

Pittcon 2006 AED User Update

Update on the AED Call Center and
LS InstruCare Remote Support Product
For the GC-AED



Diablo Analytical, Inc.



Update Topics

- Overview of the AED Call Center
- Introduce Diablo's new diagnostic macro for the AED
- Introduce the LS InstruCare remote diagnostic and support product for the AED



The AED Call Center

- Diablo's GC-AED Call Center unifies GC-AED support for all users in North America – partnership with Agilent and JAS
- AED support calls are routed to Diablo for initial diagnosis in order to determine if on-site service call is required
- If on-site service is required, Diablo communicates with Agilent or JAS service personnel to initiate the service call



The AED Call Center

- **Diablo Analytical, Inc.**
 - Located in Concord, California
 - Normal Hours: 8:00-5:00 Pacific Time
 - Contact us:
 - Via Phone: 925-609-1150
 - Via Fax: 925-609-9360
 - Via E-mail: support@diabloanalytical.com
 - Help Desk: www.diabloanalytical.com/support
 - Need from you:
 - AED Serial Number
 - Description of the problem
 - Best way to get back in touch with you



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Diablo's New Diagnostic Macro for the AED

- Automatically performs a suite of diagnostic tests on your AED
- Macro can be run on a routine basis to establish the “normal” performance of your AED
- Performance data is invaluable when troubleshooting AED problems (eliminates “20 Questions”).



Diablo's New Diagnostic Macro for the AED

AED Leak and Basic Status Test

- C193 Peak Height*
- N174 Peak Height*
- O2 Band Height*
- C193 / O2 Ratio*
- N174 / O2 Ratio*

AED UV Throughput Test

- C193 Peak Area
- C165 Peak Area
- C193 / C165 Ratio*

AED Flow Rates (Optional, User Entered)

- Cavity Vent Flow Rate
- Purge Vent Flow Rate

*Parameters that are logged to the text file

AED Helium Plasma Intensity Test

- He501 Peak Area with No Reagent Gases*
- He501 Peak Area with H2 Reagent
- He501 Peak Area with O2 Reagent
- He501 Peak Area with H2 and O2 Reagent

Hydrogen Reagent Gas Test

- Hydrogen Pressure
- H486 Peak Area
- He492 Peak Area
- H486 / He492 Ratio*

Oxygen Reagent Gas Test

- Oxygen Pressure
- O725 Peak Area
- He728 Peak Area
- O725 / He728 Ratio*



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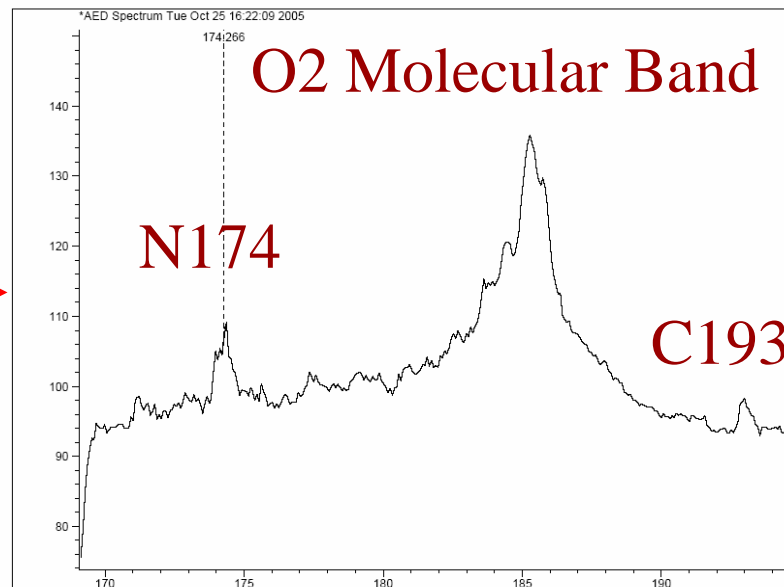
AED Diagnostic Macro System Test Report

AED Spectrum of the
“Diagnostic Region”



AED Leak and Basic Status Test

C193 Peak Height: 49
N174 Peak Height: 5
O2 Band Peak Height: 36
C193/O2 Band Ratio: 1.361111
N174/O2 Band Ratio: 0.138889



Report Date: Tue Oct 25 16:28:12 2005
Instrument: Instrument 1

AED Flow Rates (User Entered)

