

DSix Image Generators

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Description

In this section we will explore the two image generation modules available with DSix, and discuss the differences between the two modules. We will create instances of each type of display, alter the type of vehicle displayed, and customize display properties using module configuration interfaces. Additionally, we will change the terrain displayed, map display variables to project variables, discuss terrain detection, load a HUD display, and discuss the creation of multiple simulation objects.

What you will learn

Upon completion of this section, you will be able to:

- Understand how to **load** (or not load) the Image Generator modules
- Create **display windows** using the DSix user interface
- Customize **display properties** such as time of day, cloud cover, and 3D model used.
- **Optimize** display settings for slower systems
- Customize the **view** (HUD view, external chase, etc.)
- Customize the **viewpoint** (i.e. turn head in HUD view, or rotate about an object in external view)
- Enable and configure **visualization tools** such as object streamers and labels.
- Display a working **HUD** overlay

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DSix Graphics I is a legacy graphics package built using Microsoft DirectX 7. Graphics displays created using this module require relatively low memory and graphical processing power, and may be used on virtually any modern windows computer.

DSix Graphics II (*Formerly known as ThirdWire Graphics*) provides more detailed imagery of DTED-based terrain. Created using Microsoft® DirectX® 9c, this display module requires greater processing power than DSix Graphics I . Most modern windows computers designed for gaming applications will run these graphics with no effect on simulation execution speed.

DSix Graphics_I

View .. Image Generators .. New Graphics_I Window

- ✈ DirectX 7
- ✈ Constant terrain elevation of zero (0).
- ✈ Low Graphical Processing Overhead
- ✈ No positional offset

DSix Graphics_II

View .. Image Generators .. New Graphics_II Window

- ✈ DirectX 9c
- ✈ Variable terrain elevation.
- ✈ Moderate Graphical Processing Overhead
- ✈ Requires positional offset

Graphics_II Customization

 View

 3D Model

 Terrain

 Configuration Dialog

DSix Graphics_II Customization (Views)

- ✈ HUD View
- ✈ Chase View
- ✈ From Target View
- ✈ Target Lock View

DSix Graphics_II Customization (3D Models)

- ✈ File Location
 - <DSix Root>\ThirdWire\Objects
- ✈ Configure via the Display Graphics Configuration dialog
- ✈ Multiple instances possible

DSix Graphics_II Customization (Terrain)

- ✈ Desert Terrain
- ✈ Himalaya Terrain
- ✈ Load from the graphics configuration dialog (general tab)

DSix Graphics_II Customization Configuration Dialog


- ✈ Right click on a display to open the configuration
- ✈ Note Auto-Apply checkbox
- ✈ Main Configuration Sections
 - ✈ General Tab
 - ✈ Environment Tab
 - ✈ HUD Tab
 - ✈ Configure Terrain Detection
 - ✈ Edit Objects

DSix Graphics_II Configuration

General Tab

 Ownship (window slaved to)

 View

 Offsets (HUD View)

 Offset (Origin)

 Timing

 Display

DSix Graphics_II Configuration Environment Tab

- ✈ Time and Date
- ✈ Clouds
- ✈ Apply to All Windows

DSix Graphics_II Configuration HUD Tab

- ✈ HUD File
- ✈ Component HUDs
- ✈ Variable Mapping

DSix Graphics_II Configuration

Terrain Detection

- ✈ Local Simulation Only (This Discussion)
- ✈ Creating/Naming a contact point
- ✈ Mapping The Variables
- ✈ Import (From DSix 1.x)

DSix Graphics_II Configuration

Edit Objects

 Display Object (on/off)

 Create Object

 Object Labels

 Object Streamers

 Variable Mapping



Flight Simulation Environment