

## 4.9 Update Support Files/Record Flags

### 4.9.1 Manage Record Data Aging Status

See [Section 4.5.15](#) for the description of Manage Record Data Aging Status.

### 4.9.2 Update Location Information (LOC\_EDIT)

*by Susan C. Grams*

**Location** is one of the design features of the ADAPS software that allows the user to better define the point at which data are collected at a station. This program allows the user to enter, display, update, and delete locations for a station. If time-series data collection at a station occurs at only one location, then that point is automatically designated as the **default location**, 0. If data for a data descriptor (DD) are collected using sensors located at more than one point in a cross-section at a station, or at differing elevations, then these data-collection points need to be differentiated and defined by assigning each of them a unique location.

#### **Program Concepts and Information**

The LOC\_EDIT program is available in the “SU” sub-menu; it can be accessed from any menu in ADAPS by typing loc\_edit, or locations can be created or updated from the DD\_EDIT program by selecting the “LO” field for editing. A default location exists in the system for each station, numbered 0, and cannot be edited or updated by the user. The location code, cross-section code, and elevation code for the default location is set to “unspecified.” Users are not obligated to use the default location definition even if there is only one data-collection location at a site. If there is only one data collection location at a site, but the user wants to add descriptive information about this one location, a new location must be created and it is this new location that must be specified when data descriptors are created for the one location.

The software permits up to 999 locations to be created for a station. A new location can be entered using the add function, AD; modified using the edit function, ED; or deleted using the delete function, DE. All locations for a station may be viewed using the list function, LI; or details about a specific location may be viewed using the display function, DI.

#### **(AD)—Add a New Location for this Site**

Selecting the “AD” option first prompts the user to enter a name for the new location that is to be created. The system automatically assigns a location number to the new location. Once the new location is entered, a data entry screen is displayed from which the user can enter a location description, DS; a cross-section code, XC; and an elevation code, EC. The default cross-section code XC, and elevation code EC is “unspecified.”

<b>Location for</b>	
<b>02213700 OCMULGEE RIVER NEAR WARNER ROBINS, GA</b>	
<b>Location #</b>	<b>1</b>
<b>Created by:</b>	<b>scgrams on 23-may-2002 20:39:30</b>
<b>Modified by:</b>	<b>scgrams on 23-may-2002 20:39:30</b>
<b>NM - Location name:</b>	<b>QWMonitor</b>
<b>DS - Location description:</b>	
<b>XC - Cross-section code:</b>	<b>unspecified</b>
<b>EC - Elevation code:</b>	<b>unspecified</b>
<b>SA - Save location:</b>	
<b>Enter code of field to change, or [CR] to continue:</b>	

**LOC\_EDIT: Add mode (AD) Display at initial entry step**

The location name (NM) is an alphanumeric field 1 to 30 characters in length. The location description (DS) is an alphanumeric field which can hold up to 300 characters. The cross-section code XC is selected from the available menu of system codes for that attribute as is the elevation code EC.

The **cross-section codes** for option XC are:

- 1 UNSP unspecified
- 2 CNTR center
- 3 FMLB distance from left bank
- 4 FMRB distance from right bank
- 5 LFBK left bank
- 6 RTBK right bank

If the cross-section code selected is “3 FMLB distance from left bank” or “4 FMRB distance from right bank,” then the user may specify a cross-section location in units of feet using the XL option. If the cross-section codes 1, 2, 5 or 6 are selected, then the XL option is not available.

The **elevation codes** for option EC are:

- 1 UNSP unspecified
- 2 TOP top
- 3 BTM bottom
- 4 FTOP distance from top
- 5 FBTM distance from bottom

- 6 CNTR center
- 7 EL29 elevation to NGVD29
- 8 EL88 elevation to NAVD88
- 9 DAL5 Distance above land surface
- 10 DBLS Distance below land surface
- 11 DAGD Distance above gage datum
- 12 DBGD Distance below gage datum

For the all of the elevation codes except “1 UNSP unspecified,” “2 TOP top,” “3 BTTM bottom” and “6 CNTR center,” the user may specify an elevation offset in units of feet using the EL option.

