

# Logging all Structures to a Tree

The Data Configuration feature of Orx makes it simple to build up a complex scene or object with minimal code. All these items are defined in various ini files however the developer chooses to arrange them.

Orx provides a nice way to display a tree view of your Orx objects currently in game, and what structures make them up.

Let's say you had a robot made up of several Objects, Graphics, Bodies and Textures. Also there is a Viewport and Camera:

```
[MainViewport]
Camera = MainCamera

[MainCamera]
Position = (0.0, 0.0, -1.0)

[RobotGraphic]
Texture = robot-inside.png

[Robot]
Graphic    = RobotGraphic
ChildList  = LeftWheel # RightWheel # WeaponObject
Body       = RobotBody

[RobotBody]
PartList = RobotBodyPart

[RobotBodyPart]
Type = box

[WeaponGraphic]
Texture = weapon.png

[WeaponObject]
Graphic = WeaponGraphic
Body    = WeaponBody

[WeaponBody]
PartList = WeaponBodyPart

[WeaponBodyPart]
Type    = box
Solid   = true
```

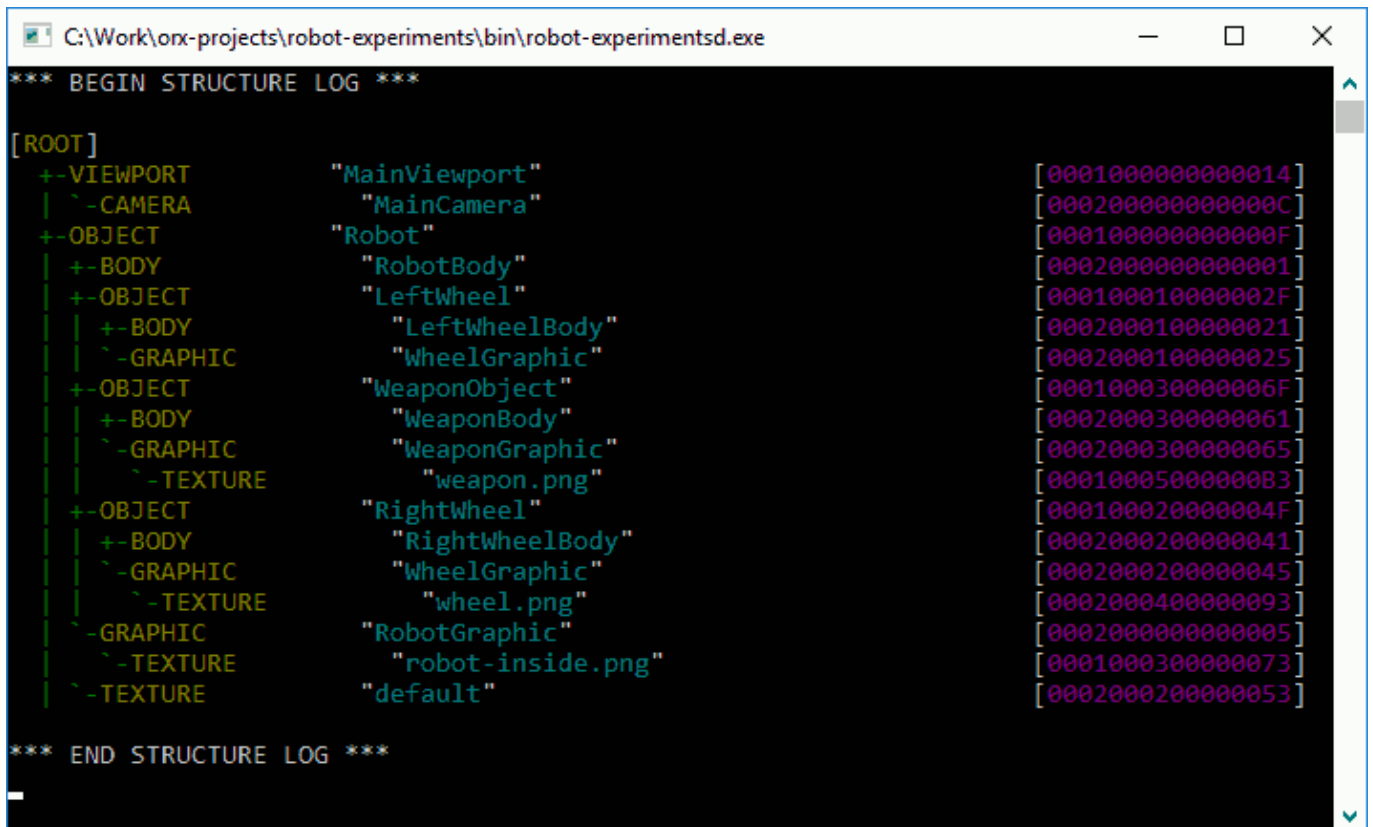
The robot would be created in-game with:

```
orxObject_CreateFromConfig("Robot);
```

