



Hydro Tasmania
Consulting

Tas 2.1 - QAQC

Automated Quality Assurance and Control Systems

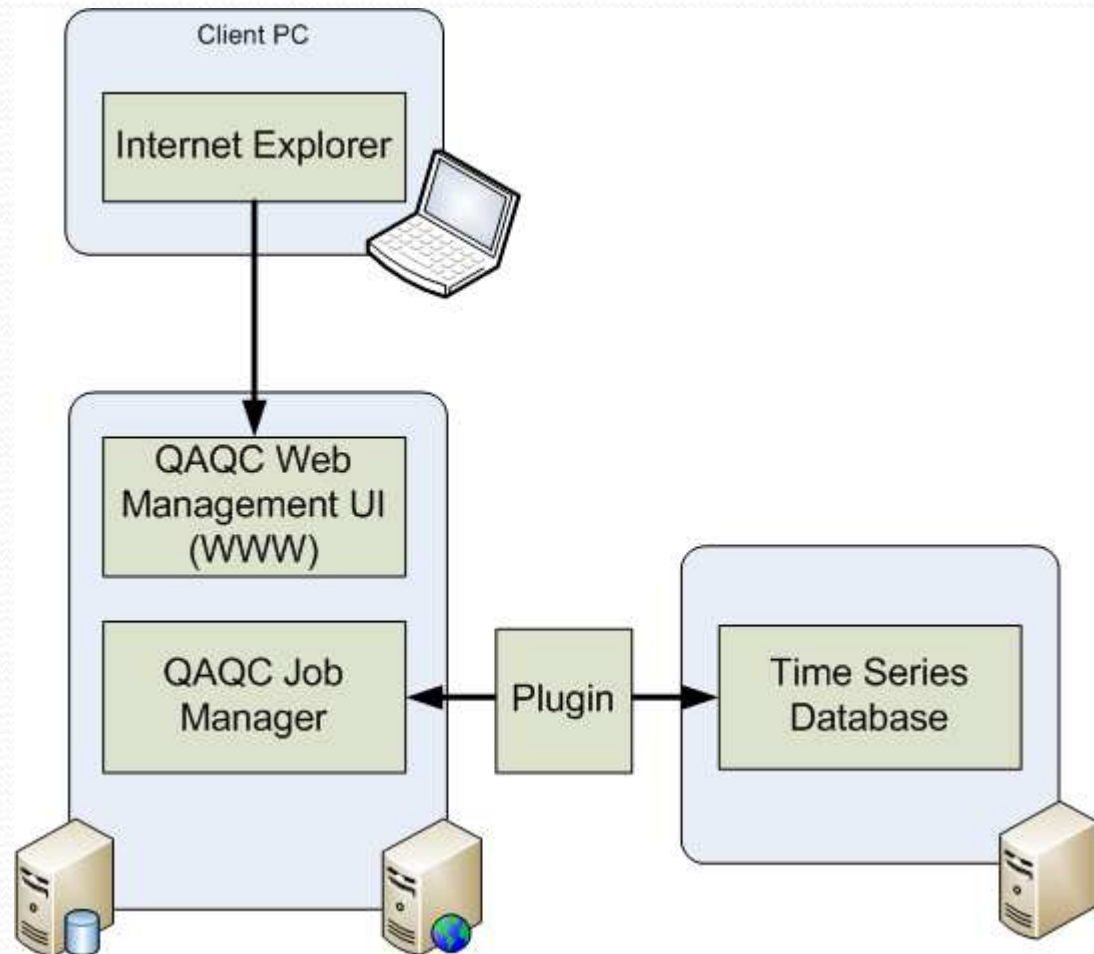
Tas 2.1 Objectives

- Develop visualisation tools to aid in the review and interpretation of algorithm outputs
- Develop new robust software framework, designed for scalability and volume throughput
- Trial of new system on DWLBC's Hydsys time series database
- Survey of water agencies for suitability of inclusion in further trials, and how useful automated QAQC tools would be to each organisation
- Workshops for ideas and to present trial results



