ISO Geodetic Registry

Item class	GeodeticCRS	
Name	**ITRF2000 - XYZ**	
Item status	VALID	
Identifier	419	
Alias	IERS Terrestrial Reference Frame 2000	
Alias	International Terrestrial Reference Frame 2000	
Information source	*Title*	The ITRF2000
	Author	C. Boucher, Z. Altamimi, P. Sillard, M. Feissel-Vernier
	Publisher	International Earth Rotation and Reference Systems Service Central Bureau, Verlag des Bundesamts fur Kartographie und Geodasie, Frankfurt am Main, Germany
	Publication date	2004-01-01
	Edition date	
	Series/Journal name	IERS Technical Notes
	Issue identification	31.0
Information source	*Title*	Effect of recent revisions to the geomagnetic reversal time scale on estimates of current plate motions
	Author	C.S. DeMets, R.G. Gordon, D.F. Argus, S. Stein
	Publisher	American Geophysical Union
	Publication date	1994-10-01
	Edition date	
	Series/Journal name	Geophysical Research Letters
	Issue identification	Volume 21, Issue 20
Information source	*Title*	IERS Message No. 5: ITRF2000 Primary Solution
	Author	C. Boucher, Z. Altamimi
	Publication date	2001-03-19
	Edition date	
	Series/Journal name	IERS Message
	Issue identification	5.0
Data source	ISO Geodetic Registry	
Remarks	Replaces ITRF97 - XYZ . Replaced by ITRF2005 - XYZ .	
Scope	Spatial referencing	
Datum	International Terrestrial Reference Frame 2000	
Coordinate System	Geocentric 3D right-handed Cartesian CS. Axes: Geocentric X,Y,Z. Orientation: Z to North Pole, [X and Y in the equatorial plane, X at Prime Meridian | X in the equatorial plane at the Prime Meridian]. UoM: m.	

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

ISO Geodetic Registry

Item class	GeodeticDatum	
Name	**International Terrestrial Reference Frame 2000**	
Item status	VALID	
Identifier	165	
Alias	IERS Terrestrial Reference Frame 2000	
Alias	ITRF2000	
Information source	*Title*	Effect of recent revisions to the geomagnetic reversal time scale on estimates of current plate motions
	Author	C.S. DeMets, R.G. Gordon, D.F. Argus, S. Stein
	Publisher	American Geophysical Union
	Publication date	1994-10-01
	Edition date	
	Series/Journal name	Geophysical Research Letters
	Issue identification	Volume 21, Issue 20
Information source	*Title*	IERS Message No. 5: ITRF2000 Primary Solution
	Author	C. Boucher, Z. Altamimi
	Publication date	2001-03-19
	Edition date	
	Series/Journal name	IERS Message
	Issue identification	5.0
Information source	*Title*	The ITRF2000
	Author	C. Boucher, Z. Altamimi, P. Sillard, M. Feissel-Vernier
	Publisher	International Earth Rotation and Reference Systems Service Central Bureau, Verlag des Bundesamts fur Kartographie und Geodasie, Frankfurt am Main, Germany
	Publication date	2004-01-01
	Edition date	
	Series/Journal name	IERS Technical Notes
	Issue identification	31.0
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	Replaces ITRF97. Replaced by ITRF2005. This is a purely Cartesian reference frame with no ellipsoid defined. GRS80 is the ellipsoid recommended by the IAG and IERS.	
Anchor definition	Realisation of the IERS Terrestrial Reference System (ITRS) at reference epoch 1997.0. Origin is defined by satellite laser ranging (SLR). Scale is defined by SLR and very long baseline interferometry. Orientation is aligned to the ITRF97 at epoch 1997.0, and its time evolution follows that of the no-net-rotation NNR-NUVEL-1A geophysical model. Datum defined by a set of 3 dimensional Cartesian station coordinates and velocities given by the citations.	
Release date	2001-03-19	
Coordinate Reference Epoch	1997.0	
Scope	Spatial referencing	

