if an achievement is marked as a spoiler.
<b>Stack Location</b>	The place on the screen where notifications will be displayed.
<b>Show Exact Progress</b>	If <b>true</b> , progress notifications will display their exact progress if false it will show the closest bracket. Example - Notification frequency is set to 25 and the current progress is 26. true = Display 26 false = Display 25
<b>Auto Save</b>	If <b>true</b> , the state of all achievements will be saved without any user input. If <b>false</b> , achievement states must be saved manually by calling SaveAchievementState(). Set to false improve performance.
<b>Progress Made Sound</b>	The sound which plays when a progress update is displayed to a user. Sounds are only played when <b>Display Achievements</b> is true.
<b>Achieved Sound</b>	The sound which plays when an achievement is unlocked is displayed to a user. Sounds are only played when <b>Display Achievements</b> is true.

# Achievement Manager List

**(0) Goal Example** [v] [x]

Key	GoalExample
Display Name	Goal Example
Description	An example of a goal achievement
Locked Icon	GE_Locked_Example
Lock Overlay	<input type="checkbox"/>
Achieved Icon	GE_Unlocked_Example
Spoiler	<input type="checkbox"/>
Progression	<input type="checkbox"/>

**(1) Progression Example** [^] [v] [x]

Key	ProgressionExample
Display Name	Progression Example
Description	An example of a progression achievement
Locked Icon	PE_Locked_Example
Lock Overlay	<input type="checkbox"/>
Achieved Icon	PE_Unlocked_Example
Spoiler	<input type="checkbox"/>
Progression	<input checked="" type="checkbox"/>
Progress Goal	100
Notification Frequency	25
Progress Suffix	KM

**Achievement Manager (Script)** [v] [x] [⋮]

Settings | Achievement List

Show All

- (0) Goal Example** [v] [x]
- (1) Progression Example** [^] [v] [x]
- (2) Overlay Example 1** [^] [v] [x]
- (3) Overlay Example 2** [^] [v] [x]
- (4) Spoiler Example** [^] [v] [x]
- (5) Completionist** [^] [x]

Add

Use Final Achievement   
Define an achievement which will be unlocked once all other have been completed

Final Achievement Key: Completionist

The second tab is where the list of achievements that the player can earn is stored. To create a new achievement the add button can be clicked. The ^, v and x button can be used to rearrange/remove elements from the list. Additionally, the + and - buttons on the left of each element will show and hide the achievement to increase visibility.

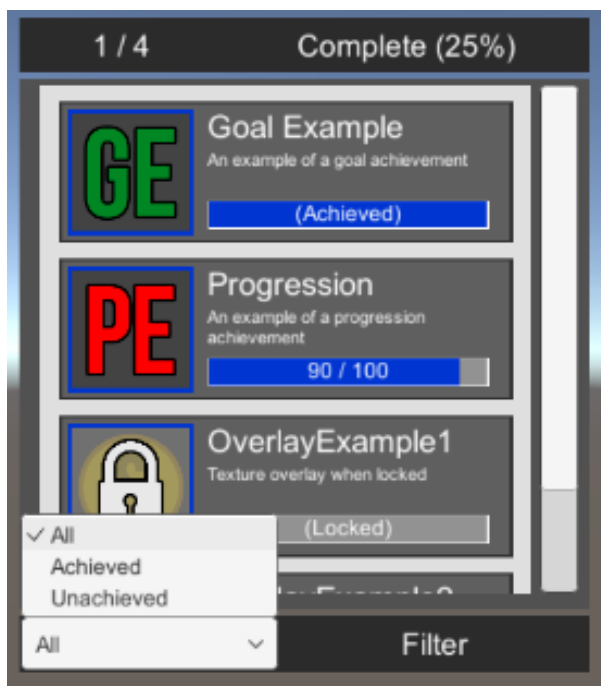
<b>Achievement Manager List Properties</b>	
<b>Setting</b>	<b>Description</b>
<b>Key</b>	A unique key used to identify an achievement in code.
<b>Display Name</b>	The name of the achievement which the player will see in-game.
<b>Description</b>	A short description which tells the player how to earn the achievement.
<b>Lock and Unlocked Icons</b>	The icon which will be displayed when the achievement is locked and unlocked. If <b>Lock overlay</b> is set to true the lock icon will be overlaid on top of the Unlocked version. See in example the scene.
<b>Spoiler</b>	Treat the current achievement as a spoiler for the game. Hidden from player until unlocked.
<b>Progression</b>	If true this achievement will count to a certain amount before unlocking. E.g. race a total of 500 km, collect 10 coins or reach a high score of 25.
<b>Progress Goal</b>	The goal which must be reached for the achievement to unlock. Used only for progression based achievements.
<b>Notification Frequency</b>	The rate that progress updates will be displayed on the screen e.g. Progress goal = 100 and Notification Frequency = 25. In this example, the progress will be displayed at 25,50,75 and 100.
<b>ProgressSuffix</b>	A string which will be displayed with a progress achievement e.g. \$, KM, Miles etc

