PLUGIN MASTER

Prefab World Builder Documentation

Shortcuts

All shortcuts can be edited in the preferences window.

Tool	Command	Shortcut
Common	Deselect tool. Deselect handle.	Esc
	Snap to vertex	V
Toolbar	Toggle pin tool	Alt + Shift + 1
	Toggle brush tool	Alt + Shift + 2
	Toggle gravity tool	Alt + Shift + 3
	Toggle line tool	Alt + Shift + 4
	Toggle shape tool	Alt + Shift + 5
	Toggle tiling tool	Alt + Shift + 6
	Toggle replacer tool	Alt + Shift + 7
	Toggle eraser tool	Alt + Shift + 8
	Toggle selection tool	Alt + Shift + 9
	Toggle Circle select Tool	Alt + shift + O
	Toggle extrude tool	Alt + Shift + X
	Toggle mirror tool	Alt + Shift + M

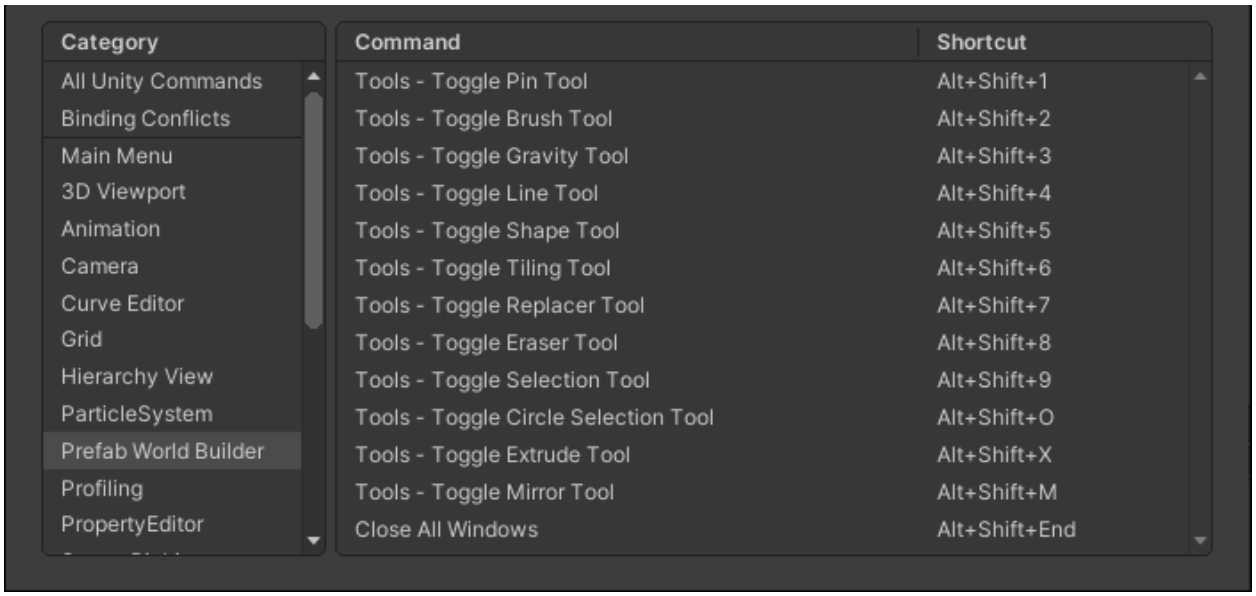
Tool	Command	Shortcut
Pin Tool	Position handles at top, bottom or pivot height	(Ctrl + Shift + U or J)[p1] or (Page Up or Page Down)[p2]
	Set the pivot as the active handle	(Ctrl + Shift + T)[p1] or (Home)[p2]
	Set the previous handle as active	Ctrl + Shift + H
	Select the next handle as active	(Ctrl + Shift + Y)[p1] or (End)[p2]
	Select next item in the multi-brush	**Ctrl + Alt + Mouse scroll wheel** or (Ctrl + Alt + O or N)
	Toggle repeat item option	Ctrl + T
	Scale	**Ctrl + Mouse scroll wheel**
	Reset Scale	(Ctrl + Shift + Period)[p1] or (Ctrl + Shift + Home)[p2]
	Rotate freely around local Y axis	**Ctrl + Hold down the right mouse button + Move the mouse horizontally**
	Rotate freely around local X axis	Ctrl + Hold down the middle mouse button + Move the mouse vertically
	Rotate freely around local Z axis	Ctrl + Shift + Hold down the middle mouse button + Move the mouse vertically
	Snap rotation while rotate freely[1]	Hold down the **Alt** key while rotate freely
	Add 90° or -90° to the rotation around local Y axis	(Ctrl + Q or W)[p1] or (Ctrl + ← or →)[p2]
	Add a step[1] to the rotation around local Y axis	(Ctrl + Shift + Q or W)[p1] or (Ctrl + Shift + ← or →)[p2]
	Add 90° or -90° to the rotation around local X axis	(Ctrl + Alt + K or L)[p1] or (Ctrl + Alt + ← or →)[p2]
	Add a step[1] to the rotation around local X axis	(Ctrl + Alt + Shift + K or L)[p1] or (Ctrl + Alt + Shift + ← or →)[p2]
	Add 90° or -90° to the rotation around local Z axis	Ctrl + Alt + Period or Comma
	Add a step[1] to the rotation around local Z axis	Ctrl + Alt + Shift + Period or Comma
	Reset rotation to zero	(Ctrl + Shift + M)[p1] or (Ctrl + Home)[p2]
	Snap rotation to grid	Shft + G
	Reset the distance from the surface to zero	Shift + B
	Flip sprite horizontally	Shift + U

[1] The step size can be changed in the preferences window.
[p1] Default Profile 1
[p2] Default Profile 2

Tool	Command	Shortcut
Pin Tool And Gravity Tool	Add 1 or -1 unit to the distance from surface	(Ctrl + Alt + U or J)[p1] or (Ctrl + Alt + ↑ or ↓)[p2]
	Add 0.1 or -0.1 units to the distance from surface	(Ctrl + Alt + Shift + U or J)[p1] or (Ctrl + Alt + Shift + ↑ or ↓)[p2]
	Edit distance to the surface	**Ctrl + Shift + Hold down the right mouse button + Move the mouse vertically**
Brush Tool, Gravity Tool, Eraser, Replacer and Circle Select	Change radius	(Ctrl + Mouse scroll wheel)[p1] or (Shift + Hold down the right mouse button + Move the mouse horizontally)[p2]
Brush Tool and Gravity Tool	Update brushstroke	Ctrl + Shift + Period
	Edit density	Ctrl + Alt + Mouse scroll wheel
	Rotate Brush	Ctrl + Hold down the right mouse button + Move the mouse horizontally
	Reset brush rotation	Ctrl + M
Line, Shape and Tiling	Apply	Enter
	Delete selected persistent item and its children	Alt + Delete (In Edit Mode)
	Delete selected persistent item but not its children	Alt + Shift + Delete (In Edit Mode)
	Select parent object	Ctrl + Shift + T
	Toggle Edit Mode	Ctrl + Shift + Period
Line and Shape	Edit gap size	Ctrl + Shift + Hold down the right mouse button + Move the mouse horizontally
Line	Add new midpoint	Click Midpoint
	Add New point	Ctrl + Right Click
	Remove selected points	Delete
	Select points	Shift + Hold down the right mouse button + Draw a selection rectangle
	Select all points	Ctrl + Shift + A
	Deselect all points	Ctrl + Shift + D
	Set the previous segment as a **Curved or Straight Line**	(Ctrl + Shift + Y)[p1] or (Page Down)[p2]
	Close or open the line	(Ctrl + Shift + O)[p1] or (End)[p2]
	Snap to control points	V
	Toggle Edit Mode Type (Line nodes or Line position and rotation)	Ctrl + Shift + Comma

