

**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° 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*      |