Item class GeodeticCRS

Name ITRF88 - LatLonEHt

Item status VALID
Identifier 400

Alias IERS Terrestrial Reference Frame 1988

Alias International Terrestrial Reference Frame 1988

Information source Title The initial IERS Terrestrial Reference Frame

Author C. Boucher, Z. Altamimi

Publisher Central Bureau of IERS - Observatoire de Paris,

61 avenue de l'Observatoire, 75014 Paris, France

Publication date 1989-06

Edition date

Series/Journal name IERS Technical Notes

Issue identification 1.0

Information source Title IERS Annual Report for 1988

Author IERS

Publisher Central Bureau of IERS - Observatoire de Paris,

61 avenue de l'Observatoire, 75014 Paris, France

Publication date 1989-06-01

Edition date

Data source ISO Geodetic Registry

Remarks Replaced by ITRF89 - LatLonEHt.

Scope Spatial referencing

Datum International Terrestrial Reference Frame 1988

Coordinate System Ellipsoidal 3D CS. Axes: latitude, longitude, ellipsoidal height.

Orientations: north, east, up. UoM: degree, degree, metre.

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 1988

Item status VALID Identifier 154

Alias IERS Terrestrial Reference Frame 1988

Alias ITRF88

Information source

Information source Title The initial IERS Terrestrial Reference Frame

Author C. Boucher, Z. Altamimi

Publisher Central Bureau of IERS - Observatoire de Paris,

61 avenue de l'Observatoire, 75014 Paris, France

Publication date 1989-06

Edition date

Series/Journal name IERS Technical Notes

Issue identification 1.0

Information source Title Geodetic Reference System 1967

Author International Association of Geodesy Publisher International Association of Geodesy

Publication date 1971-08

Edition date

Series/Journal name Bulletin Géodésique

Issue identification Publication speciale no. 3
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 IERS standards (1989)

Author D.D. McCarthy, C. Boucher, R. Eanes, T.

Fukushima, T. Herring, J. Lieske, C. Ma, H. Montag, P. Paquet, C. Reigber, J. Ries, B.E. Schutz, E.M. Standish, C. Veillet, J. Wahr

Publisher Central Bureau of IERS - Observatoire de Paris,

61 avenue de l'Observatoire, 75014 Paris, France

Publication date 1989-11-01

Edition date

Series/Journal name IERS Technical Notes

Issue identification 3.0

Information source Title IERS Annual Report for 1988

Author IERS

Publisher Central Bureau of IERS - Observatoire de Paris,

61 avenue de l'Observatoire, 75014 Paris, France

Publication date 1989-06-01

Edition date

Data source ISO Geodetic Registry

Remarks Replaced by ITRF89. The realisation epoch is not defined in the

citations. 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 1988.0. Origin and scale are defined by an average of selected SLR solutions. Orientation is defined by successive alignment since BTS87 whose orientation was aligned to the BIH EOP series. Time evolution is defined by the AMO-2 plate motion model of Minster

and Jordan (1978); no global velocity field was estimated for ITRF88. The AM0-2 model is used to estimate positions at other epochs. Datum defined by a set of 3 dimensional Cartesian station coordinates given

by the citations.

Release date 1989-11-01 Coordinate Reference Epoch 1988.0

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 °

EllipsoidalCS Item class

Name Ellipsoidal 3D CS. Axes: latitude, longitude,

ellipsoidal height. Orientations: north, east, up.

UoM: degree, degree, metre.

VALID Item status Identifier 46

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

International Organization for Standardization Author

(ISO)

Publisher International Organization for Standardization

(ISO)

2007-07-01 Publication date Edition Second Edition Series/Journal name International Standard

Issue identification ISO 19111:2007

Data source ISO Geodetic Registry

Remarks Used in geographic 3D coordinate reference systems. Horizontal

> 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.

Axes

Item class CoordinateSystemAxis

Name Geodetic latitude

Item status **VALID** Identifier 38

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

International Organization for Standardization **Author**

(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

Used in geographic 2D and geographic 3D coordinate reference Remarks

systems.

Abbreviation Lat Direction north

Unit degree (supplier to define representation)

CoordinateSystemAxis Item class

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)

Item class CoordinateSystemAxis

Name Ellipsoidal height

Item statusVALIDIdentifier36

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 only as part of an ellipsoidal 3D coordinate system in a

geographic 3D coordinate reference system, never on its own.

Abbreviation h

Direction up
Unit metre