## Final Achievement

At the bottom of the achievement list, there is a section where a final game achievement can be defined. This achievement will automatically be unlocked once all others have been completed. Check the checkbox and type in the key of the achievement you wish to use. The final achievement will be marked with a flag icon.

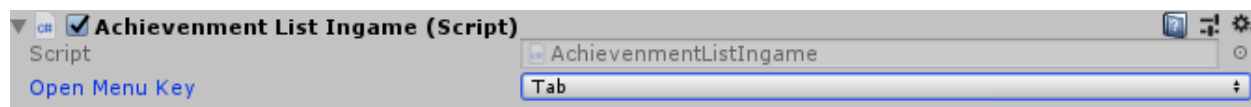
# Ingame Achievement Viewer

The in-game viewer will show the player a list of achievements, their progress and allow them to filter them based on if they are achieved or not.



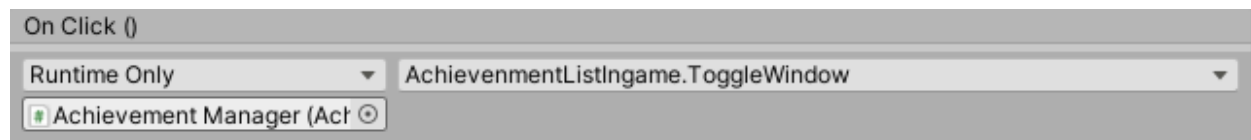
## Opening with a keyboard

The settings for the in-game viewer can be found on the Achievement Manager prefab. You can set the key that will be used to open the in-game menu here. If you do not want the menu to open with any key press set "Open Menu Key" to "None".



## Opening with a UI Event/Button

Simply create an event on a button. Drag in the Achievement Manager and select AchievementListView.ToggleWindow. This will toggle the window state. Alternatively OpenWindow() or CloseWindow() can be used explicitly.



# Unlocking / Adding progress

## Through Code

To unlock/add progress to achievements there are several functions which can be called. All unlocking/progress functions have two options of access including by **Index** or **Key**. All functions are called by accessing the achievement manager singleton as seen below.

```
AchievementManager.instance.Unlock("TestKey");
```

(Example to unlock and achievement with the key "TestKey")

## Using The UI

Unlocking and setting achievement progress through the UI is fairly simple, however, it does require some additional code as UnityEvents can only take one parameter.

Examples of how this can be achieved can be found with the example scene and the script file "ExampleScript".

# Function Reference

The game manager includes 9 (+3 overloads) public functions which can be called to interact with the system.

## Miscellaneous

```
public bool AchievementExists(string Key){}  
public bool AchievementExists(int Index){}
```

Returns true if an achievement is found in the list.

```
public int GetAchievedCount(){}
```

Returns the total number of achievements which have been unlocked.

```
public float GetAchievedPercentage(){}
```

Returns the current percentage of unlocked achievements.

## Unlock and Progress

```
public void Unlock(string Key){}  
public void Unlock(int Index){}
```

Fully unlocks a progression or goal achievement.

```
public void SetAchievementProgress(string Key, float Progress){}  
public void SetAchievementProgress(int Index, float Progress){}
```

Set the progress of an achievement to a specific value.

```
public void AddAchievementProgress(string Key, float Progress){}  
public void AddAchievementProgress(int Index, float Progress){}
```

Adds the input amount of progress to an achievement. Clamps achievement progress to its max value.

## Saving and loading

```
public void SaveAchievementState(){}
```

Saves progress and achieved states to player prefs. Used to allow reload of data between game loads.

This function is automatically called if the **Auto Save** setting is set to true.

```
public void LoadAchievementState(){}
```

Loads all progress and achievement states from player prefs.

This function is automatically called if the **Auto Load** setting is set to true.

```
public void ResetAchievementState(){}
```

Clears all saved progress and achieved states.