System Architecture

- Low impact on existing systems
- Background processing for faster user interfaces
- Automatic job scheduling
- Plug-in integration with Time Series stores.
 - WISKI
 - HYDSYS
 - ADMS
 - TIMESTUDIO



Workflow Management

- Manages what data needs to be checked
- Schedules the automatic analysis then notifies user

Finished Jobs Active Jobs Declined Jobs Accepted Jobs

Finished

Search: Show 10 entries

Name	Run Finish Time	Execution Time	Data Date Range		
Esk Flows	19/03/2010 10:02	00:00:26.0130000	02/10/2009 - 02/11/2009	Review	Edit
Esk Rainfalls	19/03/2010 10:03	00:00:22.4500000	02/10/2009 - 02/11/2009	Review	Edit
Perth Flow	19/03/2010 10:03	00:00:07.0760000	02/10/2009 - 02/11/2009	Review	Edit
Lewellyn Flow	19/03/2010 10:03	00:00:04.4630000	02/10/2009 - 02/11/2009	Review	Edit

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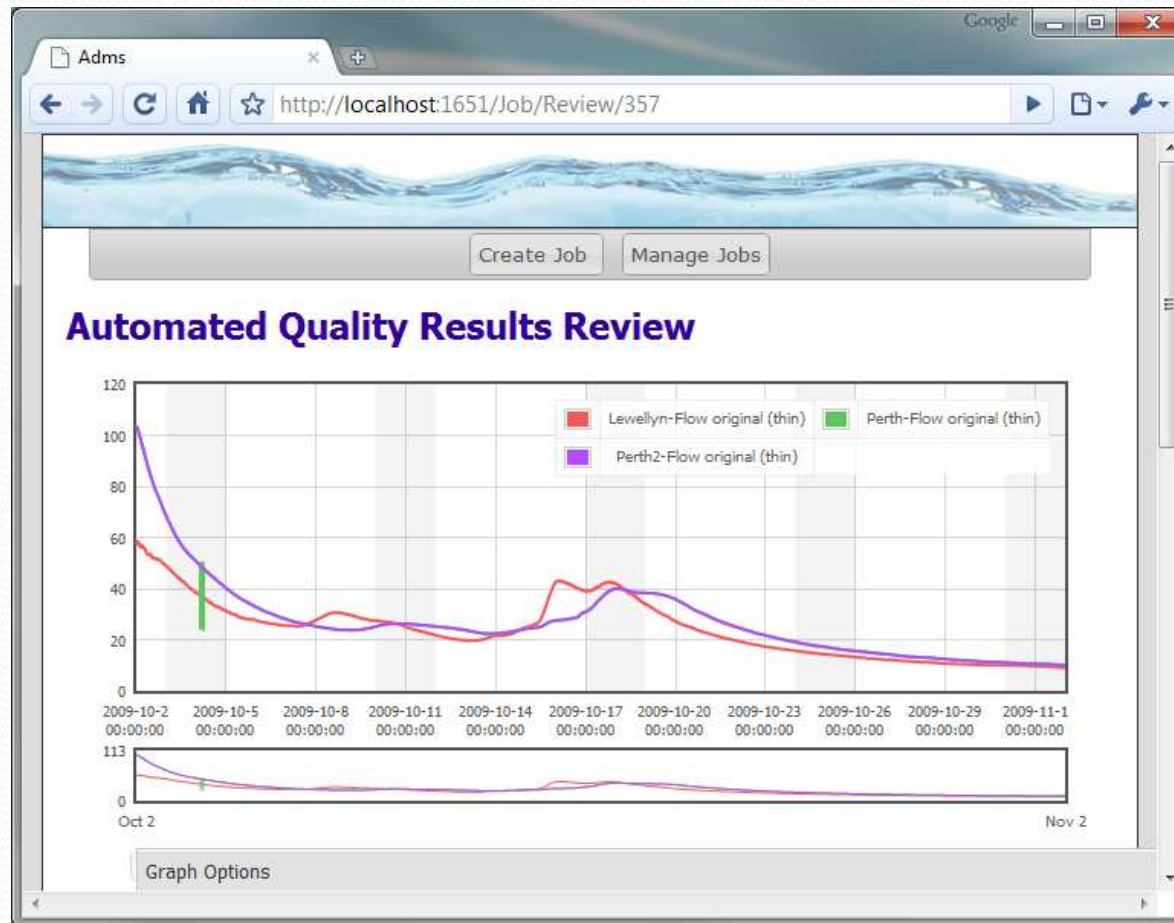


