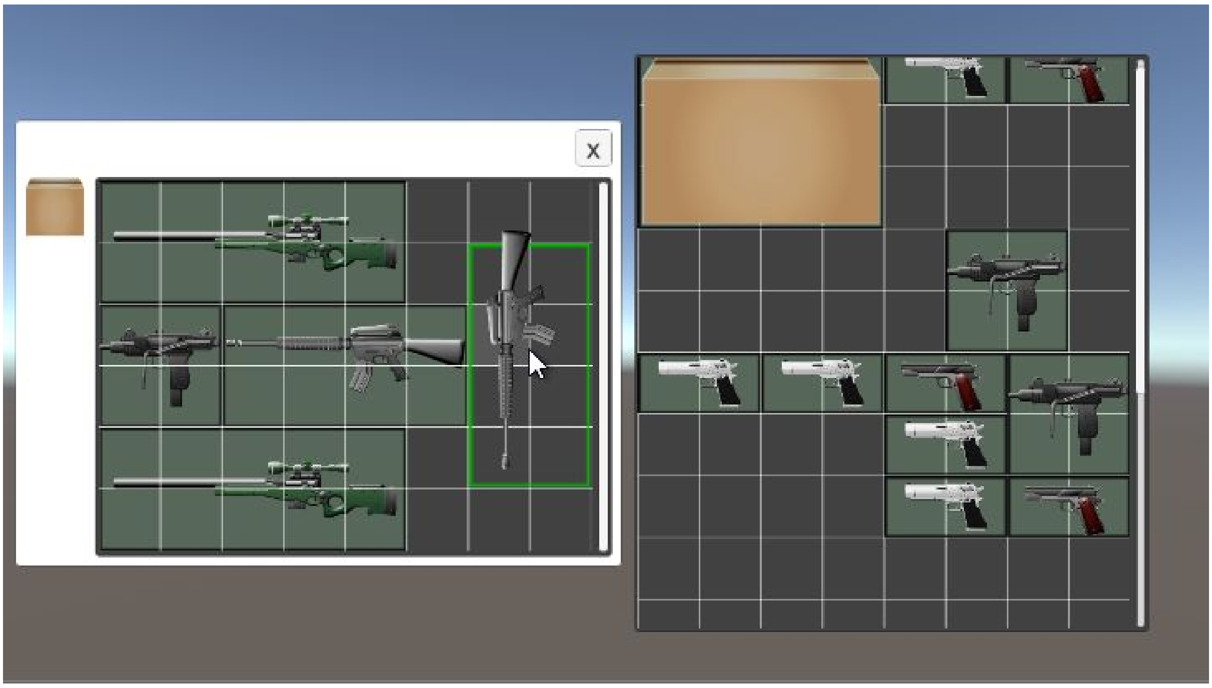
Variable Inventory System



Introduction

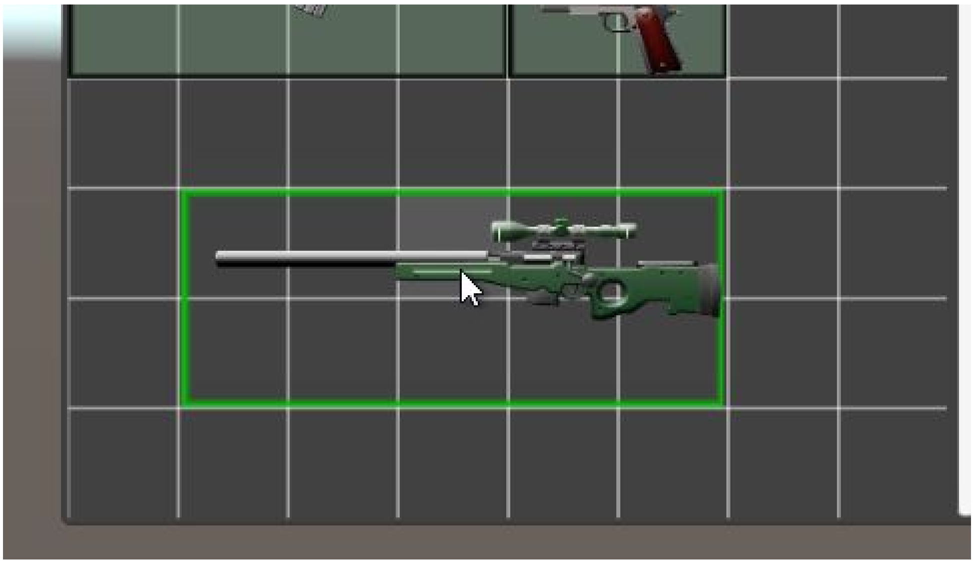
This document is a manual for the Script Asset **Variable Inventory System** for Unity. This Script Asset is available for free on GitHub or Asset Store.

