5 Command Line Functions

by Barbara C. Hoopes and James F. Cornwall

This chapter describes ADAPS command line functions. These are functions that are executed from the UNIX command line instead of from ADAPS menus, and that may be run manually or by automated means such as "cron" jobs. Most of these functions are NOT accessible from the ADAPS menus. These command line functions are described in detail below.

5.1 Hydra

Although Hydra is available from ADAPS at the PR sub-menu, Edit Time Series Data using Hydra (TS_EDIT), it can also be started from the command line. However, to start Hydra outside of ADAPS, a DV or UV RDB file needs to be available to edit. The command is "hydra rdb_file_name." For a complete description of using Hydra, refer to ***Section 4.5.2 Edit Time-Series Data using Hydra (TS_EDIT).***

5.2 nwrt2rdb

This command is used to output rating information in RDB format. It writes RDB files with a table containing the rating equation parameters or the rating point pairs, with all other information contained in the RDB comments.

The following arguments can be used with this command:

```
nwrt2rdb        -ooutfile
                -zdbnum
                -aagency
                -nstation
                -dddid
                -trating_type
                -irating_id
                -e (indicates to output ratings in expanded form; it is
                   ignored for equation ratings.)
                -l loctzcd (time zone code or local time code "LOC")
                -m (indicates multiple output files.)
                -r (rounding suppression)
```

Rules

- If -o is omitted, nwrt2rdb writes to stdout; AND arguments -n, -d, -t, and -i must be present.
- If -o is present, no other arguments are required, and the program will use ADAPS routines to prompt for them.

- If -m is present, -o must be present; -i OR -i and -t OR -i, -t, and -d can be omitted. A file will be output for each rating found in the database for the supplied keys.
- If -e is present, point-pair ratings will be output in expanded form.
- If -l is omitted, it will default to local time code "LOC."
- If -a is omitted, it will default to agency "USGS."
- If -z is omitted, it will default to database 1.
- If -r is present, rounding is suppressed, otherwise rounded values are output.

The nwrt2rdb command may also be executed using a control file (-f argument). The contents of the control file are described below after the usage rules. When a control file is used only the following arguments are applicable:

```
nwrt2rdb        -fctlfile
                -ooutfile
                -zdbnum
                -e (indicates to output ratings in expanded form. It is
                    ignored for equation ratings.)
                -l loctzcd (time zone code or local time code "LOC")
```

Rules
- The –o argument is mandatory when a control file is used. A separate output file is written for each rating in the control file. Outfile is used as the prefix for the output files.
- If -z is omitted, nwrt2rdb will default to database 1.
- If -e is present, point-pair ratings will be output in expanded form.
- If -l is omitted, nwrt2rdb will default to local time code "LOC."

The control file (-f argument) is an RDB file containing the columns "AGENCY," "STATION," "DDID," "RATING_TYPE," and "RATING_ID," corresponding to the -a, -n, -d, -t, and -i arguments for the usage when no control file is used. All columns must be present and populated. It does not matter in what order the columns appear in the control file. Valid rating types are:

Type	Description
MEAS	Input conversion rating
PARM	General parameter rating
STGQ	Stage/discharge rating
FALL	Fall/factor adjusted fall rating
FLFC	Fall/factor discharge rating
STAR	Stage-area rating

Type	Description
VELO	Index velocity/mean velocity rating
STCO	Stage-coefficient rating

5.3 nwts2rdb

The nwts2rdb command is used to output time-series information (daily-values, unit-values, discharge measurements, peak-flow, data corrections, and shifts) in RDB format. It writes RDB files with a table containing the time-series data with all other information contained in the RDB comments.

