



Virtual Ft. Wainwright Urban Warfare Training Site



<http://www.metavr.com>
sales@metavr.com
US 617-739-2667



MetaVR has delivered to Ft. Wainwright, Alaska a 3D database of its urban warfare training center. Ft. Wainwright supports simulation training of dismounted infantry and UAV ground control, as well as training on the Stryker Battle Command Skills Trainer (BCST) vehicle simulators. The database is used to train infantry combined arms units for Military Operations in Urban Terrain (MOUT).

This brochure provides a brief summary about the Ft. Wainwright database for use on PC-based systems. All images are unedited real-time screen captures taken with MetaVR's 3D visualization product, Virtual Reality Scene Generator™ (VRSG™), of the terrain database created by MetaVR except where noted.

Overview

The 3D simulated urban warfare terrain database of Ft. Wainwright, which was delivered in MetaVR's flat-earth, UTM-based MDX format, was created with MetaVR's terrain generation tools. The MOUT site area cultural features were modeled with various commercial modeling tools.

Included in the database are 16 MOUT building models. These models and models of other structures were created from perspectiveless digital photographs of the structures at the actual MOUT site. The building models have radiosity (soft shadows) applied to the geometry to increase their realism. The database makes extensive use of cultural elements such as street signs, power transformers, street lights, curbs, bleacher seats, gas pumps, oil drums, fences, flag poles, portable toilets, utility cables, a picnic table, and a surveillance camera. All models are in MetaVR's model format.

Image on the cover: Real-time VRSG scene of MetaVR's virtual Ft. Wainwright urban warfare training site.





Specifications

The following are specifications for MetaVR's Ft. Wainwright terrain database in MetaVR's UTM-based MDX format:

Image/view statistics for the MetaVR scene on the cover of this brochure

Far horizon: 30 km

FoV: 60 degrees horizontal

Polygon count: 967,466 triangles

Display: 2048 x 1536 pixel res. with 4 subpixel AA

Color depth: 32-bit

Frame rate: 60 frames per second

Graphics card: NVIDIA GeForce 7800 GTX 256 MB DDR memory

Terrain database statistics

Build time: 9 hours, 25 minutes

Extents:

N64 55'

W148 39' W146 52'

N64 19'

Database size: 86 km x 65 km

Size on disk: 4.74 GB

Terrain LoDs: 5 (512 mpp coarsest, 32 mpp finest)

Texture LoDs: 5 (16 mpp coarsest, 1 mpp finest)

Terrain post spacing: 32 mpp

Source imagery: 3.14 GB

Elevation coverage:

Breakpoint survey data MOUT site (1 km x 1 km)

41 meter post spacing Ft. Wainwright (86 km x 65 km)

Imagery coverage:

14 km x 15 km black-and-white .5 mpp

16 km x 11 km color 1 mpp

Cultural features:

16 hybrid photorealistic/photospecific buildings with interiors and articulated doors

3,887 geotypical volumetric trees of varying types

165 other point features (30 unique)

The virtual MOUT site terrain makes extensive use of cultural elements such as: street signs (textured from digital photographs of the actual signage), power transformers, street lights, curbs, bleacher seats, gas pumps, oil drums, fences, picnic table, flag poles, portable toilets, surveillance camera, and utility cables.



Actual and simulated views of the Ft. Wainwright MOUT site

With the following set of images you can compare photographs of the Ft. Wainwright MOUT site (on the left) with the VRSG screen captures (on the right) of the simulated view of the MOUT site within MetaVR's Ft. Wainwright terrain database. The models of buildings and other structures are photorealistic.



The MetaVR Ft. Wainwright terrain database is available free of charge to all US Government agencies and contractors (for official use only) and requires version 5 of VRSG.

For more product information, pricing, and ordering, see MetaVR's web site at www.metavr.com or contact sales@metavr.com.

MetaVR, Virtual Reality Scene Generator, VRSG, Metadesic, First Person Simulator, WorldPerfect, the phrase "geospecific simulation with game quality graphics", and the MetaVR logo are trademarks of MetaVR, Inc. Metadesic is protected by US Patent 7,425,952. All other brand or product names are trademarks of their respective companies.

Copyright © 2009 MetaVR, Inc.