

## Shortcuts

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This document contains a complete list of the shortcuts that are available in GSpawn. **Mastering the shortcuts is very important if you wish to get the most out of GSpawn.**

### Actions

The following hotkeys are associated with action menu items (**Tools > GSpawn > Actions**):

- **Select-Deselect [ALT + R]** - select/deselect the plugin object;
- **Transfer Selection [ALT + T]** - transfer plugin selection to Unity selection and vice versa;

### Configurable Shortcuts

The following is a list of configurable shortcuts organized by the category to which they are assigned in the [shortcuts window](#).

#### Global

- **Object Spawn [1]** - activates object spawn mode;
- **Object Selection [2]** - activates object selection mode;
- **Object Erase [3]** - activates object erase mode;
- **Grid/Vertical Step Down [ ]** - move scene grid down in increments of grid cell Y axis size;
- **Grid/Vertical Step Up [ ]** - move scene grid up in increments of grid cell Y axis size;
- **Grid/Snap to Picked Object [G]** - hold down & **left click** to snap the grid position to the intersection point between the mouse cursor and a scene object. **Double left click** to snap to object bounds extents;
- **Transform/Rotate Around X [X]** - rotate around the X axis (spawn guide and selected objects);
- **Transform/Rotate Around Y [Y]** - rotate around the Y axis (spawn guide, selected objects and **ramp rotation** when the **Ramp Paint** tool is active in **Tile Rule Spawn**);
- **Transform/Rotate Around Z [Z]** - rotate around the Z axis (spawn guide and selected objects);
- **Transform/Rotate Around X Around Center [SHIFT + X]** - rotate around the X axis around the object(s) center (spawn guide and selected objects);
- **Transform/Rotate Around Y Around Center [SHIFT + Y]** - rotate around the Y axis around the object(s) center (spawn guide and selected objects);
- **Transform/Rotate Around Z Around Center [SHIFT + Z]** - rotate around the Z axis around the object(s) center (spawn guide and selected objects);

- **Transform/Reset Rotation to Original [I]** - reset object rotation to the rotation assigned to the prefab asset. If the object is not a prefab instance, the rotation will be set to **<0, 0, 0>** (spawn guide and selected objects);
- **Transform/Reset Scale to Original [SHIFT + O]** - reset object scale to the scale that is assigned to the prefab asset. If the object is not a prefab instance, the scale will be set to **<1, 1, 1>** (spawn guide and selected objects);
- **Mirror Gizmo/Toggle [CTRL + Q]** - toggle mirror gizmo on/off;
- **Mirror Gizmo/Snap to View [CTRL + F]** - snap mirror gizmo to view;
- **Selection/Frame Selected [F]** - in **Selection Mode** it frames the selected objects. In **Object Spawn > Curve Spawn** mode, it frames the curves which are selected in the curve list;
- **Selection/Delete Selected [DELETE]** - in **Selection Mode** it deletes the selected objects. In **Object Spawn > Curve Spawn** mode it deletes selected control points;
- **Selection/Duplicate Selected [CTRL + D]** - in **Selection Mode** it duplicates the selected objects. In **Object Spawn > Curve Spawn** mode it duplicates the curves which are selected in the curve list;

## Object Transform Sessions

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**Note:** A transform session is the act of manipulating objects in a certain way. Example of transform sessions: modular snap, surface snap, vertex snap, box snap. For example, when working with the **Props Spawn** tool, the spawn guide is manipulated using a surface snap session. In **Modular Snap Spawn**, the spawn guide is manipulated using a modular snap session.

