

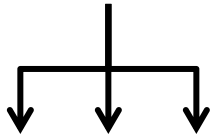
Each World can be constructed of 1 or more World Groupings, and each of the Streamable Grids associated with those Groupings can have multiple LOD Groups.

World

World Grouping 1
(Base Grouping)



Streamable Grid



LOD 1 LOD 2 LOD 3

World Grouping 2



Streamable Grid

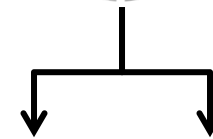


LOD 1

World Grouping 3



Streamable Grid



LOD 1 LOD 2

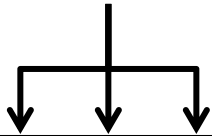
In order to provide you with the greatest degree of flexibility, a majority of the World's settings can be configured on a per LOD Group basis.

World

World Grouping 1
(Base Grouping)



Streamable Grid



LOD 1 LOD 2 LOD 3

World Grouping 2



Streamable Grid

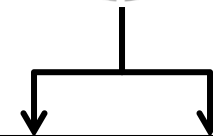


LOD 1

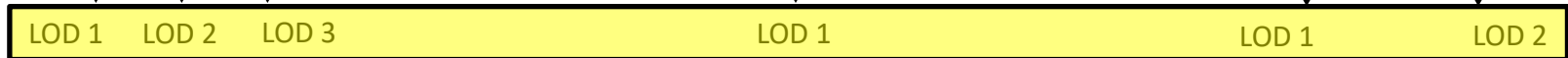
World Grouping 3



Streamable Grid



LOD 1 LOD 2



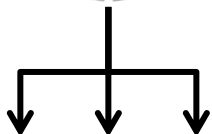
For example, if you wish to use terrain prefabs for LOD Group 1 on a Grouping and then non terrain scene based Asset Chunks for LOD Group 2, you can, because unique Chunk Streamers (the component responsible for loading/streaming in asset chunks) can be set for each LOD Group.

World

World Grouping 1
(Base Grouping)



Streamable Grid



LOD 1 LOD 2 LOD 3

World Grouping 2



Streamable Grid

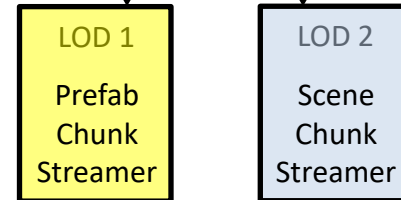
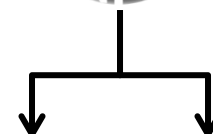


LOD 1

World Grouping 3



Streamable Grid



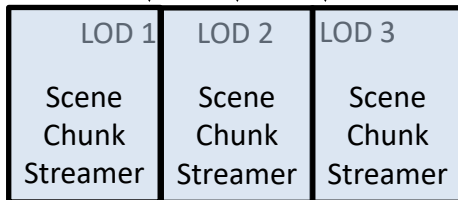
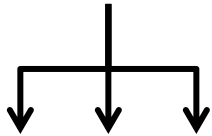
With that said, if we forced you to configure these settings on a per LOD Group basis, a tremendous amount of redundancy would be introduced, as many LOD Groups will utilize the same settings.

World

World Grouping 1
(Base Grouping)



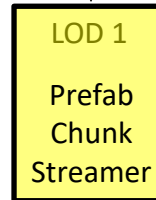
Streamable Grid



World Grouping 2



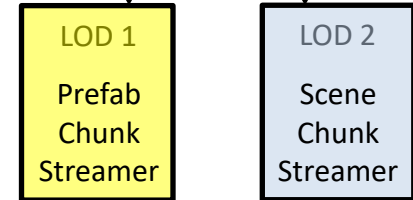
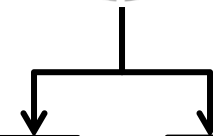
Streamable Grid



