

## Grid-based Transformation Methods for Canada

Province	Transformation Method	Transformation file	Bot	Acquire
Alberta	NAD_1983_To_NAD_1983_CSRS98_3 NAD_1983_To_WGS_1984_8 <i>Alberta has an updated file for the NAD_1983_To_NAD1983_CSRS transformation called ABCSRsv4.DAC. If you want to use this, you will need to create a Custom Transformation Method *.</i>	ABCSRSv4.DAC (rename .gsb)	Yes	Geoff Banham 1-780-422-1291 Request .gsb for free
British Columbia	Custom Transformation Method required *	BC_27_98.gsb CRD27_00.gsb NVI27_05.gsb BC_27_05.gsb BC_93_98.gsb CRD93_00.gsb NVI93_05.gsb BC_93_05.gsb CRD98_00.gsb NVI98_05.gsb BC_98_05.gsb		Download – Free <a href="http://a100.gov.bc.ca/pub/mascotw/protected/convert.html">http://a100.gov.bc.ca/pub/mascotw/protected/convert.html</a>
Manitoba	No grid shift files other than the standard NTv2 NAD_1927_To_NAD_1983_NTv2_Canada	NTv2_0.gsb	Yes	
New Brunswick	ATS_1977_To_NAD_1983_CSRS98_NTv2_New_Brunswick ATS_1977_To_WGS_1984_	NB7783v2.gsb		Download – Free
	Custom Transformation Method required *	NB2783v2.gsb		<a href="http://geonb.snb.ca/downloads/grid_shift_files/geonb_ntv2gsf-ntv2_gsb.zip">http://geonb.snb.ca/downloads/grid_shift_files/geonb_ntv2gsf-ntv2_gsb.zip</a>
Newfoundland	No grid shift files other than the standard NTv2 NAD_1927_To_NAD_1983_NTv2_Canada	NTv2_0.gsb		
Nova Scotia	GEOcalc Polynomial Interpolation	TRNS7727.DAT	No	Digital Data Distribution
	ATS_1977_To_NAD_1983_CSRS98_NTv2_Nova_Scotia	NS778301.gsb (rename NS7783v2.gsb)	Yes	1-800-798-0706 1-902-667-7231
	ATS_1977_To_WGS_1984_3 Custom Transformation Method required to use to transform between ATS 1977 to NAD 1983 *	GS7783.gsb	Yes	Email: GISService@gov.ns.ca
Ontario	NAD_1927_DEF_1976_To_NAD_1983_NTv2_Ontario NAD_1927_DEF_1976_To_WGS_1984_1	MAY76V20.gsb	Yes	<a href="http://www.cosine.mnr.gov.on.ca/">http://www.cosine.mnr.gov.on.ca/</a> **
	Custom Transformation Method required *	ON27CSv1.gsb ON76CSv1.gsb ON83CSv1.gsb TO27CSv1.gsb		OR Morgan Goadsby 705-755-2132 Request - free
Prince Edward Island	ATS_1977_To_NAD_1983_CSRS98_2_NTv2_Prince_Edward_Is ATS_1977_To_WGS_1984_2	PE7783v2.gsb	Yes	Serge Bernard GeoCalc – official software \$100 Must purchase to get .gsb files
	GEO calc Polynomial Interpolation	TRPE7727.DAT	No	
Quebec	NAD_1927_To_WGS_1984_34 NAD_1927_To_NAD_1983_CSRS98_1	QUE27-98.gsb	Yes	SyREQ – official software <a href="mailto:information.geographique@mrf.gouv.qc.ca">information.geographique@mrf.gouv.qc.ca</a> download software request .gsb for free
	NAD_1927_To_NAD_1983_6	QUE27-83.gsb	Yes	
	NAD_1983_To_NAD_1983_CSRS98_1 NAD_1983_To_WGS_1984_6	NAD83-98.gsb	Yes	
	NAD_1927_CGQ77_To_NAD_1983_CSRS98 NAD_1927_CGQ77_To_WGS_1984_3	CGQ77-98.gsb	Yes	
	NAD_1927_CGQ77_To_NAD_1983_2	CGQ77-83.gsb	Yes	
Saskatchewan	NAD_1927_To_NAD_1983_CSRS98_2 NAD_1927_To_WGS_1984_32	SK27-98.gsb	Yes	<a href="https://www.geosask.ca/Portal/ptk">https://www.geosask.ca/Portal/ptk</a>
	NAD_1983_To_NAD_1983_CSRS98_2 NAD_1983_To_WGS_1984_7	SK83-98.gsb	Yes	Click on <a href="#">Pre-packaged Data Gallery</a> Search for .gsb files
Canada	NAD_1927_To_NAD_1983_NTv2_Canada	NTv2_0.gsb	Yes	

\* Many Canadian provinces with the national standard of the NTV2 have created grid-based transformations files (.gsb) to transform between the various provincial datums. Some of the Canadian transformation methods are recognized by the EPSG Geodetic Parameters database (see below link). However other provinces have not completed the internationalization process and these grid shift file are not listed as supported transformations yet. Please use the Create Custom Geographic Transformation tool in ArcToolbox from the Data Management > Projections and Transformation toolset.

\*\* On the COSINE Online Service website, click the button in the middle of the page that says, 'Information for Prospective Subscribers'. Click the Application Form button and fill out the application form for a UserID. With an email notification, it allows user to activate the account. Once that is accomplished, go back to the COSINE Online Service website, enter the UserID and Password and click the 'Download NTV2 File(s)' button. From the 'Download NTV2-Related Files' page, select 'Ontario' to see the list of available downloads.