

Guide: PGC Coordinate Converter

URL: <https://www.pgc.umn.edu/guides/web-mapping-applications/pgc-coordinate-converter/>

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The PGC Coordinate Converter is a simple web-based application to convert geographic coordinates between formats.

Quick Links

The PGC Coordinate Converter can be accessed at the URL below.

Coordinate Converter: <https://applications.pgc.umn.edu/convert>

Introduction

The PGC Coordinate Converter converts geographic coordinates (latitude and longitude) between different formats.

The application converts to and from the following coordinate formats:

Decimal Degrees (DD)

Floating point number representing geographic latitude and longitude. Latitude values range from -90 to 90 and longitude values from -180 to 180. For most practical (non-survey) use, rounding to 6 digits is sufficient.

Uses: GIS datasets, Mathematical Calculations

Degrees Decimal Minutes (DDM)

String (text) representing geographic latitude and longitude. Latitude values range from -90 to 90 and longitude values from -180 to 180. For most practical (non-survey) use, rounding the minutes to 4 digits is sufficient.

Uses: Navigation

Degrees Minutes Seconds (DMS)

String (text) representing geographic latitude and longitude in four parts (degree value, minute value, second value, and a direction). Latitude values range from -90 to 90 and longitude values from -180 to 180. For most practical (non-survey) use, rounding the seconds to 4 digits is sufficient.

Uses: Navigation

WGS84 Antarctic Polar Stereographic (EPSG:3031)

Floating point number representation (in meters) for projected (not geographic) coordinates by an x value (easting) and y value (northing) from the origin (0,0) at the geographic south pole. This projection creates a "grid" over Antarctica with 0° longitude as "up" (also referred to as Grid North).

Uses: Mapping

Detailed information from the EPSG website.

WGS84 NSIDC Sea Ice Polar Stereographic North (EPSG:3413)

Floating point number representation (in meters) for projected (not geographic) coordinates by an x value (easting) and y value (northing) from the origin (0,0) at the geographic north pole. This projection creates a “grid” over the Arctic with 0° longitude as “up” (also referred to as Grid North).

Uses: Mapping

Detailed information from the EPSG website.

Examples

| Example | Latitude / Y | Longitude / X |
|-------------------------------|--------------------|---------------------|
| Decimal Degrees (DD) | -77.508333 | 164.754167 |
| Degrees Decimal Minutes (DDM) | 77° 30.5' S | 164° 45.25' E |
| Degrees Minutes Seconds (DMS) | 77° 30' 29.9988" S | 164° 45' 15.0012" E |
| EPSG:3031 | -1314485.732632 | 358267.239976 |
| EPSG:3413 | -1314485.732632* | 358267.239976* |