

# Natively Supported Coordinate Systems for Integrations

A coordinate system consists of datum and a projection. A datum is a system for applying a grid to the surface of the Earth using a reference or measurements. There are many different ways to place this grid on the earth, which formulate all the different types of datums. A map projection uses the datum as a point of reference to represent a spherical or curved surface on a flat plane.

There are a few types of coordinate systems, but commonly utilized are Geographic coordinate systems and Projected coordinate systems. Geographic coordinate systems are based on a spheroid and use angular units of measure (degrees). A Projected coordinate system is based on a spheroid projected onto a flat 2D surface and utilize linear units (meters, feet...ect.) Projected coordinate systems tend to be more commonly used (State planes, UTM, etc.).

Below are Nearmap's coordinate system specifications:

- [WMTS](#) and [Tile API](#) only support Web Mercator (EPSG:3857, also known as EPSG:3785 and EPSG:900913).
- [WMS](#) and [ArcGIS Online imagery service layer "Nearmap US Photomaps"](#) can be projected to the desired coordinate system with software that supports on-the-fly reprojections or transformations.



Please note the spatial [accuracy](#) of Nearmap imagery may be at a lower quality when using projections not listed in this document.

## World-wide:

- EPSG:4326 - WGS 84 / Geodetic
- EPSG:3785 - aka EPSG:3857 - WGS 84 / World Mercator

## Australia

- EPSG:4283 - GDA 94 / Geodetic
- SR-ORG:7400 Perth Coastal Grid 1994
- EPSG:28349 to EPSG:28356 - GDA 94 / MGA zone #
- EPSG:7849 to EPSG:7856 - GDA 2020 / MGA zone #
- EPSG:3107 GDA94 / SA Lambert

## New Zealand

- WGS 84 / Spherical Mercator
- WGS 84 / UTM zone 60S
- NZGD2000 / UTM zone 60S
- NZGD2000 / New Zealand Transverse Mercator 2000
- New Zealand Continental Shelf Lambert Conformal 2000 (NZCS2000)

## North America

NAD83 realization is "NAD83(2011) 2010.0 epoch"

- EPSG:4269 - NAD 83 / Geodetic
- NAD83 / UTM zones 9 to 18
  - EPSG:26909 to EPSG:26918 - NAD83 \ UTM zone #
- EPSG:3310 - NAD 83 / California Teale Albers

\*\*\*\*Use NAD83 / UTM Zones when using state plane systems. See UTM Zone chart below:

126°W 120°W 114°W 108°W 102°W 96°W 90°W 84°W 78°W 72°W 66°W