The following arguments can be used with this command:

```
nwts2rdb -ooutfile
        -zdbnum
        -tdatatype (dv, uv, ms, pk, dc, or sv)
        -aagency
        -nstation
        -dddid OR -pparm (not used with datatypes ms and pk)
        -sstatistic (dv) OR uvtype (M)easured, (E)dited,
                    (R)corrections, (S)hifts,(C)computed, or(N)Raw
                    Measured(no conversion of input ratings) OR
                    mstype (C)sg, (M)eas, (G)age insp. or (B)oth OR
                    pktype (F)ull,(P)artial or (B)oth (not used
                    with datatypes dc and sv)
        -bbegdate (yyyymmdd) (dv, dc, sv, ms, pk) OR
                    begdtm (yyyymmddhhmmss) (uv)
                    A value of all zeros indicates beginning of
                    period of record.
        -eenddate (yyyymmdd) (dv, dc, sv, ms, pk) OR
                    enddtm (yyyymmddhhmmss) (uv)
                    A value of all nines indicates end of period
                    Of record.
        -l loctzcd (time zone code or local time code "LOC")
        -r (rounding suppression)
        -w (water year flag)
        -c (Output COMPUTED daily values only (DV))
                    (combine date and time in a single column (UV))
        -y transport_cd (Measured Unit-Values only)
                    A (ADR), E (EDL), S (DCP), O (OBS), or U (UNS)
                    If omitted, it defaults to preferred input.
        -i title_line (Alternate title line if S_STRT is run)
```

Rules

- If -o is omitted, nwts2rdb writes to stdout; AND arguments -t, -n, -s, -b, -e, and -d or -p must be present. (-d or -p is not required when data type is "ms" or "pk," -s is not required when data type is "c," or "sv.")

- If -o is present, no other arguments are required, and the program will use ADAPS routines to prompt for them.
- If -p is present, -d cannot be present. The parameter code is used to find the PRIMARY DD for that parameter.
- If -a is omitted, it defaults to agency "USGS."
- If -l is omitted, it will default to local time code "LOC."
- If -r is present, rounding is suppressed, otherwise rounded values are output.
- If -w is present, -b and -e will be water years instead of dates or datetimes or the user will be prompted for water years instead of dates or datetimes.
- If -c is present and daily values are being output, only computed daily-values will be retrieved. If unit values are being output, date and time are combined into a single datetime column. This option is ignored if the data type is not "dv" or "uv."
- If -z is omitted, it defaults to database 1.
- If -y is present, it is ignored unless measured unit values are specified as arguments or selected in the prompting. If omitted, it defaults to preferred input.
- If -m is present, it is ignored.
- If -i is omitted, the standard S_STRT title line is used.

The nwts2rdb command may also be executed using a control file (-f argument). The contents of the control file are described below after the usage rules. When a control file is used only the following arguments are applicable.

```
nwts2rdb -fctlfile
         -ooutfile
         -m (write multiple files)
         -zdbnum
         -l loctzcd (time zone code or local time code "LOC")
         -r (rounding suppression)
         -c (Output COMPUTED daily values only (DV))
                 (combine date and time in a single column (UV))
         -y transport_cd (Measured Unit-Values only)
```

Rules

- If -o is omitted, nwts2rdb writes to stdout, and -m cannot be used.
- If -m is present, outfile is used as the output file name prefix. If omitted, all rows in the control file must be the same datatype.
- If -l is omitted, it will default to local time code "LOC."
- If -r is present, rounding is suppressed, otherwise rounded values are output.
- If -c is present and daily values are being output, only computed daily values will be retrieved.
- If unit values are being output, date and time are combined into a single datetime column. This option is ignored if the data type is not "dv" or "uv."

- If -z is omitted, it defaults to database 1.
- If -y is present, it is ignored except for rows in the control file specifying measured unit values. If omitted, it defaults to preferred input.
- If -t, -a, -n, -d, -p, -s, -b, -e, or -i are present, they are ignored.

