Component Manager:

Copier with references
Dynamic search
Inspector organizer

Component Manager

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1. System Overview

Component Manager allows you to copy many components from one object to many target object by one click. To draw editor window it used build-in Tree View (like in hierarchy window) and you can easily explore objects hierarchy for looking for components you want.

Unique feature of this asset is copying components and then redirect its local references to target's components. If you copy component with variable which contain local reference (reference to child's component) in traditional way and then paste it to another object, the pasted component will have reference to same object as source object. In Component Manager it is solved with System.Reflection. If you copy component with local reference and paste it to another object, the pasted component will try recreate path to local reference in own hierarchy and replace object by its own local reference. After copy and replace local references you can print log to console with process summary. Additional if you copy some children components and paste it to another object, Component Manager will find or recreate children in same local hierarchy as in source object.

Next main feature is Dynamic Components Search. With this tool you can fast and easily find all components you want in open scenes and/or in project files. Search will start looking for components if you write part of name or even one letter in search text field. Select owner object in hierarchy or project window and focus camera in scene window by double click on component in any tree view. Toolbar with options for detailed object naming helps you to identify more precisely copied components. Full Names display namespaces and Instance Ids display unique ids for all components. Third toolbar option is context menu shortcuts and it allows you to faster copy/paste components like in inspector.

In my case I can't imagine working with a large project without using Component Organizer. It allows you to hide/show, set editable and enable/disable any component in object. It's really necessary if your objects have a lot of components or if you want to prepare components parameters and lock them from accidental editing.

All methods used in Component Manager, Dynamic Search and Component Organizer is located in static public class and these methods can be use in any other editor scripts in your project.

2. Features

- Full functional component copier from one object with children hierarchy to many target objects (Paste as is, paste value, etc).
- Copy many components to many target objects by one click.
- While copying components it will automatically find or create children hierarchy in target objects.
- COPY LOCAL REFERENCES! While copying components with local references it will find and set same references in target objects.
- Useful toolbar with detail options:
  - Full Name - Show components with full name.
  - Instance Ids - Show instance ids.
  - Context Menu - Show shortcut of context menu for components.
- Dynamic component search. Search components in scene and in project files by write part or even one letter of component's name.
- If you click on found component it will focus in hierarch, project and scene window.
- All operation methods used in Component Manager are in static class and can be use in your editor code.
- Extra tool Component Organizer for clean and organize inspector with many components. Set visibility, editable and enable flags for all components in one place.

If you are satisfied with this asset, please rate it and write reviews on Asset Store. It will be very helpful for me. Thank you and good luck in Game Development 😊

3. How to use

Copy many components from source object and its children to few other target objects.
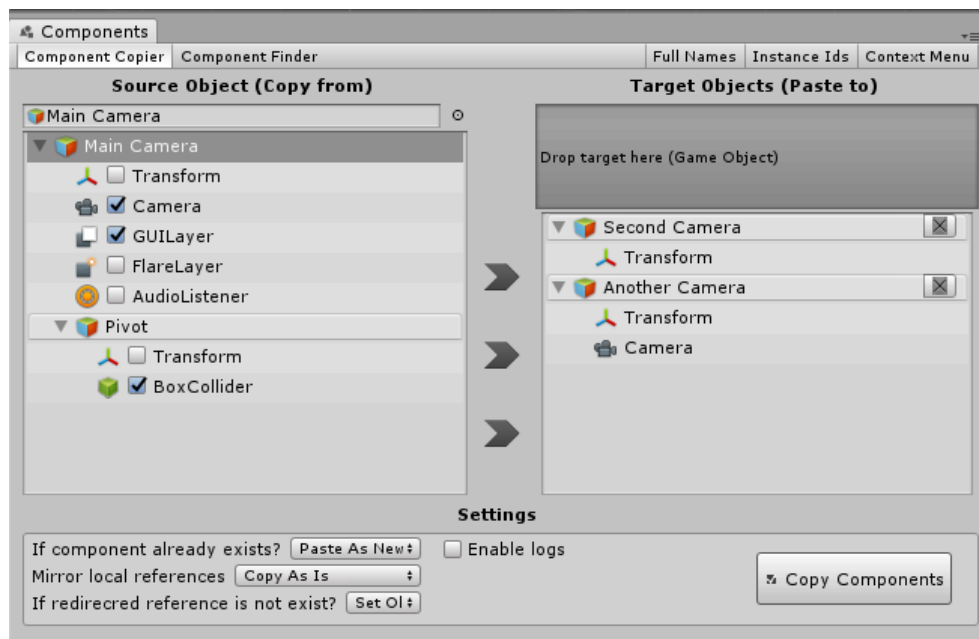

Figure 1 Simply prepare settings to copy few components.