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The following shortcuts are available when controlling the spawn guide as well as when manipulating selected objects:

- **Modular Snap/Vertical Step Up [E]** - move object(s) up in increments of grid cell Y axis size;
- **Modular Snap/Vertical Step Down [Q]** - move object(s) down in increments of grid cell Y axis size;
- **Modular Snap/Reset Vertical Step [R]** - reset the vertical step to **0**;
- **Modular Snap/Reset Vertical Step to Original [SHIFT + R]** - reset the vertical step to its original value. Useful in selection mode, when activating modular snap for the currently selected objects **WHEN** the object positions reside above the grid. In this case their initial vertical step will not be **0**.
- **Modular Snap/Toggle Half-Space [N]** - invert vertical step direction. Useful for quickly placing objects on top or below the grid;
- **Modular Snap/Toggle Object-to-Object Snap [S]** - switch between grid snap and object-to-object snap mode;
- **Modular Snap/Toggle Grid Snap Climb [SHIFT + C]** - toggle grid snap object climb. When active, the object(s) will climb other objects that are hovered with the mouse cursor while also being snapped to the grid;
- **Modular Snap/Toggle Alignment Highlights [SPACE]** - toggle alignment highlights. These are the highlights that appear when the object(s) line up with nearby objects along one of the grid axes;

- **Modular Snap/Toggle Alignment Hints [SHIFT + SPACE]** - toggle alignment hints. Alignment hints are labels that appear in the scene view next to the nearby objects during alignment;
  - **Surface Snap/Reset Mouse Offset from Surface [R]** - reset the surface offset applied with the mouse to **0**;
  - **Surface Snap/Toggle Axis Alignment [SHIFT + A]** - toggle axis alignment;
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**Note:** The **Modular Snap** shortcuts are used in the following contexts:

- **Object Spawn > Modular Snap Spawn;**
  - **Object Spawn > Modular Walls Spawn;**
  - **Object Spawn > Segments Spawn;**
  - **Object Spawn > Box Spawn;**
  - **Object Selection > Modular Snap;**
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**Note:** The **Surface Snap** shortcuts are used in the following contexts:

- **Object Spawn > Props Spawn;**
  - **Object Selection > Surface Snap;**
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## Object Spawn

- **Spawn Guide/Sync Grid Cell Size [K]** - sets the grid X and Z cell size to the size of the spawn guide's prefab. **Note:** The spawn guide scale is ignored. The prefab scale is used instead. The grid cell Y size is not affected;
- **Spawn Guide/Toggle Decor Rules [SHIFT + V]** - toggle decoration rules;
- **Spawn Guide/Scroll Prefab [CTRL + SPACE + scroll wheel]** - scroll the spawn guide prefab using the mouse scroll wheel. When used, the prefab selection inside the Prefab Manager UI is changed to reflect the new prefab (**available for modular snap, segments, box and props spawn modes**);
- **Tile Rule Spawn/Paint [Q]** - activate paint tool;
- **Tile Rule Spawn/Ramp [W]** - activate ramp paint tool;
- **Tile Rule Spawn/Erase [E]** - activate erase tool;
- **Tile Rule Spawn/Connect [R]** - activate connect tool;
- **Tile Rule Spawn/Connect/Change Major Axis [SPACE]** - available when the tile rule connect tool is used and it allows you to change the **major axis**;
- **Tile Rule Spawn/Box Brush [SHIFT + Q]** - activate the box brush (only available for paint and erase tools);
- **Tile Rule Spawn/Flexi Box Brush [SHIFT + W]** - activate the flexi box brush (only available for paint and erase tools);
- **Tile Rule Spawn/Segments Brush [SHIFT + E]** - activate the segments brush (only available for paint and erase tools);
- **Curve Spawn/Select All Control Points [CTRL + A]** - select all control points;

- **Curve Spawn/Insert Control Point [C]** - enable control point insertion. Move the mouse cursor near the curve and left click to place a new control point;
- **Curve Spawn/Project Selected Control Points [SHIFT + F]** - project selected control points on the scene grid or object that resides under the cursor;
- **Curve Spawn/Move Gizmo [W]** - activate move gizmo;
- **Curve Spawn/Rotate Gizmo [E]** - activate rotation gizmo;
- **Curve Spawn/Scale Gizmo [R]** - activate scale gizmo;

