

# orxCAMERA structure

Camera are structures used to render graphic objects (2D/3D). They thus can be referenced by other structures.

## Summary

```
[CameraTemplate]
GroupList      = Group1 # ... # GroupN
GroupValue     = sort # raw
Zoom           = <float>
Position       = <vector>
Rotation       = <float>
FrustumNear   = <float>
FrustumFar    = <float>
FrustumWidth  = <float>
FrustumHeight = <float>
ParentCamera   = CameraTemplate
IgnoreFromParent = none | all | rotation | scale<.xyz>
```

## Details

Here's a list of the available properties for an orxCAMERA structure:

- FrustumNear/FrustumFar: Defines the near and far planes for the [camera frustum](#). The near plane is excluded whereas the far plane is included when doing render culling.
- FrustumHeight/FrustumWidth: As orx's cameras are 2D ones, their frustum are [rectangle cuboids](#) instead of real [frustums](#). If you want to achieve a 1:1 aspect ratio with your main display window, you can use the `Display.ScreenHeight` and `Display.ScreenWidth` values.
- ParentCamera: If defined, this will set this camera as a child of the specified camera, in the same way it's done for orxOBJECTs that have a ParentCamera property.
- Position: Camera's initial position.
- Rotation: Camera's initial rotation (along its Z-axis).
- Zoom: Camera's initial zoom.
- GroupList: Groups (of objects) will be rendered in the order of declaration. Up to 16 groups can be associated to a camera. Defaults to "default" group. <sup>1) 2)</sup>
- GroupValue: If a group is set to "raw", objects assigned to it will not be sorted before rendering, which allows for rendering very large amounts of objects at high performance \*when\* sorting isn't required. Defaults to "sort".

## Latest config settings for the Development Version

We endeavor to keep the config properties on this page up to date as often as possible. For up to the minute config information for the latest version of Orx, check the most recent published at:

[CreationTemplate.ini](#) and

[SettingsTemplate.ini](#)

Additionally these files can be found under your orx source tree in the `orx/code/bin` folder.

1)

Good discussions on GroupLayout rendering orders can be found at <http://orx-project.org/forum?func=view&catid=16&id=7254#7279> and <http://orx-project.org/forum?func=view&catid=12&id=7344>

2)

All orxObjects belong to this “default” group unless otherwise specified. You can specify an [object be part of a particular group](#). If your camera has a list of groups, and your object is not in any of those groups, your object will not render.

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<https://orx-project.org/wiki/> - **Orx Learning**

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