Item class GeodeticCRS

Name ITRF2008 - LatLon

Item statusVALIDIdentifier392

Alias IERS Terrestrial Reference Frame 2008

Alias International Terrestrial Reference Frame 2008

Information source Title Analysis and results of ITRF2008

Author Z. Altamimi, X. Collilieux, L. Metivier
Publisher International Earth Rotation and Refere

lisher International Earth Rotation and Reference Systems Service Central Bureau, Verlag des

Bundesamts fur Kartographie und Geodasie,

Frankfurt am Main, Germany Publication date 2012-01-01

Edition date

Series/Journal name IERS Technical Notes

Issue identification 37.0

Information source Title ITRF2008 is available on line

Author IERS Publication date 2010-05-31

Edition date

Series/Journal name IERS Message

Issue identification 164.0

Data source ISO Geodetic Registry

Remarks Replaces ITRF2005 - LatLon. Replaced by ITRF2014 - LatLon.

Scope Spatial referencing

Datum International Terrestrial Reference Frame 2008

Coordinate System Ellipsoidal 2D CS. Axes: latitude, longitude. Orientations: north, east.

UoM: degree

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 International Terrestrial Reference Frame 2008

Item status VALID
Identifier 179

Alias IERS Terrestrial Reference Frame 2008

Alias ITRF2008

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

Information source Title ITRF2008 is available on line

Author IERS
Publication date 2010-05-31

Edition date

Series/Journal name IERS Message

Issue identification 164.0

Information source Title Analysis and results of ITRF2008

Author Z. Altamimi, X. Collilieux, L. Metivier

Publisher International Earth Rotation and Reference

Systems Service Central Bureau, Verlag des Bundesamts fur Kartographie und Geodasie,

Frankfurt am Main, Germany

Publication date 2012-01-01

Edition date

Series/Journal name IERS Technical Notes

Issue identification 37.0

Data source ISO Geodetic Registry

Remarks Replaces ITRF2005. Replaced by ITRF2014. 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 2005.0. Origin is defined such that it has zero

translations and translation rates with respect to the mean Earth center of mass, averaged by the SLR station positions time series. Scale is defined by nullifying the scale factor and its rate with respect to the mean of VLBI and SLR long-term solutions as obtained by stacking their respective time series. Orientation (at epoch 2005.0) and its rate are aligned to the ITRF2005 using 179 stations of high geodetic quality. Datum defined by a set of 3 dimensional Cartesian station coordinates

and velocities given by the citations.

Release date 2010-05-31 Coordinate Reference Epoch 2005.0

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	

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

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 °

Item class EllipsoidalCS

Name Ellipsoidal 2D CS. Axes: latitude, longitude.

Orientations: north, east. UoM: degree

Item status VALID

Identifier 43

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 geographic 2D coordinate reference systems. Coordinates

referenced to this CS are in degrees. Any degree representation (e.g. DMSH, decimal, etc.) may be used but that used must be declared for

the user by the supplier of data.

Axes

Item class CoordinateSystemAxis

Name Geodetic latitude

Item status VALID
Identifier 38

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 geographic 2D and geographic 3D coordinate reference

systems.

Abbreviation Lat
Direction north

Unit degree (supplier to define representation)

Item class CoordinateSystemAxis

Name Geodetic longitude

Item status VALID
Identifier 34

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 geographic 2D and geographic 3D coordinate reference

systems.

Abbreviation Lon
Direction east

Unit degree (supplier to define representation)