Cavity Vent Flow Rate (mL/min): 53.3
Purge Vent Flow Rate (mL/min): 30.9

AED Leak and Basic Status Test

C193 Peak Height: 4
N174 Peak Height: 8
O2 Band Peak Height: 36
C193/O2 Band Ratio: 0.105263
N174/O2 Band Ratio: 0.210526

AED UV Throughput Test

C193 Peak Area: 9135
C165 Peak Area: 5639
C193/C165 Ratio: 1.619968

AED Helium Plasma Intensity Test

He501 Peak Area (No Rgt): 53123
He501 Peak Area (H2 Rgt): 20454
He501 Peak Area (O2 Rgt): 27936
He501 Peak Area (H2+O2 Rgt): 8810

Hydrogen Reagent Gas Test

Hydrogen Pressure (psi): 9.400708
H486 Peak Area: 113418
He492 Peak Area: 5792
H486/He492 Ratio: 19.581837

Oxygen Reagent Gas Test

Oxygen Pressure (psi): 22.999362
O725 Peak Area: 952
He728 Peak Area: 7923
O725/He728 Ratio: 0.120157



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LS InstruCare Remote Monitoring for the AED

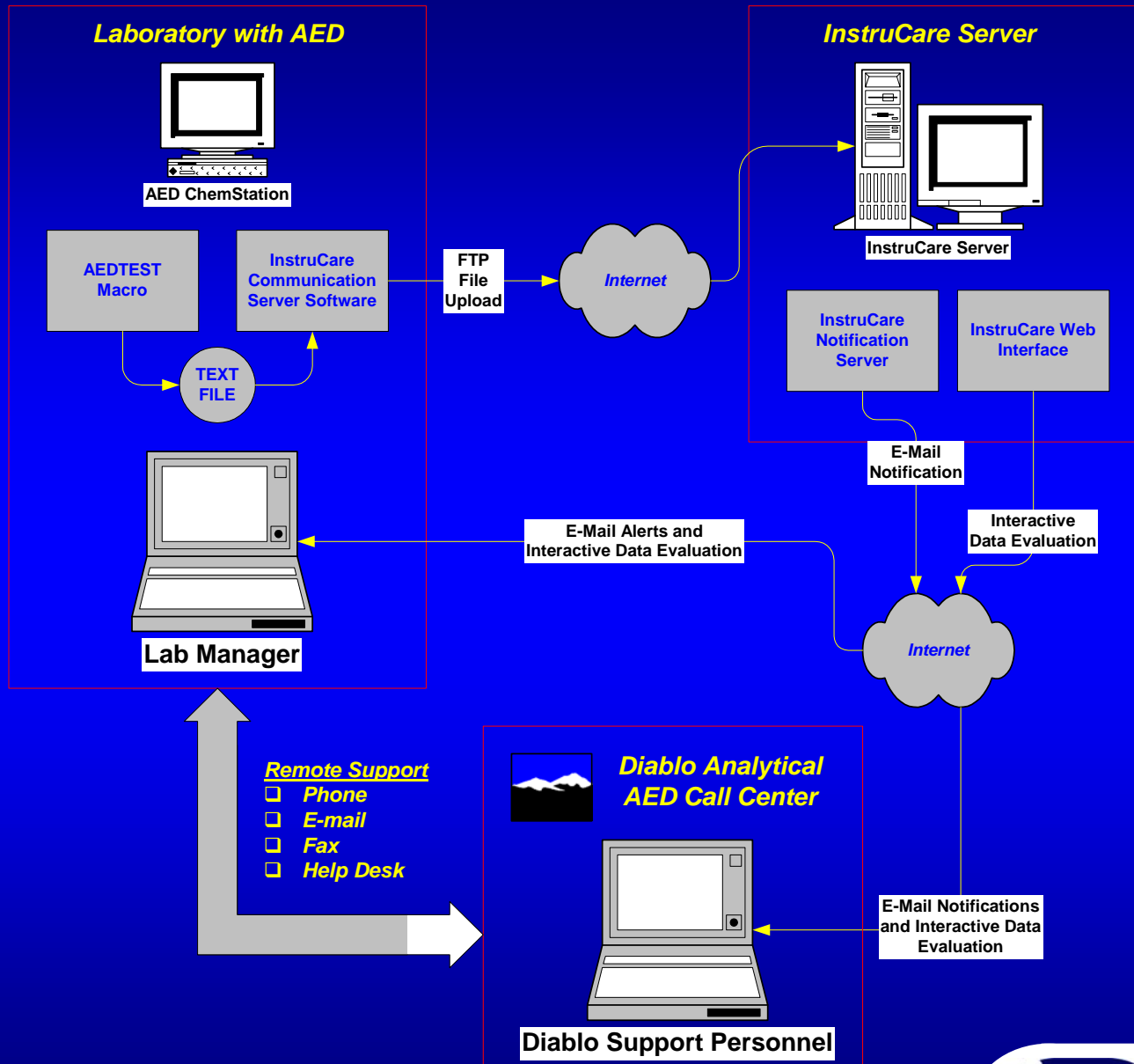
- Developed jointly by Diablo Analytical and Jopasana Software Systems
 - Results from AED Diagnostic Macro are uploaded to a remote sever via outgoing FTP protocol
 - Parameters are saved in a remote database accessible to both customer and remote support personnel through a web interface
 - Automatic e-mail alerts are generated when out-of-specification parameters are received