The control file (-f argument) is an RDB file containing the columns "DATATYPE," "AGENCY," "STATION," "DDID," "SUBTYPE," "BEGDATE," and "ENDDATE," corresponding to the -t, -a, -n, -d, -s, -b, and -e arguments for the usage when no control file is used. If the first character of the DDID is a "P," then it is treated as a parameter code and used to locate the PRIMARY DD for that parameter. All columns must be present, and all columns must also be populated (not blank and not null), except that DDID is not used (may be blank or null) when DATATYPE is "ms" or "pk" and SUBTYPE is not used when DATATYPE is "dc" or "sv." It does not matter in what order the columns appear in the control file.

5.4 pick_dd

The pick_dd command displays a menu of available ADAPS data descriptors (DDs) for a command-line supplied station to stderr, reads the user's choice on stdin, and writes the selected DD id to stdout. It is intended for shell-script use as in the following example:

```
ddid=`pick_dd -n 12345678`
  nwts2rdb -t dv -n 12345678 -d $ddid -s 3 -b 19900101 -e 19900131
```

Usage for this command: pick_dd [-z dbnum] [-a agency] -n station

The dbnum defaults to one, agency defaults to "USGS" if omitted.

5.5 pick_rating

The pick_rating command displays a menu of available ADAPS ratings for a command-line supplied station and data descriptor (DD) to stderr, reads the user's choice on stdin, and writes the selected rating type and id to stdout in a format suitable for input to the nwrt2rdb command. It is intended for shell-script use as in the following example:

```
ratingid=`pick_rating -n 12345678 -d 1`
  nwrt2rdb -n 12345678 -d 1 $ratingid
```

Usage for this command: pick_rating [-z dbnum] [-a agency] -n station -d ddid

Rules

- The dbnum defaults to one, agency defaults to "USGS" if omitted.
- If I_card_file does not exist, it is assumed to be a station number and will be used to construct a temporary I-card file.
- If -o is omitted, the output file prefix will be the I_card_file argument. The output files will have a ".prt" and ".ps" suffix.

5.6 pkrtfq

The command pkrtfq is provided to automate the process of retrieving peak-flow data from the NWIS ADAPS sub-system and to perform flood frequency analysis with the HASS PEAKFQ program. It takes either a station number or a file of I-cards (see the ADAPS peak flow program documentation) as input. Output is a text file containing the flood frequency analysis report and a postscript file containing the flood frequency plots.

Usage for this command: pkrtfq I_card_file [-o output_file_prefix]

Rules

- If I_card_file does not exist, pkrtfq is assumed to be a station number and will be used to construct a temporary I-card file.
- If -o is omitted, the output file prefix will be the I_card_file argument. The output files will have a ".prt" and ".ps" suffix.

5.7 rtlist

The command "rtlist," used in NWIS Version 4_1 and earlier to display DCP status and transmission information, has been discontinued. The functions of the rtlist program may be found in the program "lrgs," documented in the DECODES area at
http://wwwnwis.er.usgs.gov/datarelay/lrgs/lrgs_admin.html.

5.8 rtmakemaster

The command rtmakemaster extracts DCP sensor information from the DECODES database and creates in the current working directory master.dcp.list.dbnn files, where "nn" is a two-digit database number for each database that contains stations from DECODES. The DBA then edits these files and places the final versions in /usr/opt/nwis/data/auxdata for the rtsoft programs to use as the default input files.

5.9   sentrystatus

The sentrystatus command displays the status of the ADAPS SENTRY processes. It looks at the ADAPS global variables, displays the process ID of the two sentry processes, and the names of the last files processed. In addition, it shows the file currently being processed, the date/time and DCP ID of the last transmission processed, and the transmission currently being processed. If -no_verify is specified, the sentrystatus command skips the step of verifying that the processes are still running.

The sentrystatus command can be run by any valid ADAPS user. Status information also can be found in the log files in the directory /usr/opt/nwis/data/systat. Look for files named sentry.dbnn.yymmdd.hhmmss.log and sen_unl_arch.dbnn.yymmdd.como.