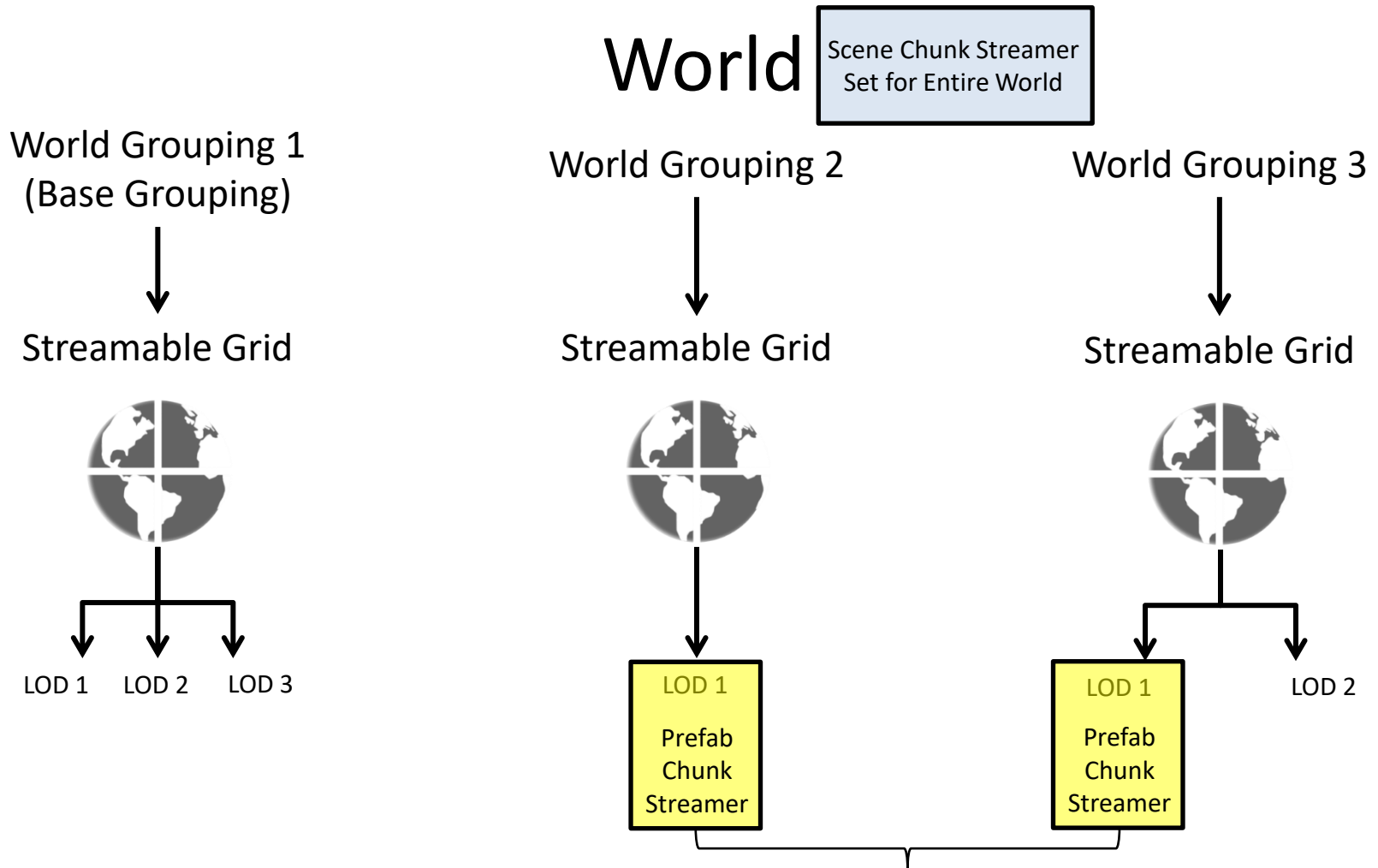
World Grouping 3



Streamable Grid

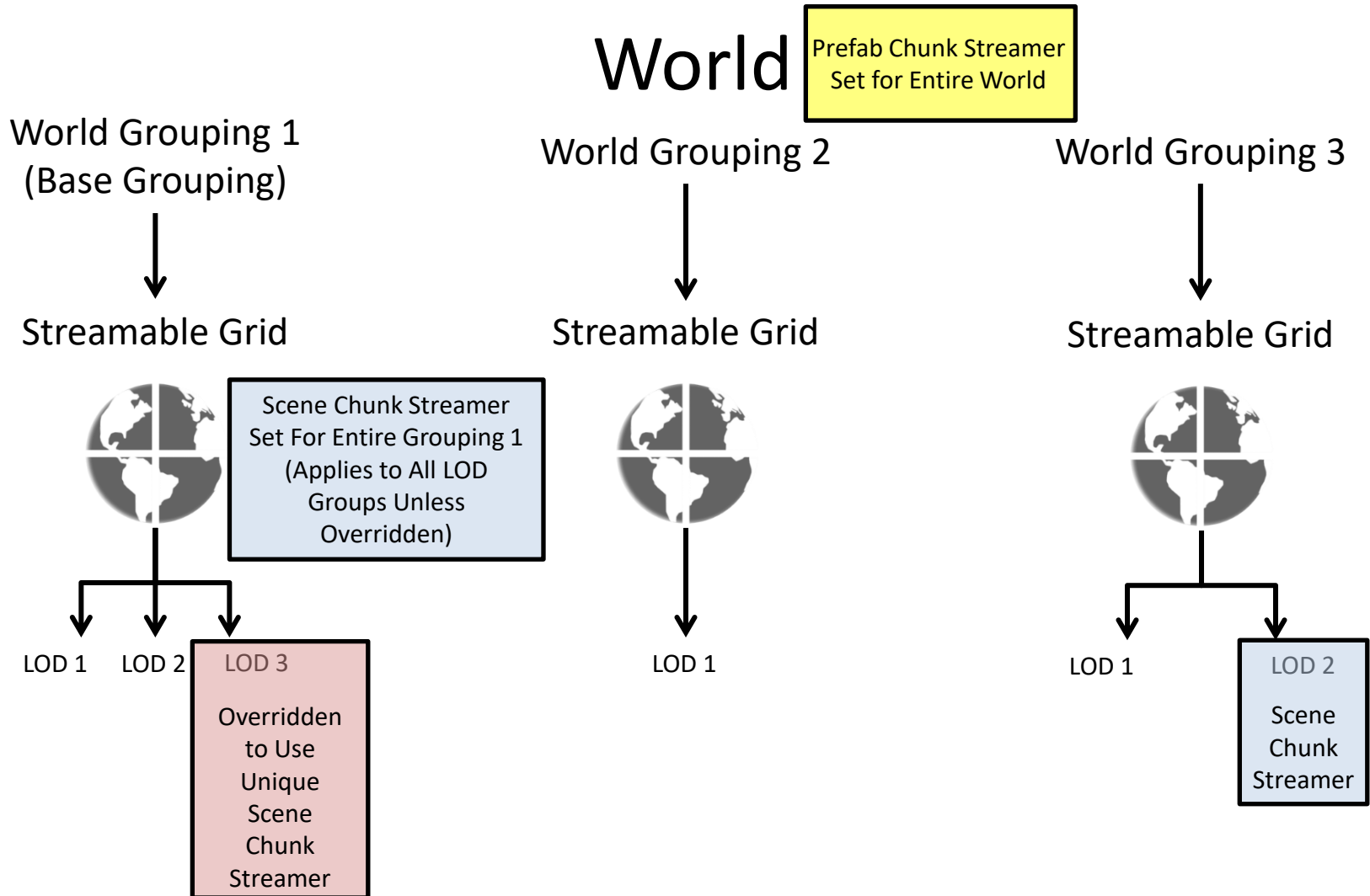


To avoid this, SAM uses an **Override System** in which you configure settings for the entire **World** (that apply to all LOD Groups on all Groupings), and then override only the **Groupings** or **LOD Groups** that you need in order to use different settings.



Only need to override these LOD Groups to use Prefab Chunk Streamer
(All other LOD Groups will use Scene Chunk Streamer set on World)

In the example below, LOD 1 of both Grouping 2 and Grouping 3 will use the Prefab Streamer set at the World level, as no other overrides exists that apply to them. LOD 1 and 2 of Grouping 1 use the Scene Streamer provided as a Grouping Override, while LOD 3 uses its own unique Scene Streamer provided as an LOD Override. Finally, LOD 2 of Grouping 3 uses the same Scene Streamer as LOD 1 and 2 of Grouping 1, however it has been provided as an LOD Group Override.



