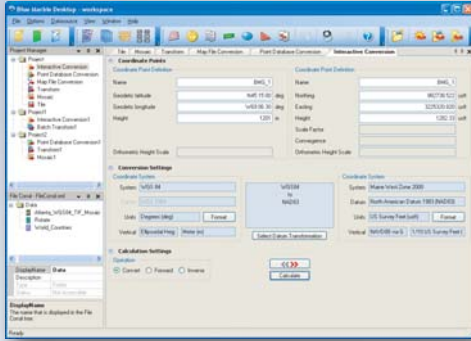


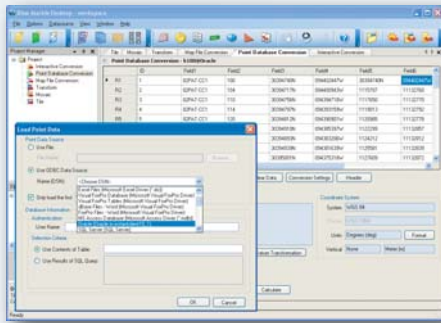
## The Leading Coordinate Conversion Tool!

Translates  
**MORE** Vector Data  
Types Than Ever!

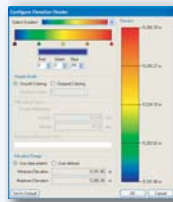
ENABLING GEOSPATIAL DATA MANAGEMENT ACROSS YOUR ORGANIZATION



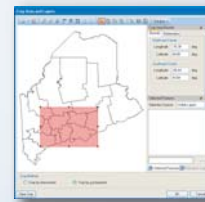
**EXPANDED DATABASE SUPPORT**  
Calculator supports all ODBC databases permitting reading from and writing to MS Access, MS SQL Server, MySQL, Oracle, Postgres and more. ESRI Spatial database conversions are available through the ArcGIS Extension. The new Spatial Connect Module supports read/write of ESRI Geodatabase, ArcSDE, Personal and File Geodatabase, Oracle and PostGIS Spatial Databases.



**ADMIN TOOLS**  
Lock down the data source for protection. Workspaces ensure consistency and permit sending out pre-defined jobs. Geographic envelopes can be created as easily as drawing on a map file. The appropriate datum shifts can be defined for that area of the world. Use this tool in ArcGIS, too.



**ENHANCED LAS DATASET SUPPORT**  
Colorized display based on vertical height values along with sorting by classification type, and optimized tiling and cropping functionality.



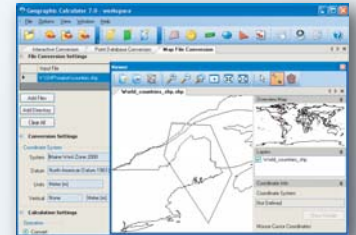
**PROJECT MANAGER**  
The Project Manager panel introduces the concept of workspaces, projects and jobs. Switch back and forth between multiple conversion projects. Save off a workspace and send it to other users to use your settings.

**PART OF BLUE MARBLE DESKTOP WITH ENTERPRISE TOOLS TO ENHANCE GEOSPATIAL PROJECTS**

- Uses GeoCalc.XML, the largest and most comprehensive data source available
- Vector Tile Job Type - Tile large-area vector files into smaller, more convenient regions
- Area Cropper and Layer Splitter - Manually crop your vector data types and select only the layers you wish to use.
- NTF vector file support.
- Data security features:
  - Ability to password-protect data source editing
  - Data source signature to inform user of changes to definitions
  - Segregated definitions of Blue Marble stock versus user defined
- Direct support of the OGP WRS Registry allows enterprises to update their information when they need to, online in real time
- Admin tools to set jobs and workspaces, managing work across your enterprise uniformly
- ArcGIS extension introducing Blue Marble geodetic tools directly in the ArcMap environment

**SELECT YOUR DATUM TRANSFORMATION - NOT JUST WGS84**  
Geographic Calculator now gives the user the ability to select the datum shift for your transformations. You don't have to run all transformations through WGS84. Most programs require that transformations run through WGS84 as an intermediary. This can create inaccuracies in the results. With this feature, Calculator is more flexible and now more accurate across a variety of scenarios.

**VECTOR FILE CONVERSIONS**  
Convert individual map files or batch process an entire folder! The leading map and vector file formats are supported including the latest AutoCAD as well as DGN, KML, GML (simple features), XLS support and more. The new Vector Tile job type tiles large-area vector files into smaller, more convenient regions. Manually crop your vector data types to the size your project requires. When reprojecting multi-layer vectors, quickly select only the layers you wish to use.



