ISO Geodetic Registry

Item class	GeodeticCRS
Name	**SIRGAS-CON DGF00P01 - XYZ**
Item status	VALID
Identifier	376
Alias	SIRGAS
Alias	SIRGAS-CON
Alias	SIRGAS Multi-Year Solution 2000
Alias	DGF00P01
Alias	Geocentric Reference System for the Americas
Alias	DGFI00P01
Alias	Sistema de Referencia Geocentrico para las Americas
Information source	*Title* Velocity estimates of IGS RNAAC SIRGAS stations *Author* W. Seemueller, K. Kaniuth, H. Drewes *Publisher* Springer Berlin Heidelberg *Publication date* 2002 *Series/Journal name* International Association of Geodesy Symposia *Issue identification* 124.0 *Page* 2018-10-07
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
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
Data source	ISO Geodetic Registry
Scope	Spatial referencing
Datum	SIRGAS Continuously Operating Network DGF00P01
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

Description	**South America - onshore and offshore. Central America - onshore and offshore. Mexico - onshore and offshore.**

Geographic Bounding Box	West-bound longitude	-122.19
	North-bound latitude	32.72
	East-bound longitude	-25.28
	South-bound latitude	-59.87

ISO Geodetic Registry

Item class	GeodeticDatum	
Name	**SIRGAS Continuously Operating Network DGF00P01**	
Item status	VALID	
Identifier	133	
Alias	SIRGAS	
Alias	SIRGAS-CON	
Alias	SIRGAS Multi-Year Solution 2000	
Alias	DGF00P01	
Alias	Geocentric Reference System for the Americas	
Alias	DGFI00P01	
Alias	Sistema de Referencia Geocentrico para las Americas	
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
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*	Velocity estimates of IGS RNAAC SIRGAS stations
	Author	W. Seemueller, K. Kaniuth, H. Drewes
	Publisher	Springer Berlin Heidelberg
	Publication date	2002
	Series/Journal name	International Association of Geodesy Symposia
	Issue identification	124.0
	Page	2018-10-07
Data source	ISO Geodetic Registry	
Remarks	DGF00P01 is included in ITRF2000 as a regional densification for South America. Replaces SIRGAS2000 for continuous stations in some SIRGAS countries. Replaced by DGF01P01.	
Anchor definition	Realized by a frame of 31 continuously operating stations using GPS observations from June 1996 to February 2000 and aligned to ITRF97 at epoch 2000.4. Velocity model VEMOS2003 used to propagate coordinates from an arbitrary epoch to the 2000.4 reference epoch.	
Release date	2002	
Coordinate Reference Epoch	2000.4	
Scope	Spatial referencing	
Ellipsoid	GRS 1980	
Prime Meridian	Greenwich	

Extent

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

ISO Geodetic Registry

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 m*m*m/s/s, dynamic form factor J2 = 108263e-8 and Earth's angular velocity = 7292115e-11 rad/s.
Semi-major axis	6378137.0 m
Inverse flattening	298.257222101 m

ISO Geodetic Registry

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

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	Y	
Direction	Geocentre > equator/90°E	
Unit	metre	

Item class	CoordinateSystemAxis	
Name	**Geocentric Z**	
Item status	VALID	
Identifier	39	
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	Z	
Direction	Geocentre > north pole	
Unit	metre	