

## ***What's New in TerraBuilder v1.7***

This new version of the TerraBuilder marks major improvements in the capabilities for working in large-scale projects from local sources and database environments as well as much stronger functionality. A big emphasis has been placed on interfacing with other spatial data systems to turn the TerraBuilder and the DirectConnect components into a powerful, database-enabled, 3D data producer and integrator.

### **1. Database Quality**

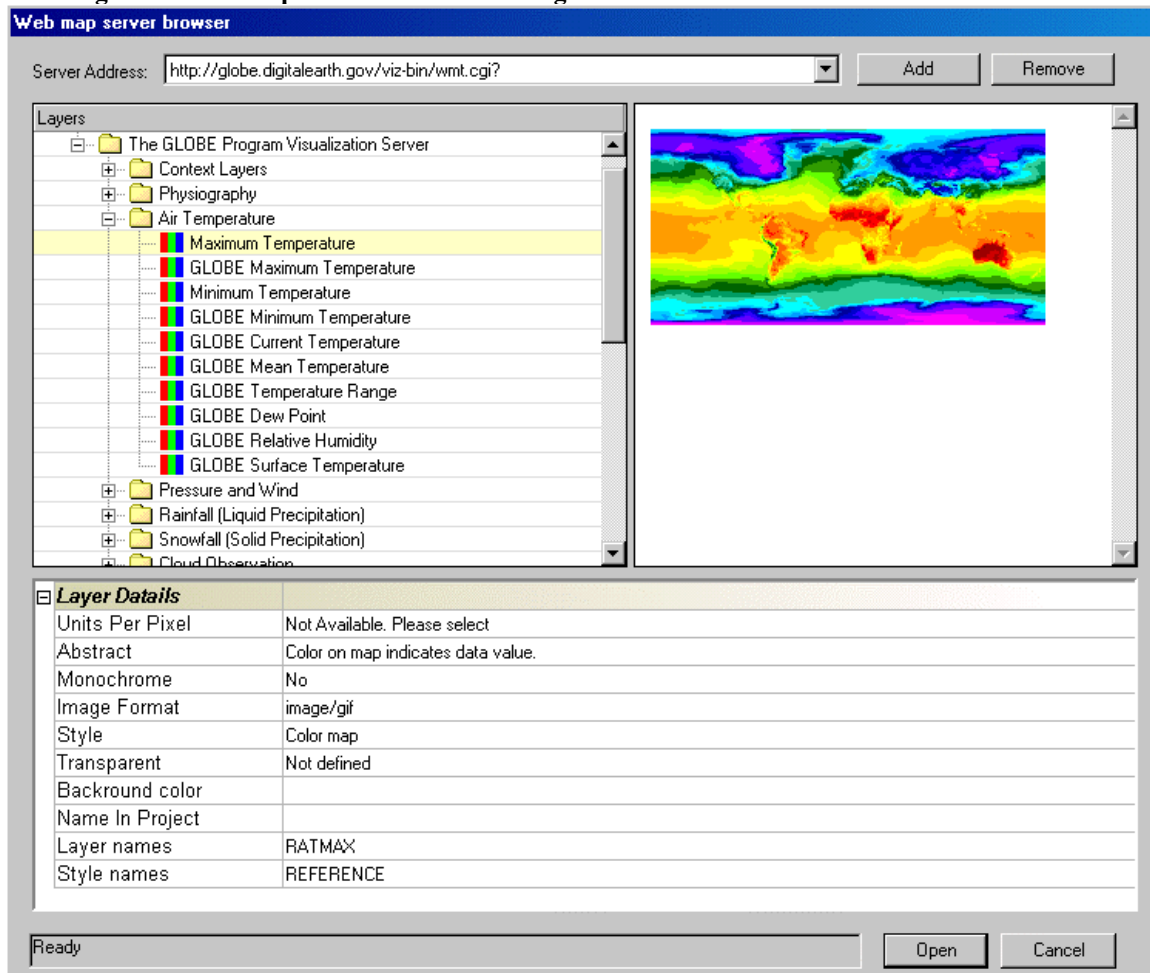
- **User selectable Jpeg2000 compression for image and elevation data for better quality and reduced size.**
- **Ability to control the compression ratio and quality**
- **Improved Scale and Reproject quality**

