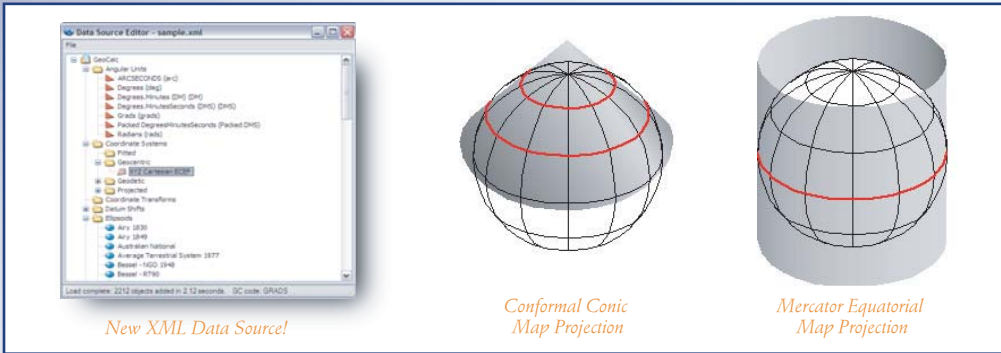


The Industry Leading Coordinate Transformation Library



New XML Data Source!

Conformal Conic Map Projection

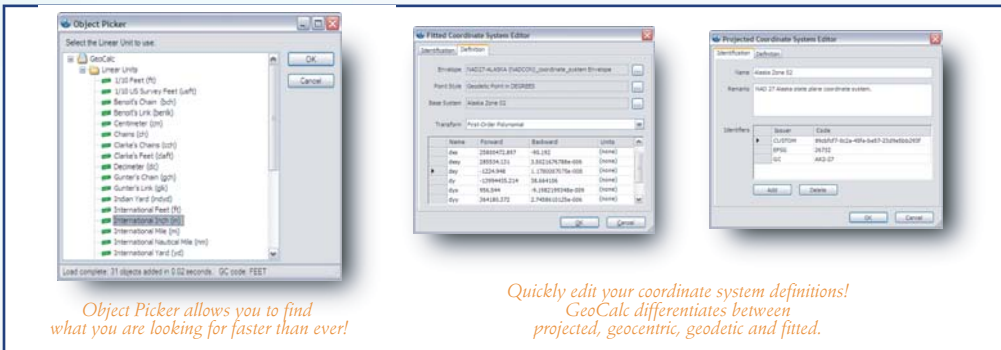
Mercator Equatorial Map Projection

GEODETTIC ENGINE AND LIBRARY

- Largest Coordinate System Library Available.
- Supports current and direct match to EPSG cloud hosted objects
- Optimized for speed.
- Support of Well Known Text and WKT 2,
- GML, PRJ and other syntax

LEAVE YOUR COORDINATE TRANSFORMATION HEADACHES BEHIND!

GeoCalc is the leading coordinate transformation "engine" for converting GIS and survey data from one coordinate system to another. The library provides a variety of mathematical transformation methods based on independent industry resources for accomplishing reliable, accurate and repeatable coordinate system transformation. GeoCalc has been used in applications worldwide since 1993 by leading industry companies in-particular house-hold name companies from Oil and Gas exploration, mining, software, survey hardware, all branches of federal and municipal government both U.S. domestic and international. GeoCalc has an unlimited geodetic datasource leveraging cloud hosted datasources and the tools to perform advanced geodetic, vertical, and time based calculations. Our flagship developer toolkit is an object-oriented class library that can be incorporated into applications written for multiple development platforms. GeoCalc can provide your GPS, surveying, engineering or mapping programs fast and accurate coordinate transformation capability. The latest release of GeoCalc features support for many worldwide historical magnetic models, support for Well Known Text 2 and new search functionality, and a friendlier and more intuitive dialog management system.



Object Picker allows you to find what you are looking for faster than ever!

Quickly edit your coordinate system definitions! GeoCalc differentiates between projected, geocentric, geodetic and fitted.

MULTIPLE PLATFORM SUPPORT

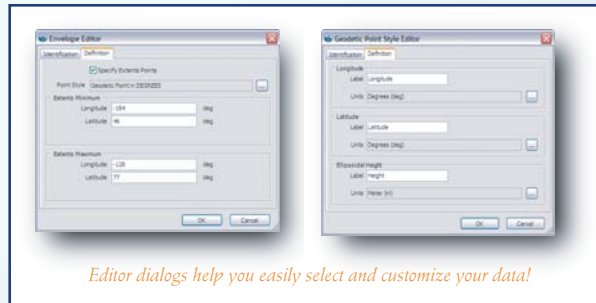
- C++, C++ class library, compatible with Linux, Solaris and Mac development environments.
- Java development with a standard JAR file available for integration.
- Also available for Fully Managed.NET and a .Net Wrapper

HOW SIMPLE IS IT?

The GeoCalc library includes many types of data objects – representing ellipsoids, datum transformation, and units of measure – all accessible within your code. Among these objects, GeoCalc supports all types of available coordinate reference systems. This version was designed to make it easier to find what you need, when you need it. The data source that GeoCalc uses to access and store object definitions provides methods for importing data from WKT, PRJ, GML, and many other various sources, including the new ISO WKT2 standard.

EPSG AREA OF USE POLYGON DATA

Area of Use polygons allow developers to create a method for guiding users with the most appropriate coordinate system or transformation for an area based on geopolitical bounding polygons that follow the borders of countries and similar areas around the world.



Editor dialogs help you easily select and customize your data!