Tool	Command	Shortcut
Tiling and Selection Tool	Rotate 90° or -90° around X axis	(Ctrl + Shift + U or J)[p1] or (Ctrl + Shift + ↑ or ↓)[p2]
	Rotate 90° or -90° around Y axis	(Ctrl + Alt + K or L)[p1] or (Ctrl + Alt + ← or →)[p2]
	Rotate 90° or -90 around Z axis	(Ctrl + Alt + U or J)[p1] or (Ctrl + Alt + ↑ or ↓)[p2]
Tiling	Edit spacing	(Shift or Shift + Ctrl) + Hold down the right mouse button + Move the mouse
Selection Tool	Toggle position handle	W
	Toggle rotation handle	E
	Toggle scale handle	R
	Toggle Space Global/Local	Ctrl + Shift + X
	Move to other selection handle	Return, select the other objects, select the destination handle and press Return again to confirm the move.
	Edit custom handle	U to start editing and U or Return to confirm
Grid	Toggle grid	Ctrl + G then Ctrl + G
	Toggle snapping	Ctrl + G then Ctrl + H
	Toggle grid Lock	Ctrl + G then Ctrl + L
	Set the origin to the active gameobject position	Ctrl + G then Ctrl + W
	Set the grid rotation to the active gameobject rotation	Ctrl + G then Ctrl + E
	Set the snap value to the size of the active gameobject	Ctrl + G then Ctrl + R
	Frame grid origin	Ctrl + G then Ctrl + Q
	Toggle position handle	Ctrl + G then Ctrl + Alt + W
	Toggle rotation handle	Ctrl + G then Ctrl + Alt + E
	Toggle spacing handle	Ctrl + G then Ctrl + Alt + R
	Move the origin one step up	Ctrl + G then Ctrl + Alt + J
	Move the origin one step down	Ctrl + G then Ctrl + Alt + M
Palette	**Select next brush**	**Ctrl + Shift + Mouse scroll wheel** or (Ctrl + Shift + Z or X)
	Select next palette	Ctrl + Alt + Shift + Mouse scroll wheel or (Ctrl + Alt + Shift + Z or X)
	Delete selected brushes	Ctrl + Shift + Delete
	Pick or add a Brush	**Hold Shift + 1 + Click on the object**
	Drag a prefab to the scene	Ctrl + Drag the brush to the scene

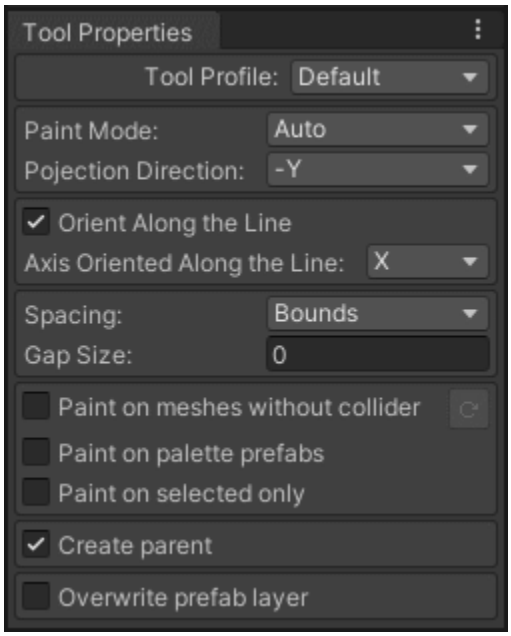
The following shortcuts are customizable via shortcuts manager.

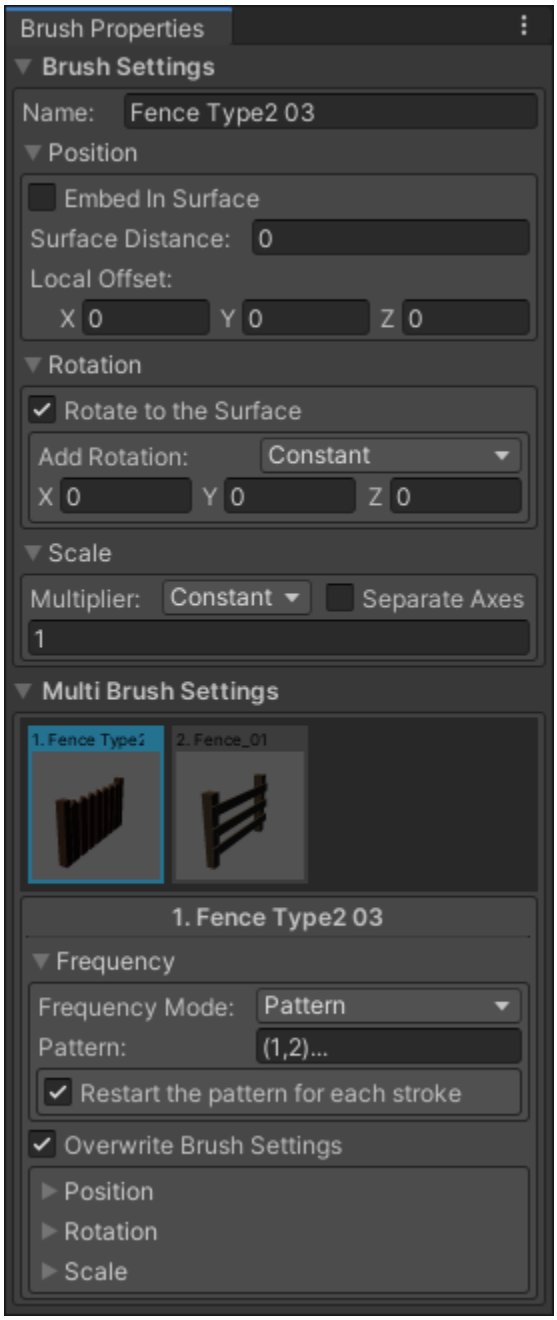


The Shortcuts manager lets you view and manage keyboard shortcuts, you can access it from Unity's main menu Edit/Shortcuts.

Interface

PWB consists of a comprehensive set of tools to help you design levels in no time.





The interface is made up of four main windows: toolbar, palette, tool properties, and brush properties.

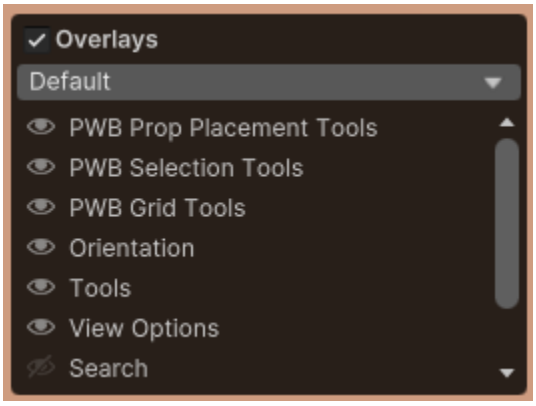
Toolbar

To open the toolbar, click the menu item **Tools > Plugin Master > Prefab World Builder > Toolbar**.
The toolbar consists of three groups of controls:

	Description
	**Prop Placement Tools** Placement tools allow you to preview the props you are going to add to the scene. **Pin Tool**: Place one object at a time. **Brush Tool**: Place large amounts of randomly scattered objects. **Gravity Tool**: Physics-based placing tool. **Line Tool**: Place objects along a bezier path.(Create fences easily) **Shape Tool**: Place objects along a shape (Circle, triangle square or polygon) **Tiling Tool**: Place several objects arranged in a grid. (ideal for creating floor and walls) **Replacer**: Replaces scene objects with prefabs from the selected brush. **Eraser**: Erase objects as in a drawing editor.
	**Selection Tools** **Selection Tool**: It adds handles to the vertices of the bounding box containing the selected objects. Extends and complements the functionality of the unity transform controls. The TRS buttons toggle the position, rotation, and scale handles respectively. **Circle Select Tool**: Allows you to efficiently select objects within a circular area. **Extrude Tool**: Creates copies of the selected objects in the direction of the handle. The extrusion length can be specified by moving the handle away from the selection. **Mirror Tool**: Create a mirrored copy of selected objects.
	**Grid and Snapping Tools** **Grid Type**: Rectangular or Radial. **Enable/Disable Grid Snapping**: XYZ buttons toggle snapping on each axis. RC buttons toggle radius and circumference snapping. **Show/Hide Grid**: Use XYZ buttons to select which grid plane is currently visible. **Lock/Unlock Grid**: When unlocked, the grid follows the cursor along the normal direction of the grid plane. Otherwise, the grid remains in the same place. **Grid and snapping settings**: Open the grid and snapping settings.

Toolbar Overlays

	Description
	PWB tools are available as overlay panels in the scene view window (in **Unity 2021.2 or higher**) to make them more accessible and improve your workflow.



Displaying and hiding Overlays

1. Click anywhere in the Scene view and press the ` Key to open the overlays menu.
2. Click the overlay you want to display or hide. If the Overlay is already displayed, an eye icon appears to its left. When you rollover a displayed option, the Overlay highlights in blue in the Scene view.

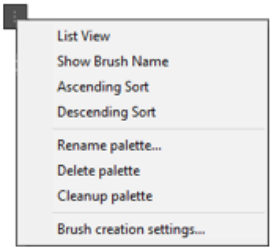
There are three different overlays: prop placement tools, selection tools and grid tools. Each can be shown, hidden, or collapsed independently.