Symbolic links that point to the most recent sentry.dbnn.yymmdd.hhmmss.log or .como file are SENTRY.DBnn.CURRENT.LOG and SENTRY.DBnn.CURRENT.COMO.

Usage for this command: sentrystatus nn [-no_verify]

   where: nn is the database number of the SENTRY processes to check.

5.10 std_store

This command is used to store STD format data in the ADAPS database. The **std_store** command is a command line interface to the ADAPS STD_STOR program. The data contained in the supplied STD formatted file is loaded into the database and status information is displayed to stdout. No user interaction is normally required. If any existing data are found in the database, the default action is to **not** store the data from the input file. If the user needs to overwrite existing data, he must provide the "-ov" switch on the command line as shown below. The default action of this command is to **not** perform a recomputation from the freshly loaded unit values. If the recomputation is desired, the "-co" switch will force st_store to be run.

Usage for this command: std_store std_file_path [-ov -co]

   where: -ov   allows existing data to be overwritten without user prompting
                -co   forces a recomputation using the newly loaded UV data

5.11 startsentry

The SENTRY program is actually one or more copies of the sentry process, one running for each ADAPS numbered database that receives DCP or telemetered EDL data. Each sentry process initially processes data for its database only. A sentry process can handle multiple databases, but because the process of switching from one database to another is

time-consuming and can cause the sentry process to lag behind real-time, the use of this feature should be avoided.

The startsentry command is used by user satin to start the ADAPS SENTRY processes sentry and sencmp.

Usage for this command: startsentry nn [-no_query|-nq]

  where: nn is the integer database number (from 1 to 98) to run.
     and -no_query or -nq means to attempt to start even if the
     flags indicate sentry is already running (for boot scripts).

5.12 stopsentry

The STOPSENTRY command is used by user satin to stop the ADAPS SENTRY processes sentry and sencmp.

Usage for this command: stopsentry nn [-kill] [-no_query|-nq]

  where: nn is the integer database number (from 1 to 98) to run.

Rules

- -kill means to find the sentry processes and kill them, and
- -no_query or -nq means to kill processes without asking any questions.

The stopsentry nn command can be run by any user with access to the stopsentry command. The stopsentry nn -kill command can be run only by the user who started sentry or as root (otherwise the kill command will not work).

5.13 approve_all_primary
    by James F. Cornwall

The approve_all_primary script is for use by the System Administrator (user type "SYST") to set the data aging codes for all Primary DDs in the specified database to "Approved." The processing will be for every DD flagged as "Primary" in the specified database, as well as all related DDs as specified in the processing instruction sets for the Primary DDs.

Usage for this command:
    approve_all_primary nn StartWY EndWY output_file_path &

  where: nn is the integer database number (from 1 to 98) to run against.
     StartWY is the starting Water Year for processing.

EndWY is the ending Water Year for processing.
output_file_path is the complete file name, including path, for the output report, and the "&" tells the system to run the script in the background.

Rules

- All four arguments are mandatory (must be present).
- StartWY must be within the range 1801 – 2020.
- EndWY must be greater than StartWY.
- EndWY must be within the range 1801 – 2021.
- The path and file name supplied for the output report will be validated to ensure the data can be written under the user's file permissions.

The approve_all_primary script, once it has been started by the user, will run until it has completed its task. Depending upon the contents of the database (number of stations and DDs, etc.), and the number of water years specified in the argument list, the script may run for several hours or even overnight. For this reason, caution is urged in the use of this script to avoid database locks and degraded performance while running. To run the script in the background and avoid locking up the user's terminal window, the "&" should always be used with this command as well.

5.14 list_data_aging_status

by James F. Cornwall

The script list_data_aging_status is intended for use by any system users to report on the current status of the data aging codes for all DDs in the specified database for the specified water year. To use this script, the user must be a member of the UNIX group "nwis_select." The script generates a formatted report into a user-specified output file.

