

ISO Geodetic Registry

Item class	GeodeticCRS		
Name	SIRGAS-CON DGF01P02 - XYZ		
Item status	VALID		
Identifier	332		
Alias	SIRGAS		
Alias	SIRGAS-CON		
Alias	DGF01P02		
Alias	Geocentric Reference System for the Americas		
Alias	DGFI01P02		
Alias	Sistema de Referencia Geocentrico para las Americas		
Alias	SIRGAS Multi-Year Solution 2001 extended		
Information source	Title	Annual Report 2001 of IGS RNAAC SIR	
	Author	W. Seemueller, H. Drewes	
	Publisher	International GPS Service	
	Publication date	2004	
	Series/Journal name	IGS 2001-2002 Technical Reports	
	Issue identification	JPL Publication 04-017	
	Page	285-290	
	Information source	Title	Deformation of the South American crust estimated from finite element and collocation methods
Author		H. Drewes, O. Heidbach	
Publisher		Springer Berlin Heidelberg	
Publication date		2005	
Series/Journal name		International Association of Geodesy Symposia	
Issue identification		128.0	
Page		544-549	
Other citation details		In Sanso F. (eds) A Window on the Future of Geodesy. International Association of Geodesy Symposia, Vol 128. Springer, Berlin, Heidelberg	
Information source	Title	Sistema de Referencia Geocentrico para las Americas (SIRGAS)	
	Author	Sistema de Referencia Geocéntrico para las Américas (SIRGAS)	
	Publisher	Sistema de Referencia Geocéntrico para las Américas (SIRGAS)	
	Publication date	2018	
	Other citation details	Website	
Data source	ISO Geodetic Registry		
Scope	Spatial referencing		
Datum	SIRGAS Continuously Operating Network DGF01P02		
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: m.		

Extent

<i>Description</i>	South America - onshore and offshore. Central America - onshore and offshore. Mexico - onshore and offshore.	
<i>Geographic Bounding Box</i>	<i>West-bound longitude</i>	-122.19

<i>North-bound latitude</i>	32.72
<i>East-bound longitude</i>	-25.28
<i>South-bound latitude</i>	-59.87

