

PRISM Gridded Climate Data – Formats

The following formats are used for data and graphics available on the prism.oregonstate.edu website. Be sure to acquaint yourself with our [terms of use](#), which explain how to acknowledge any use of our data.

Map Graphics. All graphics are **PNG** files, a raster format that supports lossless data compression. PNG images are handled easily by virtually all common software packages.

Metadata. Each graphic or data file is accompanied by FGDC-compliant metadata formatted as **XML**. The FGDC standard is by far the most common for describing geospatial data, and XML has emerged as the preferred format since it can be displayed by so many types of software.

Tip: Viewing XML metadata. All web browsers support XML in some way, and the simplest method is to drag the XML file onto an open browser window. To see it nicely formatted, you'll want to add an XML viewer to your browser, such as XV (for Chrome) or XML Viewer (Firefox). Or if you're an ArcGIS user, use ArcCatalog as follows: (1) right-click on the XML filename and choose Item Description; (2) scroll to the bottom of the list and expand the item FGDC Metadata. If this is the first time you've looked at FGDC metadata, you may also need to use ArcMap's Customize -> ArcMap Options... menu item, then the Metadata tab, then the dropdown to choose FGDC CSDGM Metadata.

Gridded Data. All downloadable datasets are bundled with the corresponding metadata and compressed as **ZIP** files. Virtually all current operating systems provide full support for zipfiles, and it should be straightforward to extract the files either with no command at all (up-to-date Windows and Mac systems) or using the unzip command (Linux). Within the zipfile, individual files follow these naming conventions:

```
PRISM_<var>_<stability>_<scale&version>_<time period>[_all][_<format>].<ext>
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Component	Values/Meaning
<var>	ppt (precipitation); tmin, tmean, tmax (minimum/mean/maximum temperature); tdmean (dewpoint); vpdmin, vpdmax (minimum/maximum vapor pressure deficit)
<stability>	early, provisional, stable, 30yr_normal
<scale&version>	800mM2, 4kmM2, 4kmD1 (M2 and D1 indicate current version of monthly or daily data)
<time period>	For normals: <mm> = numerical designation for month (01 for January, etc.) annual = cumulative annual values For monthly data: <yyyymm> = numerical designation for selected year and month <yyyy> = cumulative annual values for selected year For daily data: <yyyymmdd> = numerical designation for selected day <yyyymmdd>_<yyyymmdd> = "from/to" span of days covered by selected month/year
all	used when a single metadata file applies to all components within a zipfile
<format>	bil or asc (see below)

The actual data files are in one of two formats:

BIL: This format contains raster data with floating-point numbers. It is the native output format of the PRISM Climate Model. Each BIL zipfile includes multiple components, with different file

extensions: .xml (metadata for this dataset); .bil (dataset), .hdr (header info required for most BIL uses); .prj, .aux.xml (grid statistics), and .stx (required by some software).

ASC: The ARC/INFO ASCII grid format is used primarily by ESRI software. Since it is not as efficient for us to create and manage, ASC format is available only for our most commonly downloaded products; these include the climatological normals, plus whole months or years. If you want to obtain smaller units, download BIL (note that ArcGIS can also read BIL format).