**THE MOST COMPREHENSIVE DATA SOURCE AVAILABLE!**

- XML Based
- Over 3500 pre-defined projected coordinate systems
- Over 1200 datum shifts
- Over 400 horizontal datums
- Over 80 various unit definitions
- A dozen vertical datums (necessary for LiDAR transformations)
- Full matches to ESRI, MapInfo, Autodesk and many more
- Define your own coordinate systems!

**HORIZONTAL TIME DEPENDENT POSITIONING**

Calculator now supports Horizontal Time Dependent Positioning (HTDP), which provides a means to predict and adjust for data transformations related to movements of the Earth's crust over time.

Vertical	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Calculation S	8	9	10	11	12	13	14
Operation	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	1	2	3	4	5

Coordinate System: IGB00 Coordinate System  
Datum: IGB00  
Date: 4/12/2007  
Units: Dec 4 April, 2007  
Today: 10/7/2009



# BLUE MARBLE GEOGRAPHICS

WHERE GIS DATA CONVERSION SOLUTIONS ARE BORN

397 WATER STREET, SUITE 100, GARDINER, MAINE 04345 USA  
800.616.2725 / +1.207.582.6747 / FAX: 207.582.7001  
44° 13' 49.50" N, 69° 46' 32" W, WGS84

## FEATURES

### NEW AND ENHANCED FEATURES

- Enhanced LAS dataset support
- Vector Tile Job Type
- Area Cropper and Layer Splitter
- NTF vector file support
- Enhanced Geodatabase Support
- Faster Batch Translation for Vector and CAD formats
- Enhanced interface for Point Data conversions
- DGN seed file support
- Read and write support for GPX data files
- Full support for HTDP Reference Frames and coordinate reference systems
- Enhanced support for Alberta Township System version 4.1.
- Support for legacy ATS grid formats using versions 2.1 through 3.2
- Support for AutoCAD 2010 formatted data files
- Area Calculation Tool
- Customized default coordinate system selection.
- Updated support for DGN direct coordinate system conversion.
- Now using EPSG database v7.6
- Projection Recovery for vector files

## WHAT'S INSIDE

### DATUM TRANSFORMATION METHODS

#### HORIZONTAL

- Best Fit using the Geographic Calculator
- Canadian National Transformation (NTv2)
- DMA Multiple Regression Equations
- Molodensky
- NGS HARN
- NGS NADCON
- Ordnance Survey Great Britain - OSTN02
- Seven Parameter Bursa/Wolfe
- Ten Parameter Molodensky-Badekas

#### VERTICAL

- Australia - AUSGEOID 98, AusGeoid2009
- Canadian Vertical Datum CVGD28
- Colombia - GEOCOL 04
- Denmark - DVR90
- France and Corsica - RAC09, RAF09
- Great Britain - OSTN02
- Iberia - IGM 95, IGG2005
- Japan - Japan Height Datum via GSIGEO2005
- Local Geodetic Datum Ellipsoid Height
- The Netherlands - NLGEO2004
- South Africa - SAGEOID2010
- United States - NAVD88, NGVD29 via Geoid 96, Geoid 99, Geoid 03, or Geoid 2009
- Worldwide - EGM96, EGM08, OSU91A

## ARCGIS EXTENSION

- Define coordinate transformations in ArcMap by area of use using both the Esri Projection Engine and Blue Marble's GeoCalc engine.
- Switch between geodetic definitions in the Blue Marble data source and those in ArcGIS
- Utilize your GeoCalc custom definitions in ArcGIS
- Compare data conversion results from ArcGIS and Blue Marble right in the Arc interface.
- Convert any feature class supported by ArcGIS with the Blue Marble GeoCalc datasource

## DATA FILE FORMATS

### POINT DATABASE FORMATS

- ODBC databases including MS SQL, MS Access, Oracle, MySQL, Postgres
- dBase
- Excel XLS
- ASCII text (including custom text file formats- UKOOA, for example)
- SEGP184, SEGP190
- Write to AutoCAD DWG/DXF
- MS Access
- Shell Processing Support