For more information on overlays, visit the unity manual

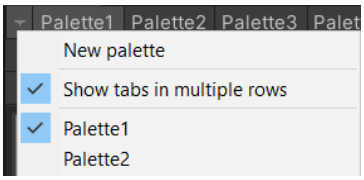
Palette

Grid View

List View

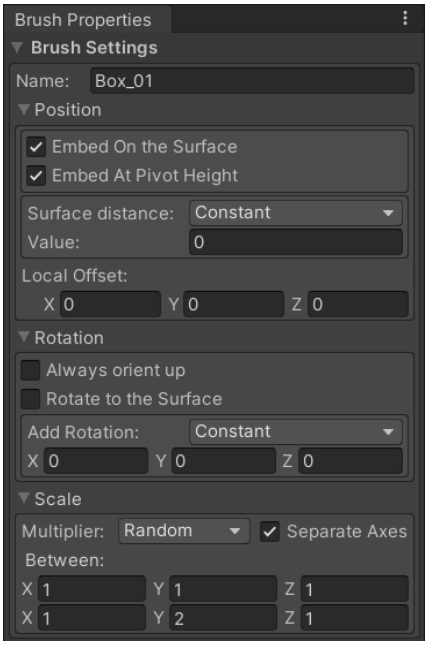


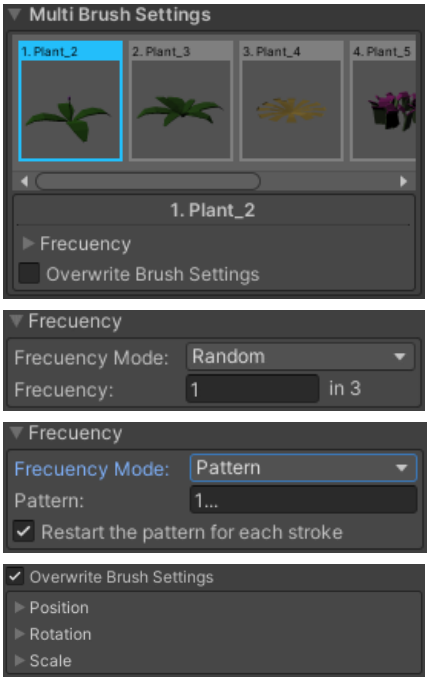
Settings

Control	Description
Palette Toolbar  **Search Bar**  **Bottom bar** 	Palettes empower you to manage prefabs efficiently. Quickly switch between palettes using tabs or the dropdown menu. **Brush Search**: filter brushes by name and use commas to filter for multiple words. Use "l:" for prefab labels and "w:" for whole words only. **Brush Management**: Drag and drop prefabs or folders directly from your project window or hierarchy into the palette. Alternatively, use the context menu by right-clicking on the palette. The **picker** lets you add a brush based on a selected object in the scene. The **+** and **-** buttons can be used to add and remove brushes. **Customize Your View**: Choose between grid and list view for optimal organization. Show or hide brush names based on your preference, and sort brushes alphabetically. Use the slider to change the size of the brush buttons. **Maintain Palette Integrity**: the **Cleanup** option repairs corrupted palettes caused by missing prefabs **Load Palette Files**: Use this option after importing palette files.

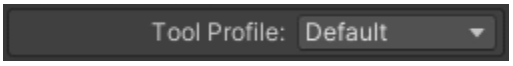
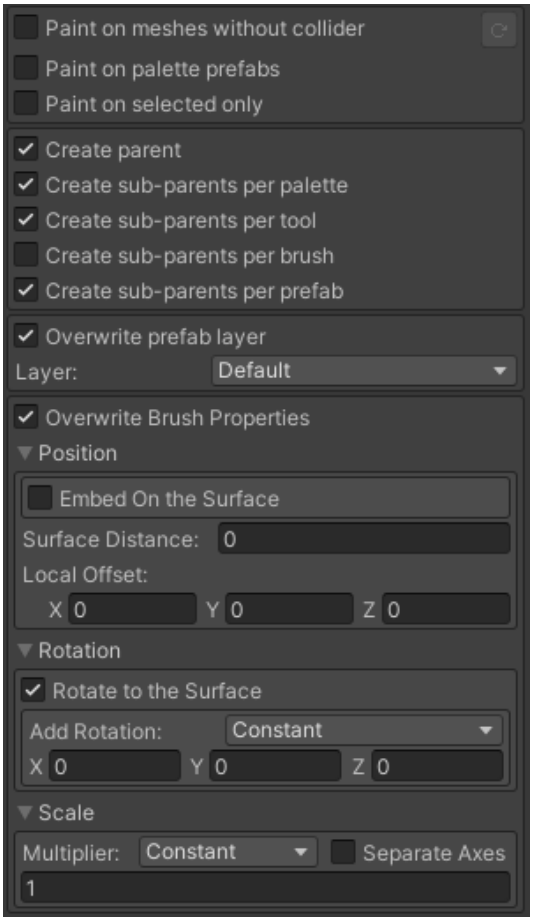
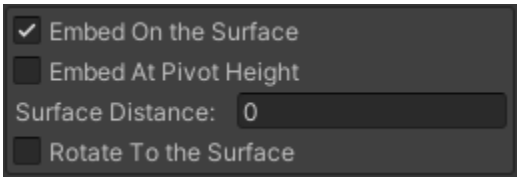
Command	Thumbnail Editing Shortcuts
Rotate the target	Hold down the right mouse button + Move the mouse
Move the target	Ctrl + Hold down the right mouse button + Move the mouse
Zoom	Ctrl + Mouse scroll wheel

Brush Properties

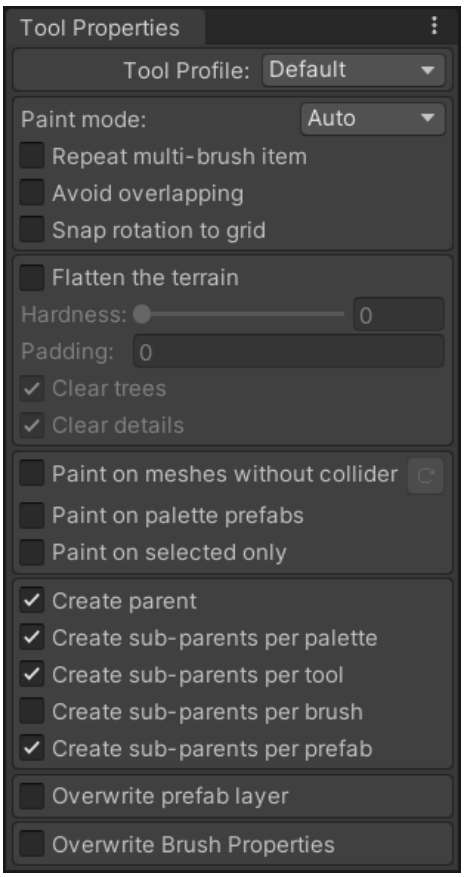
Control	Description
	**Embed in surface**: If selected, objects are placed so that the bottom vertices are below the surface. This is very useful for placing trees. **Embed at pivot height**: If selected, objects are positioned so that their pivots are on the surface. **Surface distance**: Distance from the point of contact of the object with the surface, can be a constant or random value within a range. its value can be positive above the surface or negative below the surface. **Local offset**: Adds the offset value to the object position in local space. **Always orient up**: If checked, objects are positioned so that their local vertical axis is aligned with the world vertical axis. **Rotate to the surface**: If selected, objects are placed oriented perpendicular to the surface. **Add Rotation:** Can be a constant or random value within a range. **Scale multiplier:** Can be a constant or random value within a range. **Flip**: For 2D assets only. Allows you to define whether it is enabled, disabled or random in both X and Y.

	**Multi brush items**: Add or remove prefabs to the brush to create a multibrush that allows different objects to be instantiated at random frequency or following a pattern.
	Frequency - Random: Define how often each item appears.
	Frequency - Pattern: Defines in which order the items appear. Each item is identified by a number ranging from one to the number of items, zero represents an empty space. Sequences are defined by comma separated values. The ellipsis symbol (...) represents that the preceding item is repeated indefinitely. The parentheses allow you to create subsequences and the asterisk sign (*) followed by a number represents that the element that precedes it is repeated the number of times defined after the asterisk. Examples:
	`Pattern` | `Result`
	`1,2` | `1,2`
	`1...` | `1,1,1...`
	`(1,2)...` | `1,2,1,2,1,2...`
	`1,2...` | `1,2,2,2...`
	`1*3` | `1,1,1`
	`(1,2)*3` | `1,2,1,2,1,2`
	`1,2...,3` | `1,2,2,2...,3` (This only work with lines)
	
	Overwrite Brush Settings: if selected, the brush settings for the current item are overridden by the values below.