Algorithms (CSIRO)

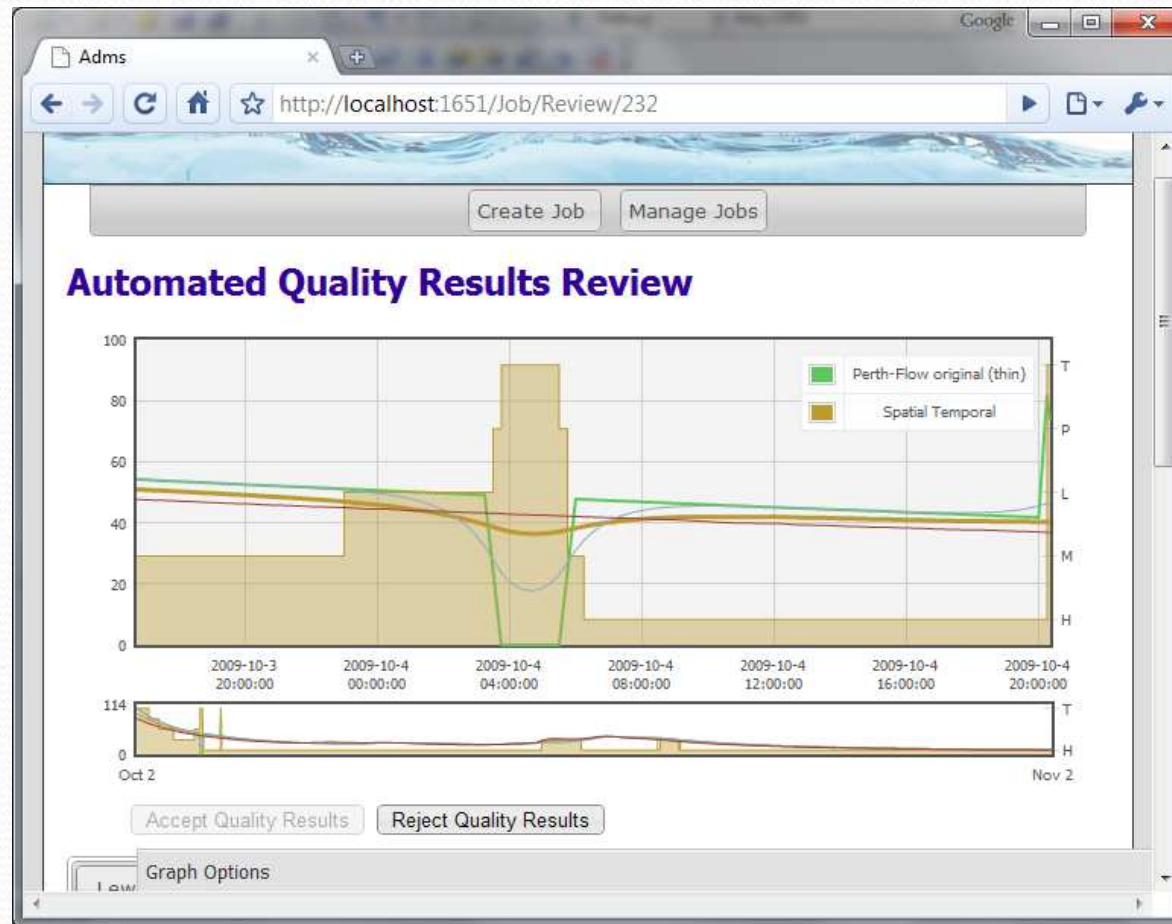
- Algorithms developed by CSIRO in consultation with hydrologists at Hydro Tasmania
- Current algorithms designed to analyse water flow data
- Currently 4 Algorithms:
 - Temporal
 - Spatial
 - Spatial/Temporal
 - Multi-variant Spatial/Temporal