Usage for this command: list_data_aging_status *nn WY output_file_path*
  where:
        nn is the integer database number (from 1 to 98) to run against.
        WY is the Water Year for processing.
        output_file_path is the complete file name, including path, for the output report.

Rules

- All three arguments are mandatory (must be present).
- WY must be within the range 1801 – 2020.
- The path and file name supplied for the output report will be validated to ensure the data can be written under the user's file permissions.

The list_data_aging_status script uses an SQL query to scan the database and extract the desired information. The output report is written to a user-specified file with information on each DD found in the database, as shown in the sample report below:

```
=========================================
===    Data Aging Status Listing        ===
===                                      ===
===    Water Year:  1998                 ===
===    Database Number:  01              ===
=========================================


=================================================
===    Data, Ratings, & Processor Tables Listing    ===
=================================================

AGENCY  STATION_ID         DD_NUMBER  PRIMARY_DD      RATINGS     PROCESSOR    DV
------  ---------------    ---------  --------------  ----------  ----------  ----
USGS    01010000           6          Y               A           A           W
USGS    01010500           5          Y               A           A           A
USGS    05014500           2          Y               A           A           A
USGS    05016000           1          Y               A           A           A
USGS    05018500           1          N               A           A           W
USGS    05018500           4          Y               A           A           A
USGS    12389000           2          Y               A           A           A
USGS    450937112393701    1          Y               A           A           W
USGS    451746106301101    1          N               A           A           W
USGS    453107106110601    1          N               A           A           W
```

The report generated by the script is in two parts. The first part lists the status of ratings, processors, and data broken down by data descriptor (DD).

- Data in the column "PRIMARY_DD" tells if the DD is considered a Work DD or a Primary DD, a "Y" indicating a Primary DD.
- The "RATINGS" column shows the status of any Ratings found for each DD.
- The "PROCESSOR" column shows the status of the Processor instruction set for each DD.
- The "DV" column shows the status of the Daily-Values for the DD. Since the data aging status for Unit-Values, Daily-Values, Rating Dates, Shifts, and Corrections are updated as a single agglomeration of data, the single DV status is shown and may be taken as an indicator of the other types' status as well.
- The data aging codes listed may be "W" for "Working," "R" for "in-Review," or "A" for "Approved" records.

5.15 dcp_performance_rpt
by James F. Cornwall

The program dcp_performance_rpt is a utility program, intended to run as a daily cron job, which will produce a listing of DCP Performance Parameters for System or Database Administrators to use for monitoring their equipment. The program may also be run manually from the UNIX command line as shown here:

Usage (command line): **nwis dcp_performance_rpt dbNN Ndays > output.file**
    where:
        NN is the integer database number (from 1 to 98) to run against.

Ndays is the number of days to report on (backwards from current day), and **output.file** is the complete file name, including path, for the output report.

A run of the program will produce a report that lists all data descriptors in the specified database with a DCP Performance Parameter Code (72112, 72113, 72114, 72115, 72116, 72117, or 70969). Any unit values stored in the database for the specified date range (present time backwards N days) are read out and scanned to determine the maximum, minimum, and average values as appropriate, and certain parameters are converted from numeric values (stored by the satin/sentry programs) into alphabetic status codes for display.

