

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
```

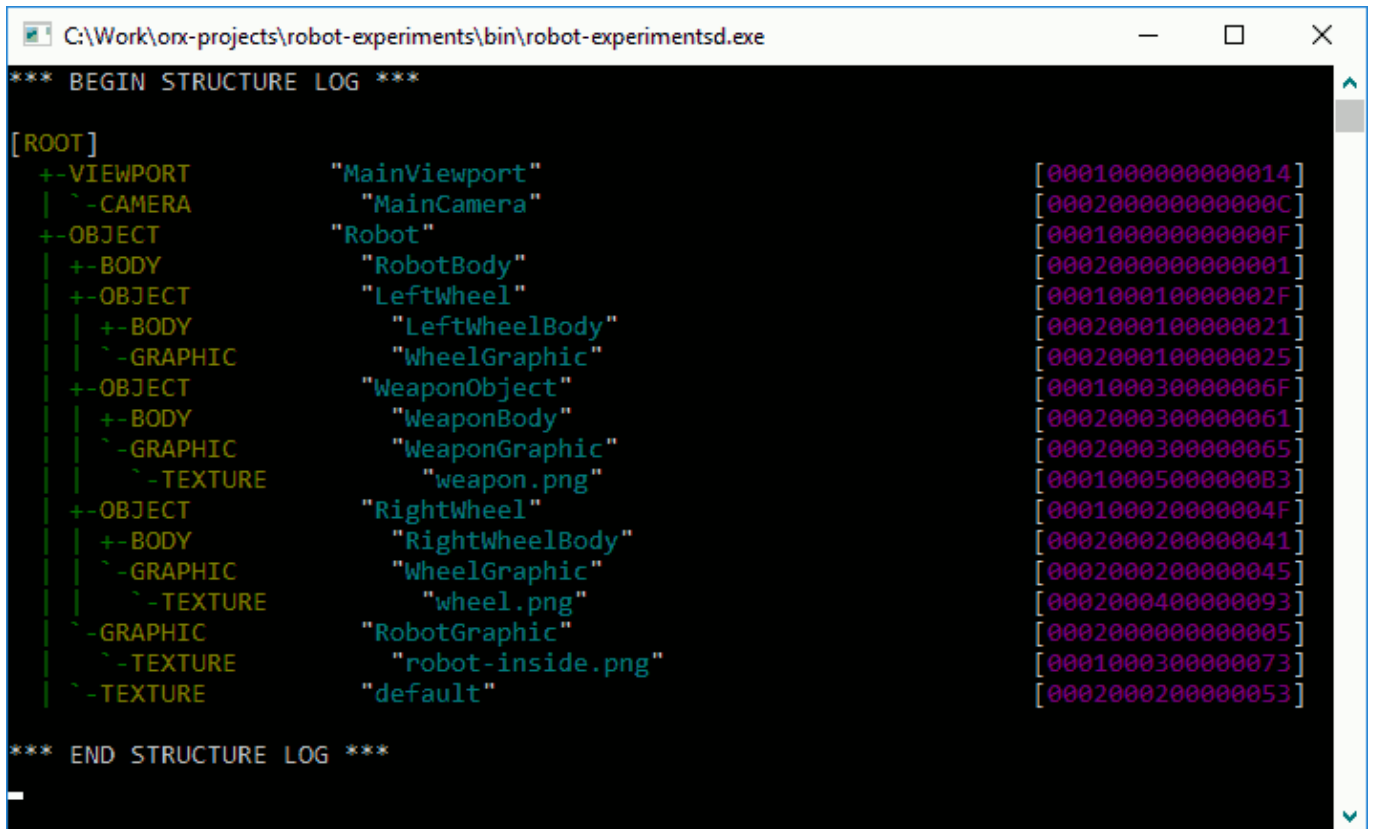
The robot would be created in-game with:

```
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 console window titled "C:\Work\orx-projects\robot-experiments\bin\robot-experimentsd.exe". The console displays a "BEGIN STRUCTURE LOG" followed by a tree structure. The tree starts with "[ROOT]" and branches into "+-VIEWPORT" (MainViewport), "+-CAMERA" (MainCamera), and "+-OBJECT" (Robot). The Robot object further branches into "+-BODY" (RobotBody), "+-OBJECT" (LeftWheel), and "+-OBJECT" (RightWheel). Each of these branches further into "+-BODY" and "+-GRAPHIC" or "+-TEXTURE". The tree ends with "END STRUCTURE LOG". Each node is followed by a hexadecimal address in square brackets, color-coded to match the node's type: VIEWPORT (blue), CAMERA (green), OBJECT (red), BODY (yellow), GRAPHIC (cyan), and TEXTURE (magenta).

```
*** 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"
[000100030000006F]
| | +-BODY          "WeaponBody"
[0002000300000061]
| | ` -GRAPHIC      "WeaponGraphic"
[0002000300000065]
| |   ` -TEXTURE    "weapon.png"
[00010005000000B3]
| +-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 ***

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?rev=1598877865

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