# ISO Geodetic Registry

Item class Transformation

Name ITRF2008 to IGS08 [IGS v1]

Item status VALID Identifier 641

Information source Title Chronology of IGS Reference Frame Usage

Author International GNSS Service Analysis Centre

Coordinator

Publisher National Oceanic and Atmospheric Administration

(NOAA), National Geodetic Survey (NGS)

Publication date 2012-10-04 Other citation details Website

Information source Title Upcoming switch to IGS08/igs08.atx

Author P. Rebischung, R. Schmid, J. Ray Publisher International GNSS Service (IGS)

Publication date 2011-03-07

Edition date

Series/Journal name IGSMAIL Issue identification 6354.0

Information source Title IGS08: the IGS realization of ITRF2008

AuthorP. RebischungPublisherSpringerPublication date2012-10-01

Edition date

Series/Journal name GPS Solutions
Issue identification Volume 16, Issue 4

Data source ISO Geodetic Registry

Remarks Null transformation. IGS08 is aligned to ITRF2008 and is treated as the

same reference frame.

Operation version IGS v1

Scope Spatial referencing

Operation accuracy 0.0 m

Source CRS ITRF2008 - XYZ
Target CRS IGS08 - XYZ

Operation method Time-Dependent Position Vector Transformation (geocentric Cartesian

domain)

#### Extent

| 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 | 0.0 millimetre      |
|--------------------|---------------------|
| Y-axis translation | 0.0 millimetre      |
| Z-axis translation | 0.0 millimetre      |
| X-axis rotation    | 0.0 milliarc-second |
| Y-axis rotation    | 0.0 milliarc-second |
| Z-axis rotation    | 0.0 milliarc-second |

| Scale difference                     | 0.0 parts per billion          |
|--------------------------------------|--------------------------------|
| Rate of change of X-axis translation | 0.0 millimetre per year        |
| Rate of change of Y-axis translation | 0.0 millimetre per year        |
| Rate of change of Z-axis translation | 0.0 millimetre per year        |
| Rate of change of X-axis rotation    | 0.0 milliarc-second per year   |
| Rate of change of Y-axis rotation    | 0.0 milliarc-second per year   |
| Rate of change of Z-axis rotation    | 0.0 milliarc-second per year   |
| Rate of change of scale difference   | 0.0 parts per billion per year |
| Time reference                       | 2005.0 year                    |

# **ISO Geodetic Registry**

Item class OperationMethod

Name Time-Dependent Position Vector

**Transformation (geocentric Cartesian domain)** 

Item statusVALIDIdentifier82

Alias Time-Dependent 7-Parameter Transformation

Alias 14-Parameter Transformation

Alias Time-Dependent Position Vector Transformation

Data source ISO Geodetic Registry

Remarks 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.

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

Z-axis rotation

Scale difference

Rate of change of X-axis translation

Rate of change of Y-axis translation

Rate of change of Z-axis translation

Rate of change of X-axis rotation

Rate of change of Y-axis rotation

Rate of change of Z-axis rotation

Rate of change of scale difference

Time reference