ISO Geodetic Registry

Item class	GeodeticDatum	
Name	**International Terrestrial Reference Frame 2005**	
Item status	VALID	
Identifier	105	
Alias	ITRF2005	
Alias	IERS Terrestrial Reference Frame 2005	
Information source	*Title*	National Vertical Control Network - Notice of Final Action
	Author	US Government
	Publisher	Office of Federal Register, NARA
	Publication date	1976-05-14
	Edition date	1976-05-17
	Series/Journal name	Federal Register Notice
	Issue identification	Volume 41, No. 96, Document 76-14245
	Page	20202.0
	Other citation details	Formally adopted usage of NGVD 29 as datum name
Information source	*Title*	ITRF2005: A new release of the International Terrestrial Reference Frame based on time series of station positions and Earth Orientation Parameters
	Author	Z. Altamimi, X. Collilieux, J. Legrand, B. Garayt, C. Boucher
	Publisher	American Geophysical Union
	Publication date	2007-09-07
	Edition date	
	Series/Journal name	Journal of Geophysical Research
	Issue identification	Vol 112
Information source	*Title*	ITRF2005 on line 2006-10-05
	Author	IERS
	Publication date	2006-10-05
	Edition date	
	Series/Journal name	IERS Message
	Issue identification	97.0
Data source	ISO Geodetic Registry	
Remarks	Replaces ITRF2000. Replaced by ITRF2008. 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 2000.0. Origin at geocentre, originally orientated to the BIH Terrestrial System at epoch 1984.0 then adjusted to ensure zero net rotation to earth's overall tectonic motion. Origin is defined such that there are null translation parameters at epoch 2000.0 and null translation rates between the ITRF2005 and the ILRS SLR time series. Scale is defined such that there are null scale factor at epoch 2000.0 and null scale rate between the ITRF2005 and IVS VLBI time series. Orientation is defined such that there are null rotation parameters at epoch 2000.0 and null rotation rates between the ITRF2005 and ITRF2000. Datum defined by a set of 3 dimensional Cartesian station coordinates and velocities given by the citations.	
Release date	2006-10-05	
Coordinate Reference Epoch	2000.0	
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

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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	

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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 °	