Ellipsoid	GRS 1980
Prime Meridian	Greenwich

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

ISO Geodetic Registry

Item class	Ellipsoid	
Name	**GRS 1980**	
Item status	VALID	
Identifier	27	
Alias	Geodetic Reference System 1980	
Alias	GRS1980	
Alias	IAG GRS80	
Alias	International 1979	
Alias	GRS80	
Information source	*Title*	Geodetic Reference System 1980
	Author	H. Moritz
	Publisher	Springer International Publishing
	Publication date	2003-03
	Series/Journal name	Journal of Geodesy
	Issue identification	Volume 74, No. 1
	Page	128–162
Information source	*Title*	Geodetic Reference System 1980
	Author	H. Moritz
	Publisher	International Association of Geodesy
	Publication date	1984
	Series/Journal name	Bulletin Geodesique
	Issue identification	Volume 58, No. 3
	Page	395-405
Data source	ISO Geodetic Registry	
Remarks	Adopted by IUGG 1979 Canberra. Inverse flattening is derived from geocentric gravitational constant GM = 3986005e8 m*m*m/s/s, dynamic form factor J2 = 108263e-8 and Earth's angular velocity = 7292115e-11 rad/s.	
Semi-major axis	6378137.0 m	
Inverse flattening	298.257222101 m	

ISO Geodetic Registry

Item class	PrimeMeridian	
Name	**Greenwich**	
Item status	VALID	
Identifier	25	
Alias	Zero meridian	
Information source	*Title*	Why the Greenwich meridian moved
	Author	S. Malys, J.H. Seago, N.K. Pavlis, P.K. Seidelmann, G.H. Kaplan
	Publisher	Springer International Publishing
	Publication date	2015-12
	Series/Journal name	Journal of Geodesy
	Issue identification	Volume 89, No. 12
	Page	1263–1272
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	
Greenwich longitude	0.0 °	

ISO Geodetic Registry

Item class	CartesianCS	
Name	**Geocentric 3D right-handed Cartesian CS. Axes: Geocentric X,Y,Z. Orientation: Z to North Pole, [X and Y in the equatorial plane, X at Prime Meridian | X in the equatorial plane at the Prime Meridian]. UoM: m.**	
Item status	VALID	
Identifier	45	
Alias	Earth centred, earth fixed, right-handed 3D coordinate system, consisting of 3 orthogonal axes with X and Y axes in the equatorial plane, positive Z-axis parallel to mean earth rotation axis and pointing towards North Pole. UoM: m.	
Alias	ECEF	
Information source	*Title*	ISO 19111 Geographical information - Spatial referencing by coordinates
	Author	International Organization for Standardization (ISO)
	Publisher	International Organization for Standardization (ISO)
	Publication date	2007-07-01
	Edition	Second Edition
	Series/Journal name	International Standard
	Issue identification	ISO 19111:2007
Data source	ISO Geodetic Registry	
Remarks	Used in geocentric coordinate reference systems.	

Axes

Item class	CoordinateSystemAxis	
Name	**Geocentric X**	
Item status	VALID	
Identifier	33	
Information source	*Title*	ISO 19111 Geographical information - Spatial referencing by coordinates
	Author	International Organization for Standardization (ISO)
	Publisher	International Organization for Standardization (ISO)
	Publication date	2007-07-01
	Edition	Second Edition
	Series/Journal name	International Standard
	Issue identification	ISO 19111:2007
Data source	ISO Geodetic Registry	
Abbreviation	X	
Direction	Geocentre > equator/0°E	
Unit	metre	

Item class	CoordinateSystemAxis
Name	**Geocentric Y**
Item status	VALID
Identifier	37

Information source	*Title*	ISO 19111 Geographical information - Spatial referencing by coordinates
	Author	International Organization for Standardization (ISO)
	Publisher	International Organization for Standardization (ISO)
	Publication date	2007-07-01
	Edition	Second Edition
	Series/Journal name	International Standard
	Issue identification	ISO 19111:2007
Data source	ISO Geodetic Registry	
Abbreviation	Y	
Direction	Geocentre > equator/90°E	
Unit	metre	

Item class	CoordinateSystemAxis	
Name	**Geocentric Z**	
Item status	VALID	
Identifier	39	
Information source	*Title*	ISO 19111 Geographical information - Spatial referencing by coordinates
	Author	International Organization for Standardization (ISO)
	Publisher	International Organization for Standardization (ISO)
	Publication date	2007-07-01
	Edition	Second Edition
	Series/Journal name	International Standard
	Issue identification	ISO 19111:2007
Data source	ISO Geodetic Registry	
Abbreviation	Z	
Direction	Geocentre > north pole	
Unit	metre	