Item class GeodeticCRS

Name ITRF90 - LatLon

Item status VALID
Identifier 254

Alias IERS Terrestrial Reference Frame 1990

Alias International Terrestrial Reference Frame 1990

Information source Title ITRF 90 and other realizations of the IERS

Terrestrial Reference System for 1990

Author C. Boucher, Z. Altamimi

Publisher Central Bureau of IERS - Observatoire de Paris,

61 avenue de l'Observatoire, 75014 Paris, France

Publication date 1991-12-01

Edition date

Series/Journal name IERS Technical Notes

Issue identification 9.0 ISO Geodetic Registry

Remarks Replaces ITRF89 - LatLon. Replaced by ITRF91 - LatLon.

Scope Spatial referencing

Datum International Terrestrial Reference Frame 1990

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

UoM: degree

Extent

Data source

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 1990

Item statusVALIDIdentifier99AliasITRF90

Alias IERS Terrestrial Reference Frame 1990

Alias ITRF 90

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 ITRF 90 and other realizations of the IERS

Terrestrial Reference System for 1990

Author C. Boucher, Z. Altamimi

Publisher Central Bureau of IERS - Observatoire de Paris,

61 avenue de l'Observatoire, 75014 Paris, France

Publication date 1991-12-01

Edition date

Series/Journal name IERS Technical Notes

Issue identification 9.0

Data source ISO Geodetic Registry

Remarks Replaces ITRF89. Replaced by ITRF91. 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 is defined by SLR. Scale is defined by SLR noting that the VLBI scale (GSFC and NGS) is consistent with SLR. Orientation is defined such that no global rotation exists with respect to ITRF89. 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 1991-12-01 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 °

Item class EllipsoidalCS

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

Orientations: north, east. UoM: degree

VALID Item status

Identifier 43

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

International Organization for Standardization **Author**

(ISO)

International Organization for Standardization Publisher

(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

VALID Item status Identifier 38

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

Author International Organization for Standardization

(ISO)

International Organization for Standardization Publisher

(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 2D and geographic 3D coordinate reference

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)