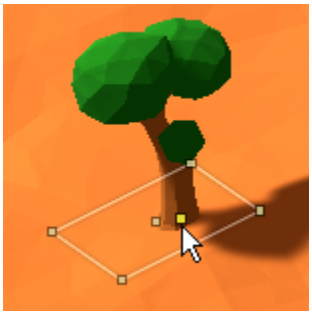
Common Tool Properties

Control	Description
	**Tool profile**: allows you to quickly save and load different settings.
	**Paint on meshes without collider**: When enabled, generates temporary mesh-colliders for all meshes without colliders. The button on the right allows you to generate the colliders manually. **Paint on palette prefabs**: When unchecked, does not allow drawing on prefabs within the same palette. **Paint on selected only**: When selected, It filters the target surfaces by the ones that are currently selected. **Create parent**: Automatically creates a parent for new objects. **Create sub-parent per palette, tool, brush, prefab**: Automatically creates a sub-parent for new objects with the same (palette, tool, brush, prefab). **Parent transform**: defines the parent of the newly created objects. **Overwrite prefab layer**: Allows you to define the layer of newly created objects. **Overwrite brush properties**: Allows you to overwrite the properties of the brush.
	**Embed on the surface**: If selected, objects are placed so that the bottom vertices are below the surface. **Embed at pivot height**: If selected, objects are positioned so that their pivots are on the surface. **Surface distance**: Distance from the point of contact of the object with the surface, it can be positive above the surface or negative below the surface. **Rotate to the surface**: If selected, objects are placed oriented perpendicular to the surface.

Pin

Control	Description
	**Paint Mode**: ● **Auto**: Paints on surfaces and if no surface is found, objects are painted on the current grid plane. ● **Paint on surface**: Paints objects only on surfaces. ● **Paint on grid**: Paints objects only on the current grid plane. **Repeat multi-brush item**: If selected, It ignores the frequency (random or pattern) defined in the brush properties. Use it with the next item shortcut for quick access to multi-brush items. **Avoid overlapping**: If selected, it prevents overlap with the bounding box of the object to be placed. **Snap rotation to grid**: Enables automatic alignment of object rotation with grid axes. **Flatten the terrain**: If enabled it flattens the terrain under the new objects. **Hardness**: determines how smooth or abrupt the transition is between flattened terrain and the existing terrain. **Padding**: Defines how much flat space to add around the object's bounding box. **Clear trees**: Removes any trees under the new object. **Clear details**: Removes any details under the new object.

How to use



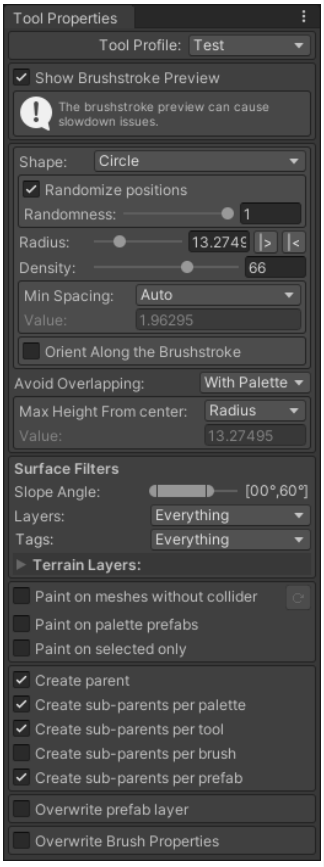
Normal use case:

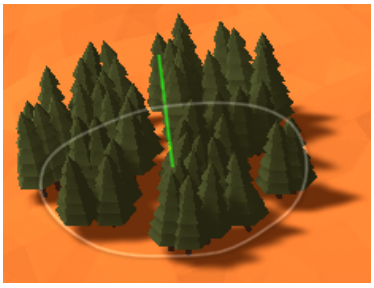
1. Toggle on the pin tool.
2. Select the brush on the palette.
3. Use the handles and shortcuts to preview the position, rotation, and scale of the object to create.
4. Click to instantiate the object.

Alternative use case:

1. Drag and drop a brush from the palette to the scene view.
2. Use the handles and shortcuts to preview the position, rotation, and scale of the object to create.
3. Click to instantiate the object.

Brush

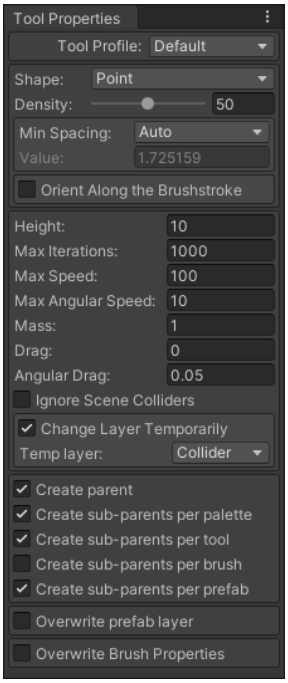
Control	Description
	**Show brushstroke preview:** When enabled it can cause slowdown issues. **Shape**: Point, circle or square. If circle or square is selected, you can define the density and the maximum height from the center. **Randomize positions**: If unchecked, objects are placed in a grid layout within the brush area. If selected, allows you to define the randomness value. **Density**: Value from 0 to 100 where 100 represents the maximum density taking into account the minimum spacing between objects. **Min spacing**: Minimum spacing between objects. It can be automatic or customized. **Orient along the brushstroke**: Orient current objects in the direction of mouse movement. It allows you to add an angle to the local rotation. **Avoid overlapping**: If enabled, new objects are positioned away from existing objects, preserving density and spacing values. **Max height from center**: set the limit value for the distance from the plane that passes through the center of the circle in the normal direction. It can be automatic, equal to the radius of the circle or custom. **Surface filters**: allows you to define the maximum and minimum value of the slope of the surfaces where objects are going to be placed. You can also ignore surfaces depending on their layer, tag or terrain layer.



How to use

1. Toggle on the brush tool.
2. Select the brush on the palette.
3. Use the shortcuts to change the radius and update the brushstroke.
4. Hold down the left mouse button and move the mouse to instantiate the new objects.

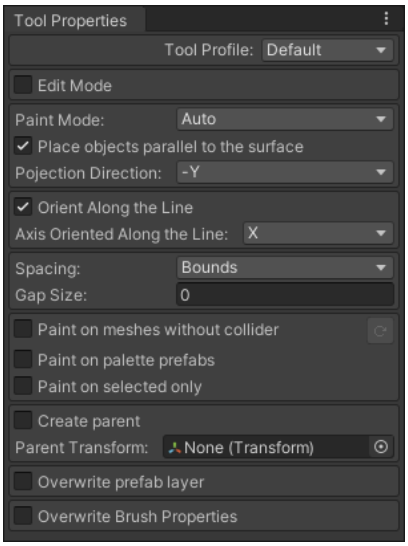
Gravity Brush

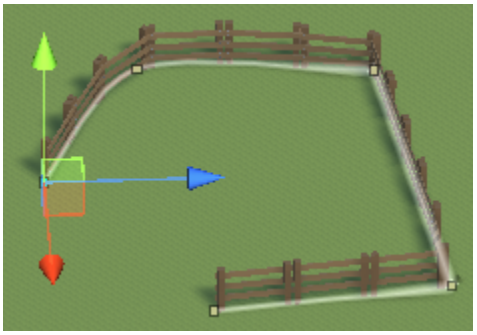
Control	Description
	**Shape**: Point, circle or square. If circle or square is selected, you can define the density. **Randomize positions**: If unchecked, objects are placed in a grid layout within the brush area. If selected, allows you to define the randomness value. **Density**: Value from 0 to 100 where 100 represents the maximum density taking into account the minimum spacing between objects. **Min spacing**: Minimum spacing between objects. It can be automatic or customized. **Orient along the brushstroke**: Orient current objects in the direction of mouse movement. It allows you to add an angle to the local rotation. **Height**: Height from the surface. **Max Iterations**: The simulation runs until all selected objects are at rest or up to a maximum of iterations. **Physical quantities**: You can define some physical quantities such as mass, drag, maximum speed and also the gravity force. **Ignore Scene Colliders**: If checked, all colliders in the scene will be ignored during the simulation. **Change Layer Temporarily**: You can temporarily change the layer of objects to make sure they collide with the surface.

How to use

1. Toggle on the gravity tool.
2. Select the brush on the palette.
3. Use the shortcuts to change the radius, update the brushstroke or increase/decrease height.
4. Click to instantiate the new objects.