## Object Selection

- **Snap All Axes [SHIFT + S]** - snap selected objects to the scene grid along all 3 axes;
- **Select Similar Prefabs [SHIFT + A]** - select all scene objects that are instances of prefabs belonging to the original selection;
- **Select Prefabs in Manager [SHIFT + C]** - all prefab assets associated with selected objects will be selected inside the prefab manager;
- **Project on Grid [SHIFT + G]** - project selected objects on the scene grid;
- **Project on Object [SHIFT + F]** - press and then **left click** to project on the object under the mouse cursor;
- **Move Gizmo [W]** - activate move gizmo;
- **Rotation Gizmo [E]** - activate rotation gizmo;
- **Scale Gizmo [R]** - activate scale gizmo;
- **Universal Gizmo [T]** - activate universal gizmo;
- **Extrude Gizmo [U]** - activate extrude gizmo;
- **Selection Rectangle [SHIFT + 1]** - activate selection rectangle tool;
- **Selection Segments [SHIFT + 2]** - activate selection segments tool;
- **Selection Box [SHIFT + 3]** - activate the selection box tool;
- **Mirror Selected [M]** - mirror selected objects (only if mirror gizmo is enabled);
- **Modular Snap [D]** - enable modular snapping;
- **Surface Snap [C]** - enable surface snapping;
- **Vertex Snap [V]** - hold down, pick a vertex, hold left mouse button down & drag to snap;
- **Box Snap [B]** - hold down, pick a box corner, hold left mouse button down & drag to snap;
- **Filter Out of View [SHIFT + V]** - deselect objects that are not visible to the scene view camera;
- **Grow [SPACE]** - grow selection using the current grow parameters;