GitHub
https://github.com/lisearcheleeds/VariableInventorySystem

Unity AssetStore
https://assetstore.unity.com/packages/slug/174066

About Variable Inventory System

Variable Inventory System is an inventory system that considers the size of items.
This inventory system uses multiple cells per item instead of one cell per item like the general inventory system.
Each placed item has information such as Width, Height and whether it is rotated.
In addition, items can be moved between inventory areas by dragging and dropping by the player or by dragging and dropping on the inventory item placed in the inventory.



Feature

1. Item has Width and Height
   a. It cannot be placed outside the inventory area or placed on top of other items.

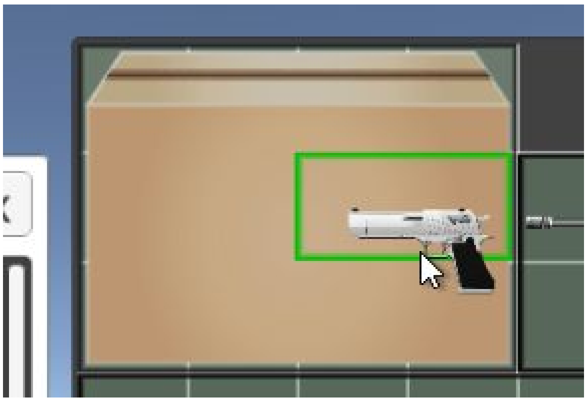
2. You can place an item inside a Case item by dragging and dropping it onto a type of item called Case.
   a. The inventory area in the Case item is searched from the tip, and it is placed at a position where it can be placed.

3. Calling Rotate while dragging an item will rotate the item 90 degrees and swap Width and Height

4. By creating a window that inherits the inventory area, you can easily create equipment screens for general game players.

5. Compatible with smartphone operations

You can use the buttons, resources, and resource loaders that your project has implemented.



Quick tutorial

Unity Package

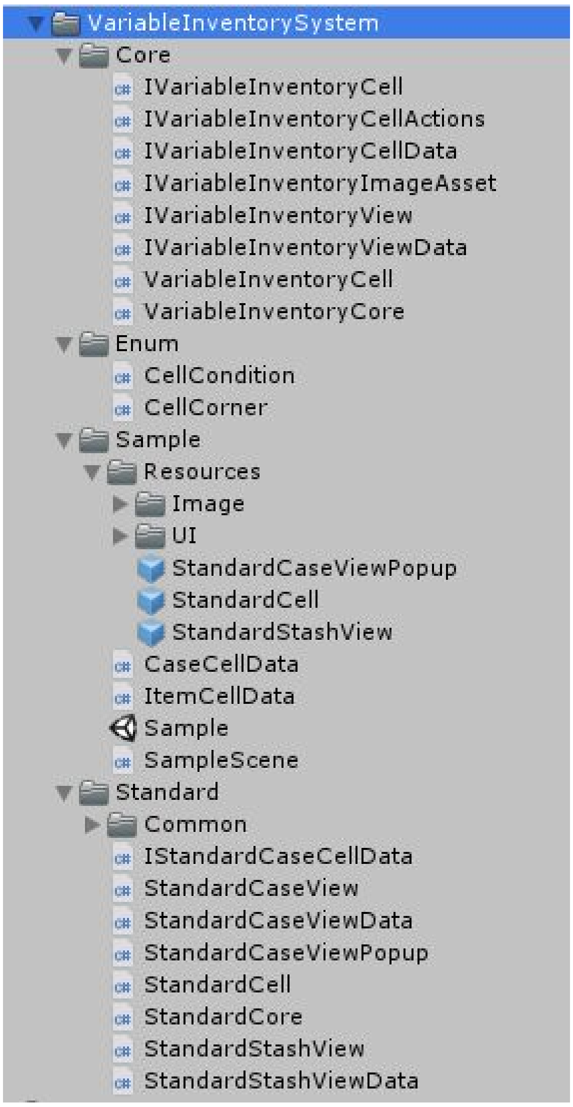
1. Core folder
2. Standard folder
3. Sample folder

