Using VWorks Software to run the Cherry Pick and Dose-Response Applications on the Echo 555

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September 24, 2009
Agenda

- Introduction to VWorks
- Echo integration platforms
  - Echo and BenchCel Workstation
  - Echo and BioCel System
  - Multiple Echo and BioCel system
  - Multiple Echo and Multiple BioCel systems
- New Features in VWorks that Benefits Echo operation
Software – VWorks

VWorks™ Automation Control Software

The most powerful and flexible automation control software in industry, an integral part of workflow implementation

Automated workflows in drug discovery, genomics, proteomics, cell biology and chemical/materials sciences
# VWorks Automation Control Software

<table>
<thead>
<tr>
<th>Feature</th>
<th>Customer Benefit</th>
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<tr>
<td>Event Driven Controller</td>
<td>Designed to <strong>maximize throughput</strong>.</td>
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<td>True Device Pooling</td>
<td>Works around bottlenecks and hardware errors to <strong>maximize walk-away time</strong>.</td>
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<td><strong>Greater reliability</strong> compared to other packages.</td>
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<td>Single Application Interface</td>
<td>Drive all levels of automation from the same interface for a <strong>consistent user experience and lower support burden</strong>.</td>
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<td>Robust, Fully Recoverable Error Handling</td>
<td>Diagnose and fix errors <strong>without having to restart your run</strong>. <strong>Maximize walk-away time</strong>. Consistent device handling.</td>
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<td>Data-Driven Capability</td>
<td>Dynamically execute in progress runs for <strong>extensibility</strong> and <strong>better resource utilization and throughput</strong>.</td>
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<td>Standards-Based Technology and Supported Application Programming Interfaces</td>
<td><strong>Flexibility to integrate VWorks</strong> into the corporate infrastructure to leverage existing processes and IT investments.</td>
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<td>Inventory and Resource Management</td>
<td>Manage barcodes, labware, liquids, and users. Communicate plate data with <strong>LIMS, sample management, and sample ordering systems</strong>.</td>
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<td>Protocol Error Checking and Simulation</td>
<td>More <strong>efficient use of time</strong> in writing protocols.</td>
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Echo Integration Platform – BenchCel Workstation

Echo Integration Platform – BenchCel Workstation

Echo

BenchCel

PlateLoc Sealer

Microplate Centrifuge

BenchCel Workstation

PlateLoc over a Microplate Centrifuge

Echo

BenchCel 6R

BenchCel

Microplate Centrifuge

PlateLoc Sealer
Echo Integration Platform – BioCel System

PlateLoc and Microplate Labeler over a Microplate Centrifuge

Bravo

Barcode Reader

Plate Hub

Echo

Lid Hotel

Agilent Restricted
September 2009
Multiple Echo Integration Platform – BioCel System

PlateLoc and Microplate Labeler over a Microplate Centrifuge

Bravo

Barcode Reader

Plate Hub

Echo

Lid Hotel
Multiple Echo Integration Platform – Multiple BioCel Systems
Multiple Echo Integration Platform – Multiple BioCel Systems
Multiple Simultaneous Protocols

- Run as many protocols as you want at the same time.
- Maximize resource utilization and throughput.
  - Prioritize runs and monitor progress.
Error Handling Library

- Reduce number of interruptions and maximize walk-away time.
  - Preload a default set of errors and responses in the error handling library.
  - A recovery action is automatically performed when the error is encountered.
Hit Pick Wizard

- Reduce operating costs with Hit Pick Wizard.
  - Automate cherry picking based on input work list.
  - Use a powerful wizard to capture plate replication and dilution criteria.
Conclusions

- Agilent Automation Solution has done successful integration of Echo instruments from simple to complex platforms.
- Updated Echo driver allows VWorks to successfully execute protocols written with Cherry Pick, Dose-Response, and Plate Reformat application software.
- New features introduced in VWorks software maximized walk away time, resource utilization and throughput for Echo users.