A sample report is shown below:

```
X XTerm on hqnwis7                                                           _ □ X
{jcorn} hqnwis7: % cat dcp_report
1                  U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

                                      DCP PERFORMANCE PARAMETERS REPORT
                                      Date Processed:  11-25-2002 at 10:26
                              Reporting Information from 11-18-2002 through 11-25-2002


              Parm: 72114        72112        72113        72115           70969              72117        72116
                    SIGNAL       DATA      MODULATION    FREQUENCY        BATTERY              TIME        TRANSMIT
                    STRENGTH    QUALITY      INDEX        OFFSET          VOLTAGE              DRIFT        FAILURE
                    (DBM)      INDICATOR     (CODE)        (HZ)           (VOLTS)            (SECONDS)      (CODE)
                    MIN  AVG   MIN  AVG    MIN  AVG    MIN    MAX     MIN    MAX    DIFF     MIN    MAX    MIN  AVG
STATION ID    DCP ID (41) (41-50) (F) (F-N) (N) (N-H) (-400) (+400) (11.5) (13.7) (0.2)    (6)    (42)   (G)  (G)
=================================================================================================================
01010000   4541181C   --   --    -    -     -    -    ---    ---    --     --     --      --     --     -    -
01010000   UNKNOWN                                                  --     --     --
01010500   4550EDFC   --   --    -    -     -    -    ---    ---    --     --     --      --     --     -    -
05014500   3463A512                                                12.2   12.2   0.0
06019500   166E1764                                                10.6*  12.7   2.1
06054500   CE78BE84                                                12.5   13.9*  1.4
06058600   F23300B8   40*  45    N    N     N    N    -200   -150   13.6   13.6   0.0      22     22     G    G
06066500   166BC6CC                                                12.2   12.2   0.0
06073500   16930560                                                12.0   12.9   0.9
06076690   CE78EEF8   --   --    -    -     -    -    ---    ---    --     --     --      --     --     -    -
06077200   CE78EEF8                                                11.8   13.2   1.4
06079500   F2306250   36*  41    N    N     N    N    -100   -100   10.6*  10.6   0.0      31     31     G    G
06085800   172F6170                                                12.2   13.4   1.2
06088300   171C05E8   41   43    N    N     N    N    -50    0      12.5   14.1*  1.6      11     11     G    G
06088500   171C5594   35*  41    N    N     N    N    -150   0      11.8   12.5   0.7     -135*  -135    G    G
06098500   F23343B2   --   --    -    -     -    -    ---    ---    11.1   11.1   0.0      --     --     -    -
06098500   UNKNOWN                                                 --     --     --
06101300   F23092D4   37*  39    N    F     N    N    -50    -50    10.6*  10.6   0.0      11     11     G    G
06101500   F230A74E   49   51*   N    N     N    N    -200   -150   12.0   13.2   1.2      22     22     G    G
06133500   F230E444   47   49    N    N     N    N    -100   0      10.6*  10.6   0.0      26     26     G    G
06134000   F230F732   46   49    N    N     N    N    -100   0      10.6*  10.6   0.0      4*     4      G    G
06134700   4806A040   --   --    -    -     -    -    ---    ---    13.0   13.9*  0.9      --     --     -    -
06136500   F23123A0   42   43    N    N     N    N    -250   -200   --     --     --       37     38     G    G
06137400   1789D466   --   --    -    -     -    -    ---    ---    10.6*  25.3*  14.7     --     --     -    -
06169500   1661371A   37*  39    N    N     N    N    -150   0      12.2   12.2   0.0      12     13     G    G
06177000   CE5119CE   44   46    N    N     N    N    -200   -100   --     --     --       11     12     G    G
06178000   1665B434   38*  41    N    N     N    N    -200   -150   13.4   14.0*  0.6      13     14     G    G
06181000   166695D6   --   --    -    -     -    -    ---    ---    --     --     --       --     --     -    -
06181000   UNKNOWN                                                 12.7   14.3*  1.6
06290500   1666A04C   43   45    N    N     N    N    0      50            --     --       5*     6      G    G
06290500   UNKNOWN                                                 12.5   14.8*  2.3
460140114103400 166460A6  37*  39  N   N    N    N    0      0                              18     18     G    G
460140114103400 UNKNOWN                                            13.2   13.6   0.4
475500113500001 3448E45E  --   --  -   -    -    -    ---    ---    12.9   13.6   0.7      --     --     -    -
480634114520700 16649022  50   52* N   N    N    N    0      150                           10     10     G    G
480634114520700 UNKNOWN                                            12.0   13.2   1.2
481900113210001 1789976C                                          --     --     --              -    -
481900113210001 3448D1C4  --   --  -   -    -    -    ---    ---    12.9   13.2   0.3      --     --     -    -


                        ======= LEGEND FOR DCP PERFORMANCE PARAMETERS =======

                                                                              Normal values
                Measurement                                            Minimum   Maximum   Average
P72114 - SIGNAL STRENGTH (Effective Isotropic Radiated Power, units = DBM)  +41      +50      +45
P72112 - DATA QUALITY INDICATOR (units = Code:  N = Normal, F = Fair, P = Poor)  F        N       F-N
P72113 - MODULATION INDEX (units = Code:  L = Low, N = Normal, H = High)     N        H       N-H
P72115 - FREQUENCY OFFSET (units = Hz)                                      -400     +400      ---
P70969 - BATTERY VOLTAGE (units = Volts)                                    11.5     13.7      ---
P72117 - TIME DRIFT (Diff. btwn assigned transmit time and actual time, units = seconds)  6   42   12
P72116 - TRANSMISSION FAILURE (units = Code:  G = Good, F = Failure)         G        G        G


Program Run Completed at 10:28:02 on 11/25/2002
{jcorn} hqnwis7: % ▌
```