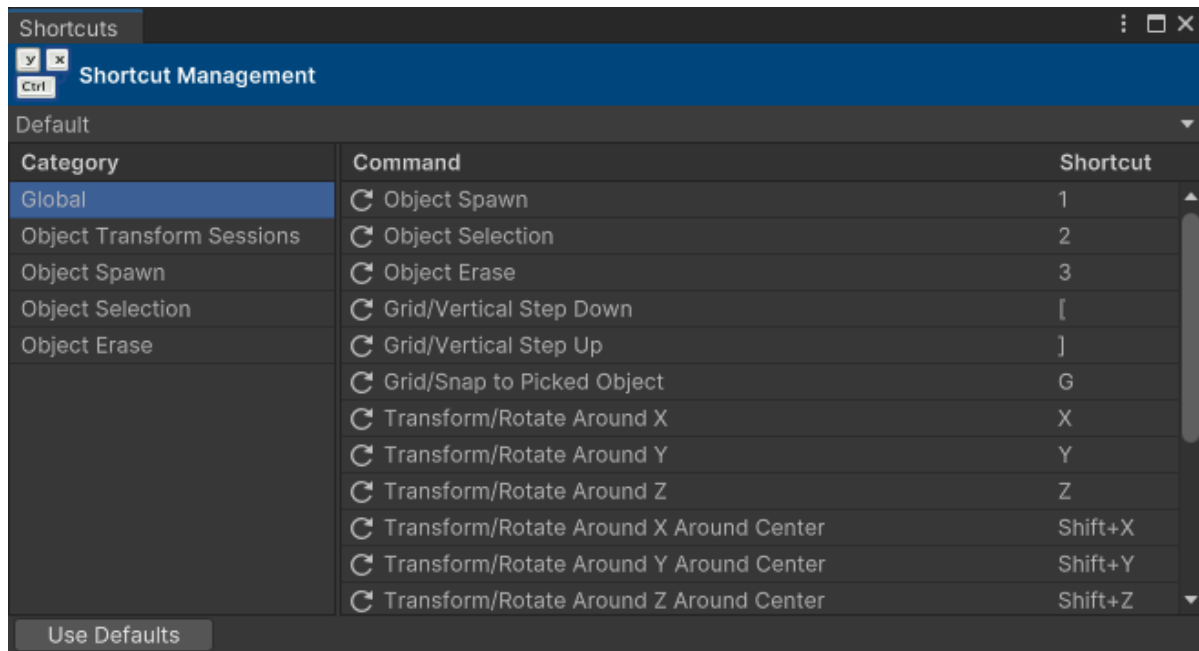
## Object Erase

- **Erase Cursor [SHIFT + 1]** - enable erase cursor tool;
- **Erase Brush 2D [SHIFT + 2]** - enable the 2D erase brush tool;
- **Erase Brush 3D [SHIFT + 3]** - enable the 3D erase brush tool;

# Shortcuts Window

Open **Tools > GSpawn > Windows > Shortcuts...**

The following window will appear on the screen:



The **Shortcuts Window** contains all shortcuts that were listed previously and it also allows you to configure them.

The left pane contains shortcut categories. The right pane contains the shortcuts that reside in the selected category.

To the left of each shortcut item is a button which can be used to reset the shortcut to its default configuration.

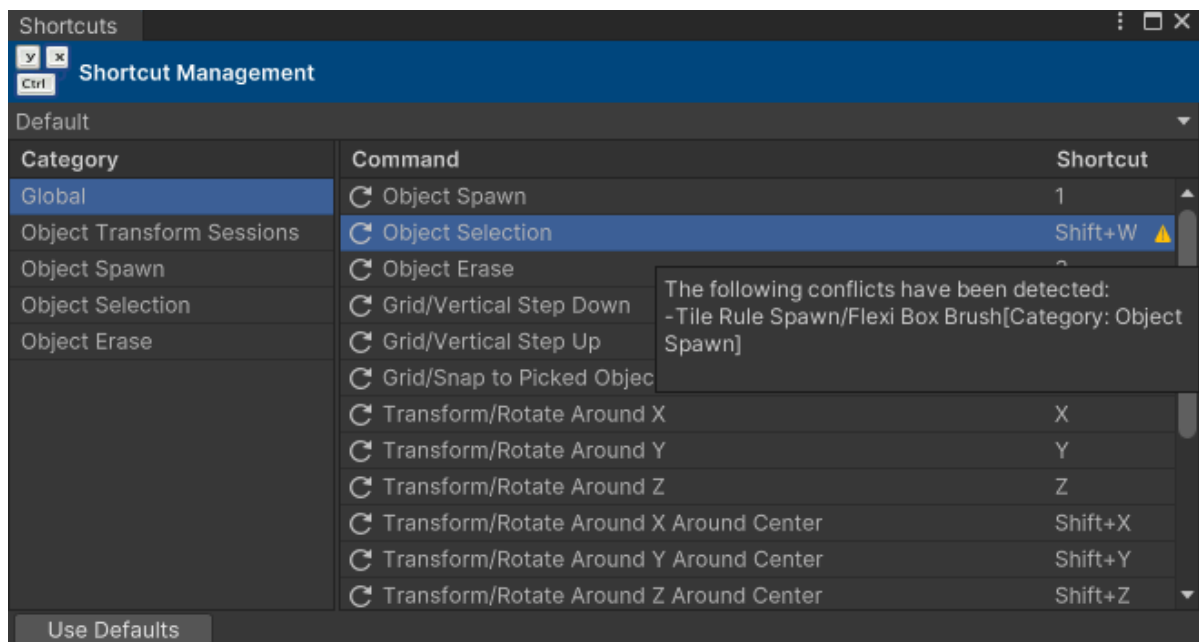
Pressing **Use Defaults** will reset all shortcuts to their default configuration.

## Configuring Shortcuts

Select a shortcut in the right pane and double click on its name or shortcut text. Press the key combination (can contain modifiers except for **ALT** key). The new key combo will appear to the far right.