1. Open editor window from *"Window/Component Manager"*.
2. Browse or drop source object in Left section.
3. Foldout object and children.
4. Select all components you need
    a. If you want to copy empty child you will select only child's transform.
5. Drop target object (as many as you need) to right section.
6. Setup process settings *"If component already exist?"*
7. Click *"Copy Components"*

Copy component with local references

If you have object with component to copy which has some variable with local reference like on screen below.
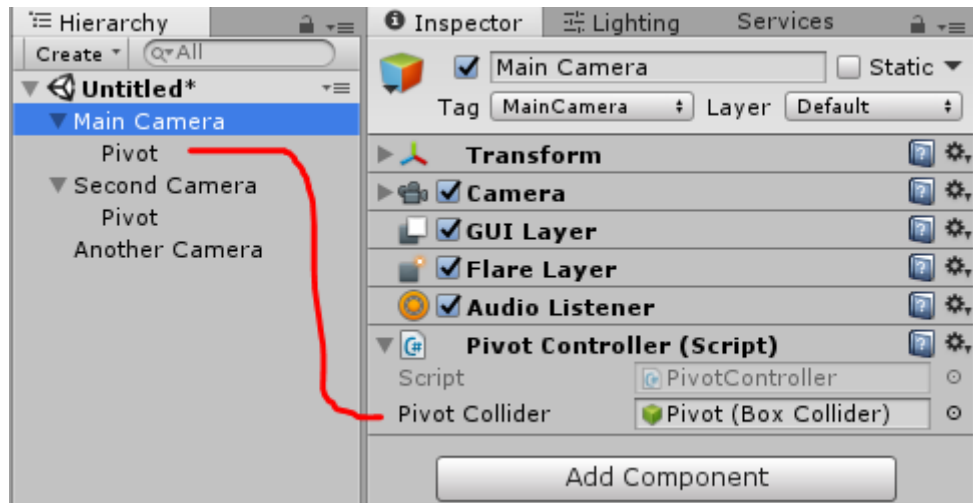

Figure 2 Main Camera with Pivot Controller compoennt. This component has local reference to Pivot/Box Collider.

You have two scenario. When target object already have potential reference object *"Second Camera/Pivot/Box Collider".* Then you only want find this reference and set it. The second way is when target object doesn't have potential reference object.

First scenario (Copy to *Second Camera*):