<b>Location for 02213700 OCMULGEE RIVER NEAR WARNER ROBINS, GA</b>	
<b>Location #</b>	<b>1</b>
<b>Created by:</b>	<b>scgrams on 23-may-2002 20:39:30</b>
<b>Modified by:</b>	<b>scgrams on 23-may-2002 20:39:30</b>
<b>NM - Location name:</b>	<b>QWMonitor</b>
<b>DS - Location description:</b>	<b>Water-quality monitor sonde location</b>
<b>XC - Cross-section code:</b>	<b>distance from right bank</b>
<b>XL - Cross-section location:</b>	<b>25.0</b>
<b>EC - Elevation code:</b>	<b>elevation to NGVD29</b>
<b>EL - Elevation location:</b>	<b>125.0</b>
<b>SA - Save location:</b>	
<b>Enter code of field to change, or [CR] to continue:</b>	

**LOC\_EDIT: Add (AD) mode display showing all entry options**

Once a new location is added, type SA to save the location, then <CR> to return to the LOC\_EDIT sub-menu.

### **ED - Edit an Existing Location for this Site\***

The edit (ED) option allows the user to edit the location information in any one of the fields shown in Figure 2. NM, location name; DS, location description; XC, cross-section code; XL, cross-section location; EC, elevation code and EL, elevation location may all be updated by typing the two-letter character to select the item to be updated and then changing the information as necessary. Typing SA saves the changes made to the location information in the system. Then type <CR> to leave the program and return to the LOC\_EDIT sub-menu.

### **DI - Display a Location**

The display (DI) option displays all of the location information entered for a selected location.

### **LI - List the Locations for a station**

The list (LI) option lists all of the locations for the station specified in the user display upon starting the LOC\_EDIT program.

### **DE - Delete a Location for this Site\***

The delete (DE) option allows the user to delete a location for the station specified in the user display upon starting the LOC\_EDIT program.

**Warning:** Executing this option will delete all data descriptors (DDs), measurements, ratings, shifts, data corrections and unit and daily values associated with this location. Use with great caution.

### **CH - Change to a Different Location at this Site\***

The change (CH) option allows the user to select a location from the list of all locations for a station after starting the LOC\_EDIT program, or to change to a different location for the same station once in the program.

\* The menu options “ED,” “DI” and “CH,” when selected upon start-up of the loc\_edit program, prompt the user to “add” a new location and a new location can be added from each of these sub-menu selections, if desired.

### **US - Restart Program, Display User Information**

Selecting this option returns user to the ADAPS user display within the LOC\_EDIT program.

### **QU - Quit this Program**

Returns user to the “SU” sub-menu in ADAPS.

### **EX - Exit ADAPS programs**

Exits the ADAPS programs and returns user to the UNIX window.

## **4.9.3 Update Data Descriptor Information (DD\_EDIT)**

The *data descriptor* (DD) is used to identify the parameter code for which time-series data are collected at a location at a site. The DD record contains the information about that unique data set from a site which defines what it is and where it is located; establishes how the time-series data are processed, computed and stored in ADAPS; specifies the screening thresholds for the data; and designates whether or not the data are

to be viewed on NWISWeb, although this feature is not used by NWISWeb at the time of this documentation.

## **Program Concepts and Information**

The DD\_EDIT program is available in the “SU” sub-menu, or it can be accessed from any menu in ADAPS by typing dd\_edit. Users must have access level “ADBA” or higher to use this program. There are three parts to a data descriptor: 1. the definition of the descriptor, 2. the processing information, and, 3. the screening thresholds. The user can also set the status of a processor record from working to in-review or approved using the DD\_EDIT program. Up to 9,999 DD records may be created for a station/location.

### **AD - Add a New Data Descriptor**

When creating a DD record, the user-defined variables for a new DD are established using the AD option. In the first screen, the user defines the DD. These user-defined variables in the first step are:

- Parameter, PC, defines the parameter code for the data descriptor; the Location, LO, defines the location of the sensors from which the data are collected (see [Section 4.9.2](#));
- DD description, DS, is an alphanumeric variable with a field 30 characters in length allowing the user to embellish the description of the DD;
- Unit-values statistic code, SC, defines the unit values statistic for the DD;
- Primary/Work data, PF, is a flag which defines whether the data are the primary (official record) for a parameter or whether the data are working data (back-up, non-final, un-reviewed) ;
- Web Display, WW, sets the flag determining whether the data are displayed to the public via NWISWeb. Note: At the time of this documentation, NWISWeb does not use these flag settings in ADAPS to control access but the DD-level access is being controlled by settings established through nw\_edit directly in NWISWeb;
- Rounding codes, RN, provides user-access to the default rounding array for the specified DD parameter and allows the user to alter that array if necessary for records computation; and,
- DV table summary options, DT, allows the user to select the summary statistics options for the daily-values (DV) table, to select the type of DV table produced, and, to select whether a summary is produced for a water year, a calendar year, or both.

