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://www.pgc.umn.edu/apps/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 $0^{\circ}$ 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 $0^{\circ}$ Iongitude 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) | $77^{\circ} 30.5^{\prime} \mathrm{S}$ | $164^{\circ} 45.25^{\prime} \mathrm{E}$ |
| Degrees Minutes Seconds (DMS) | $77^{\circ} 30^{\prime} 29.9988^{\prime \prime} \mathrm{S}$ | $164^{\circ} 45^{\prime} 15.0012^{\prime \prime} \mathrm{E}$ |
| EPSG:3031 | -1314485.732632 | 358267.239976 |
| EPSG:3413 | $-1314485.732632^{*}$ | $358267.239976^{*}$ |

