Introduction to EZChrom Elite
Chromatography Data System

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Software and Informatics Division
April 21, 2009
Agenda

– Introduction to EZChrom Elite

– Why EZChrom Elite?

– Professional Services

– Resources
Agenda

- Introduction to EZChrom Elite
- Why EZChrom Elite?
- Professional Services
- Resources
How Does EZChrom Elite Address Lab Needs?

EZChrom Elite is a scalable chromatography workstation offering research, testing and quality control laboratories flexible reporting tools, configurable compliance functionality, and robust, reliable control for over 330 LC and GC components.

- Multi-Vendor Instrument control from over 25 LC and GC manufacturers
- Scalable from single workstation to multi-site Client / Server
- Highly flexible report generation capabilities
- GLP/GMP features addressing regulated environments, pharmaceuticals (21CFR Part 11)
- Integration with LIMS and Other Software in the Lab
Agilent Software and Informatics

Help laboratory managers / directors reduce the time, effort & cost to go from raw data to final insight

Intro to EZChrom Elite
August 2008
The EZChrom Product Line

**EZChrom Elite**

- *Client Server*
- *Workstation (Standalone)*
- *Compact* (for use with 1120 LC 7820 GC only)
- *SI (Single Instrument)*

**Optional Modules**

- Instrument Control Drivers
- DAD (PDA) Processing
- System Suitability (Included with Agilent drivers)
- GPC (SEC)
- Development Toolkits
Agenda

– Introduction to EZChrom Elite

– Why EZChrom Elite?

– Professional Services

– Resources
Broadest Instrument Support Available

Control of 330+ Chromatographic Components

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Modules</th>
</tr>
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<tbody>
<tr>
<td>Agilent</td>
<td>48 (GC, LC, DAD)</td>
</tr>
<tr>
<td>Shimadzu</td>
<td>98 (GC, LC, PDA)</td>
</tr>
<tr>
<td>Thermo Lab Systems</td>
<td>39 (GC, LC, PDA)</td>
</tr>
<tr>
<td>Varian</td>
<td>29 (GC)</td>
</tr>
<tr>
<td>Hitachi</td>
<td>21 (LC, PDA)</td>
</tr>
<tr>
<td>Plus… Perkin Elmer, Waters, Jasco, CTC, Alltech, Allcott, ESA, GBC, Valco and others</td>
<td></td>
</tr>
</tbody>
</table>

More drivers being continually added…
Multi-vendor instrument control

**Business Value:** Adds flexibility & choice to your lab infrastructure strategy

**Benefit:** Control and data acquisition from numerous LC, GC, and PDA instruments. Under one platform

- EZChrom controls more than 330 instrument components from more than 25 different vendors.
- Instruments are connected using industry standard interfaces.
- A RapidControl SDK allows easy and fast development of new instrument drivers.

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<thead>
<tr>
<th>Manufacturer</th>
<th>Family</th>
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Shimadzu

Waters

Thermo

More…
Many Instruments - One Enterprise Software
Common User Interface for Simplified Training

**Business Value:** Lower training costs & enhance staff productivity

**Benefit:** Reduced systems complexity & simplified sample analysis

- Single Screen User Interface for routine analysis
- Instrument logbook
- Graphical sampler tray window shows vial status
- Powerful file browser to find and preview your data
EZChrom Elite Compact Configuration

*Up to two Compact LC or GC instruments per workstation*

- *Bundled with the 1120 LC and 7820 GC Hardware*
- Compliance functionality disabled, but available as an option
- *Upgradable to EZChrom Elite Workstation*
EZChrom Elite Single Instrument Configuration

Controls 1 instruments (LC and/or GC) per workstation

- Upgradable to EZChrom Elite Workstation
EZChrom Elite Workstation Configuration

Up to 4 instruments (LC and/or GC) per workstation

- Upgradable to EZChrom Elite

Client Server
EZChrom Elite Client/Server
EZChrom Elite – A Scalable Part of the LI Family

Features

• All Data and Methods generated by any version of EZChrom Elite or Agilent OpenLAB ICM are interchangeable.

• The UI of the OpenLAB ICM is very similar to EZChrom Elite

Benefit

• Customers have a smooth migration path from single workstation to Client Server to OpenLAB.
Workstation to Enterprise-level solutions

- **Business Value:** Scalable solutions that can grow with your business

- **Benefit:** Buy what is needed today and have multiple instruments run seamlessly on one common interface.

- Enterprise-wide data integration
- Global collaboration
Reporting Tools in EZChrom Elite

• Standard Reports
  – Predefined Reports Accessible in one mouse click
  – Use Pre-installed reports and add your own
Reporting Tools in EZChrom Elite

• Standard Reports

• Method and Sequence Custom Reports
  – Object based WYSIWYG reporting
Reporting Tools in EZChrom Elite

- Standard Reports
- Method and Sequence Custom Reports
- Advanced Reports
  - Spreadsheet based reporting

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Powerful, Flexible Reporting

**Business Value:** Optimize lab productivity & reduce costs per analysis

- **Benefit:** Ensure efficient reporting and converts analysis results into useful information

- **Standard Reporting**
  - Easy to use “Word-like” editor.
  - Reports sample information, results, signals, spectra, 3D plots and calibration curves.
  - Design reports based on real results of the currently loaded injection.