Line

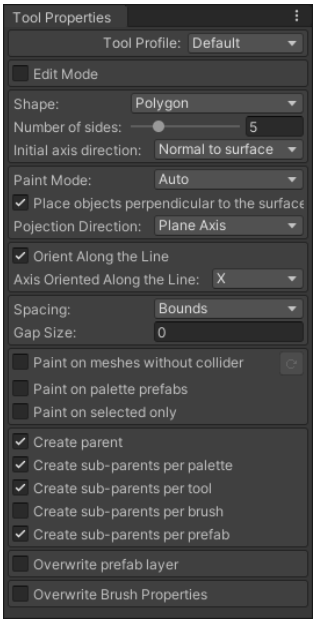
Control	Description
	**Edit mode**: If selected, you can edit previously created lines. You can choose between editing nodes or editing the position and rotation of the line. **Show Pre-existing elements**: Uncheck this option if you want to hide pre-existing lines. **Paint mode**: ● **Auto**: Paints on surfaces and if no surface is found, objects are painted on the line. ● **Paint on surface**: Paints objects only on surfaces. ● **Paint on the line**: Paints objects only on the line. **Place objects parallel to the surface**: if unchecked, objects are placed parallel to the line. **Projection direction**: Defines the direction in world space in which the objects on the line will be projected onto the surface. **Orient along the line**: Very useful for creating fences and walls. Allows you to select which axis of the objects is oriented along the line. **Spacing**: Defines how the distance between objects on the line is calculated. It can be based on the bounding box size or customized by the user. **Gap size**: Defines the size of the gap between objects.



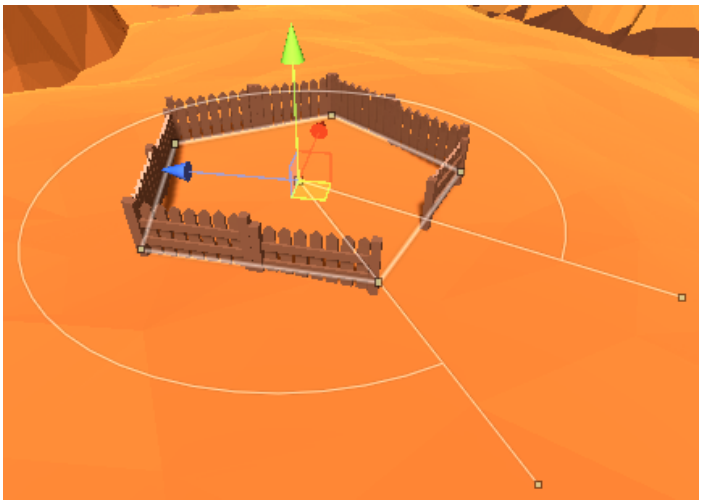
How to use, create mode

1. Toggle on the line tool.
2. Select the brush on the palette.
3. Press the left click to create the first point.
4. Move the mouse to preview the line.
5. Click again to create the line and preview the objects.
6. Select the handles and use the shortcuts to edit the shape of the line.
7. Press Enter to confirm and instantiate the objects.

Shape

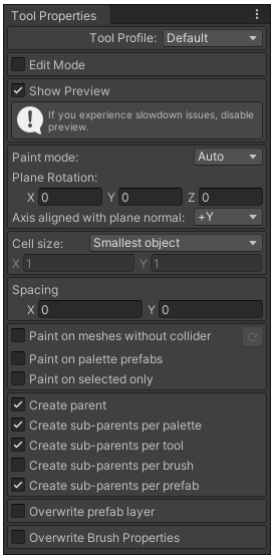
Control	Description
	**Edit mode**: If selected, you can edit previously created shapes. **Show Pre-existing elements**: Uncheck this option if you want to hide pre-existing shapes. **Shape**: Circle or polygon. In the case of the polygon you can choose the number of sides. **Initial axis direction**: Defines the initial direction of the axis of the plane from the center point, it can be normal to the surface or a global direction. The other properties are the same as in the line tool.

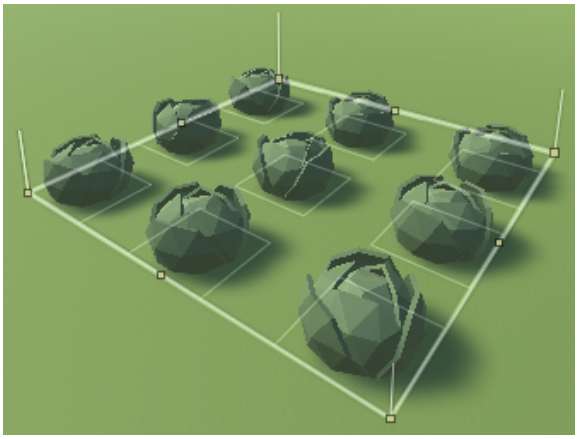
How to use



1. Toggle on the shape tool.
2. Select the brush on the palette.
3. Press the left click to create the center point.
4. Move the mouse to preview the shape.
5. Click again to create the shape and preview the objects.
6. Select the handles to edit the radius and the angle of the arc.
7. Press Enter to confirm and instantiate the objects.

Tiling

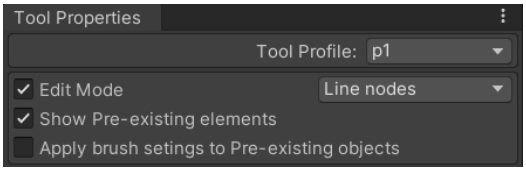
Control	Description
	**Edit mode**: If selected, you can edit previously created objects. **Show Pre-existing elements**: Uncheck this option if you want to hide pre-existing tilings. **Show preview:** When enabled it can cause slowdown issues. **Paint mode**: ● **Auto**: Paints on surfaces and if no surface is found, objects are painted on the plane. ● **Paint on surface**: Paints objects only on surfaces. ● **Paint on the plane**: Paints objects only on the plane. **Plane Rotation**: Defines rotation of the plane. **Axis aligned with plane normal**: Defines which object axis is aligned with the normal of the plane. **Cell size**: Defines how the cell size is calculated. It can be calculated from the size of the smallest object bounding box, the largest object bounding box, or by a user-defined custom value. **Spacing**: Spacing between objects.



How to use

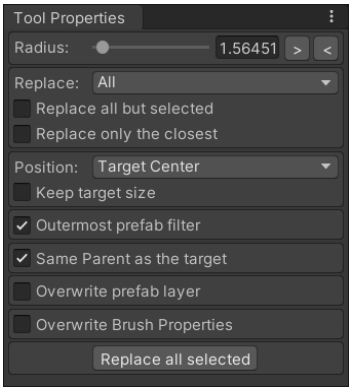
1. Toggle on the tiling tool.
2. Select the brush on the palette.
3. Click to create the first point.
4. Move the mouse to preview the rectangle.
5. Click again to create the tiling rectangle and preview the objects.
6. Select the handles to edit the shape, the position and the rotation of the rectangle.
7. Press Enter to confirm and instantiate the objects.

Edit Mode

Control	Description
	When you enable edit mode and start editing a line, shape, or tile, all changes made to individual objects are lost and the objects are repositioned to fit the shape you are editing. When editing lines, you can choose to edit line nodes or edit the position and rotation of the line. **Show Pre-existing elements**: Disable this option to improve performance. **Apply brush settings to Pre-existing objects**: When this option is enabled, the current brush settings are applied to the objects in the selected item.

Command	Shortcut
Toggle Edit Mode	Ctrl + Shift + Period
Delete selected persistent item and its children	Alt + Delete
Delete selected persistent item but not its children	Alt + Shift + Delete
Select parent object	Ctrl + Shift + T

Replacer

Control	Description
	**Replace**: ● **All**: Replaces any object under the cursor. ● **Palette prefabs**: Replaces only prefabs from the current palette ● **Brush prefabs**: Replace only prefabs from the current brush. **Replace all but selected**: Useful when you don't want to replace surface objects. **Replace only the closest**: Replaces only the closest object. **Position**: determines where the new object is placed relative to the original object. You can choose: ● **Target center**: Place it in the center of the original object's bounding box. ● **Target Pivot**: Place it at the original object's pivot point. ● **On surface**: Positions it on the underlying surface, below the original object. **Keep target size**: Maintains the original object's size. **Maintain proportions**: Keep the proportions of the new object. **Outermost prefab filter**: Ignores child objects if enabled. When disabled, if you replace a child of a prefab, the parent will be unpacked. **Same parent as the target**: Inherits the original object's parent (enabled) or lets you choose a new one (disabled). **Replace all selected**: This functionality is useful to replace empty objects.

How to use

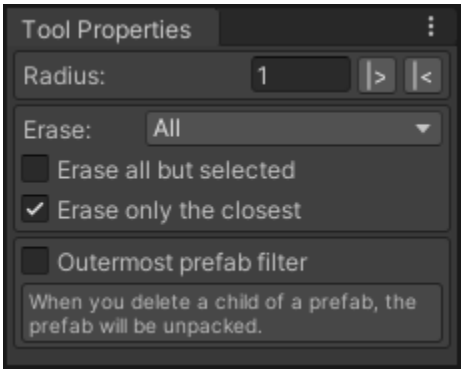
Normal use case:

1. Toggle on the replacer tool.
2. Select the brush on the palette.
3. Use the shortcut to change the radius.
4. Click to replace the objects.

Replace all selected:

1. Select the objects to be replaced.
2. Toggle on the replacer tool.
3. Select the brush on the palette.
4. Press the "Replace all selected" button.