1. Open editor window from *"Window/Component Manager".*
2. Browse or drop source object in Left section.
1. Select component with local reference (in my case *"Pivot Controller"*).
2. Drop target object to right section.
3. Setup process settings *"Mirror local references"* set to *"Redirection local references".*
   a. If you have more complex situation you can set *"If redirection references is not exist?"* as you need. This option will hold old value or set null if it not find local reference in target object.
   b. Also you can enable Logs for more information about copying process.
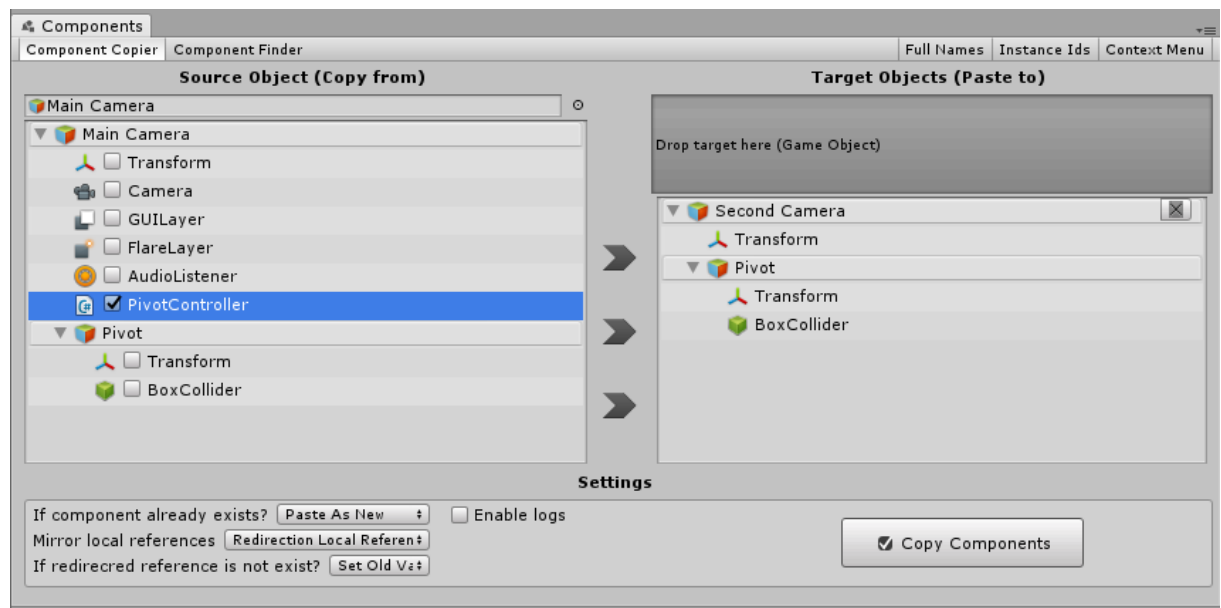
4. Click *"Copy Components"*.

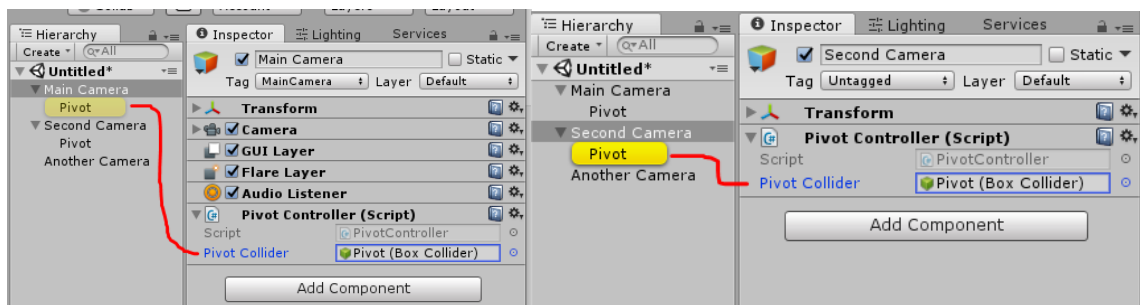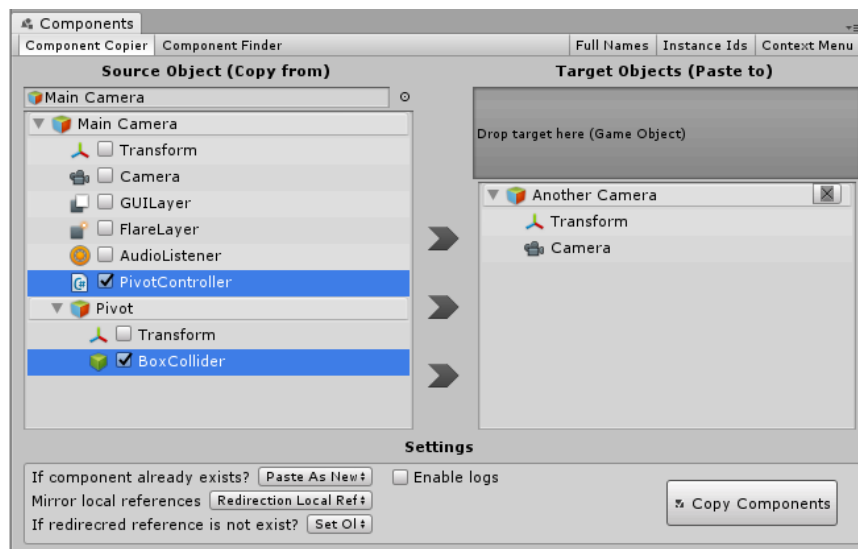*Figure 3 Prepare to copy with local reference.*

Figure 4 Compare Main Camera and Second Camera after copying procces.

