ISO Geodetic Registry

Item class Transformation

Name ITRF88 to ITRF89 [IERS v1]

Item statusVALIDIdentifier669

Information source Title IERS Conventions (2010)
Author G. Petit, B.J. Luzum (eds)

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Geodasie

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Information source Title ITRF 89 and other realizations of the IERS

Terrestrial Reference System for 1989

Author C. Boucher, Z. Altamimi

Publisher Central Bureau of IERS - Observatoire de Paris,

61 avenue de l'Observatoire, 75014 Paris, France

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Remarks No rates of change were estimated for the transformation parameters.

Operation version IERS v1

Scope Spatial referencing

Operation accuracy 0.01 m

Source CRS ITRF88 - XYZ
Target CRS ITRF89 - XYZ

Operation method Position Vector Transformation (geocentric Cartesian domain)

Extent

Data source

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

Operation parameter values

| X-axis translation | 5.0 millimetre | |
|--------------------|------------------------|--|
| Y-axis translation | 36.0 millimetre | |
| Z-axis translation | 24.0 millimetre | |
| X-axis rotation | 0.0 milliarc-second | |
| Y-axis rotation | 0.0 milliarc-second | |
| Z-axis rotation | 0.0 milliarc-second | |
| Scale difference | -3.0 parts per billion | |

ISO Geodetic Registry

Item class OperationMethod

Name Position Vector Transformation (geocentric

Cartesian domain)

Item statusVALIDIdentifier88

Alias 7-Parameter Transformation

Alias Bursa-Wolf Transformation

Alias Position Vector Transformation

Alias Helmert Transformation

Data source ISO Geodetic Registry

Remarks This method is a specific case of the Molodensky-Badekas (PV)

method in which the evaluation point is the geocentre with coordinate

values of zero. Note the analogy with the Coordinate Frame

Transformation method but beware of the differences!

Formula Geomatics Guidance Note No 7, part 2: Coordinate Conversions and

Transformations including Formulas

Operation parameters

X-axis translation
Y-axis translation
Z-axis translation
X-axis rotation
Y-axis rotation
Y-axis rotation
Z-axis rotation
Scale difference