

ISO Geodetic Registry

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|---------------------------|---|--|
| <i>Item class</i> | Transformation | |
| <i>Name</i> | IGS00 to IGb00 [IGS v1] | |
| <i>Item status</i> | VALID | |
| <i>Identifier</i> | 475 | |
| <i>Information source</i> | <i>Title</i> | IGS00 (v2) |
| | <i>Author</i> | R. Ferland |
| | <i>Publisher</i> | International GNSS Service (IGS) |
| | <i>Publication date</i> | 2003-10-09 |
| | <i>Edition date</i> | |
| | <i>Series/Journal name</i> | IGSMail |
| <i>Information source</i> | <i>Issue identification</i> | 4642.0 |
| | <i>Title</i> | Chronology of IGS Reference Frame Usage |
| | <i>Author</i> | International GNSS Service Analysis Centre Coordinator |
| | <i>Publisher</i> | National Oceanic and Atmospheric Administration (NOAA), National Geodetic Survey (NGS) |
| | <i>Publication date</i> | 2012-10-04 |
| | <i>Other citation details</i> | Website |
| <i>Data source</i> | ISO Geodetic Registry | |
| <i>Remarks</i> | Null transformation. IGS00 and IGb00 are both aligned to ITRF2000 and are treated as the same reference frame. Although the actual IGS00-IGb00 transformation parameters are not null, they are statistically insignificant and treated as null by the IGS. | |
| <i>Operation version</i> | IGS v1 | |
| <i>Scope</i> | Spatial referencing | |
| <i>Operation accuracy</i> | 0.0 m | |
| <i>Source CRS</i> | IGS00 - XYZ | |
| <i>Target CRS</i> | IGb00 - XYZ | |
| <i>Operation method</i> | Time-Dependent Position Vector Transformation (geocentric Cartesian domain) | |

Extent

| | | |
|--------------------------------|-----------------------------|--------|
| <i>Description</i> | World. | |
| <i>Geographic Bounding Box</i> | <i>West-bound longitude</i> | -180.0 |
| | <i>North-bound latitude</i> | 90.0 |
| | <i>East-bound longitude</i> | 180.0 |
| | <i>South-bound latitude</i> | -90.0 |

Operation parameter values

| | |
|---|--------------------------------|
| <i>Time reference</i> | 1998.0 year |
| <i>Rate of change of scale difference</i> | 0.0 parts per billion per year |
| <i>Rate of change of Z-axis rotation</i> | 0.0 milliarc-second per year |
| <i>Rate of change of Y-axis rotation</i> | 0.0 milliarc-second per year |
| <i>Rate of change of X-axis rotation</i> | 0.0 milliarc-second per year |
| <i>Rate of change of Z-axis translation</i> | 0.0 millimetre per year |
| <i>Rate of change of Y-axis translation</i> | 0.0 millimetre per year |
| <i>Rate of change of X-axis translation</i> | 0.0 millimetre per year |
| <i>Scale difference</i> | 0.0 parts per billion |
| <i>Z-axis rotation</i> | 0.0 milliarc-second |

| | |
|---------------------------|---------------------|
| <i>Y-axis rotation</i> | 0.0 milliarc-second |
| <i>X-axis rotation</i> | 0.0 milliarc-second |
| <i>Z-axis translation</i> | 0.0 millimetre |
| <i>Y-axis translation</i> | 0.0 millimetre |
| <i>X-axis translation</i> | 0.0 millimetre |

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|--------------------|--|
| <i>Item class</i> | OperationMethod |
| <i>Name</i> | Time-Dependent Position Vector Transformation (geocentric Cartesian domain) |
| <i>Item status</i> | VALID |
| <i>Identifier</i> | 82 |
| <i>Alias</i> | Time-Dependent 7-Parameter Transformation |
| <i>Alias</i> | 14-Parameter Transformation |
| <i>Alias</i> | Time-Dependent Position Vector Transformation |
| <i>Data source</i> | ISO Geodetic Registry |
| <i>Remarks</i> | Note the analogy with the rotation for the Time-dependent Coordinate Frame Transformation but beware of the differences! The Position Vector Transformation convention is used by IAG. |
| <i>Formula</i> | Geomatics Guidance Note No 7, part 2: Coordinate Conversions and Transformations including Formulas |

Operation parameters

| |
|---|
| <i>X-axis translation</i> |
| <i>Y-axis translation</i> |
| <i>Z-axis translation</i> |
| <i>X-axis rotation</i> |
| <i>Y-axis rotation</i> |
| <i>Z-axis rotation</i> |
| <i>Scale difference</i> |
| <i>Rate of change of X-axis translation</i> |
| <i>Rate of change of Y-axis translation</i> |
| <i>Rate of change of Z-axis translation</i> |
| <i>Rate of change of X-axis rotation</i> |
| <i>Rate of change of Y-axis rotation</i> |
| <i>Rate of change of Z-axis rotation</i> |
| <i>Rate of change of scale difference</i> |
| <i>Time reference</i> |