Second scenario (Copy to *Another Camera*):

1. Open editor window from *"Window/Component Manager"*.
2. Browse or drop source object in Left section.
3. Select component with local reference (in my case *"Pivot Controller"*).
4. Select component which is a local reference from previous component (in my case *"Main Camera/Pivot/Box Collider"*).
5. Drop target object to right section.

6. Setup process settings *"Mirror local references"* set to *"Redirection local references".*

   a. If you have more complex situation you can set *"If redirection references is not exist?"* as you need. This option will hold old value or set null if it not find local reference in target object.

   b. Also you can enable Logs for more information about copying process.

7. Click *"Copy Components".*

Figure 5 Prepare to copy with local reference.
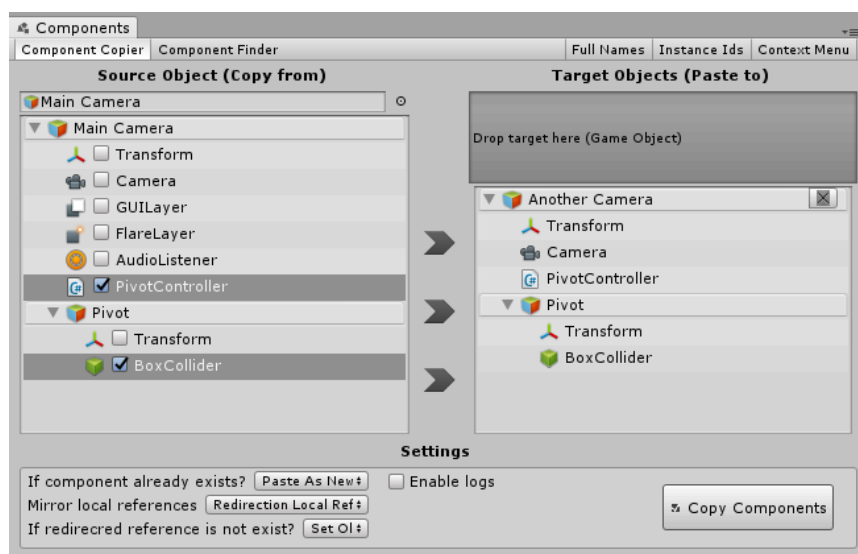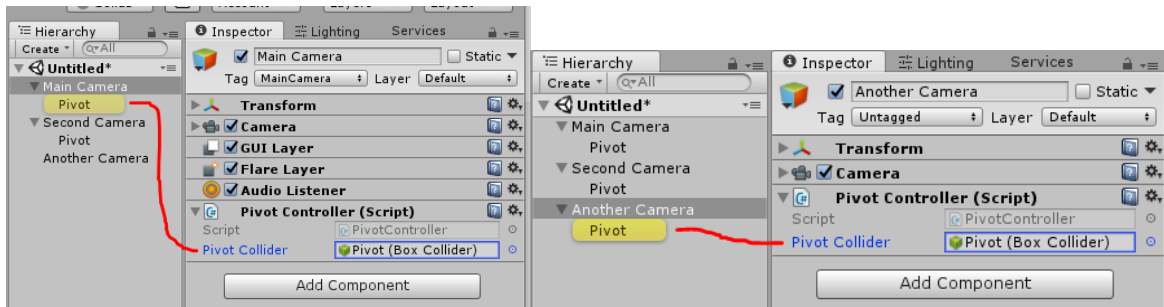

Figure 6 After copy process.

Figure 7 Compare Main Camera and Another Camera after copying procces.