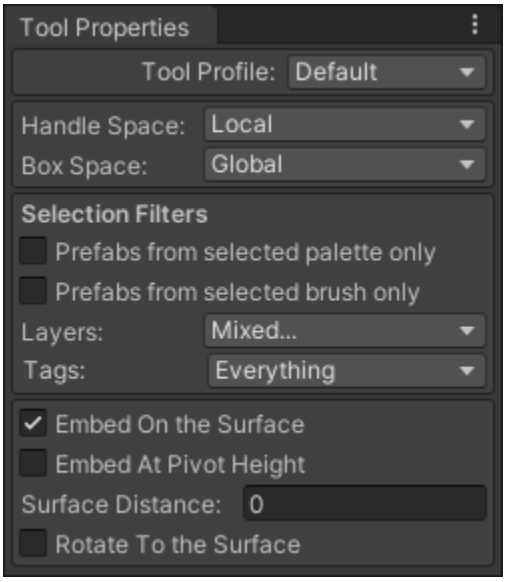
Eraser

Control	Description
	**Erase**: ● **All**: Erase all objects inside the circle. ● **Palette prefabs**: Erase only the prefabs that belong to the current palette. ● **Brush prefabs**: Erase only prefabs that belong to the current selected brush. **Erase all but selected**: This option is especially useful when you don't want to delete surface objects. **Erase only the closest**: If selected, only the closest object will be deleted. **Outermost prefab filter**: If selected, the tool ignores the children of the prefab and only detects the parent object. When disabled, if you delete a child of a prefab, the parent will be unpacked.

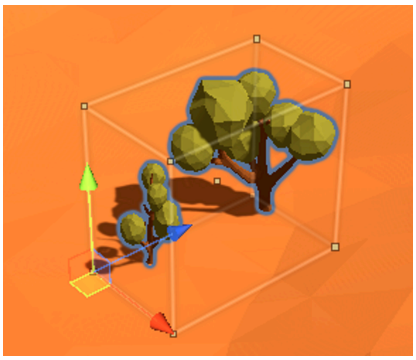
How to use

1. Toggle on the eraser tool.
2. Use the shortcut to change the radius. Objects must fit inside the circle to be detected.
3. Click to erase the objects.

Selection

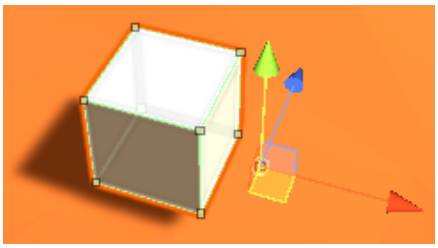
Control	Description
	**Handle Space**: Global or local. **Box Space**: Global or local. **Selection filters**: Allows you to filter the selection by palette, brush, layer and tag. **Embed in surface**: If selected, objects are placed so that the bottom vertices are below the surface. **Embed at pivot height**: If selected, objects are positioned so that their pivots are on the surface. **Surface distance**: Distance from the point of contact of the object with the surface, it can be positive above the surface or negative below the surface. **Rotate to the surface**: If selected, objects are placed oriented perpendicular to the surface.

Normal use case



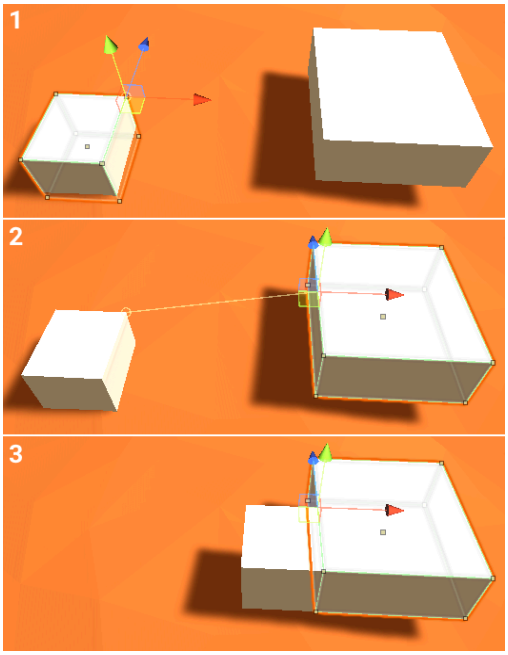
1. Toggle on the selection tool.
2. Select the objects you want to edit.
3. Use the handles:
   a. Select one of the handles to translate, rotate or scale the selection from there. There are handles in the corners of the bounding box, but also in the middle of each side and each plane.
   b. Use the mini buttons T, R and S to toggle the position, rotation and scale handles.

Edit custom handle



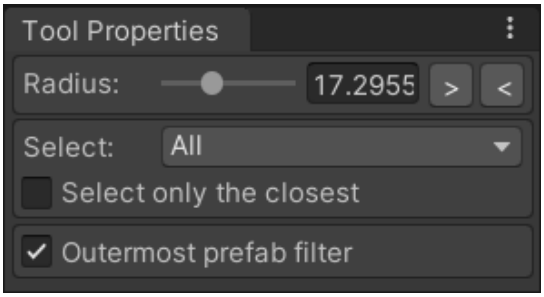
1. Press U to start editing the custom handle position.
2. Move the handle to the desired position.
3. Press U or Return to confirm.
4. Now you can use the custom handle to translate, rotate and scale the selection from there.

Move to other selection handle

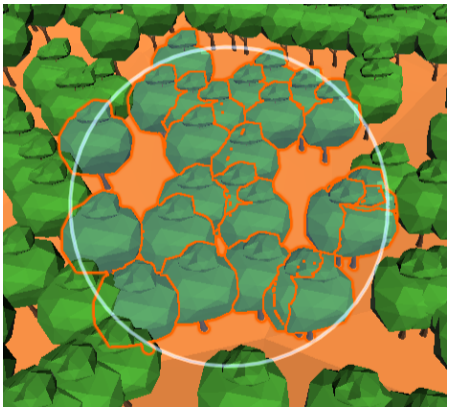


1. Select one of the handles and press Return to enable the “Move to other selection handle” mode.
2. Select the other objects. Select the destination handle.
3. Press Return again to confirm the move.

Circle Select

Control	Description
	**Select**: ● **All**: Select all objects inside the circle. ● **Palette prefabs**: Select only the prefabs that belong to the current palette. ● **Brush prefabs**: Select only prefabs that belong to the current selected brush. **Select only the closest**: If selected, only the closest object will be selected. **Outermost prefab filter**: If selected, the tool ignores the children of the prefab and only detects the parent object.

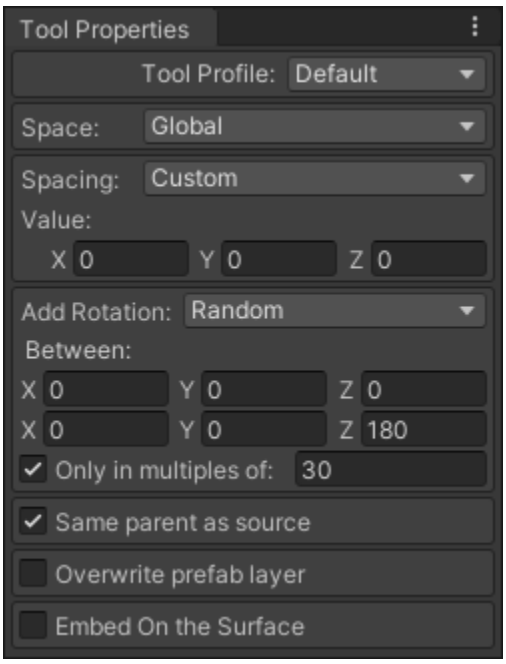
How to use



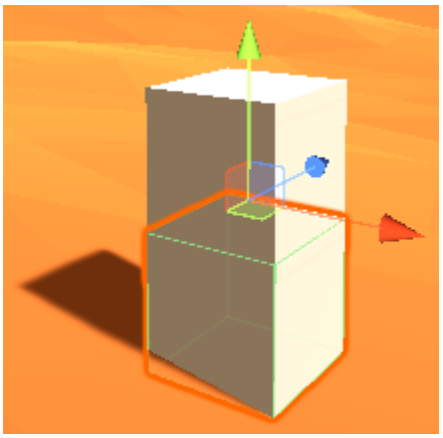
1. Toggle on the Circle Select Tool.
2. Use the shortcut to change the radius. Objects must fit inside the circle to be detected.
3. Click to Select the objects.