### INPUT VECTOR FILE FORMATS

- AutoCAD support through AutoCAD 2010 (\*.dwg, \*.dxf)
- Blue Marble Layers (\*.bml)
- Digital Line Graph (\*.dlg)
- ESRI ArcInfo Export (\*.e00)
- ESRI ArcInfo Generate (\*.gen)
- ESRI Shapefile (\*.shp)
- GML Simple Features - Ver 3.1.1 (\*.gml)
- Google Keyhole Markup Language (\*.kml)
- GPX Data File (\*.gpx)
- LiDAR Data Exchange - Ver 1.0 & 1.1 (\*.las)
- MapInfo Import (\*.mif)
- MapInfo Table (\*.tab)
- Microstation Design (\*.dgn)
- S-57 (\*.000)
- Spatial Data Transfer Standard (\*.catd.ddf)
- TIGER/Line (\*.rt1)
- Velocity File (\*.txt)

### OUTPUT VECTOR FILE FORMATS

- AutoCAD write support through AutoCAD 2010 (\*.dwg, \*.dxf)
- ESRI ArcInfo Export (\*.e00)
- ESRI ArcInfo Generate (\*.gen)
- ESRI Shapefile (\*.shp)
- GML Simple Features - Ver 3.1.1 (\*.gml)
- Google Keyhole Markup Language (\*.kml)
- GPX Data File (\*.gpx)
- LiDAR Data Exchange - Ver 1.0 & 1.1 (\*.las)
- MapInfo Import (\*.mif)
- MapInfo Table (\*.tab)
- Microstation Design (\*.dgn)
- Velocity File (\*.txt)

### SPATIAL DATABASES

- The Spatial Connect Module supports:
- ESRI Geodatabase
  - ArcSDE, Personal and File Geodatabase
  - Oracle
  - PostGIS

## MAP PROJECTIONS

- Aitoff
- Alaska State Plane 27
- Albers Equal-Area Conic
- Azimuthal Equal Area
- Azimuthal Equal Area (Polar Aspect)
- Azimuthal Equidistant
- Azimuthal Equidistant (Polar Aspect)
- Behrmann
- Belgium 72
- Bipolar Oblique Conic Conformal
- Bonne
- Cassini
- Craster Parabolic
- Danish System 34
- Danish System 34 (1999)
- Double Stereographic
- Eckert I, Eckert II, Eckert III
- Eckert IV, Eckert V, Eckert VI
- EO V (Egyseges Orszagos Vetulet)
- Equal-Area Cylindrical
- Equidistant Conic
- Equidistant Cylindrical
- European Stereographic
- Fuller (Dymaxion)
- Gall Stereographic
- Gnomonic
- Goode Homolosine
- Guam State Plane 27
- Hammer Aitoff
- HSO/RSO (Deprecated)
- IMW Polyconic
- Krovak
- Laborde
- Lambert Conformal Conic (1 parallel)
- Lambert Conformal Conic (2 parallel)
- Lambert Conformal Conic Extended
- Lambert State Plane 27
- Loximuthal
- McBryde-Thomas Flat-Polar Quartic
- Mercator
- Military Grid Reference System (Deprecated)
- Miller Cylindrical
- Mollweide
- New Zealand Map Grid
- Oblique Mercator Azimuth
- Oblique Mercator Two Point
- Orthographic
- Perspective Conic
- Polar Stereographic
- Polar Stereographic (Variant C)
- Polyconic
- Popular Visualisation Pseudo Mercator
- Quartic Authalic
- Robinson
- Sinusoidal
- Space Oblique Mercator
- Stereographic
- Stereographic 70
- Swiss Oblique Mercator
- Tilted Perspective
- Times
- Transverse Mercator (Gauss-Kruger)
- Transverse Mercator Extended
- Transverse Mercator Snyder
- Transverse Mercator South Oriented
- Transverse Mercator State Plane 27
- Two-Point Fit
- Universal Transverse Mercator
- V and H
- Van der Grinten
- Van der Grinten IV
- Vertical Perspective
- Winkel I, Winkel II, Winkel Tripel



# BLUE MARBLE GEOGRAPHICS

WHERE GIS DATA CONVERSION SOLUTIONS ARE BORN

397 WATER STREET, SUITE 100, GARDINER, MAINE 04345 USA  
800.616.2725 / +1.207.582.6747 / FAX: 207.582.7001  
44° 13' 49.50" N, 69° 46' 32" W, WGS84

WWW.BLUEMARBLEGEO.COM