For reference based settings like the Chunk Streamer and Chunk Manager fields, providing a component reference to the override field at the Grouping or LOD Group level is enough to enable the override.

World Grouping 1 Settings

General Settings | Optional Components | Grouping Overrides | LOD Group Overrides

[Learn About Overridable Settings](#)

By default, the settings you specify below (if overridden) will be used for All LODs that are a part of THIS World Grouping only. However, you can override these settings on a per LOD basis by adding an LOD Override

Do note, the LOD Transition Strategy applies to all LODs on the World Grouping universally, therefore this setting cannot be overridden using an LOD Override. In addition, the Use Hierarchy Organizer setting does not override any global World setting, however you can override it on a per LOD basis using LOD Overrides.

Override Default World*

LOD Transition Strategy*

The remaining settings apply only to LODs that use Asset Chunks!

Chunk Manager: None (Chunk Manager)

Chunk Streamer*: **TerrainStreamer (Prefab Chunk Streamer)**

World Grouping 1 Settings

General Settings | Optional Components | Grouping Overrides | LOD Group Overrides

1 LOD Overrides Present

What Are LOD Overrides?

Add LOD Override

1
Override 1

Remove LOD Override 1

Override 1 Settings

Override Name: Override 1

LOD To Apply Override To: 1

All settings are applicable only if the LOD uses Asset Chunks!

Chunk Manager: **Default Components (Non Pooling Chunk Manager)**

Chunk Streamer*: None (Chunk Streamer)

For non reference based settings, it's necessary to tell SAM that you want a specific setting overridden by enabling the "Override ..." option for the setting.


World Grouping 1 Settings

General Settings Optional Components **Grouping Overrides** LOD Group Overrides

[Learn About Overridable Settings](#)






By default, the settings you specify below (if overridden) will be used for All LODs that are a part of THIS World Grouping only. However, you can override these settings on a per LOD basis by adding an LOD Override

Do note, the LOD Transition Strategy applies to all LODs on the World Grouping universally, therefore this setting cannot be overridden using an LOD Override. In addition, the Use Hierarchy Organizer setting does not override any global World setting, however you can override it on a per LOD basis using LOD Overrides.

Override Default World* 

LOD Transition Strategy*

The remaining settings apply only to LODs that use Asset Chunks!

Chunk Manager	None (Chunk Manager)		
Chunk Streamer*	 TerrainStreamer (Prefab Chunk Streamer)		

All possible Grouping Overrides are listed under the Grouping Overrides tab of each World Grouping.

The screenshot shows the 'World Grouping' interface. At the top, there are tabs for 'General Settings', 'Origin Settings', 'Optional Components', 'Overrideable Settings', 'Groupings', and 'World Designer'. The 'Groupings' tab is active, showing '5 Groupings Present'. Below this, there are buttons for 'What Is a World Grouping?' and 'Add World Grouping'. A yellow arrow points from the 'Groupings' tab to the 'Add World Grouping' button. Below these are five buttons labeled '1 Terrain', '2 Water', '3 Trees', '4 Plants', and '5 Grass'. A yellow arrow points from the '1 Terrain' button to the 'World Grouping 1 Settings' section. Below this section are tabs for 'General Settings', 'Optional Components', 'Grouping Overrides', and 'LOD Group Overrides'. The 'Grouping Overrides' tab is active. Below the tabs is a link 'Learn About Overrideable Settings'. The main content area contains text explaining that settings specified below will be used for all LODs that are a part of this World Grouping only, and that the LOD Transition Strategy applies to all LODs on the World Grouping universally. Below this text are two sections: 'Override Default World*' with a checkbox for 'LOD Transition Strategy*' (unchecked), and 'The remaining settings apply only to LODs that use Asset Chunks!'. The first section has two rows: 'Chunk Manager' and 'Chunk Streamer*', both set to 'None (Chunk Manager)' and 'None (Chunk Streamer)' respectively. The second section has two rows: 'Override Default World Activation Settings*' and 'Override Default World Deactivation Settings*', both with a checked checkbox. Each row has four settings: 'Auto Activate Chunks When Adding Cells*', 'Max Chunk Activations Per Frame*', 'Post Activation Frame Cooldown*', and 'Auto Deactivate Chunks When Removing Cells*', 'Max Chunk Deactivations Per Frame*', and 'Post Deactivation Frame Cooldown*'. All checkboxes are checked, and the numerical values for 'Max Chunk Activations Per Frame*', 'Post Activation Frame Cooldown*', 'Max Chunk Deactivations Per Frame*', and 'Post Deactivation Frame Cooldown*' are all set to '1'.

