Documentation for
usgsdlyparse
11/4/02

1.0   General Information

1.1 Application Description

The purpose of the usgsdlyparse program is to create a SHEF file of historical daily flow retrieved from the USGS. The data can then be posted to the archive database via the shefdecoder. This program is written in Tcl/Tk.

1.2 Design Considerations

The SHEF output file is written in the .A format. It does not explicitly specify a SHEF quality code, so it will default to Z when posted to the database. The data is converted from CFS to KCFS before being written to the SHEF file.

1.3 Application Assumptions

The program expects an input file containing daily flow data for a single site in the following format:

        agency_cd site_no dv_dt dv_va dv_cd
 where
        agency_cd   Agency Code
        site_no   USGS station number
        dv_dt   date of daily mean streamflow (yyyy.mm.dd)
        dv_va   daily mean streamflow value, in cubic-feet per-second
        dv_cd   daily mean streamflow value qualification code

This format can be retrieved through the USGS NWIS website by choosing surface water then streamflow. Once the specific site has been selected choose the output format as tab separated data with the date YYYY.MM.DD. Attachment A is a sample input file.

The NWS lid is determined by searching the Archive Database aliasid table using the USGS id.

2.0   Configuration Information

The program expects the input file to be in the users current working directory and will create the output file in the same place.

The following apps_defaults tokens are used:
     adb_name   name of the archive database

adb_pro_que   base directory for the posting queues

3.0   User How-To

This program can be run either through the *arcmenu -> SHEF encoding menu*, or on the command line by simply typing *usgsdlyparse.* The program requires some user input, which can either be included on the command line or input as prompted by the program. The required inputs are as follows:

1. input filename (expected to be in current working directory)
2. output filename (will be created in current working directory)

The program reads the USGS station number from the file and tries to convert that to a NWS lid by using the archive database aliasid table. It then pops up a GUI window that displays the id, to allow the user to change it, and also has a space for the user to enter the SHEF parameter code for the data. The program then parses the data and writes a SHEF coded file.

When the program finishes it will ask the user whether to copy the SHEF output file to the database processed posting queue directory. The user may answer 'yes' to have the file automatically posted to the database or 'no' in order to review the output before posting (the user will need to manually copy the file to the posting queue in this case).

4.0   Troubleshooting Information

If the program seems to be having trouble parsing the file, make sure you have downloaded the correct format (see Attachment A).

5.0   Installation Instructions

6.0   Maintenance Information

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7.0   References

None.

ATTACHMENT A

```
# U.S. Geological Survey
# National Water Information System
# Retrieved: 2002-03-07 14:42:50 EST
#
# This file contains published daily mean streamflow data.
#
# Further Descriptions of the dv_cd column can be found at:
# http://water.usgs.gov/nwis/help?codes_help#dv_cd
#
#
# This information includes the following fields:
#
#  agency_cd   Agency Code
# site_no     USGS station number
# dv_dt       date of daily mean streamflow
# dv_va       daily mean streamflow value, in cubic-feet per-second
# dv_cd       daily mean streamflow value qualification code
#
# Sites in this file include:
#  USGS 09408400 SANTA CLARA RIVER NEAR PINE VALLEY, UT
#
#
agency_cd    site_no        dv_dt  dv_va dv_cd
5s     15s    10d    12n    3s
USGS 09408400      1959.08.01   1.6
USGS 09408400      1959.08.02   1.7
USGS 09408400      1959.08.03   2.1
USGS 09408400      1959.08.04   1.3
USGS 09408400      1959.08.05   1.3
USGS 09408400      1959.08.06   1.2
USGS 09408400      1959.08.07   1.4
USGS 09408400      1959.08.08   1.4
USGS 09408400      1959.08.09   1.3
USGS 09408400      1959.08.10   1.3
USGS 09408400      1959.08.11   1.5
USGS 09408400      1959.08.12   1.6
USGS 09408400      1959.08.13   1.3
USGS 09408400      1959.08.14   1.3
USGS 09408400      1959.08.15   1.3
USGS 09408400      1959.08.16   1.2
USGS 09408400      1959.08.17   1.5
USGS 09408400      1959.08.18   3.8
USGS 09408400      1959.08.19   2.6
USGS 09408400      1959.08.20   1.7
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