## **ISO Geodetic Registry**

Item class GeodeticDatum

Name International Terrestrial Reference Frame 1991

Item statusVALIDIdentifier143AliasITRF91AliasITRF 91

Alias IERS Terrestrial Reference Frame 1991

Information source Title No-net-rotation model of current plate velocities

incorporating plate motion model NUVEL-1

Author D.F. Argus, R.G. Gordon
Publisher American Geophysical Union

Publication date 1990-05-01

Edition date

Series/Journal name Geophysical Research Letters

Issue identification Volume 18, Issue 11

Information source Title ITRF 91 and its associated velocity field

Author C. Boucher, Z. Altamimi, L. Duhem

Publisher Central Bureau of IERS - Observatoire de Paris,

61 avenue de l'Observatoire, 75014 Paris, France

Publication date 1992-10-01

Edition date

Series/Journal name IERS Technical Notes

Issue identification 12.0

Information source Title IERS Conventions (2010)

Author G. Petit, B.J. Luzum (eds)

Publisher Verlag des Bundesamts für 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

Remarks Replaces ITRF90. Replaced by ITRF92. 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 2008.0. Origin is defined by SLR. Scale is defined by SLR noting that the scales of some VLBI Solutions (GSFC, NOAA and NAOMZ) are consistent with SLR. Orientation is defined such that no global rotation exists with respect to ITRF90. In order to insure the condition of no-net-rotation of the ITRS orientation with respect to the crust, NNR-NUVEL1 was selected as the reference motion model. Datum defined by a set of 3 dimensional Cartesian station coordinates and velocities given by the citations. The ITRF91 velocity field has been obtained by combination of several site velocity fields estimated by SLR

and VLBI analysis centers.

Release date 1992-10-01 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	

## ISO Geodetic Registry

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

## **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 °