### **2. Additional Formats**

Ability to read imagery and elevation data to create MPT databases or to fly directly using the DirectConnect from the following sources:

- **New Imagery Formats:**
  - ❑ **Oracle 10g GeoRaster Database**
  - ❑ **OpenGIS WMS servers**
  - ❑ Graphics Interchange Format (.gif)
  - ❑ NITF
  - ❑ JPEG JFIF (.jpg)
  - ❑ JPEG2000 (.jp2, .j2k)
  - ❑ JPEG2000 (.jp2, .j2k)
  - ❑ Single Cell CIB
- **New Elevation Formats:**
  - ❑ **Oracle 10g Database**
  - ❑ Non-regular Grid with break lines.
  - ❑ DTED single cell (Including NIMA DT0-DT3 formats.)
  - ❑ USGS DEM (.dem)
  - ❑ USGS SDTS (.ddf)
  - ❑ ESRI ArcInfo Binary - AIG (.adf)
- **Improvements to current Formats**
  - ❑ TIFF / GeoTIFF - Added support for indexed color (palette)
  - ❑ MrSid – Support for version 3.1.10
  - ❑ IMG – Added support for ESRI Float RLE compression.
  - ❑ Projection – Supports additional coordinate systems.
  - ❑ TLT Plug – Grayscale sources now support automatic colorization (pan-sharpening) from low-resolution sources.

**Selecting Sources for import from the WMS Plug Browser:**



### 3. Multi Viewing and Editing

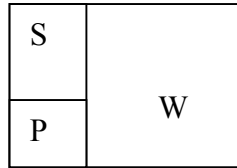
- Ability to work on groups of sources to create and edit shared polygons.
- Ability to edit common parameters for groups of sources.

### 4. New Clipping Mechanism

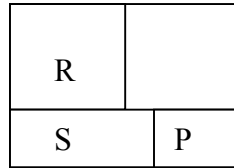
- Combines the Clip Rectangle and polygons to a single easy to use system
- Ability to add Fill Color areas (rectangle and polygon shapes)
- Ability to add key color clipping (rectangle and polygon shapes) to filter out illegal/no-value color or elevation values.

