

**SmartPlant Instrumentation Technical User Forum  
P2C2 (Houston SPI TUF) Meeting**

**May 17, 2011  
Aramco Services Co.  
Houston, TX**

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| <b>Attendees</b> | 39 Members in attendance<br>7 Online via Net Meeting | <b>Copied To</b>   | LTUF<br>Members                               |
| <b>Called By</b> | John Dressel   | <b>Prepared By</b> | John Dressel with notes by<br>Betty Alexander |

| <b>Item</b> | <b>Topic</b>      | <b>Notes</b>   | <b>Action/Due</b> |
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| 1           | Welcome           | <ul style="list-style-type: none"> <li>Gil Dolor of Aramco Welcomed members of the Houston SmartPlant Instrumentation Local Technical Users Forum and gave a short Safety Moment</li> </ul>  |                   |
| 2           | Chairman's Notes  | <ul style="list-style-type: none"> <li>John Dressel noted that the SPI-SPEL Global Technical User Forum was coming up in a few weeks and members need to be making their plans to attend.</li> <li>He also mentioned that the Emerson Global Users Exchange in October will have a lot of information on Emerson Interfaces to SPI</li> </ul> <p>2011 SPI LTUF Meetings tentative dates:<br/>           August 11, 2011            AMEC-Paragon            Betty Alexander<br/>           December 09, 2011        Mustang                        Toby Stunz</p> <p>SPI LTUF Owner Operator Committee Meeting – May 17</p> <p>Upcoming Conferences:<br/>           SPI SPEL GTUF - June 5, 2011<br/>           World Center Marriott Resort, Orlando, Florida</p> <p>Intergraph 2011 - Jun. 6 – Jun. 9, 2011<br/>           World Center Marriott Resort, Orlando, Florida</p> <p>Emerson Global Users Exchange - Oct.24 - Oct. 28, 2011<br/>           Gaylord Opryland Resort &amp; Convention Center, Nashville, TN</p> |                   |
| 3           | Minutes           | <ul style="list-style-type: none"> <li>Minutes of last meeting were approved</li> </ul>  |                   |
| 4           | Introduction      | <ul style="list-style-type: none"> <li>Each member stood and introduced themselves and their job functions with SPI</li> <li>Welcomed several members who connected into meeting with NetMeeting.</li> </ul>   |                   |
| 5           | CR Website Report | <p>Dennis Cooley with CooleyCore gave a live demo of reviewing the top 5 CRs listed on the introductory page of the CR Ranking Website.</p> <ul style="list-style-type: none"> <li>CR#27902 - Separation of access rights for Index Supporting Tables; Instrument Type. Also Typical Loop creation is controlled by Domain Level entity 'Instrument Index Supporting Tables'. This goes back to version 4!! As an extension to this line of thought there should be separation of access rights for "Mfr / Model" and "Index Supporting Tables"</li> <li>CR #115368 Rule Manager - Not all properties in the browsers appear to be listed in the drop downs in the Rule manager configuration - Left Terminal, Left Terminal Color are two relevant ones. Its a trivial one but getting full access to all the</li> </ul>  |                   |

