ISO Geodetic Registry

Item class	GeodeticCRS	
Name	**WGS 84 TRANSIT - XYZ**	
Item status	VALID	
Identifier	272	
Alias	WGS84	
Alias	WGS 84	
Information source	*Title*	Department of Defense World Geodetic System 1984: Its Definition and Relationships with Local Geodetic Systems
	Author	Defense Mapping Agency
	Publisher	Defense Mapping Agency
	Publication date	1987-09-30
	Edition date	1987-09-30
	Series/Journal name	Technical Report
	Issue identification	TR8350.2
Information source	*Title*	World Geodetic System 1984
	Author	L.B. Decker, Defense Mapping Agency Aerospace Center
	Publisher	Defense Mapping Agency Aerospace Center
	Publication date	1986-04
	Edition date	
Information source	*Title*	Department of Defense World Geodetic System 1984: Its Definition and Relationships with Local Geodetic Systems
	Author	Defense Mapping Agency
	Publisher	Defense Mapping Agency
	Publication date	1991-09-01
	Edition	Second Edition
	Edition date	1991-09-01
	Series/Journal name	Technical Report
	Issue identification	TR8350.2
Data source	ISO Geodetic Registry	
Scope	Spatial referencing and GPS satellite navigation.	
Datum	World Geodetic System 1984 TRANSIT	
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

Item class	GeodeticDatum		
Name	**World Geodetic System 1984 TRANSIT**		
Item status	VALID		
Identifier	156		
Alias	WGS84		
Alias	WGS 84		
Information source	Title	World Geodetic System 1984	
	Author	L.B. Decker, Defense Mapping Agency Aerospace Center	
	Publisher	Defense Mapping Agency Aerospace Center	
	Publication date	1986-04	
	Edition date		
Information source	Title	Department of Defense World Geodetic System 1984: Its Definition and Relationships with Local Geodetic Systems	
	Author	Defense Mapping Agency	
	Publisher	Defense Mapping Agency	
	Publication date	1987-09-30	
	Edition date	1987-09-30	
	Series/Journal name	Technical Report	
	Issue identification	TR8350.2	
Information source	Title	Department of Defense World Geodetic System 1984: Its Definition and Relationships with Local Geodetic Systems	
	Author	Defense Mapping Agency	
	Publisher	Defense Mapping Agency	
	Publication date	1991-09-01	
	Edition	Second Edition	
	Edition date	1991-09-01	
	Series/Journal name	Technical Report	
	Issue identification	TR8350.2	
Data source	ISO Geodetic Registry		
Remarks	Replaced by WGS 84 (G730) 1994-01-02.		
Anchor definition	The origin, scale and orientation of WGS 84 are nominally defined to be that for the BIH Terrestrial System 1984 (BTS84) with origin at the geocentre. Stations in the Doppler reference frame NWL 9D were brought into alignment with BTS 84 using an internationally adopted transformation.		
Release date	1987-01-01		
Scope	Spatial Referencing and GPS satellite navigation		
Ellipsoid	WGS 84		
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	**WGS 84**	
Item status	VALID	
Identifier	30	
Alias	WGS84	
Information source	*Title*	Department of Defense World Geodetic System 1984: Its Definition and Relationships with Local Geodetic Systems, Version 1.0.0
	Author	National Geospatial-Intelligence Agency
	Publisher	National Geospatial-Intelligence Agency
	Publication date	2014-07-08
	Series/Journal name	Standardization Document
	Issue identification	NGA.STND.0036_1.0.0_WGS84
Information source	*Title*	World Geodetic System 1984
	Author	L.B. Decker, Defense Mapping Agency Aerospace Center
	Publisher	Defense Mapping Agency Aerospace Center
	Publication date	1986-04
	Edition date	
Information source	*Title*	Refinements to The World Geodetic System 1984
	Author	S. Malys, J.A. Slater, R.W. Smith, L.E. Kunz, S.C. Kenyon
	Publisher	Institute of Navigation
	Publication date	1997-09
	Edition date	
	Series/Journal name	Proceedings of the 10th International Technical Meeting of the Satellite Division of The Institue of Navigation (ION-GPS-1997), Kansas City, MO, September 1997
	Page	841-850
Data source	ISO Geodetic Registry	
Remarks	The World Geodetic System 1984 (WGS 84) contains four defining physical parameters for the Earth: the semi-major axis (a), the reciprocal of flattening (1/f) of an oblate spheroid of revolution, the geocentric gravitational constant (GM = 3.986004418e14 m^3/s^2) includes the mass of the atmosphere, and the Earth's angular rotational velocity about its spin axis (omega = 7.2921150e-5 rad/s).	
Semi-major axis	6378137.0 m	
Inverse flattening	298.2572236 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	