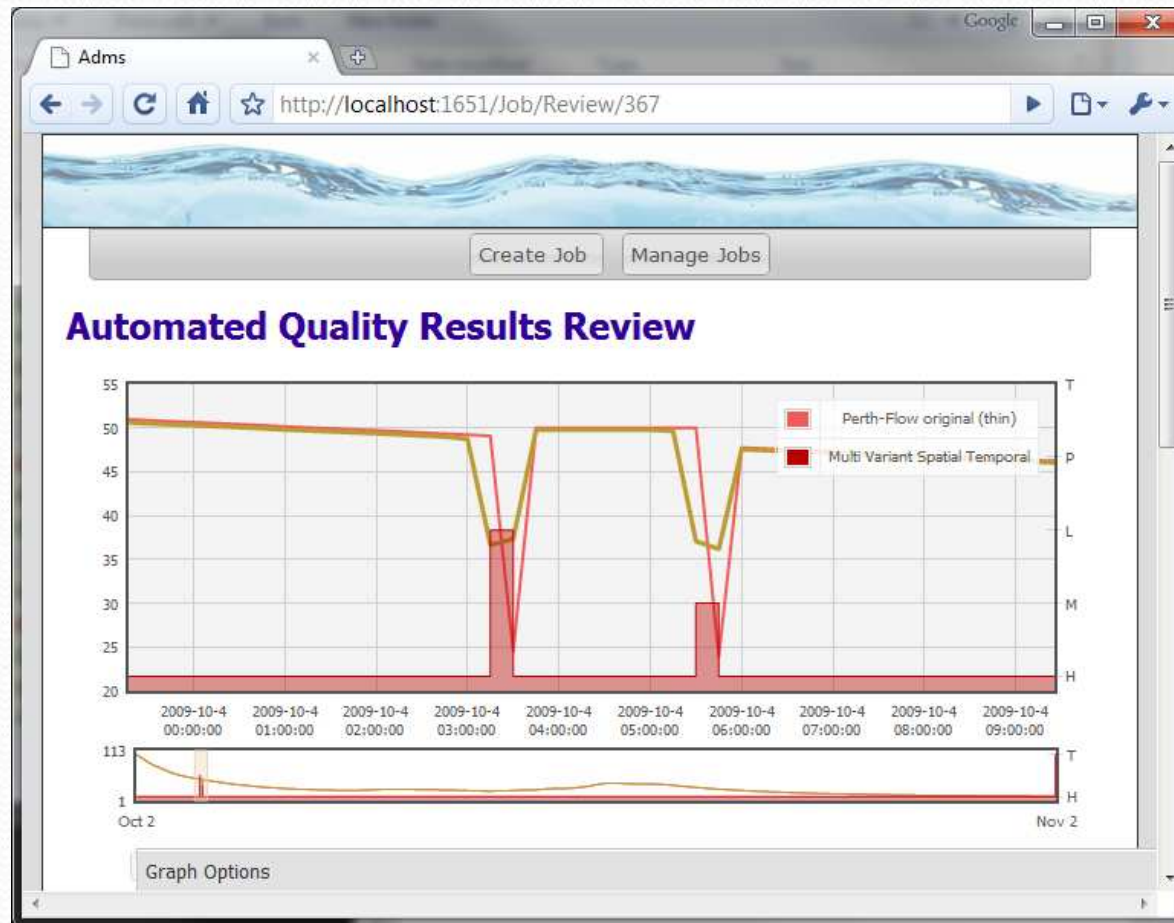
Example Flow Data



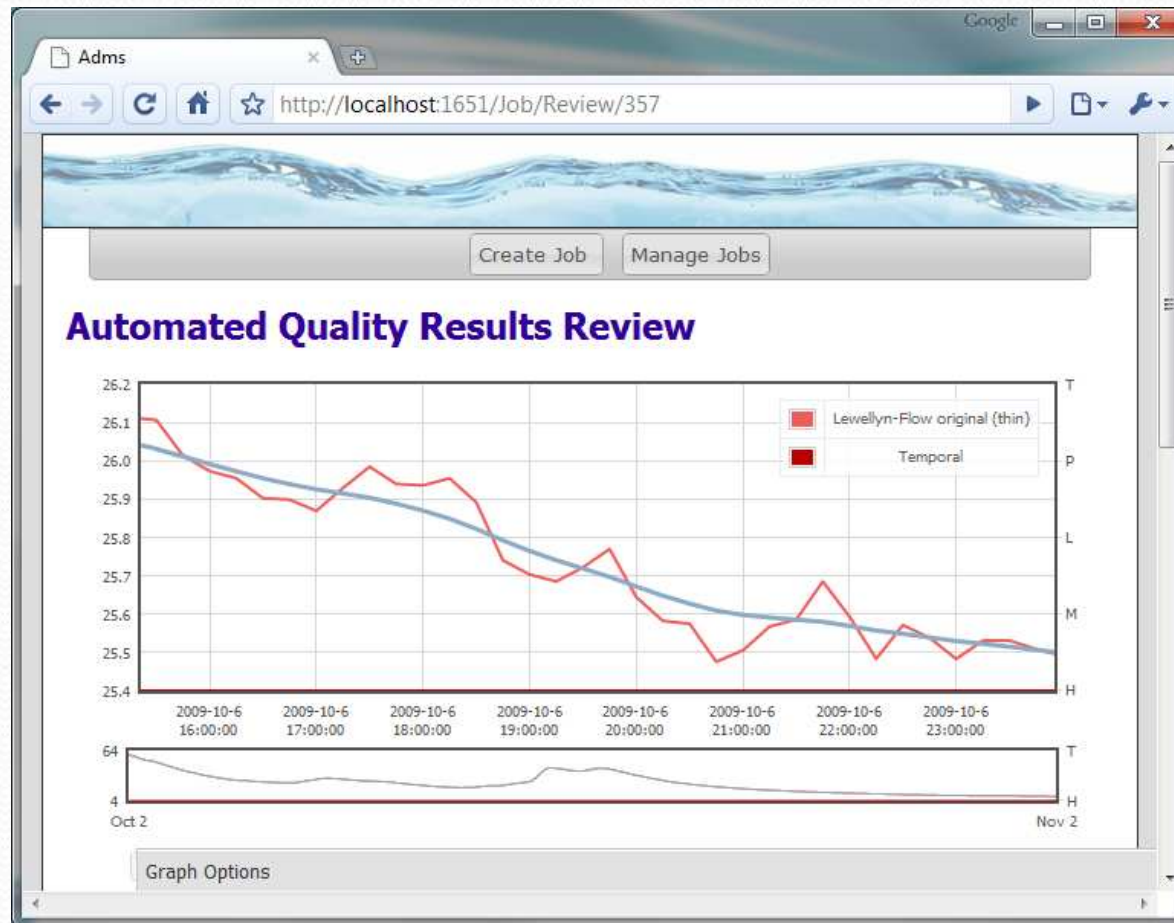
Highlighting Problem Areas



Highlighting Problem Areas



Smoothing out Erratic Data



Software Demonstration

