

TERRATOOLS 3.0[®]

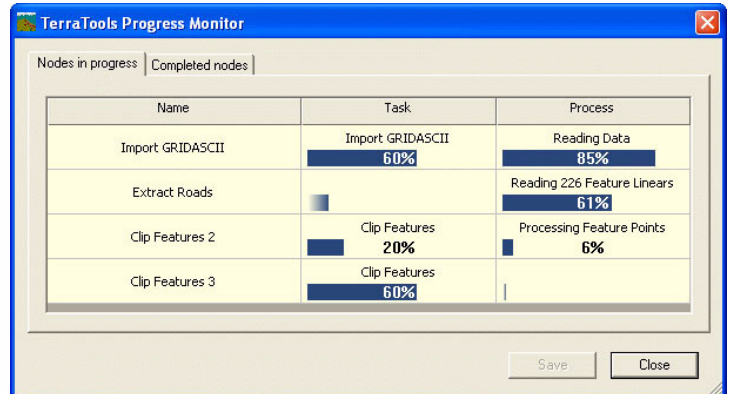
What's New in TerraTools 3.0

TerraTools 3.0 builds upon the many capabilities of previous TerraTools releases, as well as introducing many new features that make the software more powerful and easier to use. With TerraTools 3.0, novices and experts alike can rapidly exploit GIS data, imagery, and models for high-fidelity real-time visualization.

Affordable Multi-processor Speed-ups

TerraTools provides two process threads for each processor on your workstation. With standard dual processors, that means the potential for up to four times speedup over single threaded database generation systems. Multi-threading comes with a single TerraTools 3.0 license at no additional cost.

Processing complex data can be time consuming. With TerraTools 3.0's progress bars, the user can easily and quickly see the progress for any active processing node. Node timing information is also logged.



Multi-processor Node Progress Monitor

New OmniWizard™ Features:

The TerraTools **OmniWizard** is now more powerful than ever. Using only the OmniWizard, the user can now control smooth shading and the creation of an overlay map in the end visualization. When working with DEMs, the output ground sampling distance can be set. Using the new Export Pane, CTDB, OTF, GISLink, OpenFlight, and SEDRIS generation is as simple as checking a box. The new OmniWizard retains its ease of use and ability to rapidly generate projects, while adding a level of power that simplifies previously complex or tedious flow graph tasks.

Support for Underground Features:

Users have the ability to create and view underground features, such as piping and plumbing systems. TerraTools supports tunnels with complex junctions and manhole covers forming a complete underground network.

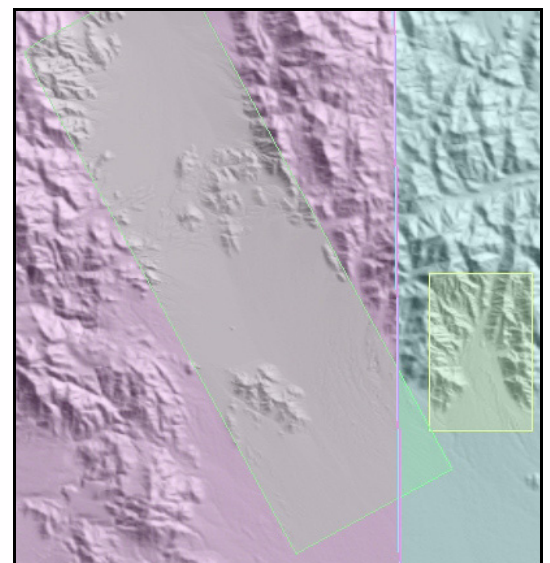
New tools for DEM processing and manipulation:

DEMTools is a new plug-in to TerraTools 3.0 that contains a suite of tools for DEM fusion and registration, along with the ability to fill holes, flatten lakes, and combine land and bathymetric data. With DEMTools and TerraTools, the user can quickly and easily fuse an arbitrary number of DEMs from different sources and with different coordinate systems and datums together into one combined DEM.

DEMTools also gives the user the ability to align two DEMs with one another, a process known as registration. DEMTools can automatically generate two sets of matchable points before registering two DEMs. DEMTools supports a variety of formats, including ASTER, GRIB, LAS (LIDAR), and DTED Level 3.