Command	Shortcuts
Add to selection	Shift + Left Click or Drag
Add / Remove from selection	Ctrl + Left Click

Extrude

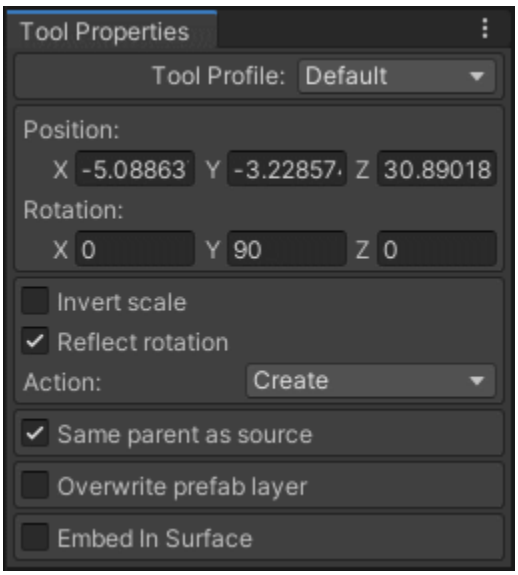
Control	Description
	**Space**: Global or local. If local space is selected, you can choose whether the selection rotation is equal to that of the first selected object or that of the last selected object. **Spacing**: Defines the space between objects, it can be equal to the size of the box multiplied (component-wise) by a multiplier or it can be custom defined. **Add Rotation:** Can be a constant or random value within a range. This functionality is available only when global space is selected. **Same parent as source**: If not selected, allows you to define the parent of newly created objects. **Embed in surface**: If selected, objects are placed so that the bottom vertices are below the surface. **Embed at pivot height**: If selected, objects are positioned so that their pivots are on the surface. **Surface distance**: Distance from the point of contact of the object with the surface, it can be positive above the surface or negative below the surface.

How to use

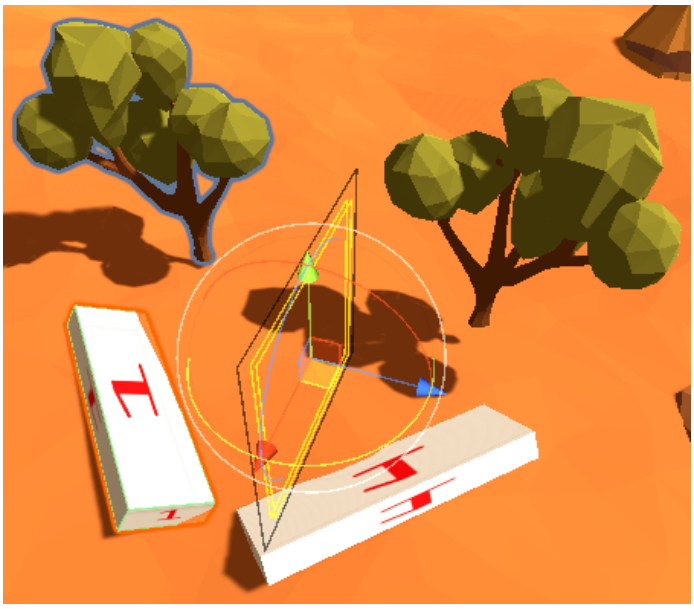


1. Select the objects you want to extrude.
2. Toggle on the extrude tool.
3. Move the position handle to preview the extrusion.
4. Press Return to confirm and instantiate the objects. Another way to confirm object creation is by changing the extrusion direction.

Mirror

Control	Description
	**Position and Rotation**: Current mirror position and rotation. **Invert scale**: If checked, inverts the scale of objects on the other side of the mirror. **Reflect rotation**: if checked, the rotation of the new objects is a reflection of the source objects; otherwise, the rotation remains the same as that of the source objects.. **Action**: Transform or create. If transform is selected, the selected objects are moved and rotated to the other side of the mirror, if create is selected, new objects are created as a reflection of the originals. **Embed in surface**: If selected, objects are placed so that the bottom vertices are below the surface. **Embed at pivot height**: If selected, objects are positioned so that their pivots are on the surface. **Surface distance**: Distance from the point of contact of the object with the surface, it can be positive above the surface or negative below the surface. **Rotate to the surface**: If selected, objects are placed oriented perpendicular to the surface.

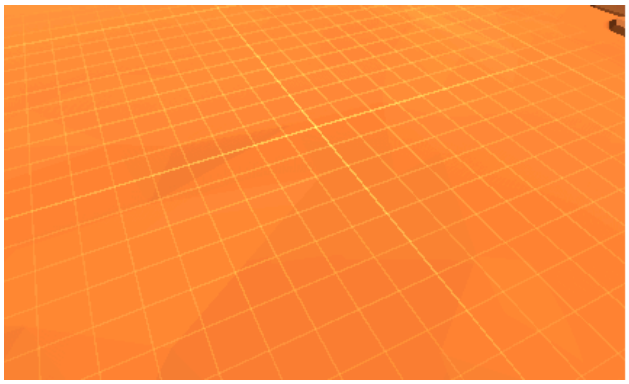
How to use

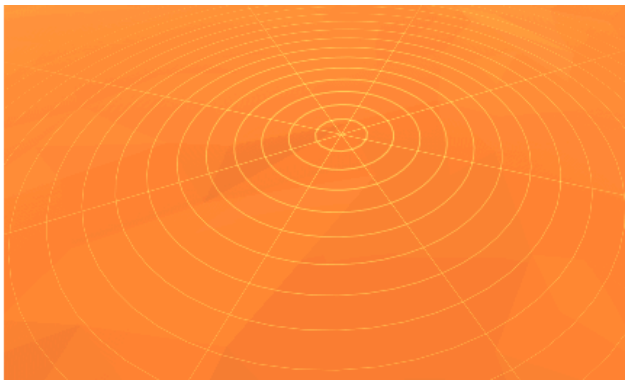


1. Select the objects you want to mirror.
2. Toggle on the mirror tool.
3. Move and rotate the mirror to the desired position.
4. Press Return to confirm.

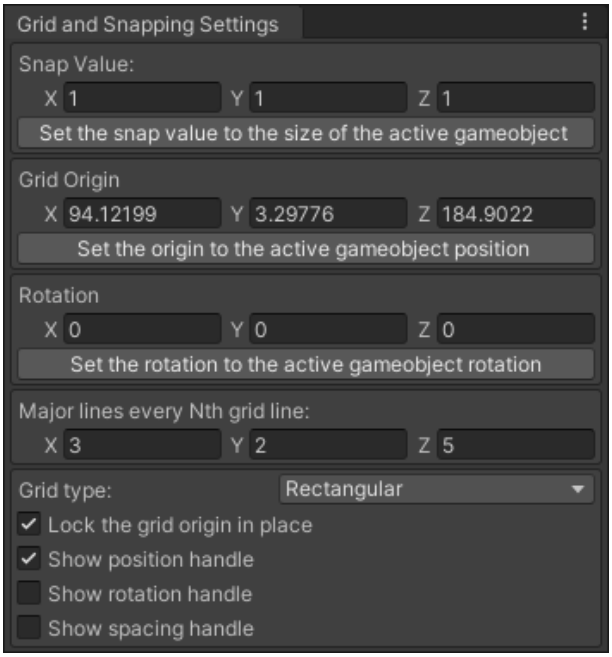
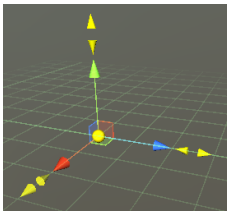
* Press Escape to deselect the mirror handle.

Grid and Snapping

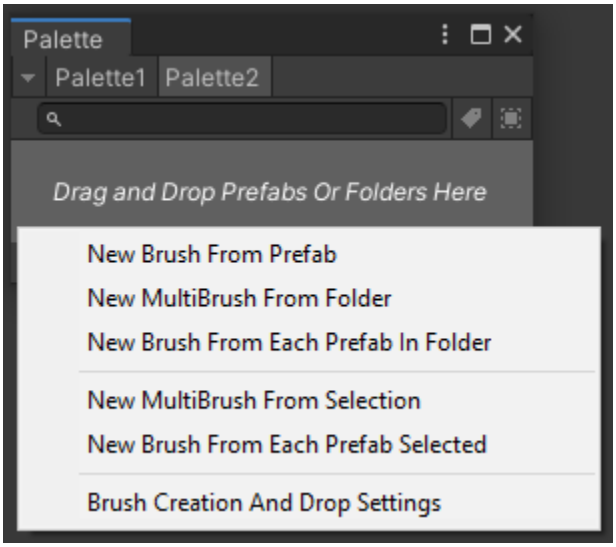




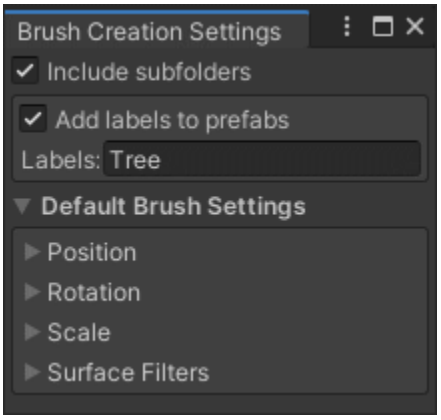
Grid and snapping settings

Control	Description
	**Snap value**: Allows you to set the size of the cells. Set the XYZ values manually or press the button to set the value to the size of the active gameobject. **Radial snap value**: Allows you to set the radius step of the radial grid. **Radial sectors**: Define the amount of sectors for the radial grid. **Grid origin**: you can set the XYZ values manually or press the button to set the grid origin to the active gameobject position. **Rotation**: you can set the euler angle values manually or press the button to set the grid rotation to the active gameobject position. **Grid Type**: Rectangular or radial. **Lock the grid origin in place**: When unlocked, the grid follows the cursor along the normal direction of the grid plane. Otherwise, the grid remains in the same place.
	When the grid origin is locked, the rotation, position, and spacing handles can be enabled. The position handle has two additional widgets on each axis that allow you to move the origin in steps.

