FClimDex (0.9)

User Manual

June 30, 2004

1. Introduction

The purpose of FClimDex is to provide a set of FORTRAN functions and routines to compute the 27 core indices quickly. The core part of RClimDex, data QC and computation of the 27 indices is implemented, but graphical user interface, plotting of time series etc., are not. A simple driver program is also provided. The FClimDex is best suited for the computation of indices for many stations.

The computation and data QC procedure in both FClimDex and RClimDex are the same. User inputs required for the indices calculation are stored in two files. Details on the definition and calculation of indices can be found in RClimDex user guider.

2. Requirement of the program

The program requires a F90 complier. It needs as input three files:
- Data file, with the same data format as those used in RClimDex
- "Infilename.txt" that contains the file name of the data file
- "para.txt" that provides user defined parameters for data QC and indices calculation. An example of "para.txt" is given as follows.

```
StationID          Latitude  NSTD  BYear EYear PRCPNN
6150689            20.34     3     1961  1990  25
```

   User defined parameters for indices calculation are stored in the second line. The first field is station ID, the second field is the latitude of the station, the third field is the number of standard deviations used to define outliers in the data in QC procedure, the fourth and fifth fields are the first and last years of the base period, respectively. The last field is a user defined threshold for extreme precipitation.
- The program calculates indices for all stations that have their station names listed in "Infliename.txt" and corresponding user defined parameters in "para.txt".
- In addition, it also need a "log" file

3. Outputs

Time series of each of 27 indices are stored, in plan ASCII, in 27 different files.