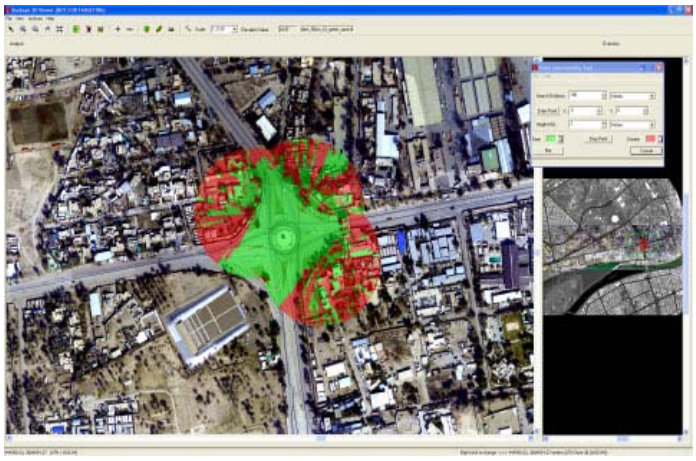
TACTICAL IMAGERY VISUALIZATION AND EXPLOITATION TOOLSET (TIVET)

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**

Description and Background

The Army Geospatial Center (AGC) has partnered with ERDAS to develop the '**T**actical **I**magery **V**isualization and **E**xploitation **T**oolset'. TIVET is a powerful free software toolset for imagery visualization and terrain exploitation. With minimal training a user can easily select, exploit, visualize, and execute mission preparation briefs using high resolution imagery and elevation data. The 2D and 3D viewing environments allow for an increased situational awareness in support of mission critical decisions.



Viewshed created using three point input, green seen, red unseen

Key Capabilities

AGC's TIVET toolset contains three main component applications, the Buckeye 2D Viewer, the Free-D Stereo Viewer, and the Free- D Workstation.

The **Buckeye 2D Viewer** can ingest a substantial range of file formats to include *NITF, CIB, MrSID, DEM, DTED, IMG,* and *GRID*. The Buckeye 2D Viewer incorporates powerful line of site analysis tools. Points or lines can be input with variable parameters to display a viewshed from several positions, or along a route. With the spatial profile tool a user can visually graph the terrain and locate vertical obstructions.

Anaglyph of Baghdad Palace

The **Free-D Stereo Viewer** is used to create true and detailed 3D anaglyphs from overlapping raw imagery, referenced imagery, and DPPDB block files. With the release of TIVET 1.0 added enhancements to the interface are simple manual selection of the image, and rotational capabilities to ensure proper anaglyph display. The ability to execute highly accurate 3D measurements can be made when exploiting referenced imagery or DPPDB block files.

The **Free-D Workstation** is used for viewing, selecting, and importing DPPDB segments into Free-D Stereo Viewer for exploitation.

Product Development

AGC is in the process of refining the TIVET toolset for a 2nd version slated for release in 2010. The collection of TIVET user feedback will help better determine what tools are most effective for mission critical support.

Current Status

TIVET is currently available for downloading from the AGC websites. Individual versions can be requested.

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