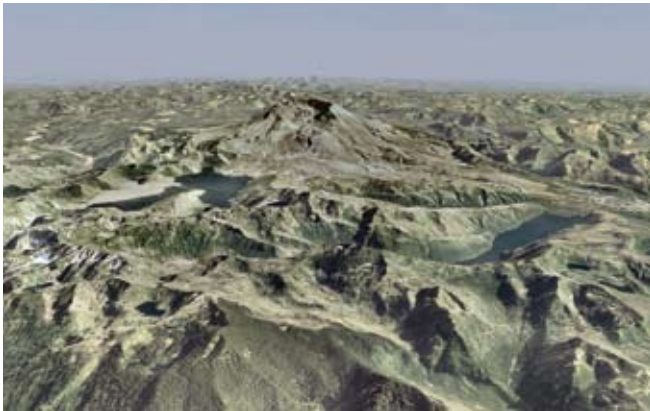




META VR

North America 3D Terrain

MetaVR's seamless 3D terrain of North America is constructed with 100-meter elevation data and with .3, 1, 5, and 15 meter natural color imagery covering a 1,077-geocell area, which includes high-resolution insets of 59 cities at .5 meter resolution. MetaVR Terrain Tools for ESRI® ArcGIS® are used to create terrain tiles in the whole-earth geocentric Metadesic™ format. These terrain tiles are suitable for real-time visualization and simulation applications, including synthetic vision, glass-cockpit displays, intelligence surveillance, reconnaissance applications, and fixed-wing cockpit simulation.



MetaVR's virtual terrain of the area around Mount St. Helens, Washington.

The North America dataset can also serve as a baseline to which you can add higher-fidelity information to refine the database in a given area of interest. For example, you can add high-resolution aerial imagery or LIDAR elevation data, GPS point surveys, or 3D point features such as buildings, trees, targets, and runway models. You can make these additions as they become available, even in real time if such information is provided directly from sensors in the field. The Metadesic architecture can automatically signal a listening Virtual Reality Scene Generator™ (VRSG™) runtime session that new data is available to be paged into memory. This update flexibility is:

- Efficient - conventional simulation applications do not need to recompile entire databases upon receipt of new data.
- Scalable - independent assets can be applied to both construction and visualization.
- Innovative - mission rehearsal and battle damage assessment tasks can now include a 3D visualization component that is sensor-data driven.

The Metadesic North America dataset contains high-resolution insets (some include cultural features) of 59 US cities such as Anchorage, San Francisco, St. Louis, Orlando, and Washington DC. The insets also include several military installations.



MetaVR's virtual terrain of the Vermont Air National Guard base and airfield at Burlington International Airport, Burlington, Vermont, with Lake Champlain visible in the background.

Specifications for MetaVR's North America terrain dataset:
Database size: 1,077 geocells (10,772,200 sq km)
Size on disk: 1,684 GB
Terrain post spacing: 60 mpp
Source imagery: approximately 4.5 TB
Elevation coverage: 3 arcseconds (70-100 meter)
Imagery coverage: 15 mpp LandSat7 fused color (L7), with high-resolution insets of approximately 59 areas of interest with .5, 1, 5, and 15 meter imagery for several US cities and most US military installations



MetaVR's virtual terrain of the area around the White Sands Missile Range in New Mexico.

The North America 3D terrain is delivered on an external hard drive that includes terrain constructed from natural color imagery in .5, 1, 5, and 15 meter resolution.

MetaVR's North America 3D terrain in Metadesic format is available for purchase to all US Government agencies and contractors (for official use only) and requires version 5 of VRSG. (A nominal fee covers processing large quantities of data into Metadesic format and hard drive distribution media.)



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META VR

Asia 3D Terrain

MetaVR has built 3D terrain of over 1,350 geocells that covers parts of Asia in its whole-earth geocentric Metadesic format. The 13,560,000 km² virtual terrain includes Turkey, Iran, Iraq, Afghanistan, Pakistan, India, and Japan, and was built from 15-meter color LandSat imagery, color-fused with 1-meter black-and-white imagery of Iraq. In addition, the terrain includes 60 cm high-resolution natural color insets of Baghdad, Basra, Kirkuk, Tehran, Tokyo, and Osaka. Terrain elevation information was based on 3-arcsecond SRTM (Shuttle Radar Topography Mission) elevation data, subsampled to achieve a nominal 60 m post spacing.

These terrain tiles are suitable for real-time visualization, and simulation applications, including synthetic vision, glass-cockpit displays, intelligence surveillance, reconnaissance applications, and fixed-wing cockpit simulation.



Afghanistan terrain tiles from MetaVR's virtual terrain of Asia.

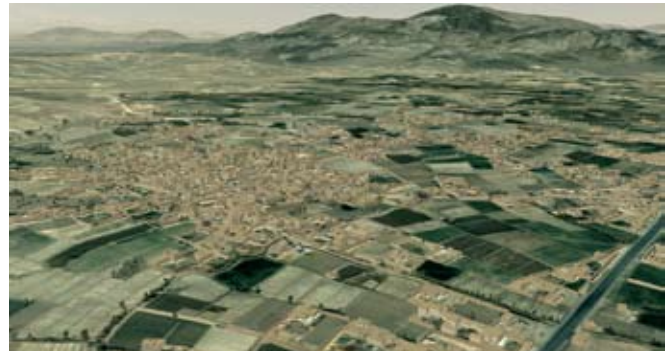
This dataset can also serve as a baseline to which you can add your own higher-fidelity information, such as high-resolution aerial imagery or LIDAR elevation data, GPS point surveys, or 3D point features (such as buildings, trees, targets and runway models). If information is provided directly from sensors in the field, such information can also be added to the terrain in real time. Using MetaVR's Terrain Tools for ESRI® ArcGIS®, you can update terrain areas of interest as you obtain additional imagery source data.

As additional source data becomes available, MetaVR will continue to build terrain for additional portions of the Asia continent.

Although this dataset is comprised of portions of Asia and the Middle East, with MetaVR Terrain Tools for ArcGIS you could construct terrain of the entire region, or the entire earth.

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

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Kabul province, Afghanistan, area from MetaVR's virtual terrain of Asia, featuring a high-resolution, geospecific village.

Specifications for MetaVR's Asia terrain dataset:

Database size = 1,357 geocells

Size on disk = 985 GB

Terrain post spacing = 60 meters-per-post (mpp)

Elevation source = 3 arc-second (85mpp) SRTM

Imagery source = 15 mpp LandSat of Afghanistan, India, Iran, Japan, Pakistan, Turkey, and the UAE, and portions of Uzbekistan, Turkmenistan, and Tajikistan; 1-meter black-and-white imagery color fused with 15-meter color LandSat imagery of Iraq (70-geocell area); 60cm natural color insets of Baghdad, Basra, Kirkuk, Tehran, Tokyo, and Osaka

The following symbolic representation shows the geographic coverage of this 3D dataset's terrain tiles.



Tile coverage map generated by MetaVR Model Viewer.

MetaVR's Asia 3D terrain in Metadesic format is available for purchase to all US Government agencies and contractors (for official use only) and requires version 5 of Virtual Reality Scene Generator (VRSG). The 3D terrain is delivered on an external hard drive. (A nominal fee covers processing large quantities of data in Metadesic format and the hard drive distribution media.)



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