

ISO Geodetic Registry

| | | |
|---------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <i>Item class</i> | GeodeticCRS | |
| <i>Name</i> | ITRF94 - LatLon | |
| <i>Item status</i> | VALID | |
| <i>Identifier</i> | 434 | |
| <i>Alias</i> | International Terrestrial Reference Frame 1994 | |
| <i>Alias</i> | IERS Terrestrial Reference Frame 1994 | |
| <i>Information source</i> | <i>Title</i> | Results and analysis of ITRF94 |
| | <i>Author</i> | C. Boucher, Z. Altamimi, M. Feissel, P. Sillard |
| | <i>Publisher</i> | Central Bureau of IERS - Observatoire de Paris, 61 avenue de l'Observatoire, 75014 Paris, France |
| | <i>Publication date</i> | 1996-03-01 |
| | <i>Edition date</i> | |
| | <i>Series/Journal name</i> | IERS Technical Notes |
| | <i>Issue identification</i> | 20.0 |
| <i>Data source</i> | ISO Geodetic Registry | |
| <i>Remarks</i> | Replaces ITRF93 - LatLon. Replaced by ITRF96 - LatLon. | |
| <i>Scope</i> | Spatial referencing | |
| <i>Datum</i> | International Terrestrial Reference Frame 1994 | |
| <i>Coordinate System</i> | Ellipsoidal 2D CS. Axes: latitude, longitude. Orientations: north, east. UoM: degree | |

Extent

| | | |
|--------------------------------|-----------------------------|--------|
| <i>Description</i> | World. | |
| <i>Geographic Bounding Box</i> | <i>West-bound longitude</i> | -180.0 |
| | <i>North-bound latitude</i> | 90.0 |
| | <i>East-bound longitude</i> | 180.0 |
| | <i>South-bound latitude</i> | -90.0 |

ISO Geodetic Registry

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|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| <i>Item class</i> | GeodeticDatum | |
| <i>Name</i> | International Terrestrial Reference Frame 1994 | |
| <i>Item status</i> | VALID | |
| <i>Identifier</i> | 197 | |
| <i>Alias</i> | IERS Terrestrial Reference Frame 1994 | |
| <i>Alias</i> | ITRF94 | |
| <i>Information source</i> | <i>Title</i> | IERS Conventions (2010) |
| | <i>Author</i> | G. Petit, B.J. Luzum (eds) |
| | <i>Publisher</i> | Verlag des Bundesamts fur Kartographie und Geodasie |
| | <i>Publication date</i> | 2010 |
| | <i>Edition date</i> | |
| | <i>Series/Journal name</i> | IERS Technical Notes |
| | <i>Issue identification</i> | 36.0 |
| <i>Information source</i> | <i>Other citation details</i> | ISSN: 1019-4568 |
| | <i>Title</i> | Effect of recent revisions to the geomagnetic reversal time scale on estimates of current plate motions |
| | <i>Author</i> | C.S. DeMets, R.G. Gordon, D.F. Argus, S. Stein |
| | <i>Publisher</i> | American Geophysical Union |
| | <i>Publication date</i> | 1994-10-01 |
| | <i>Edition date</i> | |
| | <i>Series/Journal name</i> | Geophysical Research Letters |
| <i>Information source</i> | <i>Issue identification</i> | Volume 21, Issue 20 |
| | <i>Title</i> | Results and analysis of ITRF94 |
| | <i>Author</i> | C. Boucher, Z. Altamimi, M. Feissel, P. Sillard |
| | <i>Publisher</i> | Central Bureau of IERS - Observatoire de Paris, 61 avenue de l'Observatoire, 75014 Paris, France |
| | <i>Publication date</i> | 1996-03-01 |
| | <i>Edition date</i> | |
| | <i>Series/Journal name</i> | IERS Technical Notes |
| <i>Data source</i> | <i>Issue identification</i> | 20.0 |
| | <i>ISO Geodetic Registry</i> | |
| <i>Remarks</i> | Replaces ITRF93. Replaced by ITRF96. This is a purely Cartesian reference frame with no ellipsoid defined. GRS80 is the ellipsoid recommended by the IAG and IERS. | |
| <i>Anchor definition</i> | Realisation of the IERS Terrestrial Reference System (ITRS) at reference epoch 1993.0. Origin is defined by a weighted average of a selection of SLR and GPS solutions. Scale is defined by a weighted average of a selection of VLBI, SLR and GPS solutions, modified in order to take into account the fact that the solutions use TAI and not TCG as a time scale. Orientation is consistent with ITRF92 (not ITRF93) at epoch 1988.0 and its time evolution follows the geophysical model NNR-NUVEL1A. Datum defined by a set of 3 dimensional Cartesian station coordinates and velocities given in the citations. | |
| <i>Release date</i> | 1996-03-01 | |
| <i>Coordinate Reference Epoch</i> | 1993.0 | |
| <i>Scope</i> | Spatial referencing | |
| <i>Ellipsoid</i> | GRS 1980 | |
| <i>Prime Meridian</i> | Greenwich | |