## 5. New Applications Layout

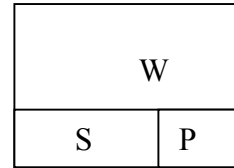
- Three optional layout



Normal Layout

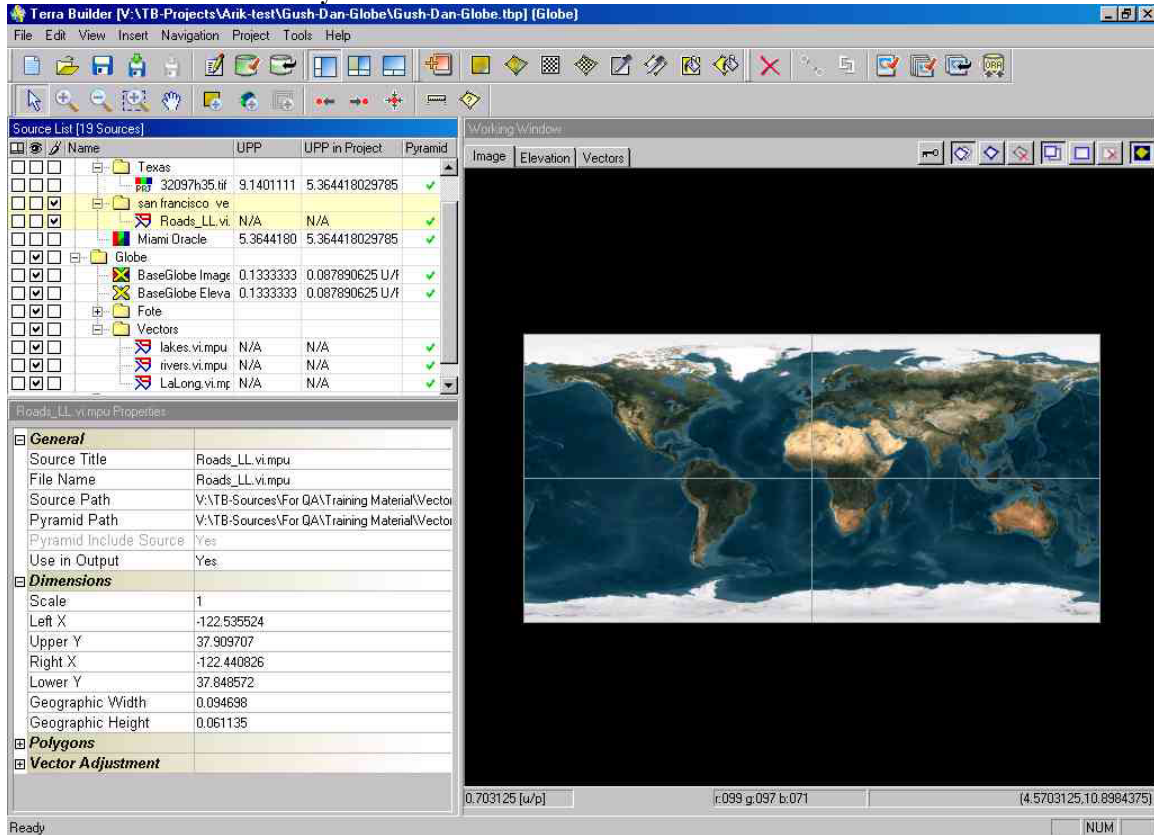


Reference Layout



Wide Layout

### TerraBuilder in Normal Layout:

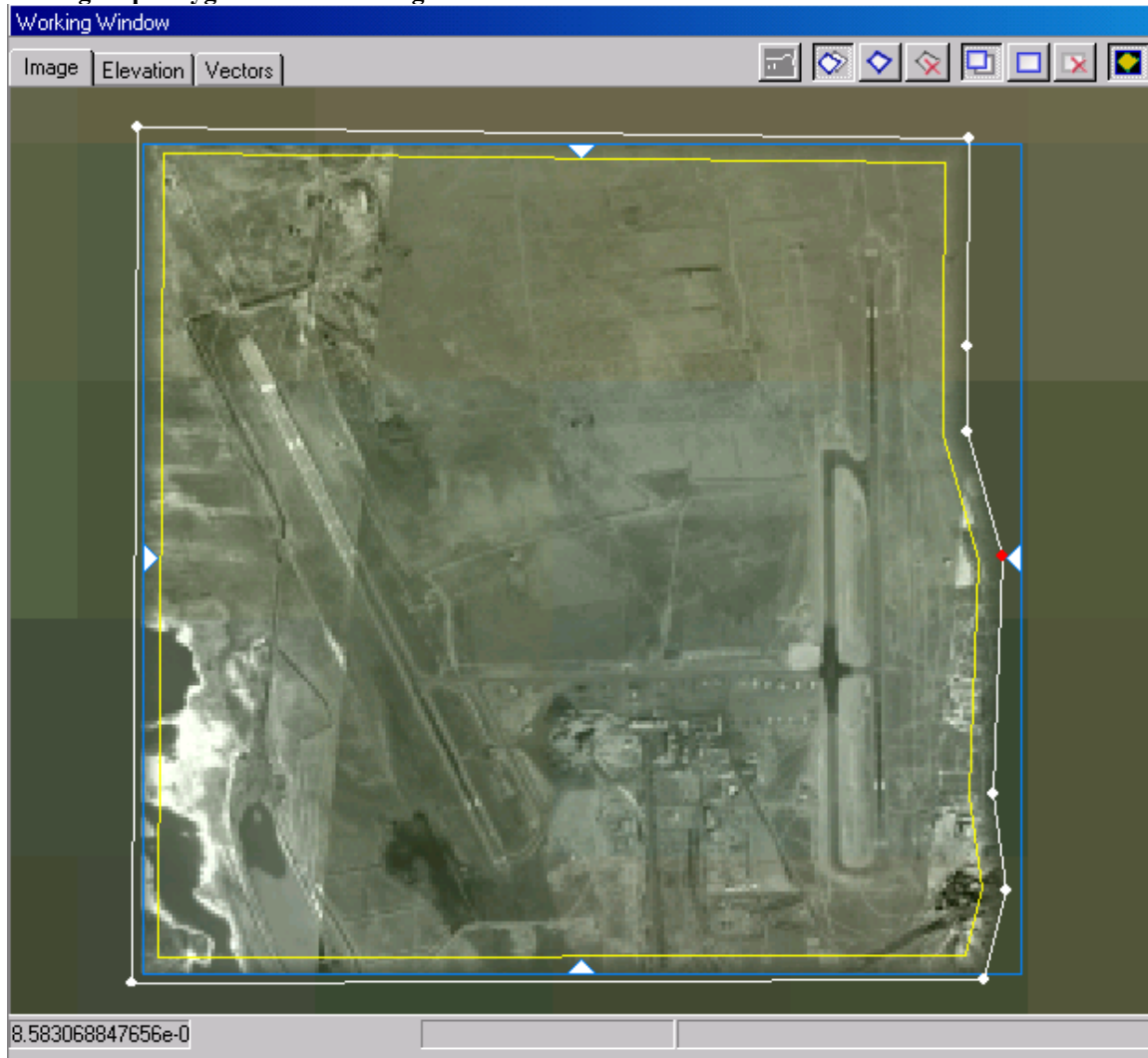


- Enhanced Menu and Toolbars
- New Settings and Options dialogs

## 6. *Navigation and Editing in the Working and Reference windows*

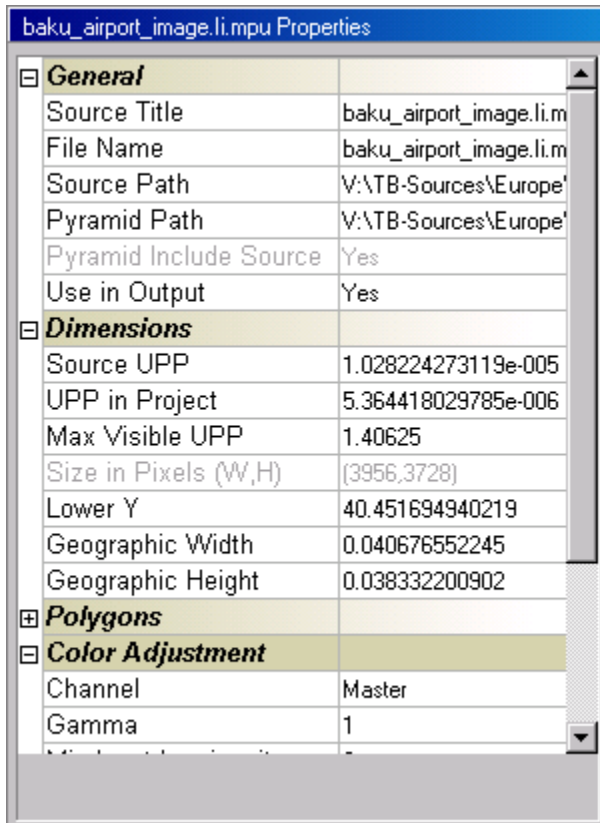
- Three tabs for Imagery, elevation and vector views.
- Ability to view and edit several sources (from the same type) at the same time
- Zooming and Panning using the mouse wheel button
- Right click popup menus provide easy access to sources and polygons operations.
- Three viewing modes
  - ❑ Source quality normal
  - ❑ Source fast scale
  - ❑ Source single color
- Measurement tools
  - ❑ Measure distance across a multi-point line
  - ❑ Measure area

**Editing Clip Polygon in the Working window:**



## 7. Property Sheet

- The Property Sheet dialog collects all editable parameters in an easy-to-use form.
- Direct access to all resources and polygons from the Property sheet.
- Ability to view and edit common parameters for groups of sources from different types.



