Software Tools to Monitor a Real Time Sunphotometer Network

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Problem:
• Aerocan network grew from about 7 active stations to 17 stations.
• Too many stations for simple manual Quality Assurance (QA).
• Requirement for increase in operational efficiency (ie. more data).

Solution:
• Change QA methodology from “pull” to “push”.
• Implement RSS feed giving status for each instrument in network.
• Add twitter feed for each site.
• Dynamically updated Web status page with latest aerosol optical depth, graphs and instrument status.
• MySQL database used to store raw data.
• Matlab to be used for scientific QA.
• Most software written in Perl with some javascript and c++

Result:
• Increase in operational efficiency due to quicker identification of instrument issues.
• Near realtime feedback to site managers and network operators.
• Use of standard formats allows use of existing software tools and allows user customization without additional effort.

Useful Software Links:
www.twitter.com
www.mysql.com
www.rssboard.org
www.wampserver.com

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