Since each data descriptor is assigned a unique identifier within the database, the program must attempt to group the various performance parameters for a DCP by means of the DCP ID code. When a DD is located with a Performance Parameter code, e.g. 70969 Battery Voltage, but there is no 8-character DCP ID found with it, the record will be printed on its own line as shown. If some of the performance parameters are not defined for a station/DCP ID, that column will be left blank in the report. If a performance parameter is defined, but there are no unit values found within the specified dates, the column will show dashes instead.

Sample crontab entry for **dcp_performance_rpt:**

00 1 * * * /usr/opt/nwis/bin/nwis dcp_performance_rpt db01 30 > /usr/opt/nwis/data/systat/dcp_performance_rpt.db01.`date +\%Y\%m\%d`.`date +\%H\%M\%S`.log 2>&1

This entry will run the program against database 01, at 01:00 every day, for a period of 30 days, and store its output in date-/time-stamped files in the NWIS systat directory (files will be named as "**dcp_performance_rpt.db01.YYYYmmdd.hhmmss.log**").

NOTE: If the crontab entry for the program uses "...`date +\%y..." instead of an uppercase "+\%Y", the file date/time stamping will use only the last 2 digits of the year rather than the full 4 digit years.

5.16 del_perf_uvs

by James F. Cornwall

The program del_perf_uvs is a utility program, intended to run as a daily cron job, which will delete from the database any unit values data with specific DCP Performance Parameters older than the number of days specified for the run. The program may also be run manually from the UNIX command line as shown here:

Usage (command line): **nwis del_perf_uvs dbNN Ndays > output.file**
    where:
        NN is the integer database number (from 1 to 98) to run against.
        Ndays is the number of days to report on (backwards from current day), and
        output.file is the complete file name, including path, for the output report.

A run of the program will determine the deletion date (Ndays backwards from the current date), and will process all the UV sub-files for the specified database dbNN. Any unit values with a DCP Performance Parameter Code (72112, 72113, 72114, 72115, 72116, 72117, or 70969) stored in the database which are older than the deletion date, are deleted

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from the database. The total number of records deleted is printed out as well. Output is normally directed into an output file for logging the deletions.

A sample crontab entry to run the program is shown below:

00 1 * * * /usr/opt/nwis/bin/nwis del_perf_uvs db01 30 > /usr/opt/nwis/data/systat/del_perf_uvs.db01.`date +\%Y\%m\%d`.`date +\%H\%M\%S`.log 2>&1

This entry will run the program against database 01, at 01:00 every day, for a period of 30 days, and store its output in date-/time-stamped files in the NWIS systat directory (files will be named as "del**_perf_uvs.db01.YYYYmmdd.hhmmss.log**").