Fort Benning Underground Network



Result of DEM Fusion

New OmniWizard™ Features

Multi-processing

Simplified Export to CTDB and OpenFlight

Progress Bars

Support for Underground Features

DEMTools

LIDAR ingest

DEM Hole Filling

DEM Fusion

OpenFlight® Exporter Enhancements

Light Points

Multitextures

Texture
Compression

Updated Optional Plug-ins

SOCET SET

CTDB

GISLink

SEDRIS

New Optional Plug-ins

OTF Export

DEMTools

Support for Building Interiors

MES for CTDB

UHRB for OneSAF

Improved OpenFlight Export

The TerraTools Openflight export now supports formats 14.2 through 16.0. TerraTools can ingest and export multitextures and light point models. All textures can now be compressed to dds format when exporting a large area or highly complex geospecific urban database. Reference nodes are now used automatically for all OpenFlight models, allowing for ingest and placement of models using pixel shaders, light point groups, and multistate models.

Extensive Updates to TerraTools Plug-in Architecture

All TerraTools optional plug-in modules, GISLink, SEDRIS export, and CTDB export have been updated for this new release. The SOCET SET export plug-in has been extensively updated to support BAE Systems GXP SOCET SET release version 5.2. This plug-in now supports completely automated terrain generation, building extrusion, linear feature generation (powerlines, telephone lines, fences), extruded features such as pipelines and tunnels, automated scatter of trees and foliage, and export into a tiled OpenFlight database. Detailed phototextured buildings constructed interactively in SOCET SET are automatically positioned with photogrammetric accuracy.

Support for Building Interiors in CTDB and OneSAF:

TerraTools 3.0 CTDB export now supports Tcl/Tk scripting to create complex Multi-Elevation Surface (MES) buildings from GIS or CAD source data. Building interiors, with multiple floors and different floorplans are automatically divided into walls, rooms, apertures, and overhangs, and are inspectable as a part of the TerraTools flow graph. In addition, the building interior geometry and geo-positioned footprint is created by the TerraTools MES generation process to position the building geometry in the visual terrain database, fully correlated with the CTDB export. TerraTools OneSAF (OTF) format exporter will utilize this technology to generate Ultra High Resolution Building (UHRB) descriptions compiled to the OOS XML representation.

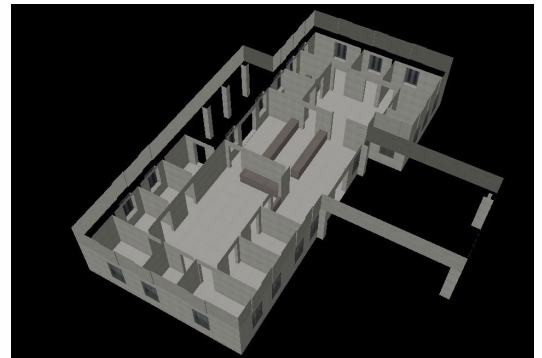
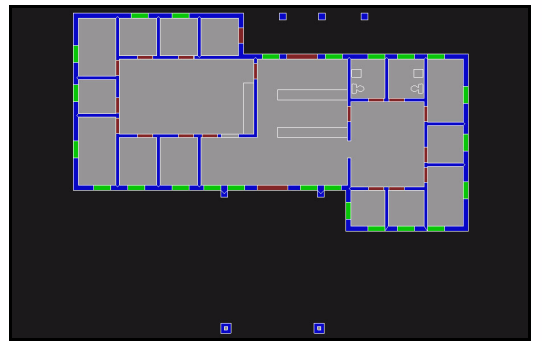
Advanced Viewers for Database Distribution

In conjunction with the TerraTools 3.0 release, TerraSim is releasing TSGFly™ version 5.0 and TerraTours® 3.0. TSGFly is the TerraTools 3D viewer, which is included with TerraTools and is freely distributable by end users. It is also available for download by our DoD customers with access to the SIPRNet and JWICS.

TerraTours is a unique, interactive 3D viewer that allows users to query objects in the visualization to gather and display associated multimedia (video, audio, photographs), architectural design files, powerpoint presentations, and all source data attribution. TerraTours allows customers to develop their own intelligent information fusion and situation assessment applications using 3D geospatial visualization as the focal point for end-user interaction.



Runway/taxiway light points



CAD drawing to CTDB MES building

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