

ISO Geodetic Registry

<i>Item class</i>	Transformation	
<i>Name</i>	ITRF2020 to IGS20 [IGS v1]	
<i>Item status</i>	VALID	
<i>Identifier</i>	983	
<i>Information source</i>	<i>Title</i>	Upcoming switch to IGS20/igs20.atx and repro3 standards
	<i>Author</i>	Arturo Villiger
	<i>Publisher</i>	International GNSS Service (IGS)
	<i>Publication date</i>	2022-07-26
	<i>Series/Journal name</i>	IGSMail
	<i>Issue identification</i>	8238
	<i>Other citation details</i>	https://lists.igs.org/pipermail/igs20/2022/008234.html (accessed 2023-01-27)
<i>Information source</i>	<i>Title</i>	Switch of the IGS products to the IGS20.igs20.atx, repro3 standards and long filenames
	<i>Author</i>	Salim Masoumi
	<i>Publisher</i>	International GNSS Service (IGS)
	<i>Publication date</i>	2022-11-25
	<i>Series/Journal name</i>	IGSMail
	<i>Issue identification</i>	8282
	<i>Other citation details</i>	https://lists.igs.org/pipermail/igs20/2022/008278.html (accessed 2023-01-27)
<i>Data source</i>	ISO Geodetic Registry	
<i>Remarks</i>	Null transformation. IGS20 is aligned to ITRF2020 and is treated as the same reference frame.	
<i>Operation version</i>	IGS v1	
<i>Scope</i>	Spatial referencing	
<i>Operation accuracy</i>	0.0 m	
<i>Source CRS</i>	ITRF2020 - XYZ	
<i>Target CRS</i>	IGS20 - 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>X-axis translation</i>	0.0 millimetre
<i>Y-axis translation</i>	0.0 millimetre
<i>Z-axis translation</i>	0.0 millimetre
<i>X-axis rotation</i>	0.0 milliarc-second
<i>Y-axis rotation</i>	0.0 milliarc-second
<i>Z-axis rotation</i>	0.0 milliarc-second
<i>Scale difference</i>	0.0 parts per billion
<i>Rate of change of X-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 Z-axis translation</i>	0.0 millimetre per year
<i>Rate of change of X-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 Z-axis rotation</i>	0.0 milliarc-second per year
<i>Rate of change of scale difference</i>	0.0 parts per billion per year
<i>Time reference</i>	2015.0 year

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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>