

GeoNB Coordinate Transformation Service (CTS) Quickstart Guide

The GeoNB CTS is a tool for transforming coordinates in New Brunswick. The GeoNB CTS can transform coordinates between the several datums and map projections that are common in New Brunswick:

- Datums: NAD27, ATS77, NAD83
- Map Projections: Geographic (lat and long), UTM (zone 19 and zone 20), NB Stereographic Double

Quick start

If you are familiar with coordinates, datums and map projections here are some quick tips to get you started with the GeoNB Coordinate Transformation Service (CTS). Figure 1 shows a sample CTS screen with input from the keyboard:

The screenshot shows the 'Enter from Keyboard' section of the GeoNB CTS interface. It includes input fields for 'From' and 'To' datums and projections, a table for entering points, and a 'Transform' button. Five callouts provide step-by-step instructions:

1. Select the Datum and Projection of your input coordinates.
2. Select the Datum and Projection of your output coordinates.
3. Enter a point number and the coordinates then click the "Add" button. Repeat if you have more points.
4. Click the "Transform" button.
5. The transformed coordinates are displayed here.

Point	Easting(m)	Northing(m)
5284	184198.586	884166.303

Point, Latitude, Longitude

5284, 47.24704026, -68.02973480

Figure 1 Enter from Keyboard

It is also possible to upload a CSV file containing a list of coordinates. A CSV file is a "character separated value" file. In a CSV file each piece of data is separated from the next piece of data by a character. The default separator character is the comma (,) as shown in the example below. The basic format of the CSV file is:

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Format	Example	Comment
Point number, Easting, Northing	2244, 276300.691, 647866.807	
Point number, Easting, Northing, Zone	2244, 672863.406, 4999607.620, 19	UTM coordinates including zone number
Point number, Latitude, Longitude	2244, 45.13081862, -66.80121578	Decimal degrees
Point number, LatD, LatM, LatS, LonD, LonM, LonS	2244, 45, 7, 50.9470, -66, 48, 4.3768	Degrees, minutes, seconds

Figure 2 shows a sample CTS screen with a CSV file upload:

The screenshot shows the GeoNB CTS web interface with the following elements and callouts:

- 1. Select the Datum and Projection of your input coordinates.** Points to the 'From' section where 'Datum' is set to 'ATS77' and 'Projection' is 'NB Stereographic East, North'.
- 2. Select the Datum and Projection of your output coordinates.** Points to the 'To' section where 'Datum' is 'NAD83 (CSRS)' and 'Projection' is 'Lat, Long'.
- 3. Select the "Upload CSV file" tab.** Points to the 'Upload CSV file' tab, which is selected over 'Enter From Keyboard'.
- 4. Click the "Browse" button and select a CSV file from your computer.** Points to the 'Browse...' button next to the 'Filename' field.
- 5. Click the "Upload File" button.** Points to the 'Upload File' button.
- 6. Click this link to view or download the output file.** Points to the link 'Click here to view result.'

Figure 2 Upload CSV file

Below is a sample output file:

```

GeoNB Coordinate Transformation Service
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Date: 10/18/2011 11:34:29 AM
Input: ATS77, New Brunswick Stereographic Double, metres (EPSG 2200), 4 rows
Output: NAD83 (CSRS), Geographic Coordinates, degrees (EPSG 4617), 4 rows
Grid Shift file: NB7783v2.GSB

Point, Latitude, Longitude
2244,45.13081862,-66.80121578
4813,47.85616012,-64.66286502
5284,47.24704026,-68.02973480
8976,46.14469883,-63.89724426
    
```