

Downloading Data from NOAA to Create PRISM-Ready Temperature Files

PRISM: Creating Temperature Files

PRISM's data prep routines are used to convert daily temperature data to PRISM-ready format. Although all possible data formats cannot be accommodated, an updated external PRISM data prep routine covers formats currently used by NOAA. Procedures to convert text files of columnar temperature data (i.e. produced in EXCEL, SPSS, or SAS), a utility that speeds the updating of temperature data, and an editor to use with small ASCII files, are also included in the Data Prep Menu in PRISM.

NOAA to TPS

In 1998, after publication of the PRISM Users Guide, NOAA revised the system of providing temperature data to users. Users may request data from NOAA's on-line system located at <http://www.ncdc.noaa.gov/oa/ncdc.html>. Files are available for a fee to most users, except those with an .EDU domain address. EDU users have free access to all NOAA data. To accommodate these changes we have revised the existing **NOAA to TPS** program and renamed it **NOAATOCOLS**. The program is no longer embedded in PRISM, but provided as an external utility. The program inputs raw NOAA data (text files) and converts them to a columnar format so the embedded PRISM Utility, **Column to TPS** can be used to create PRISM-ready temperature files. Users wishing to receive a copy of the new utility should request a copy from Michelle Marean, contact information is located at the bottom of this page.

We recommend using only *First Order Summary of the Day Temperature Data (TD-3210)* from primary weather stations. Primary stations are typically located at airports and military installations. These stations have been operational for many years (some since 1948), the data is collected electronically, and has been submitted to quality control procedures by NOAA. You should collect at least 10 years of data in order to cover the period of your billing data as well as to create a 10-year normalization period. We currently recommend acquiring daily data for January 1990 through the latest dates available from NOAA.

Downloading from NCDC

From the [main page at NOAA](#) one can search on the term *TD-3210* and then link Surface Temperatures, Summary of the Day, TD3200/3210. Or under On-Line Store, select [PRODUCTS](#), CLIMATE, then DATA: TEMPERATURE, then select TD - SUMMARY OF THE DAY. Users should link to [Online via User Selection](#), then Advanced Options, in order to specify the data elements of maximum and minimum daily temperatures. On the advanced form, select the following options:

All available First Order Stations,
Select State Territory
Specific Station
Send Output to File
Continue

The Select Stations screen will give you all available first order stations in the State. Instructions for selecting multiple stations are included on this page. After you have selected your Station(s), Continue. The Data for all First Order Stations will appear and you should select:

TMAX (Daily Maximum Temperature)

TMIN (Daily Minimum Temperature), Press Shift Key to Select Both

Date Range (we recommend January 1990 through latest available)

Output Format - Delimited Station Names (optimal for keeping track of the data)

Output Format Delimiter - Comma with Data flags

A confirmation screen will appear verifying the accuracy of the order and you will be asked to enter your email address. The next screen will provide you with a URL to link to the data. You will also receive an email with the same link. The link will be active for seven days. You can *right click* on the link and use the *save link* function to save the data on your disk, or click on the link and use the *save file* function in your browser. A complete data dictionary for TD-3210 can be downloaded [here](#). The tempsx.txt file is now ready for input to the **NOAATOCOLS** program to produce a columnar file containing Month, Day, Year, TMIN, TMAX. Below is sample output from **NOAATOCOLS** for January 1- January 7, 2002 (Newark, NJ).

1	1	2002	19	37
1	2	2002	22	39
1	3	2002	26	38
1	4	2002	28	42
1	5	2002	31	44
1	6	2002	29	31
1	7	2002	28	47

Follow the instructions in the PRISM USERS Manual on page II-85 to convert this columnar file to a PRISM ready .TPS file. A revised version of these pages is also included [here](#).