

ISO Geodetic Registry

| | | |
|---------------------------|--|--|
| <i>Item class</i> | GeodeticCRS | |
| <i>Name</i> | JGD2000 - XYZ | |
| <i>Item status</i> | VALID | |
| <i>Identifier</i> | 251 | |
| <i>Alias</i> | Japanese Geodetic Datum 2000 | |
| <i>Information source</i> | <i>Title</i> | Concept of the New Japanese Geodetic System |
| | <i>Author</i> | Y. Hiyama, A. Yamagiwa, T. Kawahara, M. Iwata, Y. Fukuzaki, Y. Shouji, Y. Sato, T. Yutsudo, T. Sasaki, H. Shigematsu, H. Yamao, T. Inukai, M. Ohtaki, K. Kokado, S. Kurihara, I. Kimura, T. Tsutsumi, T. Yahagi, Y. Furuya, I. Kageyama, S. Kawamoto, K. Yamaguchi, H. Tsuji, S. Matsumura |
| | <i>Publisher</i> | Geographical Survey Institute (GSI), Tsukuba, Japan |
| | <i>Publication date</i> | 2004-03 |
| | <i>Series/Journal name</i> | Bulletin of the Geographical Survey Institute |
| | <i>Issue identification</i> | Volume 51 |
| | <i>Page</i> | 1–9 |
| | <i>Title</i> | The New Geodetic Reference System of Japan – Its adoption and application to our products |
| | <i>Author</i> | Geographical Survey Institute |
| | <i>Publisher</i> | Geographical Survey Institute (GSI), Tsukuba, Japan |
| <i>Information source</i> | <i>Publication date</i> | 2004-03 |
| | <i>Series/Journal name</i> | Bulletin of the Geographical Survey Institute |
| | <i>Issue identification</i> | Volume 50 |
| | <i>Page</i> | 33-36 |
| <i>Data source</i> | ISO Geodetic Registry | |
| <i>Scope</i> | Spatial referencing | |
| <i>Datum</i> | Japanese Geodetic Datum 2000 | |
| <i>Coordinate System</i> | 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. | |

Extent

| | | |
|--------------------------------|-------------------------------------|-------|
| <i>Description</i> | Japan - onshore and offshore | |
| <i>Geographic Bounding Box</i> | <i>West-bound longitude</i> | 122.9 |
| | <i>North-bound latitude</i> | 45.6 |
| | <i>East-bound longitude</i> | 154.0 |
| | <i>South-bound latitude</i> | 20.4 |

ISO Geodetic Registry

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|-----------------------------------|---|--|
| <i>Item class</i> | GeodeticDatum | |
| <i>Name</i> | Japanese Geodetic Datum 2000 | |
| <i>Item status</i> | VALID | |
| <i>Identifier</i> | 111 | |
| <i>Alias</i> | JGD2000 | |
| <i>Information source</i> | <i>Title</i> | Concept of the New Japanese Geodetic System |
| | <i>Author</i> | Y. Hiyama, A. Yamagiwa, T. Kawahara, M. Iwata, Y. Fukuzaki, Y. Shouji, Y. Sato, T. Yutsudo, T. Sasaki, H. Shigematsu, H. Yamao, T. Inukai, M. Ohtaki, K. Kokado, S. Kurihara, I. Kimura, T. Tsutsumi, T. Yahagi, Y. Furuya, I. Kageyama, S. Kawamoto, K. Yamaguchi, H. Tsuji, S. Matsumura |
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| | <i>Issue identification</i> | Volume 50 |
| | <i>Page</i> | 33-36 |
| <i>Data source</i> | ISO Geodetic Registry | |
| <i>Remarks</i> | Replaces Tokyo Datum. Replaced by Japanese Geodetic Datum 2011 from 2011-10-21. | |
| <i>Anchor definition</i> | Equivalent to ITRF94 at epoch 1997.0. Fundamental point: Tokyo-Taisho, latitude: 35°39'29.1572"N, longitude: 139°44'28.8759"E (of Greenwich). | |
| <i>Release date</i> | 2002-04 | |
| <i>Coordinate Reference Epoch</i> | 1997.0 | |
| <i>Scope</i> | Spatial referencing | |
| <i>Ellipsoid</i> | GRS 1980 | |
| <i>Prime Meridian</i> | Greenwich | |

Extent

| | | |
|--------------------------------|-------------------------------------|-------|
| <i>Description</i> | Japan - onshore and offshore | |
| <i>Geographic Bounding Box</i> | <i>West-bound longitude</i> | 122.9 |
| | <i>North-bound latitude</i> | 45.6 |
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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 | | | | | | | | | | | | | | |
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| <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>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>Information source</i> | <i>Publication date</i> | 2010 |
| | <i>Edition date</i> | |
| | <i>Series/Journal name</i> | IERS Technical Notes |
| | <i>Issue identification</i> | 36.0 |
| | <i>Other citation details</i> | ISSN: 1019-4568 |
| <i>Data source</i> | ISO Geodetic Registry | |
| <i>Greenwich longitude</i> | 0.0 ° | |

ISO Geodetic Registry

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|--------------------|---|---|
| Item class | CartesianCS | |
| 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 |
| | 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 geocentric coordinate reference systems. | |

Axes

| | | |
|--------------------|-------------------------|---|
| 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 (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 | |
| Abbreviation | X | |
| Direction | Geocentre > equator/0°E | |
| Unit | metre | |

| | | |
|-------------|----------------------|--|
| Item class | CoordinateSystemAxis | |
| Name | Geocentric Y | |
| Item status | VALID | |
| Identifier | 37 | |

| | | |
|---------------------------|-----------------------------|---|
| <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>Abbreviation</i> | Y | |
| <i>Direction</i> | Geocentre > equator/90°E | |
| <i>Unit</i> | metre | |

| | | |
|---------------------------|-----------------------------|---|
| <i>Item class</i> | CoordinateSystemAxis | |
| <i>Name</i> | Geocentric Z | |
| <i>Item status</i> | VALID | |
| <i>Identifier</i> | 39 | |
| <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>Abbreviation</i> | Z | |
| <i>Direction</i> | Geocentre > north pole | |
| <i>Unit</i> | metre | |