ISO Geodetic Registry

<i>Item class</i>	GeodeticDatum																
<i>Name</i>	SIRGAS Continuously Operating Network DGF01P02																
<i>Item status</i>	VALID																
<i>Identifier</i>	136																
<i>Alias</i>	SIRGAS																
<i>Alias</i>	SIRGAS-CON																
<i>Alias</i>	DGF01P02																
<i>Alias</i>	Geocentric Reference System for the Americas																
<i>Alias</i>	DGFI01P02																
<i>Alias</i>	Sistema de Referencia Geocentrico para las Americas																
<i>Alias</i>	SIRGAS Multi-Year Solution 2001 extended																
<i>Information source</i>	<table> <tr> <td><i>Title</i></td><td>Deformation of the South American crust estimated from finite element and collocation methods</td></tr> <tr> <td><i>Author</i></td><td>H. Drewes, O. Heidbach</td></tr> <tr> <td><i>Publisher</i></td><td>Springer Berlin Heidelberg</td></tr> <tr> <td><i>Publication date</i></td><td>2005</td></tr> <tr> <td><i>Series/Journal name</i></td><td>International Association of Geodesy Symposia</td></tr> <tr> <td><i>Issue identification</i></td><td>128.0</td></tr> <tr> <td><i>Page</i></td><td>544-549</td></tr> <tr> <td><i>Other citation details</i></td><td>In Sanso F. (eds) A Window on the Future of Geodesy. International Association of Geodesy Symposia, Vol 128. Springer, Berlin, Heidelberg</td></tr> </table>	<i>Title</i>	Deformation of the South American crust estimated from finite element and collocation methods	<i>Author</i>	H. Drewes, O. Heidbach	<i>Publisher</i>	Springer Berlin Heidelberg	<i>Publication date</i>	2005	<i>Series/Journal name</i>	International Association of Geodesy Symposia	<i>Issue identification</i>	128.0	<i>Page</i>	544-549	<i>Other citation details</i>	In Sanso F. (eds) A Window on the Future of Geodesy. International Association of Geodesy Symposia, Vol 128. Springer, Berlin, Heidelberg
<i>Title</i>	Deformation of the South American crust estimated from finite element and collocation methods																
<i>Author</i>	H. Drewes, O. Heidbach																
<i>Publisher</i>	Springer Berlin Heidelberg																
<i>Publication date</i>	2005																
<i>Series/Journal name</i>	International Association of Geodesy Symposia																
<i>Issue identification</i>	128.0																
<i>Page</i>	544-549																
<i>Other citation details</i>	In Sanso F. (eds) A Window on the Future of Geodesy. International Association of Geodesy Symposia, Vol 128. Springer, Berlin, Heidelberg																
<i>Information source</i>	<table> <tr> <td><i>Title</i></td><td>Sistema de Referencia Geocentrico para las Americas (SIRGAS)</td></tr> <tr> <td><i>Author</i></td><td>Sistema de Referencia Geocéntrico para las Américas (SIRGAS)</td></tr> <tr> <td><i>Publisher</i></td><td>Sistema de Referencia Geocéntrico para las Américas (SIRGAS)</td></tr> <tr> <td><i>Publication date</i></td><td>2018</td></tr> <tr> <td><i>Other citation details</i></td><td>Website</td></tr> </table>	<i>Title</i>	Sistema de Referencia Geocentrico para las Americas (SIRGAS)	<i>Author</i>	Sistema de Referencia Geocéntrico para las Américas (SIRGAS)	<i>Publisher</i>	Sistema de Referencia Geocéntrico para las Américas (SIRGAS)	<i>Publication date</i>	2018	<i>Other citation details</i>	Website						
<i>Title</i>	Sistema de Referencia Geocentrico para las Americas (SIRGAS)																
<i>Author</i>	Sistema de Referencia Geocéntrico para las Américas (SIRGAS)																
<i>Publisher</i>	Sistema de Referencia Geocéntrico para las Américas (SIRGAS)																
<i>Publication date</i>	2018																
<i>Other citation details</i>	Website																
<i>Information source</i>	<table> <tr> <td><i>Title</i></td><td>Annual Report 2001 of IGS RNAAC SIR</td></tr> <tr> <td><i>Author</i></td><td>W. Seemueller, H. Drewes</td></tr> <tr> <td><i>Publisher</i></td><td>International GPS Service</td></tr> <tr> <td><i>Publication date</i></td><td>2004</td></tr> <tr> <td><i>Series/Journal name</i></td><td>IGS 2001-2002 Technical Reports</td></tr> <tr> <td><i>Issue identification</i></td><td>JPL Publication 04-017</td></tr> <tr> <td><i>Page</i></td><td>285-290</td></tr> </table>	<i>Title</i>	Annual Report 2001 of IGS RNAAC SIR	<i>Author</i>	W. Seemueller, H. Drewes	<i>Publisher</i>	International GPS Service	<i>Publication date</i>	2004	<i>Series/Journal name</i>	IGS 2001-2002 Technical Reports	<i>Issue identification</i>	JPL Publication 04-017	<i>Page</i>	285-290		
<i>Title</i>	Annual Report 2001 of IGS RNAAC SIR																
<i>Author</i>	W. Seemueller, H. Drewes																
<i>Publisher</i>	International GPS Service																
<i>Publication date</i>	2004																
<i>Series/Journal name</i>	IGS 2001-2002 Technical Reports																
<i>Issue identification</i>	JPL Publication 04-017																
<i>Page</i>	285-290																
<i>Data source</i>	ISO Geodetic Registry																
<i>Remarks</i>	Replaces DGF01P01. Replaced by DGF02P01.																
<i>Anchor definition</i>	Realized by a frame of 48 continuously operating stations using GPS observations from June 1996 to April 2001 and aligned to ITRF2000 at epoch 1998.4. Velocity model VEMOS2003 used to propagate coordinates from an arbitrary epoch to the 1998.4 reference epoch.																
<i>Release date</i>	2002																
<i>Coordinate Reference Epoch</i>	1998.4																
<i>Scope</i>	Spatial referencing																
<i>Ellipsoid</i>	GRS 1980																
<i>Prime Meridian</i>	Greenwich																

Extent

<i>Description</i>	South America - onshore and offshore. Central America - onshore and offshore. Mexico - onshore and offshore.		
<i>Geographic Bounding Box</i>	<i>West-bound longitude</i>	-122.19	
	<i>North-bound latitude</i>	32.72	
	<i>East-bound longitude</i>	-25.28	
	<i>South-bound latitude</i>	-59.87	

ISO Geodetic Registry

<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

<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

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