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InstruCare for the Atomic Emission Detector



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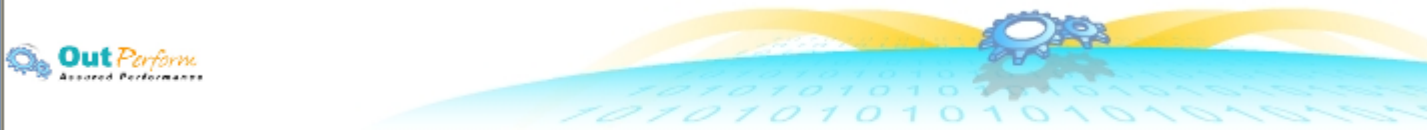
Real-time Reliability & Performance Management - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites RSS Print Mail News RSS Feeds

Address <http://203.197.90.78/lsinstrucare/Default.aspx> Go Links

Google Search PageRank 689 blocked Check



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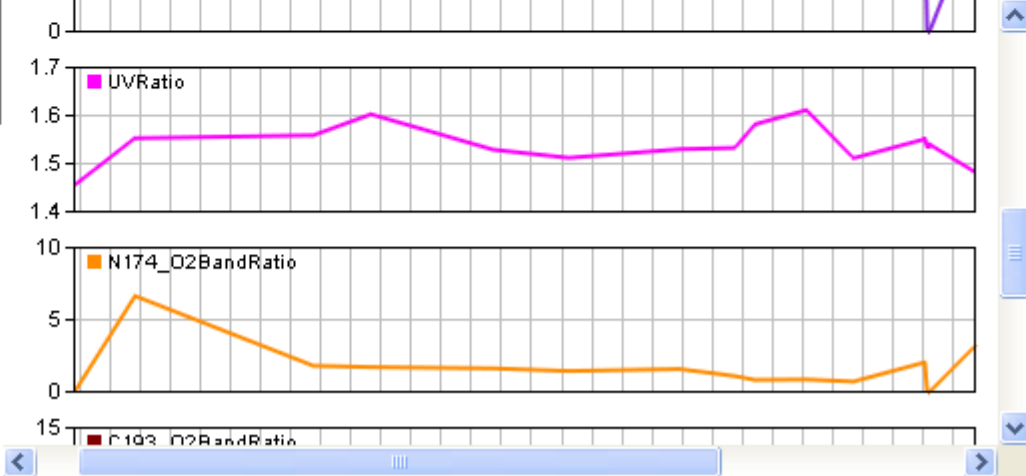
Trends Events/Alarms Summary Reports Help Current User : scott Logout

Home > Trends > Historical

"H2RgtRatio" out of HI range. arrived at 3/10/2006 8:43:00 AM for Concord -> GCAED1 Show Alarms

Explorer

- Diablo
 - Concord
 - GCAED1



Best viewed with 1024x768 resolution and Internet Explorer 6.0 or above.

Done Internet



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Benefits of LS InstruCare Remote Monitoring for the AED

- Proactive performance monitoring results in reduced downtime and improved instrument availability.
- Extend instrument life by identifying and addressing problems before they require major repairs.
- Reduce cost of maintenance by reducing the need for on-site service calls.



Status of LS InstruCare Remote Support for the GC-AED

- Pilot program running now (3 customer sites)
- Available to additional AED users upon completion of pilot (2nd Quarter 2006)
 - will notify interested customers when it is available
- Will be bundled with remote phone/e-mail/web support from Diablo
- Free demo version of the AED Diagnostic Macro available (Leak/Basic Status Test Only)



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