Android Dynamic Shortcuts for Unity

An Android plugin for Unity to help manage dynamic shortcuts for in-game usage.

Features

- Manage shortcuts (add, remove, count, etc.)
- Event based approach to handle cold start and background launch callback (opening the game through shortcut)
- Pre-defined, pre-packaged 'system' icons to quickly add common shortcut icons
- Ability to define custom icons

Installation

- Simply add the 'Shortcut' folder to your project or alternatively, install the .unitypackage
- Go to 'Project Settings > Player' and under 'Publishing Settings', enable 'Custom Main Gradle Template'
- Go to 'Plugins > Android > mainTemplate.gradle' and inside dependencies, add:
 - implementation 'androidx.appcompat:1.3.0'
- Or, if using EDM4U, it should automatically handle this dependency

Icons

This plugin comes with a list of pre-packaged icons sourced from <u>Google Fonts</u> and are under <u>Apache License</u> <u>2.0</u> which can be found below. Each icon is 40x40, and in black color, but does not account for theme specific cases (in the current version).

In addition to these icons, you can define custom ones in Unity (as a <u>Sprite</u>). These custom icons are recommended to have a square resolution and preferably 40x40 pixels in dimension. They can be placed anywhere in the assets folder, but they should be set to 'readable' and 'uncompressed' (RGBA32 is recommended) in the import settings.

Scripting API

All properties and public methods are static unless stated otherwise, since only a single instance of ShortcutManager is expected. The GameObject that the manager is attached to is marked as 'DontDestroyOnLoad' to allow it to persist between scenes. The C# scripts have comments and summary as much as possible to ensure clarity.

Properties

ShortcutManager instance

reference to the current manager

int ShortcutCount

returns the current count of dynamic shortcuts

string[] ShortcutIDs

returns an array of IDs of currently added dynamic shortcuts

AndroidJavaObject androidContext

Unity player's context

AndroidJavaClass androidShortcutManagerClass

Plugin side shortcut manager

string mainActivity

Unity's main activity (in some cases, the main activity may not be UnityPlayerActivity, so this will instead be the activity that 'extends' the player activity)

Public Methods

void CreateShortcut(ShortcutData shortcutData)

Creates a shortcut given the data; system icons have a higher preference than custom icons and will be used when value is not 'NONE'.

void RemoveShortcut(string shortcutID)

Removes a shortcut with the given ID.

bool HasShortcut(string shortcutID)

Checks if the shortcut ID already exists.

Enums and Structs

enum ShortcutSystemIcons

Value corresponds to a predefined icon (given in the table at the end).

enum ShortcutTriggerType

COLDSTART is applicable when the game app is launched when it is no longer active (in the background) and conversely, BACKGROUND applies to when the game app is in background and the shortcut is triggered. In the event that the manager can't identify the trigger type it will resort to NONE.

struct ShortcutData

- string id
- string shortLabel
- string longLabel
- Sprite icon
- ShortcutSystemIcons systemIcon

Data structure that contains all the required information to create a shortcut. For short and long labels, do refer to the <u>attribute values page</u> for more information.

Demo

A demo scene has also been provided with a simple gift image as a custom icon. The scene must be built for and run on an Android device as it demonstrates all the features that the package has to offer. If it is run on the Editor, there won't be any visible changes (apart from a list of logs in the console!).

List of icons

NAME	ICON
CONTACT	•
HOME	
FAVOURITE	*
LOVE	•
MARK_LOCATION	<u>•</u>
CLOUD	
INVITATION) ,
CONFIRMATION	\odot
MAIL	
MESSAGE	
DATE	
CAPTURE_PHOTO	0

TIME	
CAPTURE_VIDEO	
TASK	0
TASK_COMPLETED	•
ALARM	(C)
BOOKMARK	
SHUFFLE	X
AUDIO	4)
UPDATE	C