

Request for Change

Standard Hydrometeorological Exchange Format (SHEF)

Part 1 Requested Change

The RFC Archive Database Implementation Team has determined that to implement the version 1 RFC Archive Database/Files System addition SHEF type codes are needed. The proposed RFC archive database has a requirement to allow first and multiple levels of processed/qc'd values of a piece of data to exist. In order to accomplish this, a new series of SHEF type codes is requested. These would be SHEF type codes 1, 2, 3, 4, 5, 6, 7, 8 and 9, which relate to low level processing (1) through high level processing (9). See pages 3 & 4 for specifics.

Part 2 Background Summary

The current method of indicating different processing levels loses the value of the SHEF source code. This can be of importance as the data value moves thru the all the levels of processing and quality control since different groups of sensors react in different ways. For example, a PC (precipitation accumulator) obtained from a SNOTEL site. Initially, this data is transmitted and received by an RFC as type, PCIRMXX. At this stage of processing, the type/source of the sensor or system is known, that is RM, which means METEOR BURST or SNOTEL. Once you process this data under current SHEF, you would change the PEDTSEP to PPHPAZZ, or something similar depending upon how you calculated the increments. This would tell the user that the precipitation is processed at the first or 'A' level (i.e. PA), but you lose the original SHEF source code. If you have, for example, only one precipitation sensor at a site, you could probably get by. But many sites have different types and sources of precipitation and these differences need to be accounted for.

The method requested in Part 1 has been tested and used successful at CBRFC for several years and other RFCs that use the SWS software developed by CBRFC for water supply forecasting. It is a simple, but quite effective and visually descriptive method indicating the processing level while retaining the invaluable SHEF source information. Note that this convention does not preclude using PA, PB, etc. if desired. A minor change would have to be made to the national SHEF decoder. A few examples are shown below:

Example of SNOTEL (RM) data...

PCIRMZZ	raw data accumulator
PPQ1MZZ	level 1 6 hourly SNOTEL data
PPQ2MZZ	level 2 6 hourly SNOTEL data
PPQ3MZZ	level 3 6 hourly SNOTEL data
... etc	

Example of GOES (RG) data...

PCIRGZZ	raw data accumulator
PPQ1GZZ	level 1 6 hourly DCP data
PPQ2GZZ	level 2 6 hourly DCP data
...etc	

Example of GOES (RG) data...

QCIRGZZ	raw flow data converted from HGIRGZZ (rating)
QCI1GZZ	level 1 processed flow
QCI2GZZ	level 2 processed flow
...etc	

Part 3 Contact Information

Change Requested by: RFC Archive Database Implementation Team

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PROCESSED DATA (NONFORECAST) SHEF "TS" to include

<u>CODE</u>	<u>EXPLANATION</u>
1F	process level 1, Airborne
1G	process level 1, GOES
1M	process level 1, Meteor burst
1P	process level 1, Phone (DARDC/LARC)
1R	process level 1, Radio #1
1S	process level 1, Radio #2
1T	process level 1, Telemark/BDT (phone audio)
1V	process level 1, Visual/manual #1
1W	process level 1, Visual/manual #2
1X	process level 1, Visual/manual #3
1Z	process level 1, Nonspecific observed reading (default)
2F	process level 2, Airborne
2G	process level 2, GOES
2M	process level 2, Meteor burst
2P	process level 2, Phone (DARDC/LARC)
2R	process level 2, Radio #1
2S	process level 2, Radio #2
2T	process level 2, Telemark/BDT (phone audio)
2V	process level 2, Visual/manual #1
2W	process level 2, Visual/manual #2
2X	process level 2, Visual/manual #3
2Z	process level 2, Nonspecific observed reading (default)
3F	process level 3, Airborne
3G	process level 3, GOES
3M	process level 3, Meteor burst
3P	process level 3, Phone (DARDC/LARC)
3R	process level 3, Radio #1
3S	process level 3, Radio #2
3T	process level 3, Telemark/BDT (phone audio)
3V	process level 3, Visual/manual #1
3W	process level 3, Visual/manual #2
3X	process level 3, Visual/manual #3
3Z	process level 3, Nonspecific observed reading (default)
4F	process level 4, Airborne
4G	process level 4, GOES
4M	process level 4, Meteor burst
4P	process level 4, Phone (DARDC/LARC)
4R	process level 4, Radio #1
4S	process level 4, Radio #2
4T	process level 4, Telemark/BDT (phone audio)
4V	process level 4, Visual/manual #1
4W	process level 4, Visual/manual #2
4X	process level 4, Visual/manual #3
4Z	process level 4, Nonspecific observed reading (default)
5F	process level 5, Airborne
5G	process level 5, GOES
5M	process level 5, Meteor burst
5P	process level 5, Phone (DARDC/LARC)
5R	process level 5, Radio #1

5S process level 5, Radio #2
 5T process level 5, Telemark/BDT (phone audio)
 5V process level 5, Visual/manual #1
 5W process level 5, Visual/manual #2
 5X process level 5, Visual/manual #3
 5Z process level 5, Nonspecific observed reading (default)

6F process level 6, Airborne
 6G process level 6, GOES
 6M process level 6, Meteor burst
 6P process level 6, Phone (DARDC/LARC)
 6R process level 6, Radio #1
 6S process level 6, Radio #2
 6T process level 6, Telemark/BDT (phone audio)
 6V process level 6, Visual/manual #1
 6W process level 6, Visual/manual #2
 6X process level 6, Visual/manual #3
 6Z process level 6, Nonspecific observed reading (default)

7F process level 7, Airborne
 7G process level 7, GOES
 7M process level 7, Meteor burst
 7P process level 7, Phone (DARDC/LARC)
 7R process level 7, Radio #1
 7S process level 7, Radio #2
 7T process level 7, Telemark/BDT (phone audio)
 7V process level 7, Visual/manual #1
 7W process level 7, Visual/manual #2
 7X process level 7, Visual/manual #3
 7Z process level 7, Nonspecific observed reading (default)

8F process level 8, Airborne
 8G process level 8, GOES
 8M process level 8, Meteor burst
 8P process level 8, Phone (DARDC/LARC)
 8R process level 8, Radio #1
 8S process level 8, Radio #2
 8T process level 8, Telemark/BDT (phone audio)
 8V process level 8, Visual/manual #1
 8W process level 8, Visual/manual #2
 8X process level 8, Visual/manual #3
 8Z process level 8, Nonspecific observed reading (default)

9F process level 9, Airborne
 9G process level 9, GOES
 9M process level 9, Meteor burst
 9P process level 9, Phone (DARDC/LARC)
 9R process level 9, Radio #1
 9S process level 9, Radio #2
 9T process level 9, Telemark/BDT (phone audio)
 9V process level 9, Visual/manual #1
 9W process level 9, Visual/manual #2
 9X process level 9, Visual/manual #3
 9Z process level 9, Nonspecific observed reading (default)