ISO Geodetic Registry

Item class Transformation

Name ITRF88 to ITRF2014 [IERS v1]

Item statusVALIDIdentifier603

Information source Title Transformation parameters from ITRF2014 to

past ITRFs

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Publisher Institut National de l'Information Geographique et

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Geodesie (LAREG)

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Other citation details Website

Data source ISO Geodetic Registry

Remarks The IERS citation describes the ITRF2014 to ITRF88 transformation.

Accuracy of transformation is given at the reference epoch for the transformation parameters. Accuracy at other epochs depends on the accuracies of the parameters at the reference epoch and their rates of change. Refer to citations for accuracies of the parameters and their

rates of change.

Operation version IERS v1

Scope Spatial referencing

Operation accuracy 0.001 m

Source CRS ITRF88 - XYZ

Target CRS ITRF2014 - 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	-25.4 millimetre
Y-axis translation	0.5 millimetre
Z-axis translation	154.8 millimetre
X-axis rotation	-0.1 milliarc-second
Y-axis rotation	0.0 milliarc-second
Z-axis rotation	-0.26 milliarc-second
Scale difference	-11.29 parts per billion
Rate of change of X-axis translation	-0.1 millimetre per year
Rate of change of Y-axis translation	0.5 millimetre per year
Rate of change of Z-axis translation	3.3 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
Rate of change of scale difference
Time reference

-0.02 milliarc-second per year -0.12 parts per billion per year 2010.0 year

ISO Geodetic Registry

Item class OperationMethod

Name Time-Dependent Position Vector

Transformation (geocentric Cartesian domain)

Item status VALID
Identifier 82

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