The second step in creating a data descriptor is to define the computation type and processor record. There are several computation-types available when creating the processing information for the DD. They are:

1. Direct Daily Values Computation—these unit values are not used to compute other computed unit values for another data descriptor
2. Standard Rating Computation

3. Standard stage-discharge computation
4. Slope-discharge Computation
5. Velocity/Deflection meter discharge computation
6. Difference Computation

Not all of these computation-types will be available for every DD. Computation-types 3, 4, and 5 are exclusive to the stage-discharge computation, the slope-discharge computation and the velocity-discharge computation, respectively.

Once the computation-type is selected, the user then creates the processor instructions for the data-descriptor. Some of the user-defined processor variables are:

- **SD**—starting date
- **ED**—ending date
- **RP**—Default primary report type; the user has the option of selecting either the historical primary report type or the standard primary report type.
- **GP**—Unit values missing gap time; this establishes the maximum gap between unit values that is acceptable for daily-value statistics computation.
- **DV**—Compute DVs; this defines the daily-value statistics that will be computed.
- **IN**—Input DD; this defines the input DD used to compute the computed unit and daily values for the computed DD. This variable only needs to be specified when data from a data descriptor are used as input values to compute unit values of a computed data descriptor.
- **IR**—In-review; used to set the status of a processor record.

The third step in creating a data descriptor is to assign screening thresholds for the unit value data stored under this DD. The use of screening thresholds is optional; however, if data for the DD being created are displayed on the Web, it is recommended to use those thresholds that screen data for display on the Web. The user may select from the following list of options to establish screening thresholds in this step:

- **VHI** - Very High Condition (units) \*
- **HI** - High Condition (units)
- **LO** - Low Condition (units)
- **VLO** - Very Low Condition (units) \*
- **SD** - Value To Value Test Difference
- **BK** - Define zone breakpoints (units)
- **VI** - VERY RAPID INCREASE (UNITS/MINUTE) \*
- **RI** - RAPID INCREASE (UNITS/MINUTES)
- **RD** - RAPID DECREASE (UNITS/MINUTES)
- **VD** - VERY RAPID DECREASE (UNITS/MINUTE) \*

\* Identifies thresholds that are used to screen data from the public for the WEB display

Alternate labels may be used for the condition thresholds and the standard difference threshold listed above. The user may redefine these labels using the following options:

- **LVH** - Label: very high condition threshold
- **LHI** - Label: high condition threshold
- **LLO** - Label: low condition threshold
- **LVL** - Label: very low condition threshold
- **LSD** - Label: standard difference threshold

**Example:**

If LVH is chosen, then the following screen appears:

**Enter alternate label for VERY HIGH CONDITION,  
(carriage return for default):**

The user can supply an alternate label such as “above instrument shelf.” Then the threshold screen would show: LVH- Label: above instrument shelf. This label would then be assigned to the data if that condition was exceeded.

Once the information in these three steps is entered, the information required by ADAPS to establish a data descriptor is completed.

**ED - Edit a Data Descriptor**

Selecting the ED option allows the user to update or edit any of the user-defined variables for the data descriptor (see those mentioned in the “AD—Add a Data Descriptor” section). The user may also use this option to change the “In-review” status of the data descriptor.

**DI - Display a Data Descriptor**

Selecting the DI option displays to the user in list format the definition, the computation instructions and the screening thresholds

**LI - List the Data Descriptors for a station**

The list (LI) option lists all of the data descriptors for the station specified in the user display upon starting the DD\_EDIT program.

**DE - Delete a Data Descriptor**

The delete (DE) option allows the user to delete a data descriptor for the station specified in the user display upon starting the DD\_EDIT program.

**Warning:** Executing this option will delete all data descriptors (DDs), measurements, ratings, shifts, data corrections and unit and daily values associated with this data descriptor. Use with great caution.

### **PF – Create DCP Performance Data Descriptors**

The PF option allows the user to create data descriptors used to store data about DCP performance. When the PF option is selected, the user is prompted to enter a DCP ID. When the DCP ID is entered, the following list of DDs are created for the station/location and output is generated to the screen:

**DD 3 FOR PARAMETER CODE 70969 ADDED. (Battery Voltage)**  
**DD 4 FOR PARAMETER CODE 72116 ADDED. (DCP Bad Characters)**  
**DD 5 FOR PARAMETER CODE 72114 ADDED. (DCP EIRP)**  
**DD 6 FOR PARAMETER CODE 72113 ADDED. (DCP Modulation Index)**  
**DD 7 FOR PARAMETER CODE 72115 ADDED. (DCP Frequency Drift)**  
**DD 8 FOR PARAMETER CODE 72112 ADDED. (DCP (S + N)/N)**  
**DD 9 FOR PARAMETER CODE 72111 ADDED. (DRGS Error Code)**  
**DD 10 FOR PARAMETER CODE 82292 ADDED. (DRGS Source Node)**  
**DD 11 FOR PARAMETER CODE 72117 ADDED. (DCP Del. Delay Time)**

### **CH - Change to a Different Data Descriptor**

The change (CH) option allows the user to select a data descriptor from the list of all data descriptors for a station after starting the DD\_EDIT program, or to change to a different data descriptor for the same station once in the program.