Extent

| | |
|--------------------|---------------|
| <i>Description</i> | World. |
|--------------------|---------------|

| | | |
|--------------------------------|-----------------------------|--------|
| <i>Geographic Bounding Box</i> | <i>West-bound longitude</i> | -180.0 |
| | <i>North-bound latitude</i> | 90.0 |
| | <i>East-bound longitude</i> | 180.0 |
| | <i>South-bound latitude</i> | -90.0 |

ISO Geodetic Registry

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|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------|---------------|-----------|------------------|--------------------------------------|-------------------------|---------|----------------------------|---------------------|-----------------------------|------------------|-------------|---------|
| <i>Item class</i> | Ellipsoid | | | | | | | | | | | | | | |
| <i>Name</i> | GRS 1980 | | | | | | | | | | | | | | |
| <i>Item status</i> | VALID | | | | | | | | | | | | | | |
| <i>Identifier</i> | 27 | | | | | | | | | | | | | | |
| <i>Alias</i> | Geodetic Reference System 1980 | | | | | | | | | | | | | | |
| <i>Alias</i> | GRS1980 | | | | | | | | | | | | | | |
| <i>Alias</i> | IAG GRS80 | | | | | | | | | | | | | | |
| <i>Alias</i> | International 1979 | | | | | | | | | | | | | | |
| <i>Alias</i> | GRS80 | | | | | | | | | | | | | | |
| <i>Information source</i> | <table> <tr> <td><i>Title</i></td><td>Geodetic Reference System 1980</td></tr> <tr> <td><i>Author</i></td><td>H. Moritz</td></tr> <tr> <td><i>Publisher</i></td><td>Springer International Publishing</td></tr> <tr> <td><i>Publication date</i></td><td>2003-03</td></tr> <tr> <td><i>Series/Journal name</i></td><td>Journal of Geodesy</td></tr> <tr> <td><i>Issue identification</i></td><td>Volume 74, No. 1</td></tr> <tr> <td><i>Page</i></td><td>128–162</td></tr> </table> | <i>Title</i> | Geodetic Reference System 1980 | <i>Author</i> | H. Moritz | <i>Publisher</i> | Springer International Publishing | <i>Publication date</i> | 2003-03 | <i>Series/Journal name</i> | Journal of Geodesy | <i>Issue identification</i> | Volume 74, No. 1 | <i>Page</i> | 128–162 |
| <i>Title</i> | Geodetic Reference System 1980 | | | | | | | | | | | | | | |
| <i>Author</i> | H. Moritz | | | | | | | | | | | | | | |
| <i>Publisher</i> | Springer International Publishing | | | | | | | | | | | | | | |
| <i>Publication date</i> | 2003-03 | | | | | | | | | | | | | | |
| <i>Series/Journal name</i> | Journal of Geodesy | | | | | | | | | | | | | | |
| <i>Issue identification</i> | Volume 74, No. 1 | | | | | | | | | | | | | | |
| <i>Page</i> | 128–162 | | | | | | | | | | | | | | |
| <i>Information source</i> | <table> <tr> <td><i>Title</i></td><td>Geodetic Reference System 1980</td></tr> <tr> <td><i>Author</i></td><td>H. Moritz</td></tr> <tr> <td><i>Publisher</i></td><td>International Association of Geodesy</td></tr> <tr> <td><i>Publication date</i></td><td>1984</td></tr> <tr> <td><i>Series/Journal name</i></td><td>Bulletin Geodesique</td></tr> <tr> <td><i>Issue identification</i></td><td>Volume 58, No. 3</td></tr> <tr> <td><i>Page</i></td><td>395-405</td></tr> </table> | <i>Title</i> | Geodetic Reference System 1980 | <i>Author</i> | H. Moritz | <i>Publisher</i> | International Association of Geodesy | <i>Publication date</i> | 1984 | <i>Series/Journal name</i> | Bulletin Geodesique | <i>Issue identification</i> | Volume 58, No. 3 | <i>Page</i> | 395-405 |
| <i>Title</i> | Geodetic Reference System 1980 | | | | | | | | | | | | | | |
| <i>Author</i> | H. Moritz | | | | | | | | | | | | | | |
| <i>Publisher</i> | International Association of Geodesy | | | | | | | | | | | | | | |
| <i>Publication date</i> | 1984 | | | | | | | | | | | | | | |
| <i>Series/Journal name</i> | Bulletin Geodesique | | | | | | | | | | | | | | |
| <i>Issue identification</i> | Volume 58, No. 3 | | | | | | | | | | | | | | |
| <i>Page</i> | 395-405 | | | | | | | | | | | | | | |
| <i>Data source</i> | ISO Geodetic Registry | | | | | | | | | | | | | | |
| <i>Remarks</i> | Adopted by IUGG 1979 Canberra. Inverse flattening is derived from geocentric gravitational constant $GM = 3986005e8 \text{ m}^3/\text{s}^2$, dynamic form factor $J_2 = 108263e-8$ and Earth's angular velocity = $7292115e-11 \text{ rad/s}$. | | | | | | | | | | | | | | |
| <i>Semi-major axis</i> | 6378137.0 m | | | | | | | | | | | | | | |
| <i>Inverse flattening</i> | 298.257222101 m | | | | | | | | | | | | | | |

