ISO Geodetic Registry

Item class Transformation

Name ITRF2014 to IGS14 [IGS v1]

Item status VALID
Identifier 557

Information source Title Velocity model for SIRGAS 2017: VEMOS2017

Author L. Sanchez, H. Drewes

Publisher Sistema de Referencia Geocéntrico para las

Américas (SIRGAS)

Publication date 2018-08-14

Other citation details In supplement to: Drewes H. and Sanchez

L. (2017) The varying surface kinematics in Latin America: VEMOS 2009, 2015, and 2017, Symposium SIRGAS2017. Mendoza, Argentina.

November 28, 2017

Information source Title Sistema de Referencia Geocentrico para las

Americas (SIRGAS)

Author Sistema de Referencia Geocéntrico para las

Américas (SIRGAS)

Publisher Sistema de Referencia Geocéntrico para las

Américas (SIRGAS)

Publication date 2018
Other citation details Website

Information source Title Upcoming switch to IGS14/igs14.atx

Author P. Rebischung

Publisher International GNSS Service (IGS)

Publication date 2016-12-21 Series/Journal name IGSMAIL Issue identification 7399.0

Data source ISO Geodetic Registry

Remarks Null transformation. IGS14 is aligned to ITRF2014 and is treated as the

same reference frame.

Operation version IGS v1

Scope Spatial referencing

Operation accuracy 0.0 m

Source CRS ITRF2014 - XYZ
Target CRS IGS14 - 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

Time reference 2010.0 year

Rate of change of scale difference

Rate of change of Z-axis rotation

O.0 parts per billion per year

0.0 milliarc-second per year

0.0 milliarc-second per year

0.0 milliarc-second per year

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

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