### Collisions/Conflicts

Hotkeys that are used in the same context can collide/conflict with each other if they have the same key combination. When that is the case, a warning icon will appear to the far right of the window:



In the image above the **Object Selection** shortcut was changed to **[SHIFT + W]**. This collides with the **Tile Rule Spawn/Flexi Box Brush** shortcut which resides in the **Object Spawn** category.

Collisions can also happen between shortcuts that reside in different contexts (as in the image above). For example, the **Global** context is treated in a special manner and any shortcut that has the same key combo as one of the global shortcuts will produce a collision.

## Fixed Shortcuts

Here is a list of shortcuts which are fixed and can not be changed:

### Scene Grid

- **[CTRL + SHIFT + ALT + scroll wheel]** - change grid cell size along X & Z axes in increments of **0.25** units;

### Object Spawn

#### Spawn Guide

- **[ALT + left click]** - allows you to pick a new prefab from the scene instead of using the **Prefab Manager** window. Only works if the object you click on is a prefab instance and the prefab is stored in the **Prefab Manager**;
- **[ESCAPE]** - destroy spawn guide;

#### Extension Plane

- **[CTRL + ALT + left click]** - set plane orientation to that of the surface which lies under the cursor. This can be a grid or a game object;
- **[CTRL + scroll wheel]** - cycle through different plane orientations;

#### Modular Walls Spawn

- **[ESCAPE]** - cancel build session;
- **[left click]** - add 2 new perpendicular segments to the segment chain;
- **[SHIFT + left click]** - commit & spawn objects;
- **[SHIFT + right click]** - step back (i.e. remove the last 2 segments);

## Segments Object Spawn

- **[ESCAPE]** - cancel segments build session;
- **[SHIFT + scroll wheel]** - update height;
- **[left click]** - add 2 new perpendicular segments to the segment chain;
- **[SHIFT + left click]** - commit & spawn objects;
- **[SHIFT + right click]** - step back (i.e. remove the last 2 segments);

## Box Object Spawn

- **[ESCAPE]** - cancel box build session;
- **[SHIFT + scroll wheel]** - update height;
- **[ALT + scroll wheel]** - change pattern direction (only available when height mode is set to **Pattern**);
- **[CTRL]** - force box to square shape;
- **[left click]** - commit & spawn objects;

## Props Spawn

- **[CTRL + scroll wheel]** - change flatten radius (only works if terrain flattening is enabled);
- **[ALT + scroll wheel]** - when decor rules are active, it allows you to cycle between different rules;

## Scatter Brush Spawn

- **[CTRL + scroll wheel]** - change brush radius;

## Tile Rule Spawn

- **[ESCAPE]** - cancel connect tool or brush;
- **[CTRL + ALT + scroll wheel]** - change connect tool or brush vertical offset;
- **[CTRL + ALT + left click]** - pick vertical offset for connect tool or brush;
- **[CTRL + scroll wheel]** - change **box brush** size. Doesn't apply to flexi box brush or segments brush;
- **[SHIFT + scroll wheel]** - change brush height;
- **[SHIFT + left click]** - commit & spawn objects using the segments brush;
- **[SHIFT + right click]** - used with the segments brush to step back (i.e. remove the last segment);

## Curve Object Spawn

- **[ESCAPE]** - cancel curve build session. If you are inserting a control point, cancels insertion;
- **[SHIFT + left click]** - commit curve build session;
- **[CTRL]** - during curve creation, enables you to snap the current control point to the scene grid while moving the mouse. Can also be used when the move gizmo is active;
- **[CTRL]** - when selecting control points, appends a control point to the control point selection;

## Physics Object Spawn

- **[CTRL + scroll wheel]** - change drop radius;
- **[SHIFT + scroll wheel]** - change drop height;

## Modular Snap (Object Spawn & Selection Mode)

- **[SHIFT + mouse move]** - rotate objects(s) around the grid Y axis;
- **[SHIFT + CTRL + scroll wheel]** - move object(s) up/down in increments of grid cell Y size;
- **[CTRL]** - lock snap axis;
- **[CTRL + SHIFT]** - switch locked snap axis;

