

# ISO Geodetic Registry

|                                   |   |
|-----------------------------------|---|
| <i>Item class</i>                 | GeodeticDatum   |
| <i>Name</i>                       | <b>IGS08</b>  |
| <i>Item status</i>                | VALID   |
| <i>Identifier</i>                 | 106   |
| <i>Alias</i>                      | International GNSS Service 2008   |
| <i>Information source</i>         | <i>Title</i> IGS08: the IGS realization of ITRF2008<br><i>Author</i> P. Rebischung<br><i>Publisher</i> Springer<br><i>Publication date</i> 2012-10-01<br><i>Edition date</i><br><i>Series/Journal name</i> GPS Solutions<br><i>Issue identification</i> Volume 16, Issue 4  |
| <i>Information source</i>         | <i>Title</i> Upcoming switch to IGS08/igs08.atx<br><i>Author</i> P. Rebischung, R. Schmid, J. Ray<br><i>Publisher</i> International GNSS Service (IGS)<br><i>Publication date</i> 2011-03-07<br><i>Edition date</i><br><i>Series/Journal name</i> IGSMail<br><i>Issue identification</i> 6354.0                                       |
| <i>Information source</i>         | <i>Title</i> Chronology of IGS Reference Frame Usage<br><i>Author</i> International GNSS Service Analysis Centre Coordinator<br><i>Publisher</i> National Oceanic and Atmospheric Administration (NOAA), National Geodetic Survey (NGS)<br><i>Publication date</i> 2012-10-04<br><i>Other citation details</i> Website                |
| <i>Data source</i>                | ISO Geodetic Registry   |
| <i>Remarks</i>                    | Replaces IGS05. Replaced by IGS08. Used by IGS products within the period 2011-04-17 thru 2012-10-06.   |
| <i>Anchor definition</i>          | Derived from and aligned to a subset of stable, well-performing IGS station coordinates and velocities in ITRF2008 at epoch 2005.0 with position corrections applied to account for updates to receiver antenna calibrations. Uses updated absolute antenna calibrations for both ground stations and satellite antennas (igs08.atx). |
| <i>Release date</i>               | 2011-04-17  |
| <i>Coordinate Reference Epoch</i> | 2005.0  |
| <i>Scope</i>                      | Spatial Referencing   |
| <i>Ellipsoid</i>                  | GRS 1980  |
| <i>Prime Meridian</i>             | Greenwich   |

## Extent

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

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|                    |   |                                      |
|--------------------|---|--------------------------------------|
| 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 $GM = 3986005e8 \text{ m}^3\text{m/s/s}$ , dynamic form factor $J_2 = 108263e-8$ and Earth's angular velocity = $7292115e-11 \text{ rad/s}$ . |                                      |
| Semi-major axis    | 6378137.0 m   |                                      |
| Inverse flattening | 298.257222101 m   |                                      |

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|                            |                               |   |
|----------------------------|-------------------------------|---|
| <i>Item class</i>          | PrimeMeridian                 |   |
| <i>Name</i>                | <b>Greenwich</b>              |   |
| <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 für Kartographie und Geodäsie             |
|                            | <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 °                         |   |