- **Method and Sequence Method**
  - “Fixed” summary reports for reporting of system suitability or sequence wide results and statistics.

- **Advanced Reports**
  - Spreadsheet based report template editor.
  - Allows user defined custom calculations.
  - Supports summary results reporting, statistics and trend charts.
**Import / Export**

**Import Data**
Can transparently read chromatograms from Chemstation, Turbo Chrom and Thermo, as well as ASCII and .CDF files.

**Import Sequences**
Can use an external program to create sequences.
These sequences can be run directly by Elite.

**Export Data**
Any Results generated by Elite
Chromatograms in ASCII, CDF or WMF
Entire Reports as ASCII
Configurable Compliance

On a Global Basis:
- Define if Logins Will Be Used
- Type of Logins
- Assign Instrument Administrators
- Project Organization

On a Project-By-Project Basis:
- Access to instruments
- Access to projects
- Functionality within a project
- Audit Trail Requirements
- Electronic Signature Rules
Configurable compliance for GLP & regulated labs

- **Business Value:** Employ industry best-practices & standards for efficiency, safety & traceability

- **Benefit:** Controlled, traceable access to software functionality

- **Grouping of instruments into locations**
  - Define access security for each location in the tree.

- **Storage of data in projects**
  - Access security also on a project level.
  - User/group capabilities per project.
  - Support for local and domain user authorization.

- **Part-11 compliance**
  - Audit trail
  - System logbook
  - Method, Sequence and results versioning
  - Signing of final results
  - Timed session logout

- **Software IQ/OQ**
SmartSequence™ Technology

Intelligent Automation

- Calibrations
- Check Standards
- Spikes
- Duplicates
- System Suitability

Result Dependant Actions

- Reinject
- Pause / Abort
- Trigger Alarm
- Run External Program
- Pager / E-mail notification
New Integration tools

New easy to use tool to adjust RT of all peaks at once
EZChrom Elite

Single Screen Walk up Sample Entry

Easy to use sample setup

Simple overview of status of instruments and run queue
Elite Automation Toolbox

*Elite Toolbox Allows Complete System Tailoring*

- Simplified User Interfaces
- “Push button” operation
- Customize the way you want to operate the system
Calibration, Diagnostics and EMF

This functionality will be provided by the LabAdvisor Add-on Software

Calibration and Diagnostics
• Menu item in EZChrom Elite UI to launch LabAdvisor
• Features all functionality of current ChemStation PLUS more

EMF (Early Maintenance Feedback)
• Monitors levels of consumables
• Notifications built into LC Dashboard
• Threshold setting done in LMD

Add-on Software available for purchase with EZChrom Elite
Lab Monitoring Features

Scheduling (Advanced)

Resource Monitors – Alerts & Notification

Chromatographic Attributes (Advanced)

Lab at a Glance
Support/Diagnostic Features

GC Calculators

Version 2.01 – Feb 08

Inlet Leak and Restriction Detector Checkout Tests

Firmware and PID (CE) Updates

Documentation Search

Instrument Documentation

[Image of software interface with various tools and features]

[Additional images and diagrams related to the software and diagnostic tools]
Availability in Other Languages

*Localization will include the following components*

- Base Software User Interface
- Agilent 1100, 1200 and 1120 LC
- Agilent 6890, 7820 and 7890 GC
- Installer
- Online help

*Non-Agilent drivers not localized as well components not listed*

<table>
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<tr>
<th>Elite Product</th>
<th>Chinese</th>
<th>Japanese</th>
<th>Portuguese</th>
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</table>

*7820/7890/6890 GC & 1120/1100/1200 LC only*
EZChrom Elite – OS Support

• *Windows XP Professional (SP2)*
• *Windows 2003 Server (SP2)*
• *Windows Vista Business Edition (SP1)*
Summary – Why EZChrom Elite?

- Multi-Vendor Instrument Control
- Single User to Client/Server
- Smart Sequence
- Powerful, Flexible Reporting
- Customization
- Configurable Compliance
- Localized in Chinese, Japanese & Portuguese*
NEW!!! EZChrom Elite 3.3.2

Functionality

- Localization of EZChrom Workstation in Brazilian Portuguese (Base, 7820/7890 and 1100/1120/1200 LC)
- Added previous s/w updates for Elite or Instrument Control Drivers
NEW!!! EZChrom Elite 3.3.2

Instrument Drivers

• Added 7820 Zen GC
• Added support for 7693A ALS and Tray with the 7890 GC (NO Barcode support)
• Updated Hitachi LC adding functionality for existing modules
NEW!!! EZChrom Elite 3.3.2

Compatibility

• Added support for Enterprise Migration Service

Old Enterprise ➔ New Enterprise

Projects
Settings
Users
Instruments

Data/Method Storage

• Service by Agilent’s Professional Services Organization
NEW!!! EZChrom Elite 3.3.2

C/S AICs

• AIC Imaging Utility (7800, 5000, Rev B) including .Net 3.0
• AIC rev. A can’t be updated to control RC.Net instruments
Agenda

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– Why EZChrom Elite?

