ISO Geodetic Registry

Item class	Transformation	
Name	**NAD83(CSRS) v6 to NAD 83 (2011) [v1]**	
Item status	VALID	
Identifier	482	
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*	Introducing HTDP 3.1 to transform coordinates across time and spatial reference frames
	Author	C. Pearson, R.A. Snay
	Publisher	Springer-Verlag
	Publication date	2013-01-01
	Edition date	2013-01-01
	Series/Journal name	GPS Solutions
	Issue identification	Volume 17, No. 1
	Page	1-15
	Other citation details	NAD83 (2011), NAD83 (MA11), NAD83 (PA11) transformation from IGb08
Information source	*Title*	Reference Frames: National
	Author	M. Craymer, J. Henton, D. Hutchinson, E. Lapelle, M. Piraszewski
	Publisher	Canadian Geodetic Survey, Surveyor General Branch, Earth Sciences Sector, Natural Resources Canada
	Publication date	2010-04-19
	Series/Journal name	Presentation to Canadian Geodetic Reference Systems Committee Meeting, Ottawa, April 19-21, 2010
Data source	ISO Geodetic Registry	
Remarks	Null transformation. NAD83(CSRS)v6 and NAD83(2011) are equivalent by definition at epoch 2010.	
Operation version	v1	
Scope	Spatial referencing	
Operation accuracy	0.0 m	
Source CRS	NAD83(CSRS) v6 - XYZ	
Target CRS	NAD 83 (2011) Epoch 2010 - XYZ	
Operation method	Time-Dependent Position Vector Transformation (geocentric Cartesian domain)	

Extent

Description	**North America - onshore and offshore: Canada - Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Quebec, Saskatchewan, Yukon. Puerto Rico. United States (USA) - Alaska, CONUS (Alabama, Arizona, Arkansas, California, Colorado,**

	Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming). Virgin Islands (US).	
Geographic Bounding Box	*West-bound longitude*	167.65
	North-bound latitude	86.46
	East-bound longitude	-47.74
	South-bound latitude	14.92

Operation parameter values

Time reference	2010.0 year
Rate of change of scale difference	0.0 parts per billion per year
Rate of change of Z-axis rotation	0.0 milliarc-second per year
Rate of change of Y-axis rotation	0.0 milliarc-second per year
Rate of change of X-axis rotation	0.0 milliarc-second per year
Rate of change of Z-axis translation	0.0 metre per year
Rate of change of Y-axis translation	0.0 metre per year
Rate of change of X-axis translation	0.0 metre per year
Scale difference	0.0 parts per billion
Z-axis rotation	0.0 milliarc-second
Y-axis rotation	0.0 milliarc-second
X-axis rotation	0.0 milliarc-second
Z-axis translation	0.0 metre
Y-axis translation	0.0 metre
X-axis translation	0.0 metre

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Item class	OperationMethod
Name	**Time-Dependent Position Vector Transformation (geocentric Cartesian domain)**
Item status	VALID
Identifier	82
Alias	Time-Dependent 7-Parameter Transformation
Alias	14-Parameter Transformation
Alias	Time-Dependent Position Vector Transformation
Data source	ISO Geodetic Registry
Remarks	Note the analogy with the rotation for the Time-dependent Coordinate Frame Transformation but beware of the differences! The Position Vector Transformation convention is used by IAG.
Formula	Geomatics Guidance Note No 7, part 2: Coordinate Conversions and Transformations including Formulas

Operation parameters

X-axis translation
Y-axis translation
Z-axis translation
X-axis rotation
Y-axis rotation
Z-axis rotation
Scale difference
Rate of change of X-axis translation
Rate of change of Y-axis translation
Rate of change of Z-axis translation
Rate of change of X-axis rotation
Rate of change of Y-axis rotation
Rate of change of Z-axis rotation
Rate of change of scale difference
Time reference