ISO Geodetic Registry

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|----------------------------|-------------------------------|-----------------------------------------------------------------|
| <i>Item class</i> | PrimeMeridian | |
| <i>Name</i> | Greenwich | |
| <i>Item status</i> | VALID | |
| <i>Identifier</i> | 25 | |
| <i>Alias</i> | Zero meridian | |
| <i>Information source</i> | <i>Title</i> | Why the Greenwich meridian moved |
| | <i>Author</i> | S. Malys, J.H. Seago, N.K. Pavlis, P.K. Seidelmann, G.H. Kaplan |
| | <i>Publisher</i> | Springer International Publishing |
| | <i>Publication date</i> | 2015-12 |
| | <i>Series/Journal name</i> | Journal of Geodesy |
| | <i>Issue identification</i> | Volume 89, No. 12 |
| | <i>Page</i> | 1263–1272 |
| <i>Information source</i> | <i>Title</i> | IERS Conventions (2010) |
| | <i>Author</i> | G. Petit, B.J. Luzum (eds) |
| | <i>Publisher</i> | Verlag des Bundesamts fur Kartographie und Geodasie |
| | <i>Publication date</i> | 2010 |
| | <i>Edition date</i> | |
| | <i>Series/Journal name</i> | IERS Technical Notes |
| | <i>Issue identification</i> | 36.0 |
| <i>Data source</i> | <i>Other citation details</i> | ISSN: 1019-4568 |
| | ISO Geodetic Registry | |
| <i>Greenwich longitude</i> | 0.0 ° | |

ISO Geodetic Registry

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|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <i>Item class</i> | EllipsoidalCS | |
| <i>Name</i> | Ellipsoidal 2D CS. Axes: latitude, longitude. Orientations: north, east. UoM: degree | |
| <i>Item status</i> | VALID | |
| <i>Identifier</i> | 43 | |
| <i>Information source</i> | <i>Title</i> | ISO 19111 Geographical information - Spatial referencing by coordinates |
| | <i>Author</i> | International Organization for Standardization (ISO) |
| | <i>Publisher</i> | International Organization for Standardization (ISO) |
| | <i>Publication date</i> | 2007-07-01 |
| | <i>Edition</i> | Second Edition |
| | <i>Series/Journal name</i> | International Standard |
| | <i>Issue identification</i> | ISO 19111:2007 |
| <i>Data source</i> | ISO Geodetic Registry | |
| <i>Remarks</i> | 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

| | | |
|---------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------|
| <i>Item class</i> | CoordinateSystemAxis | |
| <i>Name</i> | Geodetic latitude | |
| <i>Item status</i> | VALID | |
| <i>Identifier</i> | 38 | |
| <i>Information source</i> | <i>Title</i> | ISO 19111 Geographical information - Spatial referencing by coordinates |
| | <i>Author</i> | International Organization for Standardization (ISO) |
| | <i>Publisher</i> | International Organization for Standardization (ISO) |
| | <i>Publication date</i> | 2007-07-01 |
| | <i>Edition</i> | Second Edition |
| | <i>Series/Journal name</i> | International Standard |
| | <i>Issue identification</i> | ISO 19111:2007 |
| <i>Data source</i> | ISO Geodetic Registry | |
| <i>Remarks</i> | Used in geographic 2D and geographic 3D coordinate reference systems. | |
| <i>Abbreviation</i> | Lat | |
| <i>Direction</i> | north | |
| <i>Unit</i> | degree (supplier to define representation) | |

| | | |
|---------------------------|---------------------------|-------------------------------------------------------------------------|
| <i>Item class</i> | CoordinateSystemAxis | |
| <i>Name</i> | Geodetic longitude | |
| <i>Item status</i> | VALID | |
| <i>Identifier</i> | 34 | |
| <i>Information source</i> | <i>Title</i> | ISO 19111 Geographical information - Spatial referencing by coordinates |
| | <i>Author</i> | International Organization for Standardization (ISO) |

| | | |
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| | <i>Publisher</i> | International Organization for Standardization (ISO) |
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| | <i>Issue identification</i> | ISO 19111:2007 |
| <i>Data source</i> | ISO Geodetic Registry | |
| <i>Remarks</i> | Used in geographic 2D and geographic 3D coordinate reference systems. | |
| <i>Abbreviation</i> | Lon | |
| <i>Direction</i> | east | |
| <i>Unit</i> | degree (supplier to define representation) | |