– Professional Services

– Resources
Agilent Professional Services Portfolio

Consulting Services
- Application Consulting
- Workflow Design
- S/W Enablement & Integration
- Validation & Compliance
- Custom Projects

Education Services
- Standard
- Advanced
- Custom

Support Services
- Gold
- Silver
- Operational Assistance
EZChrom Elite Support Services

Use support services to receive:

• Technical assistance in the usage of Agilent products
• Access to the latest product updates, patches and revisions
• Assistance with highly-complex support requirements which call for custom entitlements & terms
• Access to the Customer Care portal
EZChrom Elite Consulting Services

Use consulting services to:

- Formulate a long-term business strategy to include applicable people, process & technology
- Augment limited, in-house, staff & resources
- Develop solutions for highly complex requirements which call for custom, long-term, consulting projects
EZChrom Elite Education Services

Use education services to:

- Efficiently train staff on the usage of Agilent products
- Train staff on the maintenance & administration of Agilent products
- Receive in-depth training for customized Agilent solutions
Agenda

- Introduction to EZChrom Elite
- Why EZChrom Elite?
- Services & Support

Resources
EZChrom Elite - Public Resources

The Website: www.agilent.com/chem/ezchrom

- Compatibility Matrix
- PC Requirements
- Data Sheets
- White Papers
- Seminars
EZChrom Elite

A Chromatography Data System

Better Results
– Efficient QA/QC for Chemical/ Petrochemical Labs
– Configurable Compliance for GLP & Regulated Labs

Faster Than Ever
– Powerful, Flexible Reporting
– Common User Interface
  for Simplified training

Why Agilent?
– Multi vendor instrument control
– Workstation to Enterprise-Level Solutions
Thank You

cheada_lao@agilent.com
# Support Services: Software Maintenance Agreements

<table>
<thead>
<tr>
<th>Support Services Feature</th>
<th>Bronze Support</th>
<th>Silver Support</th>
<th>Gold Support</th>
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<tbody>
<tr>
<td>Priority 1 Response Time Target</td>
<td>4 hours</td>
<td>4 hours</td>
<td>4 hours</td>
</tr>
<tr>
<td>Telephone Access to Support Engineers</td>
<td>24x5</td>
<td>24x5</td>
<td>24x5</td>
</tr>
<tr>
<td>Email Access to Support Engineers</td>
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<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Entitled number of new support instances per year</td>
<td>12 per year</td>
<td>20 per year</td>
<td>Unlimited</td>
</tr>
<tr>
<td>Customer Web Portal Access</td>
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<td>✓</td>
<td>Enhanced Web Portal Features</td>
</tr>
<tr>
<td>Software Updates &amp; Enhancements</td>
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<td>✓</td>
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<tr>
<td>Pro-Active Support</td>
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<tr>
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<tr>
<td>Operational Assistance</td>
<td>Option</td>
<td>Option</td>
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</table>
Support Services: Customer Care Portal

What is it?

• An web-based portal where customers can find information on the latest professional services-related offerings to increase productivity

• A value-add service for all customers

Who is the audience?

• Customers who are currently covered under a Software Maintenance Agreement (SMA)
Customer Care Portal: Features at a Glance…

• Integrated Support Request form for easy access to Global Informatics Support Team
• Download latest software patches & updates
• Knowledge Base containing latest tech notes & advisories
• Training section with available web-based & recorded sessions
• Customizable portal layout, access control & reporting for [Gold-level] SMA customers
Customer Care Portal: Integrated Support Request Form

- Form pre-populated with customer profile information
Customer Care Portal: Knowledge Base

- Access to the latest tech notes & advisories
- Download the latest patches & updates
Customer Care Portal: Training

- List of available web-based & recorded sessions
- Available to download or playback in browser
Customer Care Portal: Customizable

- Portal content, layout & access control
Upgrade Considerations

• **The New Drivers**
  - Support LAN Only
  - Require .NET 3.0
  - Will be the only drivers shipping with new orders
  - Are **not** a mandatory upgrade for exiting customers

• **LC Hardware Considerations**
  - If the customer’s LC has a GPIB card, it will need to be replaced with a LAN communications card. An upgrade kit will be available.

• **AIC Considerations**
  - Rev A units **not** supported
  - An AIC Upgrade program will be introduced in January to provide Rev A/B AIC users a credit toward the purchase of an AIC-5000.
EZChrom Elite - Enterprise

The Enterprise Path

A folder tree containing all EE related files, including:

- Projects (Data, Methods, Sequences, Report Templates)
- Instrument Configurations
- Users and Permissions
- Licenses

The Enterprise Path must be Accessible to all WS, Clients and AICs