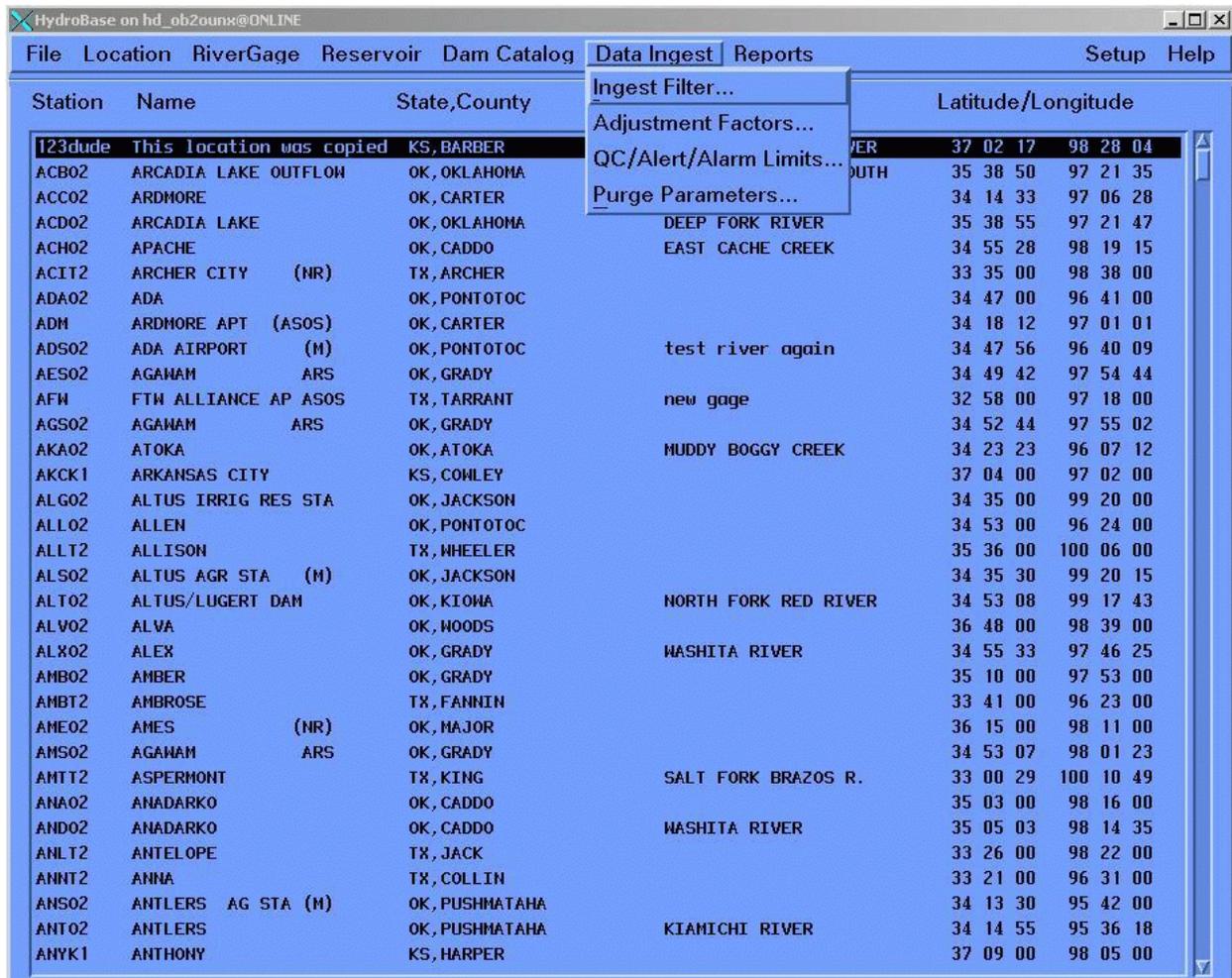


Hydrobase's Data Adjustment Factors... introduced in OB1

Data Adjustment Factors GUI provides a way to enter, update, and delete factors to adjust data. This information is stored in the hydro database under a new table name: **AdjustFactor**.