Use the following command to log out all the current Structures live in your game:

```
orxStructure_LogAll();
```

In your console window, a coloured tree will be displayed:

A screenshot of a Windows console window titled "C:\Work\orx-projects\robot-experiments\bin\robot-experimentsd.exe". The console displays a "STRUCTURE LOG" with a tree-like structure of game objects. The root is "[ROOT]". It branches into "+-VIEWPORT" (MainViewport), "+-CAMERA" (MainCamera), and "+-OBJECT" (Robot). The Robot object further branches into "+-BODY" (RobotBody), "+-OBJECT" (LeftWheel), "+-BODY" (LeftWheelBody), "+-GRAPHIC" (WheelGraphic), "+-OBJECT" (WeaponObject), "+-BODY" (WeaponBody), "+-GRAPHIC" (WeaponGraphic), "+-TEXTURE" (weapon.png), "+-OBJECT" (RightWheel), "+-BODY" (RightWheelBody), "+-GRAPHIC" (WheelGraphic), "+-TEXTURE" (wheel.png), "+-GRAPHIC" (RobotGraphic), "+-TEXTURE" (robot-inside.png), and "+-TEXTURE" (default). Each node is followed by a hexadecimal address in square brackets. The log is framed by "\*\*\* BEGIN STRUCTURE LOG \*\*\*" and "\*\*\* END STRUCTURE LOG \*\*\*".

```
*** BEGIN STRUCTURE LOG ***  
[ROOT]  
+-VIEWPORT      "MainViewport"      [0001000000000014]  
|  \-CAMERA     "MainCamera"       [000200000000000C]  
+-OBJECT        "Robot"             [000100000000000F]  
|  +-BODY       "RobotBody"         [0002000000000001]  
|  +-OBJECT     "LeftWheel"         [000100010000002F]  
|  |  +-BODY    "LeftWheelBody"     [0002000100000021]  
|  |  \-GRAPHIC "WheelGraphic"      [0002000100000025]  
|  +-OBJECT     "WeaponObject"      [000100030000006F]  
|  |  +-BODY    "WeaponBody"        [0002000300000061]  
|  |  \-GRAPHIC "WeaponGraphic"     [0002000300000065]  
|  |  \-TEXTURE "weapon.png"        [0001000500000083]  
|  +-OBJECT     "RightWheel"        [000100020000004F]  
|  |  +-BODY    "RightWheelBody"    [0002000200000041]  
|  |  \-GRAPHIC "WheelGraphic"      [0002000200000045]  
|  |  \-TEXTURE "wheel.png"        [0002000400000093]  
|  \-GRAPHIC    "RobotGraphic"      [0002000000000005]  
|  \-TEXTURE    "robot-inside.png"  [0001000300000073]  
|  \-TEXTURE    "default"           [0002000200000053]  
*** END STRUCTURE LOG ***
```

Also, in your game log file, the same output would be generated:

```
*** BEGIN STRUCTURE LOG ***  
  
[ROOT]  
+-VIEWPORT      "MainViewport"  
[0001000000000014]  
|  \-CAMERA     "MainCamera"  
[000200000000000C]  
+-OBJECT        "Robot"  
[000100000000000F]  
|  +-BODY       "RobotBody"  
[0002000000000001]  
|  +-OBJECT     "LeftWheel"  
[000100010000002F]  
|  |  +-BODY    "LeftWheelBody"  
[0002000100000021]  
|  |  \-GRAPHIC "WheelGraphic"  
[0002000100000025]  
|  +-OBJECT     "WeaponObject"
```

```
[0001000300000006F]
| | +-BODY           "WeaponBody"
[00020003000000061]
| | ` -GRAPHIC       "WeaponGraphic"
[00020003000000065]
| |   ` -TEXTURE      "weapon.png"
[000100050000000B3]
| +-OBJECT           "RightWheel"
[0001000200000004F]
| | +-BODY           "RightWheelBody"
[00020002000000041]
| | ` -GRAPHIC       "WheelGraphic"
[00020002000000045]
| |   ` -TEXTURE      "wheel.png"
[00020004000000093]
| ` -GRAPHIC         "RobotGraphic"
[00020000000000005]
|   ` -TEXTURE        "robot-inside.png"
[00010003000000073]
| ` -TEXTURE          "default"
[00020002000000053]
```

\*\*\* END STRUCTURE LOG \*\*\*

This is very handy for getting a nice overview of your structure layout for debugging or comparison.

From:

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

Permanent link:

[https://orx-project.org/wiki/en/tutorials/tools/structure\\_logall](https://orx-project.org/wiki/en/tutorials/tools/structure_logall)

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