Item class GeodeticCRS

NAD83(CSRS) v3 - XYZ

Item statusVALIDIdentifier386

Alias NAD83v3

Alias Canadian Spatial Reference System 1998

Alias NAD83

Alias NAD83(CSRS)
Alias NAD83(CSRS98)

Alias CSRS98

Alias NAD83(CSRS)v3

Alias Canadian Spatial Reference System

Alias CSRS

Alias North American Datum 1983 v3

Information source Title The Canadian Spatial Reference System (CSRS)

Author Canadian Geodetic Survey

Publisher Canadian Geodetic Survey, Surveyor General

Branch, Earth Sciences Sector, Natural Resources Canada, Government of Canada

Publication date 2016-08-30

Information source Title The Evolution of NAD83 in Canada

Author M. Craymer

Publisher Canadian Institute of Geomatics

Publication date 2006 Series/Journal name Geomatica Issue identification Volume 60, No. 2

Page 151-164

Data source ISO Geodetic Registry
Scope Spatial referencing

Datum North American Datum of 1983 (CSRS) version 3

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	Canada - onshore and offshore - Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Quebec, Saskatchewan, Yukon.	
Geographic Bounding Box	West-bound longitude	-141.01
	North-bound latitude	90.0
	East-bound longitude	-47.74
	South-bound latitude	40.04

Item class GeodeticDatum

North American Datum of 1983 (CSRS) version

3

Item statusVALIDIdentifier123AliasNAD83v3

Alias Canadian Spatial Reference System 1998

Alias NAD83

Alias NAD83(CSRS)
Alias NAD83CSRS
Alias NAD83(CSRS98)

Alias CSRS98

Alias NAD83(CSRS)v3

Alias Canadian Spatial Reference System

Alias CSRS

Alias North American Datum 1983 v3

Information source Title The Evolution of NAD83 in Canada

Author M. Craymer

Publisher Canadian Institute of Geomatics

Publication date 2006
Series/Journal name Geomatica
Issue identification Volume 60, No. 2

Page 151-164

Information source Title The Evolution of NAD83 in Canada: Addendum

Author M. Craymer

Publisher Canadian Institute of Geomatics

Publication date 2006
Series/Journal name Geomatica
Issue identification Volume 60, No. 4

Page 433.0

Information source Title The Canadian Spatial Reference System (CSRS)

Author Canadian Geodetic Survey

Publisher Canadian Geodetic Survey, Surveyor General

Branch, Earth Sciences Sector, Natural Resources Canada, Government of Canada

Publication date 2016-08-30

Data source ISO Geodetic Registry

Remarks Adopted by the Canadian federal government for use in Canada,

and by provincial governments in British Columbia, Nova Scotia and Ontario. Replaces NAD83(CSRS) v2. Replaced by NAD83(CSRS) v4.

Anchor definition Realization of the North American Datum of 1983 for the Canadian

Spatial Reference System, referred to as CSRS98 or CSRS. The frame is defined by a time-dependent seven parameter transformation of ITRF97 3D geocentric Cartesian coordinates and velocities for Canadian and bordering US and Greenland stations at reference epoch 1997.0. The frame is kept aligned to North America at other epochs using the NNR-NUVEL-1A estimate of three Cartesian rotation rates of change representing the tectonic plate motion of North America. The origin, scale and orientation of the frame are nominally defined to be

that for the BIH Terrestrial System 1984 (BTS84).

Release date 1999-01-01

Scope Spatial referencing

Ellipsoid GRS 1980

Extent

Description	Canada - onshore and offshore - Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Quebec, Saskatchewan,			
			Yukon.	
			Geographic Bounding Box	West-bound longitude
	North-bound latitude	90.0		
East-bound longitude	-47.74			
South-bound latitude	40.04			

Item class Ellipsoid

Name GRS 1980

Item statusVALIDIdentifier27

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

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 °

CartesianCS Item class

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

International Organization for Standardization Author

(ISO)

Publisher International Organization for Standardization

(ISO)

2007-07-01 Publication date Second Edition Edition Series/Journal name International Standard

Issue identification ISO 19111:2007

Data source ISO Geodetic Registry

Used in geocentric coordinate reference systems. Remarks

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 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 Χ Direction Geocentre > equator/0°E Unit metre

Item class CoordinateSystemAxis

Name **Geocentric Y**

VALID Item status Identifier 37

Title ISO 19111 Geographical information - Spatial Information source

referencing by coordinates

Author International Organization for Standardization

(ISO)

Publisher International Organization for Standardization

(ISO)

2007-07-01 Publication date Edition Second Edition Series/Journal name International Standard

Issue identification ISO 19111:2007

Data source ISO Geodetic Registry

Abbreviation

Direction Geocentre > equator/90°E

Unit metre

CoordinateSystemAxis Item class

Name **Geocentric Z**

VALID Item status 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)

2007-07-01 Publication date Edition Second Edition Series/Journal name International Standard

Issue identification ISO 19111:2007

Data source ISO Geodetic Registry

Abbreviation Ζ

Direction Geocentre > north pole

Unit metre