General Settings Origin Settings Optional Components Overrideable Settings **Groupings** World Designer

5 Groupings Present

What Is a World Grouping?

Add World Grouping

1 Terrain 2 Water 3 Trees 4 Plants 5 Grass

Move World Grouping Left Cannot Remove* Move World Grouping Right*

World Grouping 1 Settings

General Settings Optional Components **Grouping Overrides** LOD Group Overrides

[Learn About Overrideable Settings](#)

By default, the settings you specify below (if overridden) will be used for All LODs that are a part of THIS World Grouping only. However, you can override these settings on a per LOD basis by adding an LOD Override

Do note, the LOD Transition Strategy applies to all LODs on the World Grouping universally, therefore this setting cannot be overridden using an LOD Override. In addition, the Use Hierarchy Organizer setting does not override any global World setting, however you can override it on a per LOD basis using LOD Overrides.

Override Default World*
LOD Transition Strategy*

The remaining settings apply only to LODs that use Asset Chunks!

Chunk Manager None (Chunk Manager) ⓘ ?
Chunk Streamer* None (Chunk Streamer) ⓘ ?

Override Default World
Activation Settings*

Auto Activate Chunks
When Adding Cells*

Max Chunk Activations
Per Frame* 1

Post Activation
Frame Cooldown* 1

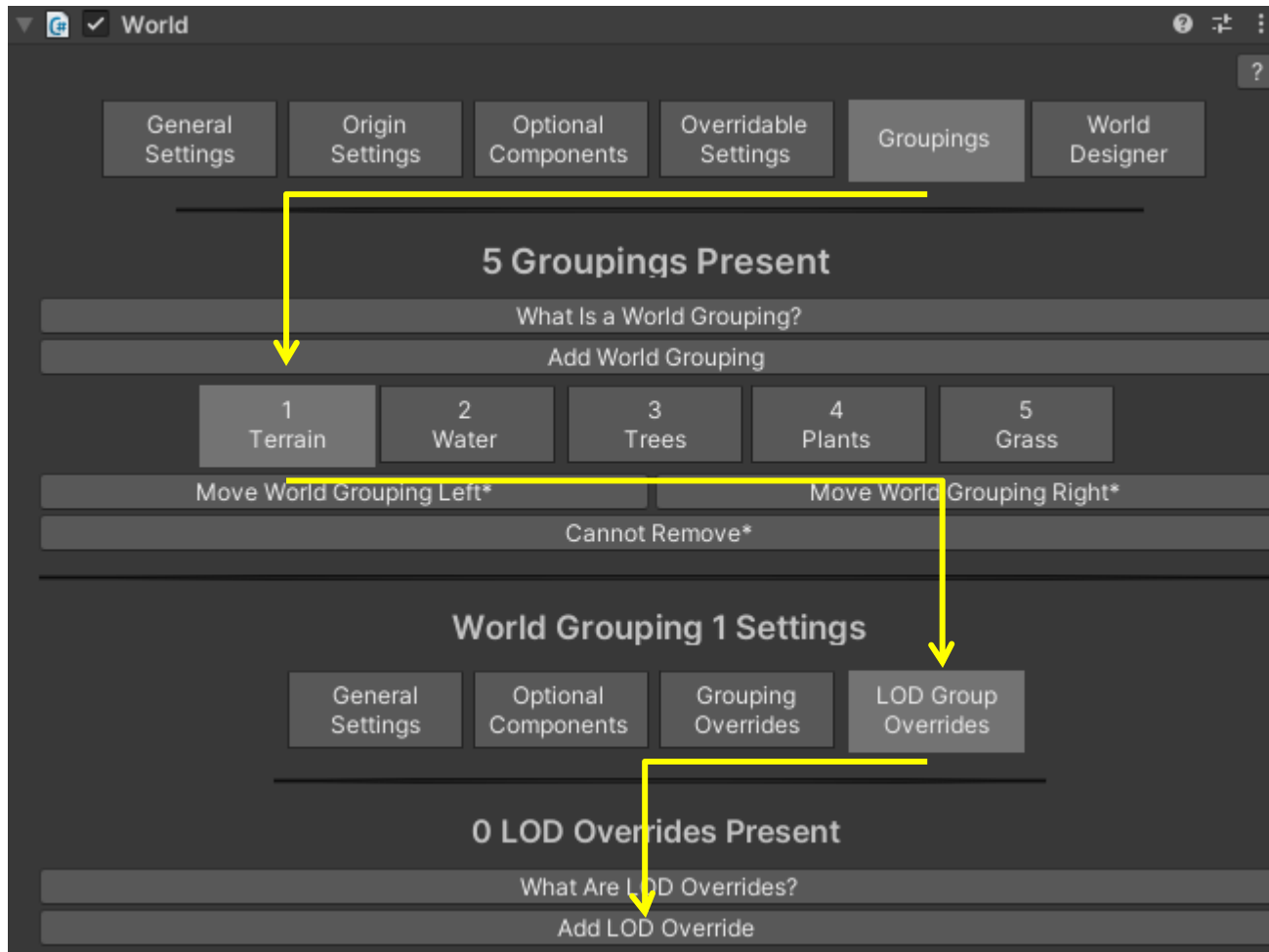
Override Default World
Deactivation Settings*