### **US - Restart Program, Display User Information**

Selecting this option returns user to the ADAPS user display within the DD\_EDIT program.

### **QU - Quit this Program**

Returns user to the “SU” sub-menu in ADAPS.

### **EX - Exit ADAPS Programs**

Exits the ADAPS programs and returns user to the UNIX window.

## **4.9.4 Update ADR Instrument**

*by James F. Cornwall*

The IN\_EDIT program is used to display and update the information for Analog-Digital Recorder (ADR) instruments. ADR instrument information describes the setup and configuration parameters for processing data from an ADR. The information stored in the NWIS database for an ADR instrument is used to read, review, and edit data recorded by an ADR. The instrument record stored for an ADR describes the recorder instrument



and the specific fields recorded for each data item (channel) on the instrument. The record includes fields such as an instrument identifier (ID) number, update dates, number of channels, flags for processing data values, and information about each data channel recorded by the ADR, such as a link to a specific Data Descriptor (DD) at the site, a channel ID, and threshold values for specific conditions.

### **Program Operation**

The instrument update program allows the user to add, display, edit, list, delete, and print the instrument records. Up to 99 instrument records can be created for a data collection site. Each instrument record can have many modifications, each of which is a new copy of the previous instrument record with the latest changes incorporated. Examples of major changes are: adding a new data channel, changing the channel orders, or deleting a channel. Each instrument modification is dated as to its effective end date. This gives the ability to change the instruments to handle new conditions or requirements for recording field data. The stacking of records with each change allows for processing of old or new data without the user having to be aware of the changes, except for having made the change. The menu options for the instrument updating program are described below. Each two-letter option code is given in parentheses preceding the action to be taken.

#### **(AD) - Add a New Instrument Record**

Allows users to create a new ADR instrument record for the processing of data. Previous versions of the IN\_EDIT program allowed users to make use of existing DD and processor records associated with a new ADR record, or create new ones if they did not already exist. With the release of NWIS 4.2, the capability to create new DD records has been removed from IN\_EDIT, so the user must ensure that all DD and processor records have already been created (using DD\_EDIT) before attempting to add an ADR instrument. If adding an instrument record for the following types of data computations, the auxiliary computation parameter must exist in a separately created auxiliary DD record.

<b>TYPE OF DATA COMPUTATION PARAMETER</b>	<b>AUXILIARY COMPUTATION</b>
FALL STAGE	STAGE (00065)
DEFLECTION METER	VELOCITY (00055)
INTEGRATING VELOCITY	VELOCITY (00055)

#### **(ED) - Edit an Existing Instrument Record**

Allows users to display and edit a selected instrument record. The editing may consist of changing or adding any instrument data, or moving instrument channels. Changing certain data will cause the automatic generation of a new instrument record; when this happens, the user is queried for the effective date and time of the modification. Only a current instrument record may be edited. Old instrument modifications (dated) may be displayed but not edited.

### **(DI) - Display of Instrument Record(s)**

Allows users to display the information stored in one or all instrument records for a site. The destination of the output depends upon the output destination that was previously selected in the ADAPS startup screens. The destination can be the user's terminal, an output file, or a selected printer.

### **(LI) - List of all Instruments for a Site**

Allows users to send a list of instruments and modifications for a selected site to the output destination specified at startup. The destination can be the user's terminal, or an output file, or a selected printer.

### **(DE) - Delete an Existing Instrument Record**

Allows users to delete the selected instrument record and all its modifications from the system. Be careful when deleting an instrument record from the system because the instrument record is considered to be a permanent record of the setup of the field recording instrument and it allows the reprocessing of old data when needed. The deleting of an instrument record does not cause the deletion of the DD and processor records associated with the instrument record.

### **(CH) - Change to Different Instrument**

Allows users to change from the currently selected instrument to a different instrument by selecting from a list of all the instruments available for the site. If only one instrument exists for the site, it will be automatically selected. If no instruments exist for the site, the user will be informed.