THE MOST COMPLETE GEODETTIC DATASOURCE

- Read and Write coordinate systems and transformations that are compatible with any GIS
- Identifies objects by tags, assign multiple tags to one object.
- Simple, flexible text format designed for large-scale publishing

STREAMLINED ORGANIZATION!

Included in GeoCalc are pre-defined Windows dialogues that provide a convenient and intuitive way for end users to select, edit and organize their object definitions so you don't have to.

All object elements have common "child" elements that make customizations easy and consistent. Identifiers, tags, issuers and codes are all in place to give the developer a way to organize coordinate system parameters based on unique combinations assigned within the master data source file.



BLUE MARBLE GEOGRAPHICS

MIND THE GAP BETWEEN WORLD AND MAP
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 800.616.2725 / +1.207.622.4622 / FAX: 207.622.4656
 44° 17' 15.40" N, 69° 47' 24.55" W, WGS84
WWW.BLUEMARBLEGEO.COM

WHAT'S NEW

- New worldwide magnetic models
- Support for ISO 19162:2015 Well Known text definitions
- Create and use your own local geoid models
- Support and Display of EPSG Area of Use Polygon data
- Completely reworked Vertical Coordinate system handling
- Incorporated EPSG database v8.9
- Support for multiple concatenated transformations in a single process
- New String coordinate system class
- Coordinate reference Database updates
- New Helmert 4 Parameter and 3D Conformal Math transform types to help with CAD based local coordinate systems
- New vertical height offset method, and support for many new height models.
- Accuracy measurements have been added to all datum transformations.
- The datasource object has been updated to allow for the serialization of base geodetic object to GML versions 3.1 or 3.2.
- Deprecation identifiers have been added to all base GeoCalc object types.

VERTICAL MODELS

- Australia - AUSGEOID 98, AusGeoid09
- Belgium BG2003
- Canadian CCG2013, CVGD28
- Colombia - GEOCOL 04
- Denmark - DVR90
- Finnish 2000/N60 Height Models
- France and Corsica - RAC09, RAF09
- Great Britain - OSTN02
- Iberia - IGM 95, IGG2005
- Japan - Japan Height Datum via GSIGEO2005
- The Netherlands - NLGEO2004
- New Zealand Vertical Datum 2009
- NOAA/NGS VDATUM Tidal Models
- South Africa - SAGEOID2010
- United States - NAVD88, NGVD29 via Geoid 96, Geoid 99, Geoid 03, Geoid 2009, Geoid 2012a
- Venezuelan Geoid Model of 2004
- Worldwide - EGM96, EGM08, OSU91A
- Also supports local offset height models for vertical datum transformation

FEATURES

EASY TO USE INTERFACE

- Support for GML, and new ISO WKT2 definitions
- Easy redistribution and installation packaging
- Multiple platforms supported
- Access features of existing GeoCalc DLL
- .MAP and .PRJ support
- WKT (well-Known Text) support

EXTENSIBLE DATASOURCE THAT CONFORMS TO THE ISO 19111 MODEL

- Angular units
- Linear units
- Prime Meridians
- Ellipsoids
- Horizontal datums
- Cartesian point styles
- Geodetic point styles
- Projected point styles
- Envelopes
- Geocentric coordinate systems
- Geodetic coordinate systems
- Fitted coordinate systems
- Projected coordinate systems
- Coordinate transformations

SUPPORT FOR THE LATEST VERSION OF THE EPSG DATABASE

- Hundreds of new projected, geodetic, and geocentric, coordinate systems
- Many new datum shifts
- Many new vertical coordinate systems and transformations

MAGNETIC DECLINATION MODELS

- World Magnetic Model 2010
- World Magnetic Model 2015
- International Geomagnetic Reference Field 2011
- International Geomagnetic Reference Field 2012
- Gufm1 Historical Magnetic Model

PLATFORMS

- Windows C++
- Java
- Fully Managed .NET
- .NET Wrapper
- LINUX
- MacIntosh

MAP PROJECTIONS

- Albers Equal-Area Conic
- Azimuthal Equal Area
- Azimuthal Equidistant
- Behrmann
- Belgium 72
- Cassini
- Craster Parabolic
- Danish System 34
- Double Stereographic
- Equal-Area Cylindrical
- Equidistant Cylindrical
- Fuller (Dymaxion)
- Gall-Peters
- Gall Stereographic
- Lambert Conformal Conic (1 parallel, 2 parallel & Extended)
- Hammer Aitoff
- IMW Polyconic
- Krovak
- Laborde
- MGRS (Military Grid Reference System)
- Oblique Mercator Azimuth
- Polyconic
- Robinson
- Stereographic
- Transverse Mercator
- And Much More...

COORDINATE TRANSFORMATIONS

- Canadian National Transformation V2 (NTv2)
- Custom MRE
- ED50 to ED87 North Sea
- Four Parameter
- Geocentric Translation
- General Second Order Polynomial
- General Third Order Polynomial
- General Fourth Order Polynomial
- General Fifth Order Polynomial
- General Sixth Order Polynomial
- HTDP
- Longitude Rotation
- Madrid ED50 Polynomial Transformation
- Molodensky
- Molodensky-Badekas
- DMA Multiple Regression Equations
- NADCON/HARN
- NTF to RGF93 Grid Transformation
- Ordnance Survey National Grid Transform of 2002
- Seven Parameter CFR
- Seven Parameter PVR
- Six Parameter
- Time Dependent Helmert Transformation
- Tokyo to JGD2000 Grid Transformation
- And many more...



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