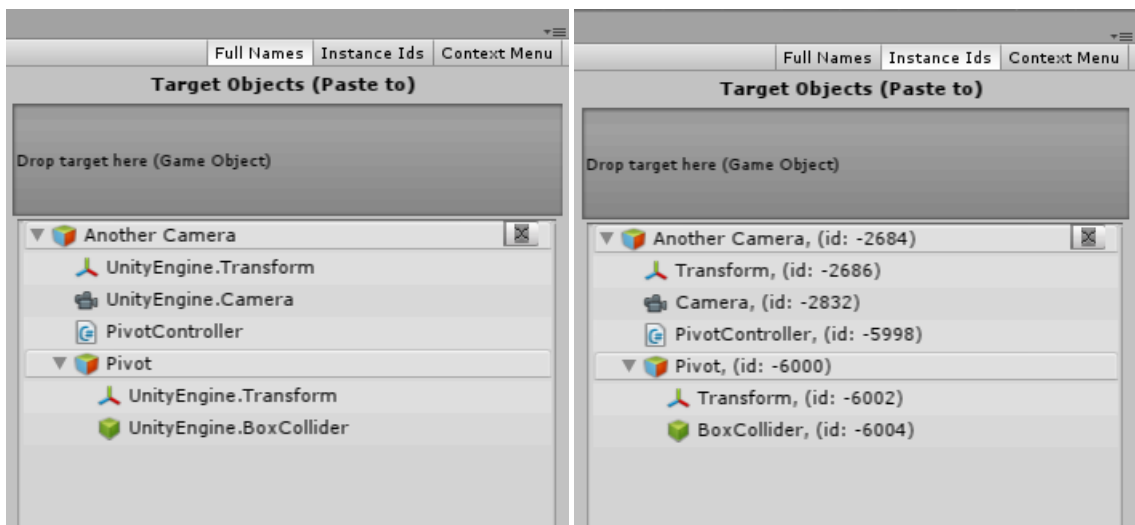## Use toolbar options, context menu shortcuts

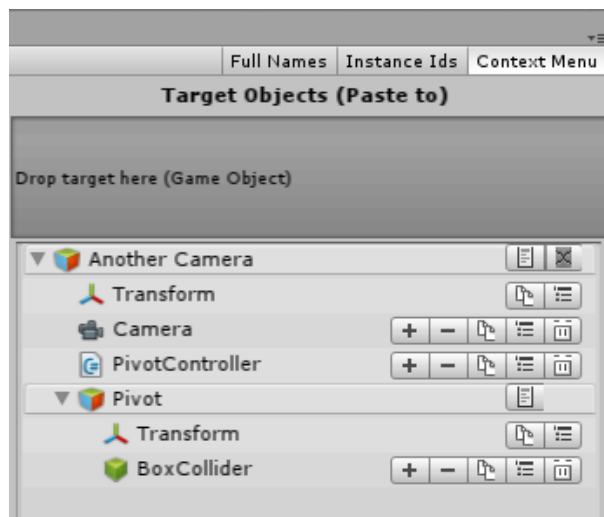*Figure 8 Full names and Instance ids enabled.*

Figure 9 Context menu enabled.

Find all cameras component in scene and in project files (Dynamic component search)
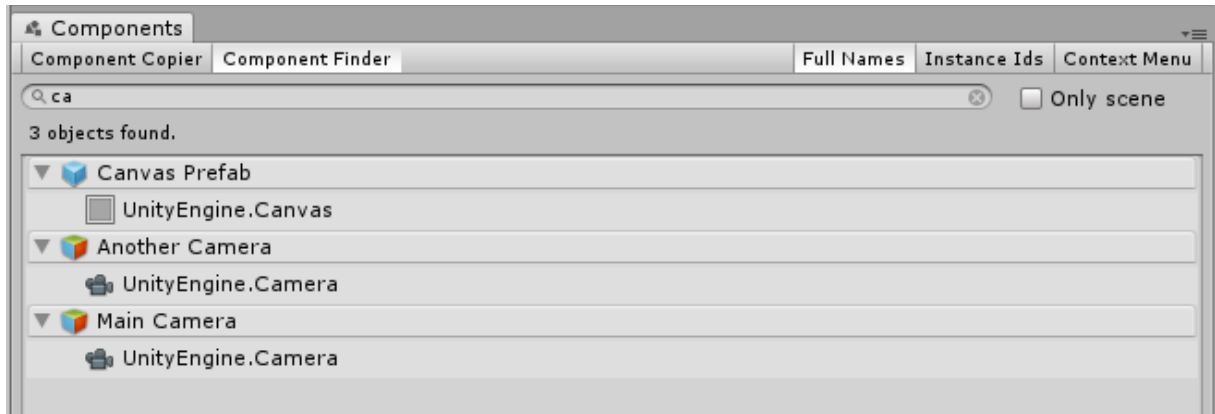

Figure 10 Search result while write "ca" letters.

