ISO Geodetic Registry

Item class	Transformation	
Name	**ITRF90 to ITRF91 [IERS v1]**	
Item status	VALID	
Identifier	719	
Information source	*Title*	ITRF 91 and its associated velocity field
	Author	C. Boucher, Z. Altamimi, L. Duhem
	Publisher	Central Bureau of IERS - Observatoire de Paris, 61 avenue de l'Observatoire, 75014 Paris, France
	Publication date	1992-10-01
	Edition date	
	Series/Journal name	IERS Technical Notes
	Issue identification	12.0
Information source	*Title*	IERS Conventions (2010)
	Author	G. Petit, B.J. Luzum (eds)
	Publisher	Verlag des Bundesamts fur Kartographie und Geodasie
	Publication date	2010
	Edition date	
	Series/Journal name	IERS Technical Notes
	Issue identification	36.0
	Other citation details	ISSN: 1019-4568
Data source	ISO Geodetic Registry	
Remarks	No rates of change were estimated for the transformation parameters.	
Operation version	IERS v1	
Scope	Spatial referencing	
Operation accuracy	0.007 m	
Source CRS	ITRF90 - XYZ	
Target CRS	ITRF91 - XYZ	
Operation method	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	-0.1 centimetre
Y-axis translation	0.4 centimetre
Z-axis translation	1.6 centimetre
X-axis rotation	0.0 milliarc-second
Y-axis rotation	0.0 milliarc-second
Z-axis rotation	0.0 milliarc-second
Scale difference	-0.3 parts per billion

ISO Geodetic Registry

Item class	OperationMethod
Name	**Position Vector Transformation (geocentric Cartesian domain)**
Item status	VALID
Identifier	88
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
Z-axis rotation
Scale difference