

GEOREFERENCING OVERVIEW

Georeferencing refers to the process of correcting raster or vector data to overlay a ground measurement coordinate system. This enables the assignment of ground coordinates to the different features in the datasets. If the map projection (and map projection parameters) of the ground coordinates are known, equivalent geographic coordinates (degrees of Latitude and Longitude) can be produced which enables positioning the features of the coverage into a World context. Once datasets are in a World context, they can be merged with others that exist in overlapping areas. This can be accomplished for datasets with the same or different map projections.

Datasets that are not georeferenced can also be displayed in Geomatica, but cannot be associated with a particular World location.

GEOREFERENCING IN GEOMATICA

Earth Models Supported by Image Processing Features:

Ellipsoid-Datum pairs supported include:

- Clark 1866-NAD27, WGS 1984-WGS84; GRS 1980-NAD83
- Other commonly used Ellipsoids and Datums
- User-Defined Ellipsoids and Datums.

Map Projections Supported by Image Processing Features:

- Albers Conical Equal-Area
- Azimuthal Equidistant
- Cassini (used in Malaysia)
- Equidistant Conic
- Equirectangular (Plate Carree)
- Gnomonic
- General Vertical Near-Side Perspective
- Goode Homolosine
- Integerized Sinusoidal
- Krovak
- Krovak Negative
- Lambert Azimuthal Equal-Area
- Lambert Azimuthal Equal-Area Auxiliary Sphere
- Lambert Conformal Conic
- Lebanese Stereographic
- Longitude/Latitude (Geographic)
- Miller Cylindrical
- Mercator
- Modified Stereographic Conformal
- New Zealand Map Grid
- Orthographic
- Oblique Mercator
- Polyconic



- Polar Stereographic
- Robinson
- RSO (Rectified Skew Orthomorphic)
- Stereographic
- Stereographic Double (used in New Brunswick Canada)
- Sinusoidal
- Space Oblique Mercator
- State Plane Coordinate System
- Transverse Mercator (Gauss- Kruger)
- Universal Polar Stereographic
- Universal Transverse Mercator
- Van der Grinten

Non-projections Supported for Display:

- Pixel
- Meter
- Foot
- UTM without a zone number