### **(US) - Restart Program and Display User Information**

Allows users to restart the program, display the default user information, and make changes to any of the desired items such as site, output destination, etc.

## **4.9.5 Manage Preferred Input**

*by Susan C. Grams*

Data for a Data Descriptor (DD) may originate from more than one source or type of instrument. For each DD at a location, the data from each transport method are stored in the measured unit-values table for that DD and are flagged according to the transport method used to enter the data into the database. Each transport method is identified using a transport method code, one of which is selected as the *preferred input*. The preferred input transport code for a DD may change during the operation of a station as equipment is upgraded, modified or changed. The PFIN\_EDIT program allows the user to modify the preferred input for each station data descriptor.

## **Program Concepts and Information**

The PFIN\_EDIT program is available in the “SU” sub-menu or it can be accessed from any menu in ADAPS by typing PFIN\_EDIT. Users must have access level “ADBA” or higher to use this program. The transport method codes available for use in this program are:

- **S** GOES DCP (Data Collection Platform)
- **E** EDL (Electronic Data Logger)
- **A** ADR (Analog-Digital Recorder paper tape)
- **C** digitized analog Chart
- **O** Observation data
- **U** Unspecified (Applied to data transferred from the 4\_1 database)

To serve real-time data on NWISWeb, the preferred input transport method code must be set to either of the two real-time transport codes, “S” or “E”. Data that are retrieved manually can only be used as the preferred input if no real-time data are to be served on the Web.

Unit-value data from the preferred input transport method are written to both the measured and edited unit values (UV) tables. Data from any other transport methods for a DD will be written only to the measured UV tables, and will not be stored into the edited UV tables unless manually brought in during the editing process. The preferred input data stream is the one used as the beginning point for processing time-series data. The data from other transport methods, once stored in the measured unit values tables, may be called up as reference curves, used to fill in gaps, or used to correct erroneous edited unit-values that were collected by the preferred input sensor. PFIN\_EDIT allows the user to change to a different preferred input method, delete a preferred input, or add a new preferred input for a data descriptor.

### **CH - Change Existing Preferred Input**

This option allows the user to modify the transport method code for the preferred input sensor for the selected data descriptor. The user selects the preferred input to change by the corresponding number in the column left of the “sensor id” column. Once selected, the user is prompted to select a new transport method code from the list in parentheses. Typing a <CR> will list the transport code definition associated with each letter code (see the following table).

<b>SET PREFERRED INPUT</b>				
<b>02213700 OCMULGEE RIVER NEAR WARNER ROBINS, GA</b>				
<b>PH, WH, FIELD, in (STANDARD UNITS)</b>				
SENSOR	TRANSPORT	START DATE	END DATE	
ID	CODE			
-----	-----	-----	-----	-----
1	0	U	--	09/30/2001
2	0	E	10/01/2001	--
-----				
<b>CH) Change Existing Preferred Input</b>		<b>AD) Add New Preferred Input</b>		
<b>DE) Delete Existing Preferred Input</b>		<b>RE) Refresh Screen</b>		
<b>US) Select New Site or DD</b>		<b>QU) Quit</b>		
<b>SELECT PROGRAM OPTION (CR=CONTINUE): ch</b>				
<b>Select a preferred input to edit: 2</b>				
<b>TRANSPORT CODE (S,E,A,C,O,&lt;CR&gt;=LIST DEFINITIONS):</b>				
<b>S = DCP</b>				
<b>E = EDL</b>				
<b>A = ADR</b>				
<b>C = CHA</b>				
<b>O = OBS</b>				
<b>TRANSPORT CODE (S,E,A,C,O,&lt;CR&gt;=LIST DEFINITIONS):</b>				

**DE - Delete Existing Preferred Input**

This option is used to delete a preferred input. The user selects the preferred input to delete by the corresponding number in the column left of the "sensor id" column. Once this number is entered, the selected preferred input is deleted and the list of preferred inputs is refreshed and displayed to the user.

**AD - Add New Preferred Input**

This option allows the user to add a preferred input for a data descriptor. After typing "AD" <CR>, the user is prompted for a starting date for the new preferred input. Enter the date in the format MM DD YYYY. Once the date is entered, the user is prompted to select the transport method used for the new preferred input. When the transport method

code is entered, the screen is refreshed and the new list of preferred inputs is displayed to the user.

**RE - Refresh Screen**

This option refreshes the “SET PREFERRED INPUT” screen.

**US - Select New Site or DD**

Selecting this option returns the user to the user display where another station or data descriptor may be selected.

**QU - Quit**

Selecting this option exits the program and returns the user to the “SU” sub-menu.