Those with a high degree of project dependency are included in the order of.

Use Standard as it is

When using Standard Script as is, use a class that inherits **IVariableInventoryCellData**.
You need to implement one.
(If you want to use Case function, implement two)

These can be confirmed in the Sample scene and Prefab in the Sample folder.



```
▼ VariableInventorySystem
  ▼ Core
      IVariableInventoryCell
      IVariableInventoryCellActions
      IVariableInventoryCellData
      IVariableInventoryImageAsset
      IVariableInventoryView
      IVariableInventoryViewData
      VariableInventoryCell
      VariableInventoryCore
  ▼ Enum
      CellCondition
      CellCorner
  ▼ Sample
    ▼ Resources
      ▶ Image
      ▶ UI
        StandardCaseViewPopup
        StandardCell
        StandardStashView
      CaseCellData
      ItemCellData
      Sample
      SampleScene
  ▼ Standard
    ▶ Common
      IStandardCaseCellData
      StandardCaseView
      StandardCaseViewData
      StandardCaseViewPopup
      StandardCell
      StandardCore
      StandardStashView
      StandardStashViewData
```

Simple Script Reference

- Core/VariableInventoryCore.cs
  - Manages multiple **IVariableInventoryView** which is the inventory area
  - Manage items being dragged
  - Event received from **IVariableInventoryView** is distributed to multiple **IVariableInventoryView**
  - **Standard** implementation
    - StandardCore
- Core/IVariableInventoryView.cs
  - An interface to manage the display of one inventory area
  - Displays the contents of one **IVariableInventoryViewData**
  - Perform appropriate behavior based on the event received from **VariableInventoryCore**
  - **Standard** implementation
    - StandardStashView
    - StandardCaseView
- Core/IVariableInventoryViewData.cs
  - An interface to manage data in one inventory area
  - Placeable position and placement check requested from **IVariableInventoryView** are performed.
  - **Standard** implementation
    - **StandardStashViewData**
    - **StandardCaseViewData**
- Core/IVariableInventoryCell.cs
  - An interface to manage the display of one item
  - Display the contents of one **IVariableInventoryCellData**
  - Cell returns each event fired by Cell to **VariableInventoryCore** through **IVariableInventoryView**
    - **IVariableInventoryCellActions**
  - **Core** implementation
    - **VariableInventoryCell**
- Core/IVariableInventoryCellActions
  - Interface for implementing firing event of **IVariableInventoryCell**
    - onPointerClick
    - onPointerOptionClick
    - onPointerEnter
    - onPointerExit
    - onPointerDown
    - onPointerUp
- Standard/StandardStashView.cs
  - Implementation class of **IVariableInventoryView**
  - Performs a simple inventory display
  - Display the contents of one **StandardStashViewData**

- Standard/StandardCaseView.cs
    - Implementation class of **IVariableInventoryView** that inherits **StandardCaseView**
    - Exception handling specific to Case is performed from **StandardCaseView**
    - Display the contents of one **StandardCaseViewData**
- Standard/StandardStashViewData.cs
    - Implementation class of **IVariableInventoryViewData**
    - Have the exclusive area of the item in the inventory area as a mask, and process according to the request from **VariableInventoryCore**
- Standard/StandardCaseViewData.cs
    - Implementation class of **IVariableInventoryViewData** that inherits **StandardStashViewData**
    - Exception handling specific to Case is performed from **StandardStashViewData**