

# ISO Geodetic Registry

<i>Item class</i>	GeodeticCRS	
<i>Name</i>	<b>CGCS 2000 - XYZ</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	732	
<i>Alias</i>	China Geodetic Coordinate System 2000	
<i>Information source</i>	<i>Title</i>	Chinese Modern Geodetic Datum - Chinese Geodetic Coordinate System 2000 (CGCS 2000) and Its Frame
	<i>Author</i>	J. Chen
	<i>Publisher</i>	Surveying and Mapping Press
	<i>Publication date</i>	2008
	<i>Series/Journal name</i>	Acta Geodaetica et Cartographica Sinica
	<i>Issue identification</i>	37(3)
	<i>Page</i>	269-271
	<i>Other citation details</i>	In Chinese; <a href="http://xb.sinomaps.com/EN/Y2008/V37/I3/269">http://xb.sinomaps.com/EN/Y2008/V37/I3/269</a> (accessed 2020-05-19)
	<i>Title</i>	Chinese geodetic coordinate system 2000
	<i>Author</i>	Y. Yang
<i>Information source</i>	<i>Publisher</i>	Science China Press
	<i>Publication date</i>	2009
	<i>Series/Journal name</i>	Chinese Science Bulletin
	<i>Issue identification</i>	54.0
	<i>Page</i>	2714- 2721
	<i>Other citation details</i>	In Chinese; <a href="https://doi.org/10.1007/s11434-009-0342-9">https://doi.org/10.1007/s11434-009-0342-9</a> (accessed 2020-05-19)
	<i>Title</i>	Modernization of National Geodetic Datum in China
	<i>Author</i>	P. Zhang, Z. Li, H. Wen
	<i>Publisher</i>	United Nations Economic and Social Council
	<i>Publication date</i>	2012
<i>Information source</i>	<i>Series/Journal name</i>	Nineteenth United Nations Regional Cartographic Conference for Asia and the Pacific, Bangkok, 29 October – 1 November 2012
	<i>Issue identification</i>	E/CONF.102/IP.16
	<i>Other citation details</i>	<a href="https://unstats.un.org/unsd/geoinfo/RCC/docs/rccap19/ip/E_Conf.102_IP16_Modernization%20of%20National%20Geodetic%20Datum%20in%20China.pdf">https://unstats.un.org/unsd/geoinfo/RCC/docs/rccap19/ip/E_Conf.102_IP16_Modernization%20of%20National%20Geodetic%20Datum%20in%20China.pdf</a> (accessed 2020-05-15)
<i>Data source</i>	ISO Geodetic Registry	
<i>Remarks</i>	Adopted July 2008 by China. Replaces Xian 1980 horizontal datum.	
<i>Scope</i>	Spatial referencing	
<i>Datum</i>	China Geodetic Coordinate System 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>	<b>China - onshore and offshore</b>
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<i>Item class</i>	GeodeticDatum	
<i>Name</i>	<b>China Geodetic Coordinate System 2000</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	730	
<i>Alias</i>	CGCS 2000	
<i>Information source</i>	<i>Title</i>	Chinese Modern Geodetic Datum - Chinese Geodetic Coordinate System 2000 (CGCS 2000) and Its Frame
	<i>Author</i>	J. Chen
	<i>Publisher</i>	Surveying and Mapping Press
	<i>Publication date</i>	2008
	<i>Edition</i>	
	<i>Edition date</i>	
	<i>Series/Journal name</i>	Acta Geodaetica et Cartographica Sinica
	<i>Issue identification</i>	37(3)
	<i>Page</i>	269-271
	<i>Other citation details</i>	In Chinese; <a href="http://xb.sinomaps.com/EN/Y2008/V37/I3/269">http://xb.sinomaps.com/EN/Y2008/V37/I3/269</a> (accessed 2020-05-19)
<i>Information source</i>	<i>Title</i>	National GNSS continuous operation reference stations
	<i>Author</i>	National Basic Geographic Information Center
	<i>Publisher</i>	National Geomatics Center of China
	<i>Publication date</i>	2019
	<i>Edition</i>	
	<i>Edition date</i>	
	<i>Series/Journal name</i>	
	<i>Issue identification</i>	
	<i>Page</i>	
	<i>Other citation details</i>	In Chinese; <a href="http://www.ngcc.cn/ngcc/html/1/396/401/16122.html">http://www.ngcc.cn/ngcc/html/1/396/401/16122.html</a> (accessed 2020-06-05)
<i>Information source</i>	<i>Title</i>	Modernization of National Geodetic Datum in China
	<i>Author</i>	P. Zhang, Z. Li, H. Wen
	<i>Publisher</i>	United Nations Economic and Social Council
	<i>Publication date</i>	2012
	<i>Edition</i>	
	<i>Edition date</i>	
	<i>Series/Journal name</i>	Nineteenth United Nations Regional Cartographic Conference for Asia and the Pacific, Bangkok, 29 October – 1 November 2012
	<i>Issue identification</i>	E/CONF.102/IP.16
	<i>Page</i>	
	<i>Other citation details</i>	<a href="https://unstats.un.org/unsd/geoinfo/RCC/docs/rccap19/ip/E_Conf.102_IP16_Modernization%20of%20National%20Geodetic%20Datum%20in%20China.pdf">https://unstats.un.org/unsd/geoinfo/RCC/docs/rccap19/ip/E_Conf.102_IP16_Modernization%20of%20National%20Geodetic%20Datum%20in%20China.pdf</a> (accessed 2020-05-15)
<i>Information source</i>	<i>Title</i>	Chinese geodetic coordinate system 2000
	<i>Author</i>	Y. Yang
	<i>Publisher</i>	Science China Press
	<i>Publication date</i>	2009
	<i>Edition</i>	
	<i>Edition date</i>	
	<i>Series/Journal name</i>	Chinese Science Bulletin
	<i>Issue identification</i>	54.0
	<i>Page</i>	2714- 2721