1. Open editor window from *"Window/Component Manager"*.
2. Change tab to *"Component Finder"*.
3. Disable *"Only scene"* toggle.
4. Write in search input field what you need (in my case *"ca"*).

Organize inspector when game object has too many components.

1. Select game object (in my case *"LargeObject"*).
2. Add component *"Component Organizer"* from *"Component menu/Kreli Studio/Component Organizer"*.
3. *Reorganize what you want*
   a. *Set visibility (show/hide) components, save some space and make inspector clean.*
   b. *Set editable components and prevent from accident changes.*
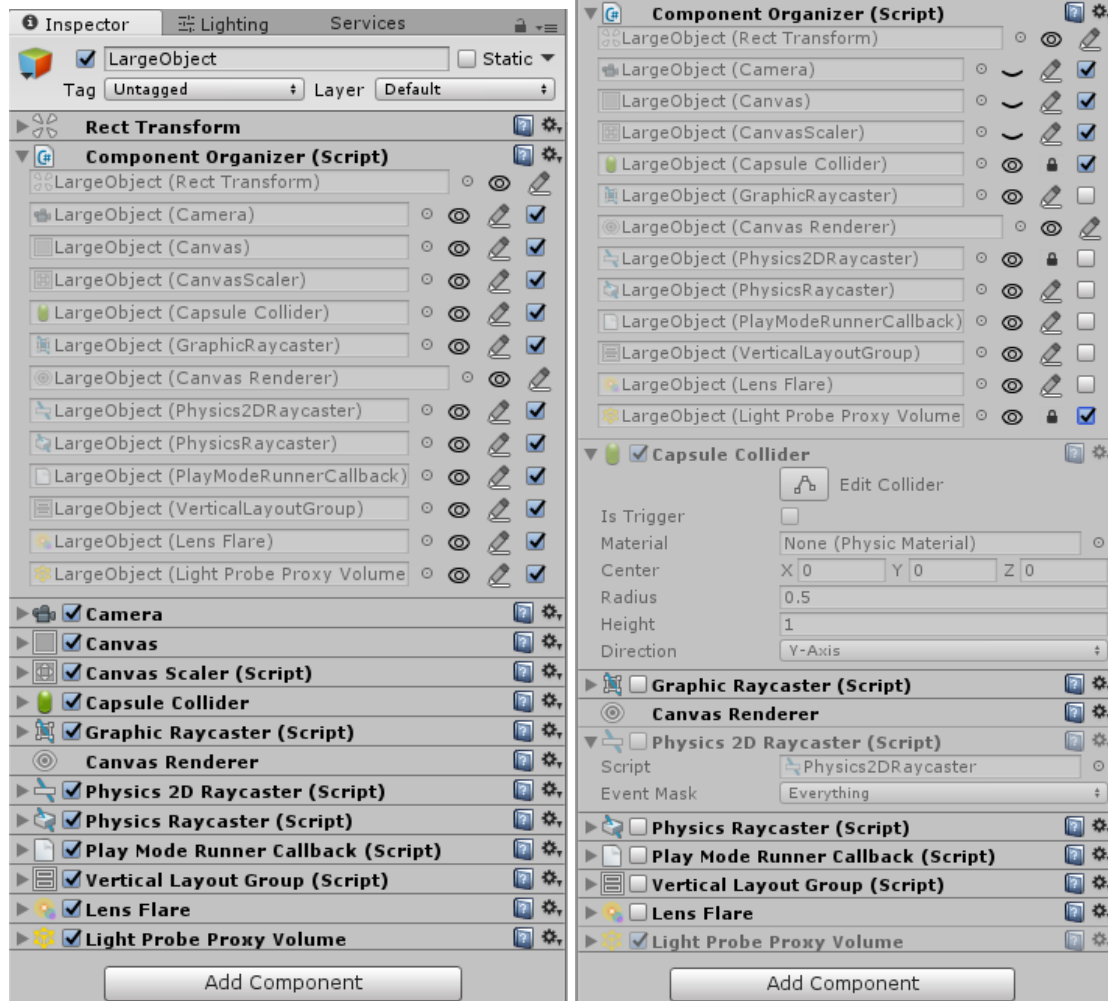   c. Set enabled components

Figure 11 Left - Component Organizer added. Right - Component Organizer reorganized inspector.