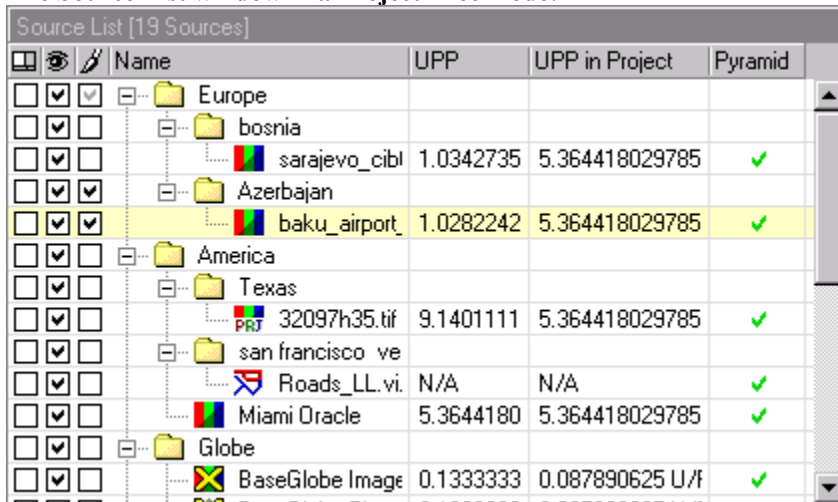
## 8. DirectConnect

- Ability to run the DirectConnect Fusers (Agents) also as a Windows Service (can still work when in logout mode).
- Automatic translation of all local storage device names to generic network names (UNC).

## 9. Source List Window

- Display sources in a tree model.
- Mark sources for view, editing or reference
- Multi selection and editing capability
- Ability to view the sources in regular (logical) order or according to the visualization priority level.
- Right click popup menu provides easy access to source operations.

The Source List window in a Project Tree mode:



	Name	UPP	UPP in Project	Pyramid
[-]	Europe			
[-]	bosnia			
[x]	sarajevo_cibl	1.0342735	5.364418029785	✓
[-]	Azerbaijan			
[x]	baku_airport	1.0282242	5.364418029785	✓
[-]	America			
[-]	Texas			
[x]	32097h35.tif	9.1401111	5.364418029785	✓
[-]	san francisco ve			
[x]	Roads_LL.vi	N/A	N/A	✓
[x]	Miami Oracle	5.3644180	5.364418029785	✓
[-]	Globe			
[x]	BaseGlobe Image	0.1333333	0.087890625 U/f	✓

## 10. Tools

- ConvTRI – Convert several Irregular formats to TRI
  - Converts Irregular XYZ ASCII files to Triangulate mesh files (TRI)
  - Converts Irregular XYZ points in DXF to Triangulate mesh files (TRI)
  - Converts Irregular XYZ points with break lines in DXF to Triangulate mesh files (TRI)
  - Converts TIN DXF to Triangulate mesh files (TRI)
  - Supports for other formats
- TLT tool – Support most TerraBuilder plugs.
- Improved Elevation Color Scheme editor (Pseudo editor)
  - Ability to create dynamically stretched schemes
  - Ability to create shaded schemes

## **11. Additional features**

- **Limit source visualization in output (MPT) to maximum UPP. When the user is out of the source range he will view the area from source in lower resolution (using the fade mechanism).**
- **Control Saturation of image sources.**
- **Display the estimated MPT size and compression time.**
- **Ability to work in Grid or Area coordinate systems.**
- **Security tool enables user/password locking of MPT databases.**
- **New Licensing Mechanism supports network license as well as machine dependant software license**