GeodeticCRS Item class

Name IGS00 - XYZ

VALID Item status Identifier 289

Alias International GPS Service 2000

Information source Title Towards ITRF2000

Author **AC Coordinator**

Publisher International GNSS Service (IGS)

Publication date 2001-11-20

Edition date

Series/Journal name IGSMAIL Issue identification 3605.0

Data source ISO Geodetic Registry

Replaces IGS97 - XYZ. Replaced by IGb00 - XYZ. Used by IGS Remarks

products within the period 2001-12-02 thru 2004-01-10.

Scope Spatial referencing

Datum IGS00

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:

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 IGS00
Item status VALID
Identifier 194

Alias International GPS Service 2000

Information source Title Chronology of IGS Reference Frame Usage

Author International GNSS Service Analysis Centre

Coordinator

Publisher National Oceanic and Atmospheric Administration

(NOAA), National Geodetic Survey (NGS)

Publication date 2012-10-04
Other citation details Website

Information source Title Towards ITRF2000

Author AC Coordinator

Publisher International GNSS Service (IGS)

Publication date 2001-11-20

Edition date

Series/Journal name IGSMAIL Issue identification 3605.0

Data source ISO Geodetic Registry

Remarks Replaces IGS97. Replaced by IGb00. Used by IGS products within the

period 2001-12-02 thru 2004-01-10.

Anchor definition Defined from and aligned to a subset of 54 stable IGS station

coordinates and velocities in ITRF2000 at epoch 1998.0. Uses relative antenna phase calibrations for ground stations and no calibrations for

satellite antennas.

Release date 2001-12-02 Coordinate Reference Epoch 1998.0

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 °

CartesianCS Item class

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

International Organization for Standardization **Author**

(ISO)

Publisher International Organization for Standardization

(ISO)

2007-07-01 Publication date Second Edition Edition Series/Journal name International Standard Issue identification ISO 19111:2007

ISO Geodetic Registry

Used in geocentric coordinate reference systems. Remarks

Axes

Data source

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

Publisher International Organization for Standardization

(ISO)

Publication date 2007-07-01 Edition Second Edition Series/Journal name International Standard Issue identification ISO 19111:2007

ISO Geodetic Registry

Abbreviation Χ

Data source

Direction Geocentre > equator/0°E

Unit metre

Item class CoordinateSystemAxis

Name **Geocentric Y**

VALID Item status Identifier 37

Title ISO 19111 Geographical information - Spatial Information source

referencing by coordinates

Author International Organization for Standardization

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

Abbreviation

Direction Geocentre > equator/90°E

Unit metre

Item class CoordinateSystemAxis

Name **Geocentric Z**

VALID Item status 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)

2007-07-01 Publication date Edition Second Edition Series/Journal name International Standard Issue identification ISO 19111:2007

ISO Geodetic Registry

Abbreviation Ζ

Data source

Direction Geocentre > north pole

Unit metre