This GUI is located in Hydrobase under Data Ingest. The user can click on the Data Ingest and select Adjustment Factors... on the pop down menu.



The logic behind this function is that any SHEF message processed by the shefdecoder which matches (location ID, Physical Element, Duration, Type Source and Extremum) an entry in the AdjustFactor table will be processed using a formula. Users can use this functionality to adjust raw data for elevation vs. stage, CFS vs. KCFS, or use the formula to perform units conversion like for temperature.

The top half of the Data Adjustment Factors GUI is shown below. This section is a summary of all the locations and their values that are used in determining the adjusted value. It displays the Location, Physical Element (PE), Duration (Dur), Type Source (TS), and Extremum (Ext) to describe the gage. It also displays the Divisor, Base, Multiplier, and Adder numbers that are used in the adjusted value formula.

The adjusted value formula is shown in the GUI as the following:

The screenshot shows a window titled "Data Adjustment Factors" with a sub-header "Summary by Location of Data Adjustment Factors". Below this is a table with 9 columns: Location, PE, Dur, TS, Ext, Divisor, Base, Multiplier, and Adder. The table contains 9 rows of data. The row for "ALL02" is highlighted in black. Below the table, the formula for the adjusted value is displayed:
$$\text{Adjusted Value} = (((\text{Raw Value} / \text{Divisor}) + \text{Base}) * \text{Multiplier}) + \text{Adder}$$

Location	PE	Dur	TS	Ext	Divisor	Base	Multiplier	Adder
12345678	HG	0	RG	Z	1.000	0.000	1.000	0.000
ACIT2	HA	0	RG	N	1.000	3.100	2.200	9.000
ACIT2	HB	0	RG	D	1.000	2.000	3.000	0.000
ACIT2	HC	0	RG	D	0.450	0.000	1.000	9.000
ACIT2	HD	0	RG	D	0.500	0.000	4.000	4.000
ACIT2	HE	0	RG	D	1.000	0.000	1.000	0.000
ALL02	HG	0	RP	Z	1.000	0.000	1.000	-100.000
BLU02	HG	0	RG	Z	1.000	0.000	1.000	0.000

Adjusted Value = (((Raw Value/Divisor) + Base) * Multiplier) + Adder

where the...

Adder can be a positive or a negative number (hence a negative number will do subtraction)

If you leave the Divisor, Base, Multiplier, and/or Adder text boxes blank they will default to the following: Divisor = 1.0, Base = 0.0, Multiplier = 1.0, and Adder = 0.0

Note: If the user enters a ZERO in the Divisor, it will be changed to 1.0 (this prevents a divide by zero). The other three boxes can have any number (negative or positive) place in them.

The Selected Item section near the bottom of the GUI is where the user can modify or create a new entry. Here the user can put information into the different fields to describe the location and calculate the adjusted value.

Clicking on Update/Insert will save your new entry or changes to an existing entry. Delete will

The screenshot shows a GUI window titled "Selected Item" with a blue background. It contains several input fields and a list box. The fields are: "Location:" with the value "ALLO2"; "Duration:" with a dropdown menu showing "Instantaneous (0)"; "TypeSource:" with a dropdown menu showing "Phone DARDC (RP)"; "Extremum:" with a dropdown menu showing "Null Character (Z)"; "Divisor:" with the value "1.000"; "Base:" with the value "0.000"; "Multiplier:" with the value "1.000"; and "Adder:" with the value "-100.000". To the right of these fields is a list box titled "Physical Element:" containing the following items: "HG River Stage" (highlighted), "HH Reading Height - MSL", "HI Stage Trnd Indicator", "HJ Spillway Gate Height", "HK Lake Elev Abv Datum", and "HL Lake Elevation". At the bottom of the window are three buttons: "Close", "Update/Insert", and "Delete".

completely delete an entry if you have it highlighted above in the summary section.

Note: After the user inserts a new entry and/or updates an existing one he or she will have to stop and start the shefdecoder to have the changes in the AdjustFactor table take affect.