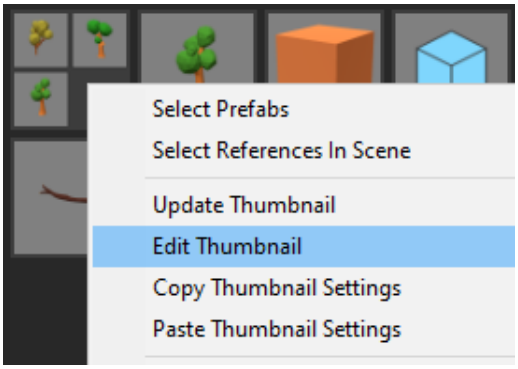
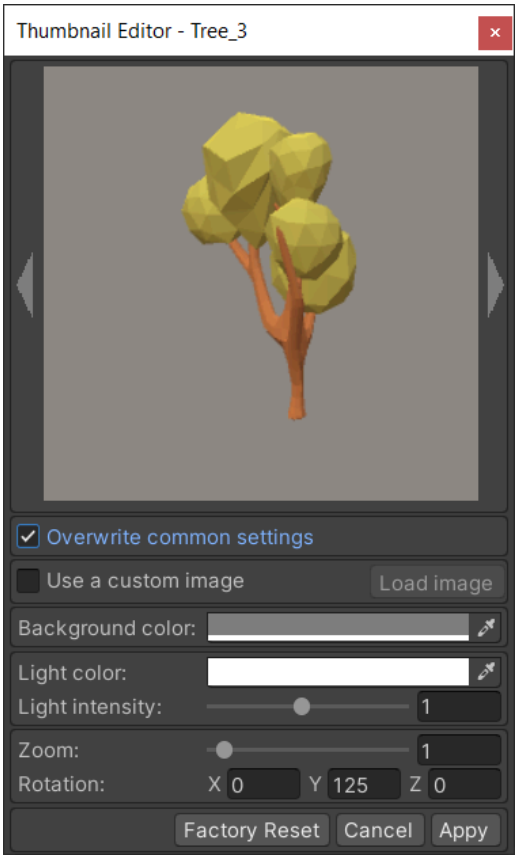
Brush Creation

Control	Description
Drag and drop You can add new brushes to the palette by dragging and dropping prefabs and folders from the project window or hierarchy window to the palette. **Palette context menu** 	**New brush from prefab**: Lets you select a prefab to create a brush. **New multi brush from folder**: Allows you to select a folder to create a multi brush containing all the prefabs in the folder. **New brush from each prefab in folder**: Allows you to select a folder to create a brush for each prefab in the folder. **New multi brush from selection**: Creates a multi brush containing all prefabs or brushes selected. **New brush from each prefab selected**: Creates a brush for each selected prefab. **Brush Creation and drop settings**: Opens the brush creation settings window.

Brush creation settings

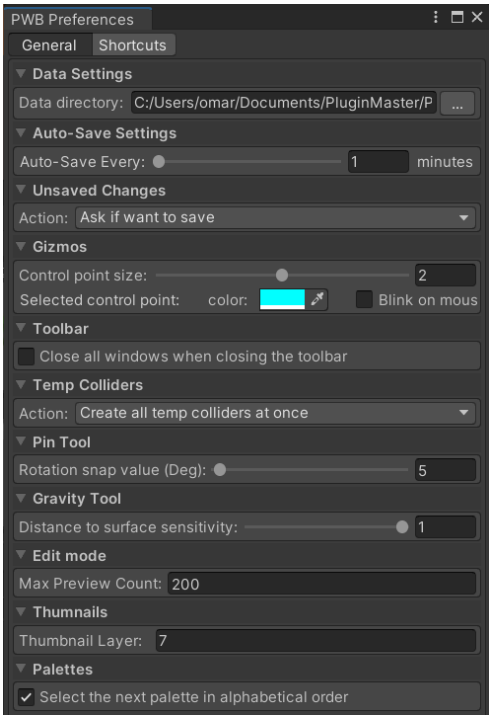
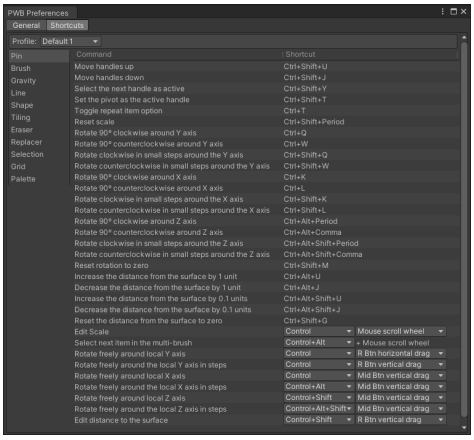
Control	Description
	These settings are different for each palette, the window shows the settings of the currently selected palette. **Include subfolders**: It includes subfolders when dropping folders or when using the second and third options of the context menu. **Add labels to prefabs**: When checked, define which labels will be added to prefabs when new brushes are created. **Default Brush Settings**: Defines the default setting for new brushes.

Thumbnail Editor

Control	Description
 	To open the thumbnail editor, right-click the thumbnail you want to edit, and then from the context menu select **Edit Thumbnail**. The context menu allows you to update the thumbnail in case the prefab has changed. It also allows you to copy and paste settings between thumbnails. **Thumbnail Preview**: It allows you to move, rotate and scale the target. It also allows you to rotate the light. **Overwrite common settings**: If selected, allows you to edit thumbnail settings for an individual item in a multibrush. **Use a custom Image**: When selected you can choose a custom image as a thumbnail. The other settings are self-explanatory: background color, light color and intensity, zoom and rotation. **Apply Button**: changes are only applied after pressing this button. **Multi-thumbnail Toggle**: The bottom right toggle in *Brush Properties/ Multibrush Settings* allows you to define which items are displayed in the multi-thumbnail in the palette. 

Preview Command	Shortcut
Rotate the target	Hold down the right mouse button + Move the mouse
Move the target	Ctrl + Hold down the right mouse button + Move the mouse
Zoom	Mouse scroll wheel
Rotate the light	Shift + Hold down the right mouse button + Move the mouse

Preferences

Control	Description
 	To open the preferences window, click the menu item **Tools > Plugin Master > Prefab World Builder > Preferences**. **Data directory**: Allows you to define the directory containing the PWBData file and the palettes directory. When you change the data folder, the palette files are moved to the new folder. **Auto-save settings**: Allows you to define the auto-save period in minutes. **Unsaved changes**: Lets you define what action to take on unsaved changes: Ask to save, save or discard. **Gizmos**: Allows you to define the control point size and color. **Toolbar**: Allows you to define whether to close all PWB windows when closing the toolbar. **Temp colliders**: Lets you define what action to take on temp colliders creation: “Never create temp colliders", “Create all temp colliders at once" or "Create temp colliders within the frustum”. Temporary colliders allow you to place objects on surfaces without a collider. **Pin tool**: Lets you to set the step size of the rotation snap value. **Gravity tool**: Lets you set the mouse sensitivity to change the value of the distance from the surface. **Max Preview Count**: Defines the maximum number of pre-existing objects displayed as previews in Edit Mode. This setting can optimize performance, especially for scenes with numerous objects. **Thumbnails**: Allows you to define the layer where thumbnails are rendered. Default is 7 to avoid conflicts. **Palettes**: Allows you to define how the shortcut to select the next palette works: it can be in alphabetical order or in the order in which the palettes are displayed. **Shortcuts**: All shortcuts can be edited here. You can reset to default by right-clicking on the combination and selecting reset.

Limitations

- Most of the tools only work in scene view. Do not use it in the prefab view.
- It doesn't work with UI components.

Support and feedback

Please send me feedback or ask for support via the Unity forum or the Discord server. I do my very best to reply to all inquiries within 24 hours.

I hope you love it! If you do, would you consider posting an online review? This helps me to continue providing great products and helps other developers to make confident decisions.