	<i>Other citation details</i> In Chinese; <a href="https://doi.org/10.1007/s11434-009-0342-9">https://doi.org/10.1007/s11434-009-0342-9</a> (accessed 2020-05-19)
<i>Data source</i>	ISO Geodetic Registry
<i>Remarks</i>	The China Geodetic Coordinate System 2000 (CGCS 2000) is a geocentric terrestrial reference system compatible with the International Terrestrial Reference System. CGCS 2000 is the standard Chinese geodetic reference system for geospatial information. It was originally realized by a combined adjustment of astro-geodetic observations as used for Xian 1980 and a GPS control network observed 2000-2003. It is presently realized and maintained by a network of 360 national CORS stations and 4508 GNSS geodetic control points. Adopted July 2008 by China. Replaces Xian 1980 horizontal datum.
<i>Anchor definition</i>	The China Geodetic Coordinate System 2000 is presently defined and maintained by 360 national CORS stations and 4508 GNSS geodetic control points that are aligned with ITRF97 at epoch 2000.0. There are zero translations, rotations, and scale change with respect to ITRF97 at epoch 2000.0.
<i>Release date</i>	2008-07-01
<i>Coordinate Reference Epoch</i>	2000.0
<i>Scope</i>	Spatial referencing
<i>Ellipsoid</i>	CGCS 2000
<i>Prime Meridian</i>	Greenwich

## Extent

<i>Description</i>	<b>China - onshore and offshore</b>
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<i>Item class</i>	Ellipsoid																
<i>Name</i>	<b>CGCS 2000</b>																
<i>Item status</i>	VALID																
<i>Identifier</i>	729																
<i>Alias</i>	China Geodetic Coordinate System 2000																
<i>Information source</i>	<table> <tr> <td><i>Title</i></td><td>Parameters of the CGCS 2000 Ellipsoid and Comparisons with GRS 80 and WGS 84</td></tr> <tr> <td><i>Author</i></td><td>P. Cheng, H. Wen, Y Cheng,H. Wang</td></tr> <tr> <td><i>Publisher</i></td><td>Surveying and Mapping Press</td></tr> <tr> <td><i>Publication date</i></td><td>2009</td></tr> <tr> <td><i>Series/Journal name</i></td><td>Acta Geodaetica et Cartographica Sinica</td></tr> <tr> <td><i>Issue identification</i></td><td>38(3)</td></tr> <tr> <td><i>Page</i></td><td>189-194</td></tr> <tr> <td><i>Other citation details</i></td><td>In Chinese; <a href="http://xb.sinomaps.com/EN/volumn/volumn_195.shtml#1">http://xb.sinomaps.com/EN/volumn/volumn_195.shtml#1</a> (accessed 2020-05-19)</td></tr> </table>	<i>Title</i>	Parameters of the CGCS 2000 Ellipsoid and Comparisons with GRS 80 and WGS 84	<i>Author</i>	P. Cheng, H. Wen, Y Cheng,H. Wang	<i>Publisher</i>	Surveying and Mapping Press	<i>Publication date</i>	2009	<i>Series/Journal name</i>	Acta Geodaetica et Cartographica Sinica	<i>Issue identification</i>	38(3)	<i>Page</i>	189-194	<i>Other citation details</i>	In Chinese; <a href="http://xb.sinomaps.com/EN/volumn/volumn_195.shtml#1">http://xb.sinomaps.com/EN/volumn/volumn_195.shtml#1</a> (accessed 2020-05-19)
<i>Title</i>	Parameters of the CGCS 2000 Ellipsoid and Comparisons with GRS 80 and WGS 84																
<i>Author</i>	P. Cheng, H. Wen, Y Cheng,H. Wang																
<i>Publisher</i>	Surveying and Mapping Press																
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<i>Series/Journal name</i>	Acta Geodaetica et Cartographica Sinica																
<i>Issue identification</i>	38(3)																
<i>Page</i>	189-194																
<i>Other citation details</i>	In Chinese; <a href="http://xb.sinomaps.com/EN/volumn/volumn_195.shtml#1">http://xb.sinomaps.com/EN/volumn/volumn_195.shtml#1</a> (accessed 2020-05-19)																
<i>Data source</i>	ISO Geodetic Registry																
<i>Remarks</i>	Defining parameters semi-major axis and inverse flattening equivalent with values for GRS 1980 and IERS Conventions (2010).																
<i>Semi-major axis</i>	6378137.0 \$item.semiMajorAxisUom.name																
<i>Inverse flattening</i>	298.257222101 \$item.inverseFlatteningUom.name																

# ISO Geodetic Registry

<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>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

<i>Item class</i>	CartesianCS	
<i>Name</i>	<b>Geocentric 3D right-handed Cartesian CS.</b> <b>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.</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	45	
<i>Alias</i>	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.	
<i>Alias</i>	ECEF	
<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 geocentric coordinate reference systems.	

## Axes

<i>Item class</i>	CoordinateSystemAxis	
<i>Name</i>	<b>Geocentric X</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	33	
<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>	X	
<i>Direction</i>	Geocentre > equator/0°E	
<i>Unit</i>	metre	

  

<i>Item class</i>	CoordinateSystemAxis	
<i>Name</i>	<b>Geocentric Y</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	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>	<b>Geocentric Z</b>	
<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	