

Documentation for ofsshef Version 1.0 July 1, 2002

1.0 General Information

1.1 Application Description

The ofsshef application SHEF encodes user selected time series and model states from the NWSRFS processed database (PDB) and preprocessor parametric database (PPPDB). The application is written in Fortran77. The output files can then be passed to the appropriate shefdecoder on the RFC Archive Database/Files System.

This application can be installed on any AWIPS Unix OS system. A version for Linux OS systems is also being developed and should be available in early 2003 on the AWIPS LAD.

1.2 Background Information

This application is based on an application originally developed by NCRFC.

1.3 Assumptions application makes

The ofsshef application is designed to work with NWSRFS version 20 or greater.

1.4 Limitations

Model states for SNOW-17 are not included at this time.

2.0 Configuration Information

Apps defaults tokens

ofsshef_input	name of directory where input file is located
ofsshef_output	name of directory where output files are written

Input File

Before running this application, the user must create an input file. The file must be in the *ofsshef_input* directory. The format for the input file is as follows:

ofsshef_input_any_name_yourwish

where *any_name_youwish* is specified by the user..

The format for this input file is as follows:

The first line is a description line. From there every line must have the following:

1 2 3 4 5 6 7 8 9

where column # =

1. Up to 8 character ID.
2. Data type (eg. QINE).
3. Observed shef code (eg. HGIRZZ).
4. The number of days back that need to be coded.
5. Future shef code (eg. HGIFFZ).
6. The number of days in the future that need to be coded.
7. Valid units for NWSRFS Data type (eg. MM).
8. Timestep of data in hours
9. Segment ID for ID of data to be coded. Only needed for SAC-SMA values but must have an entry (eg. PERL1SEG for SAC-SMA or "" for none).

An example input file is shown below.

```
This a decription of input
DARL1 QINE QRIPZ 3 QTIFZ 5 CFS 6 NONE
CGSL101H SMZC TESTING 3 TESTING 5 MM 1 CGSL1
CGSL101H SSTG HGIRZ 3 HGIFZ 5 FT 1 NONE
LPOL1 MAP PPQMP 2 PPQFM 5 IN 6 NONE
LPOL1 MAPX PPQPX 2 PPQFM 0 IN 6 NONE
FRNL1 SSTG HGIZZZZ 4 HGIFFZ 4 FT 3 NONE
BXAL1 MAPE EMDPM 13 EMDFF 14 IN 24 NONE
PERL1 SMZC TESTING 5 TESTING 5 MM 6 PERL1
FLTT1 SMZC TESTING 2 TESTING 4 MM 6 FLTT1
```

3.0 User How-To

To run, go to the `../ofsshef/bin` directory and run the following command:

```
ofsshef any_name_youwish
```

where *any_name_youwish* is the last field after the 2nd underline in the input file name;
`ofsshef_input_any_name-youwish` .

Before running your environmental TZ must be GMT. If not, type the following command before running.

```
export TZ=GMT
```

After the application has finished running, the output file can be found in the directory indicated by the apps_defaults token ofsshef_output with the following filename:

ofsshef_any_name_youwish

where any_name_youwish is the "name" specified at run time.

4.0 Output File

An example output file is shown below.

```
: Tue Feb 18 1336 L 2003
:
.ER DARL1      0215 Z DH18/DC200302181336/QRIPZ /DIH06: OBS SHEF
.E1           .32/      .60/      3.03/      4.45/      4.59/      4.53/      4.72/      4.67/
.E2           3.87/      2.89/      2.24/      1.99/
.ER DARL1      0218 Z DH18/DC200302181336/QTIFZ /DIH06: FCST SHEF
.E1           1.03/      .40/      .18/      .03/      .00/      .00/      .00/      .00/
.E2           .00/      .00/      .00/      .00/      .00/      .00/      .00/      .00/
.E3           .00/      .00/      .00/      .00/

.ER LPOL1      0216 Z DH18/DC200302181336/PPQMP /DIH06: OBS SHEF
.E1           .00/      .00/      .00/      .00/      .00/      .00/      .00/      .00/
.ER LPOL1      0218 Z DH18/DC200302181336/PPQFM /DIH06: FCST SHEF
.E1           .00/      .00/      .00/      .00/      .00/      .00/      .00/      .00/
.E2           .00/      .00/      .00/      .00/      .00/      .00/      .00/      .00/
.E3           .00/      .00/      .00/      .00/

.ER LPOL1      0216 Z DH18/DC200302181336/PPQPX /DIH06: OBS SHEF
.E1           .00/      .00/      .00/      .00/      .00/      .00/      .00/      .00/

.ER FRNL1      0214 Z DH18/DC200302181336/HGIZZZZ/DIH06: OBS SHEF
.E1           1.51/      1.45/      1.40/      1.35/      1.30/      1.62/      2.55/      4.01/
.E2           4.53/      5.21/      5.54/      5.40/      5.19/      4.96/      4.64/      4.46/
.ER FRNL1      0218 Z DH18/DC200302181336/HGIFFZ /DIH06: FCST SHEF
.E1           4.25/      4.08/      3.89/      3.69/      3.50/      3.32/      3.17/      3.04/
.E2           3.04/      2.95/      2.88/      2.83/      2.79/      2.74/      2.69/      2.66/

.ER BXAL1      0206 Z DH12/DC200302181336/EMDPM /DIH24: OBS SHEF
.E1           .08/      .01/      .03/      .06/      .04/      .06/      .07/      .09/
.E2           .10/      .06/      .07/      .07/      .03/
.ER BXAL1      0219 Z DH12/DC200302181336/EMDFE /DIH24: FCST SHEF
.E1           .04/      .06/      .08/      .08/      .08/      .08/      .08/      .08/
.E2           .08/      .09/      .09/      .06/      .06/      .06/

:END OF MESSAGE

NNNN
```

5.0 Installation Instructions

This application is available from the AWIPS Local Applications Database Website located at <http://www.nws.noaa.gov/mdl/awips/>.

6.0 Maintenance Information

Originating Programmer/Office: Jones, Eric
Lower Mississippi River Forecast Center
Slidell, LA

Maintenance programmer/Office: Jones, Eric
Lower Mississippi River Forecast Center
Slidell, LA

7.0 References

NWS Manual 10-942 Standard Hydrometeorological Exchange Format (SHEF) Manual
www.nws.noaa.gov/directives/

NWS River Forecast System (NWSRFS) User's Manual
www.nws.noaa.gov/oh/hrl/nwsrfs/users_manual/htm/formats.htm