

# GameObject Manager Tool



***filter, sort, select and edit*** GameObjects in your scene

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Assessment

# 1. Introduction

The **GameObject Manager Tool** is a Unity Editor extension that allows rapid filtering, sorting, selection, and bulk editing of GameObjects in a scene. This tool is especially helpful in large projects where manual scene navigation becomes cumbersome.

## 1.1 Purpose

- Centralize control over scene GameObjects.
- Simplify **multi-object editing** for transforms, active state, and components.
- Enhance productivity when dealing with large or complex scenes.

## 2. Features

### 1. Search & Filter

- Filter by **name** (partial matches), **active state**, or presence/absence of **MeshRenderer**, **Collider**, or **Rigidbody**.
- Multiple component filters operate with **AND** logic (e.g., if MeshRenderer=HasComponent and Collider=HasComponent, only objects with both are displayed).

### 2. Sorting

- Sort the filtered list **alphabetically**, by **active** or **inactive** first, or by **tag** or **layer**.

### 3. Selection & Bulk Editing

- Select any number of GameObjects directly from the list, or **Select All**.
- Click **Edit Selected** to open the **GameObjectEditPopup**.

### 4. Batch Operations in **GameObjectEditPopup**

- **Transform Edits:** Apply new position, rotation, and scale to all selected objects.
- **Active Toggle:** Enable or disable multiple objects at once.
- **Add/Remove Components:** Choose from a dropdown of all non-abstract Component subclasses, and add/remove them in bulk.
- **Undo/Redo:** Integrates with Unity's Undo system plus maintains a custom textual history log.

### 5. Change History

- Each edit is recorded in a text log visible in the **Edit Popup**.
- The standard Unity Undo hotkeys (Ctrl+Z / Cmd+Z) also apply.

### 3. Usage Instructions

#### 3.1 Opening the GameObject Manager

1. In the Unity Editor, go to **Tools** → **GameObject Manager**.
2. The **GameObjectListWindow** will appear.

#### 3.2 Filtering & Sorting

1. **Search:** Enter a name or partial name in the **Search** field (case-insensitive).
2. **Filters:** Expand **Filters** to choose NoFilter, HasComponent, or DoesNotHaveComponent for **MeshRenderer**, **Collider**, or **Rigidbody**.
  - Toggle **Show Inactive** to include or exclude inactive objects.
3. **Sorting:** From **Sort By**, pick the desired sort order (alphabetical, active/inactive first, tag, or layer).
4. The list updates automatically, displaying only those objects matching **all** selected criteria.

#### 3.3 Selecting Objects

1. Each row has a **Select** checkbox.
2. Click **Select All** to select everything currently listed.
3. The selection is tracked in the window; you can see exactly how many objects are chosen.

#### 3.4 Editing Selected Objects

1. With objects selected, click **Edit Selected**.
2. A new **GameObjectEditPopup** window appears.

##### 3.4.1 Transform & Active State

- **Active:** Toggle a checkbox to enable/disable all selected objects.
- **Position / Rotation / Scale:** Input new values and click **Apply Changes** to set them across all objects.

##### 3.4.2 Batch Component Operations

- **Component Dropdown:** Choose any discovered Component type.
- **Add Component:** Adds the chosen component to each selected object.
- **Remove Component:** Removes the chosen component type from each selected object (if present).

### 3.4.3 Undo / Redo / History

- Buttons **Undo** and **Redo** let you roll back changes at the Editor Window level.
- Unity's **Ctrl+Z / Cmd+Z** also applies.
- A textual **Change History** log shows each edit or undo/redo event.

## 4. Screenshots

