

October 29, 2013

# Office of Water Quality Water-Quality Information Note 2014.01

# Subject: New Software Release and Webinar training— Water-Quality Monitor Review (wqmreview), Automated Correction Loader (ACL) software, and Data-Quality Rating Program

This WaQI Note announces the release of three software packages to assist with continuous water-quality records--water-quality monitor review (wqmreview), automated correction loader (ACL), and data-quality ratings program and the training available to assist new users. The software packages supplement the work, check, and review process for continuous water-quality records and complete the electronic records processing path for continuous water-quality records (figure shown below), as recommended by the Continuous Water Quality Committee (CWQC). Two training webinars and two question and answer webinars for these software packages will be presented.



Continuous Water Quality Committee – Recommended path for working CWQ records (2012)

## Water Quality Monitor Review

The wqmreview program was developed by Wade Walker, Colorado WSC, and is the waterquality portion of the larger auto\_review program that automates the production of record packets and assists with record checking, reviewing, and electronic archival for multiple record types. Wqmreview is designed for standard continuous water-temperature, specific conductance, dissolved oxygen, pH, and turbidity records. Wqmreview output includes:

- Plots of instantaneous values:
  - Contains an upper graph of the selected DD's data and a lower graph of a reference dataset, typically discharge or stage data for the same period
  - Can include edited and computed instantaneous values, data correction instantaneous values, daily values, monitor inspections, reference site data, data correction entry with set number and remarks, and QWDATA field measurements
  - Include data aging of instantaneous values via color coded "rugging" at the bottom of the top plot.
- Common ADAPS tables that can also be included in the output are:
  - UV inventory tables of edited and computed data
  - o site visit reports
  - DV table (including all stats set up to be stored in the DD processor)
  - EOY summary
  - ADAPS station analysis
  - primary report (optional)
  - o QWDATA table

The auto\_review software and installation instructions can be obtained from <a href="http://water.usgs.gov/usgs/owq/wqmreview">http://water.usgs.gov/usgs/owq/wqmreview</a>.

## Automated Correction Loader

The ACL was developed by Eric Kerner, Steve Brady, and Pat Rasmussen of the Kansas WSC. When the user locks a site visit, ACL retrieves water-quality data from NWIS SiteVisit and data corrections are computed and loaded to ADAPS automatically. The user receives an email for every site visit that ACL processes. Users are encouraged to evaluate the data corrections as part of the <u>continuous records process</u> for WQ records.

ACL 1.1.0 features:

- Processing every 10 minutes.
- Email reports that list data corrections and upload status to ADAPS.
- Computed data corrections are evaluated with criteria in <u>TM 1-D3</u>.
- Write protection of existing data corrections.
- Data correction customization through configuration files.
- Configuration file editor.
- Script to initialize WQ site information and DDs from NWIS.
- Can be configured to process the affected time-series record.
- The WSC controls which sites ACL processes.

The ACL software and installation instructions can be obtained from <a href="http://water.usgs.gov/usgs/owg/acl/">http://water.usgs.gov/usgs/owg/acl/</a>

### **Data-Quality Rating Program**

The data-quality rating program is used to compute and assign categories of data quality (Excellent, Good, Fair, Poor, Consider Deletion) to specific date ranges of a time-series waterquality record stored in NWIS. Categories are assigned based on the sum of the absolute values of the data corrections from tables 1, 2, and 3 in NWIS, applying criteria provided in USGS Techniques and Methods 1-D3 (Wagner and others, 2006) for temperature, pH, conductance, dissolved oxygen, and turbidity; or other estimated criteria for parameters not covered in TM 1-D3.

The data-quality rating program and installation instructions can be obtained from <u>http://water.usgs.gov/usgs/owq/dqrating/</u>.

### <u>Webinars</u>

Training will be offered on multiple dates and will require about 1.5 hours to complete. Time for questions and live demonstrations will be included.

Please register for the webinar by going to

https://usgs.webex.com/mw0306ld/mywebex/default.do?siteurl=usgs and navigating to the date the webinar is offered. In order to register, click on the link to right side of the title called "Register". Only 50 connections are available. Registration for the session is required in order to insure that we remain below the 50 connection limit. Registration is on a first-come firstserved basis. Only those registered will receive the teleconference information. If multiple persons in an office are attending, please share a single connection.

Training webinars:

November 7, 2013 12 pm Eastern November 14, 2013 2 pm Eastern

Question and answer webinars;

November 21, 2013 3 pm Eastern December 12, 2013 12 pm Eastern

Questions about ACL software should be referred to Pat Rasmussen (<u>pras@usgs.gov</u>). Questions about data-quality rating program should be referred to Stewart Rounds (<u>sarounds@usgs.gov</u>).

Questions about wqmreview software should be referred to Wade Walker (walker@usgs.gov).

WaQI Notes are archived on the Office of Water Quality web site, <u>http://water.usgs.gov/usgs/owq/WaQI/index.html</u>

Signed,

The Office of Water Quality October 29, 2013

Distribution: All WMA Employees