Auto Deactivate Chunks
When Removing Cells*

Max Chunk Deactivations
Per Frame* 1

Post Deactivation
Frame Cooldown* 1

However, in order to override a setting for a single LOD Group, it is necessary to first create a new LOD Group Override using the “Add LOD Override” button.



You will also need to specify which LOD Group the override should apply to via the “LOD To Apply Override To” field. Each LOD Group can only have one Override applied to it!

Giving the Override a new name is optional however it can help you to keep things organized.

The screenshot displays the 'World Grouping 1 Settings' interface. At the top, there are four tabs: 'General Settings', 'Optional Components', 'Grouping Overrides', and 'LOD Group Overrides'. The 'LOD Group Overrides' tab is selected. Below the tabs, a section titled '1 LOD Overrides Present' contains a 'What Are LOD Overrides?' link, an 'Add LOD Override' button, a list of one item '1 Group 1', and a 'Remove LOD Override 1' button. At the bottom, the 'Group 1 Settings' section includes an 'Override Name' field with the value 'Group 1' and a 'LOD To Apply Override To' field with the value '1'.

World Grouping 1 Settings	
General Settings	Optional Components
Grouping Overrides	LOD Group Overrides
1 LOD Overrides Present	
What Are LOD Overrides?	
Add LOD Override	
1 Group 1	
Remove LOD Override 1	
Group 1 Settings	
Override Name	Group 1
LOD To Apply Override To	1

A few peculiarities To Take Note Of

- **By default, all World Groupings and LOD Groups are configured to use a Hierarchy Organizer if one is assigned (found in the Optional Components tab of the World).**

As such, there is no “Use Hierarchy Organizer” option in the Overridable Settings tab of the World, however you can still override this on a per World Grouping or per LOD Group basis in order to disable Hierarchy Organizer use with specific World Groupings or LOD Groups.

Of course, if you want no LOD Group to use Hierarchy Organizers, you can simply remove the Hierarchy Organizer reference in the Optional Components tab!

- **The LOD Transition Strategy can not be overridden at the LOD Group level, as this setting must be applied universally across all LOD Groups of a given World Grouping (you can still override it at the Grouping level though).**
- **Some settings are only applicable when an LOD Group uses a certain Chunk Type, like Terrain or Non Terrain Game Objects.**

Any easy way to remember how overrides work is with this:
LOD Group Override > World Grouping Override > World Overridable Settings

That is, LOD Group Overrides always take precedent and override any World Grouping Overrides or default settings from the World's Overridable Settings tab, while Grouping Overrides only take precedent over default settings from the Overridable Settings tab of the World.