## Surface Snap (Object Spawn & Selection Mode)

- **[SHIFT + mouse move]** - rotate;
- **[CTRL + mouse move]** - scale;
- **[ALT + mouse move]** - offset from surface;
- **[SHIFT + ALT + mouse move]** - offset from anchor;
- **[CTRL + SHIFT + mouse move]** - rotate around anchor;

## Object Selection

- **[CTRL]** - enable append. When active, you will be able to append objects to the current selection. On left click, if an object is selected, it will be deselected;
- **[ESCAPE]** - cancel transform session (e.g. modular snap, surface snap etc);
- **[ALT + left click]** - replace each selected object with the prefab that was clicked on. This can either be a prefab preview in the prefab manager window or a prefab instance inside the scene view;
- **[ALT + CTRL + left click]** - same as above, but this time each selected object will be replaced with one of the prefabs selected in the prefab manager. The prefab used for replacement is picked randomly. This only works when clicking on a prefab preview in the prefab manager;

## Selection Rectangle Tool

- **[SHIFT]** - enable multi-deselect. It allows you to deselect objects instead of selecting them;
- **[ESCAPE]** - cancel;

## Segments Selection Tool

- **[SHIFT + left click]** - commit;
- **[SHIFT + right click]** - step back (i.e. remove last segment);
- **[ESCAPE]** - cancel;

## Box Selection Tool

- **[ESCAPE]** - cancel;



## Object Erase

- **[CTRL + scroll wheel]** - change brush radius;
- **[SHIFT]** - cull plane toggle;
- **[SHIFT + scroll wheel]** - change 3D brush height;

## Scene View Prefab Drag & Drop

**Note:** Applies when dragging a prefab from the **Prefab Manager** window into the scene view.

- **[SHIFT]** - enable snap all axes;
- **[ESCAPE]** - cancel;

## UI

### General

- **[F2]** - enable item rename (only works if there is a single item selected);
- **[ESCAPE]** - cancel item rename;
- **[ENTER]** - commit item rename;
- **[DELETE]** - delete selected items (if applicable);
- **[CTRL + D]** - duplicate selected items (if applicable);
- **[UP ARROW]** - move selection up;
- **[SHIFT/CTRL + UP ARROW]** - move selection up with append;
- **[DOWN ARROW]** - move selection down;
- **[SHIFT/CTRL + DOWN ARROW]** - move selection down with append;
- **[LEFT ARROW]** - move selection left;
- **[SHIFT/CTRL + LEFT ARROW]** - move selection left with append;
- **[RIGHT ARROW]** - move selection right;
- **[SHIFT/CTRL + RIGHT ARROW]** - move selection right with append;
- **[CTRL + A]** - select all;
- **[CTRL + C]** - copy (only in prefab manager and prefab library windows);
- **[CTRL + V]** - paste (only in prefab manager and prefab library windows);

### Tree Views

- **[D]** - detach selected items from parents;
- **[W]** - expand selected items;
- **[Q]** - collapse selected items;
- **[N]** - create child for selected item (only when one item is selected);
- **[drag selected]** - drag selected items onto another item to change their parent;
- **[ALT + drag selected]** - place selected items on top of the item on which they were dropped;

## Tile Rule UI

- **[left-click on middle tile]** - turns all neighbor tiles green;
- **[right-click on middle tile]** - turns all tiles red;
- **[SHIFT + left/right-click]** - turns all tiles neutral;
- **[left-click & drag]** - paint green tiles;
- **[right-click & drag]** - paint red tiles;

## Prefab Previews

- **[middle-click & drag]** - rotate preview;
  - for **macOS** users there is an alternative: **[ALT + right-click & drag]**. This can be enabled from **Edit > Preferences > GSpawn > Input** in the **macOS** section.