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|   |              | <p>properties that are displayed on the Properties Sheets is essential if user control to these fields is to be achieved. The External Rules don't help in this situation as only the internal rules can 'Control graphic interface' - or so I have been told.</p> <ul style="list-style-type: none"> <li>• CR #29290 When the Workflow flag is set to "Lock out from Process" no one can print the Process Data Sheet including the DBA with Full Access to everything. All users (instrumentation and process) should be able to print when the flag is set to "Lock out from Process", only editing of the process data should be locked out.</li> <li>• CR #61419 The merging and claiming process needs to handle the General Signal. Without this functionality being built in. The merging and claiming process could result in lost signals in the target location e.g. As-Built section. This is a data integrity requirement.</li> <li>• CR #84402 With Unit Copy what ever is in the Source Unit is copied to the New Unit and most tagged objects are re named according to the defined naming conventions. However the Document Numbers are not updated at both Loop and Instrument level (Spec Sheets and ESL). To do this the loop/instrument has to be selected, its properties sheet opened and the 'Update Document number' check box selected. On Saving the properties sheet the document names are updated to the Naming convention.</li> </ul>   |  |
| 6 | Presentation | <p>Work Sharing SmartPlant Instrumentation on Joint Venture Projects - John Dressel, Fluor</p> <p>Work Sharing on Joint Venture Projects</p> <ul style="list-style-type: none"> <li>• Divide and Conquer <ul style="list-style-type: none"> <li>○ Large Projects are often too complex for a single contractor to manage or have different resource requirements</li> </ul> </li> <li>• High Value Resources <ul style="list-style-type: none"> <li>○ Extending SPI access to low cost engineering centers using terminal server technology can reduce project costs</li> </ul> </li> <li>• Around the clock operations <ul style="list-style-type: none"> <li>○ Global Work Sharing allows 24-7 utilization of hardware and software resources</li> </ul> </li> <li>• Extend utilization of SPI experts <ul style="list-style-type: none"> <li>○ Allow experts to access SPI in from different locations to optimize Subject Matter Experts</li> </ul> </li> <li>• Using the SPI As-Built Functionality <ul style="list-style-type: none"> <li>○ Using the As-Built mode to define Projects and Work Share splits makes division of work simpler</li> </ul> </li> </ul> <p>SPI Work Sharing Focus Points</p> <ul style="list-style-type: none"> <li>• Work Sharing Technology <ul style="list-style-type: none"> <li>○ Work Sharing with SPI requires Terminal Services Web technology for remote connections</li> </ul> </li> <li>• SPI Licensing <ul style="list-style-type: none"> <li>○ License Sharing across several pillars can be an issue on joint venture projects</li> </ul> </li> <li>• SPI Hosting <ul style="list-style-type: none"> <li>○ The Database and server hosting will have a major impact on the work practices</li> </ul> </li> <li>• SPI Administration <ul style="list-style-type: none"> <li>○ Administration of the Software, users, databases and servers needs to be addressed up front</li> </ul> </li> </ul> |  |

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|  | <ul style="list-style-type: none"> <li>• SPI Data Consistency <ul style="list-style-type: none"> <li>○ Maintaining plant wide and database wide standards is an issue with multiple entities</li> </ul> </li> </ul> <p>SPI Work Sharing Focus Points</p> <ul style="list-style-type: none"> <li>• SPI Integration <ul style="list-style-type: none"> <li>○ Integrating with external software resources or share base systems can get complicated on a Joint Venture project</li> </ul> </li> <li>• SPI Deliverables <ul style="list-style-type: none"> <li>○ The generation of Deliverables and Document Management in a shared environment can have issues</li> </ul> </li> <li>• SPI Security <ul style="list-style-type: none"> <li>○ IT security is always a major concern when extending access to data to external contractors</li> </ul> </li> <li>• Work Share Game Changers <ul style="list-style-type: none"> <li>○ Some things that can add to the complexity and costs of a work shared Joint Venture Project</li> </ul> </li> <li>• Risk management <ul style="list-style-type: none"> <li>○ One of the biggest issues on a Work Share Project is Risk mitigation and management</li> </ul> </li> <li>• Divide and Conquer <ul style="list-style-type: none"> <li>○ Splitting a Project among several contractors will allow multiple pillars with different capabilities to execute work concurrently</li> </ul> </li> <li>• High Value Resources <ul style="list-style-type: none"> <li>○ Most Engineering Companies have High Value centers located in other countries to leverage low cost labor and allow Global Work Sharing.</li> </ul> </li> <li>• Around to Clock Operations <ul style="list-style-type: none"> <li>○ Global Work Sharing allows 24-7 utilization of hardware and software resources</li> <li>○ Around the Clock Operations require Around the Clock Support</li> <li>○ Time differential cause inconvenient Net Meetings and Telecoms</li> <li>○ Some advantages to Global Work Sharing with SmartPlant Instrumentation project are: <ul style="list-style-type: none"> <li>▪ Operations extend to 24 hours a day</li> <li>▪ Better hardware utilization</li> <li>▪ Better use of Licenses</li> <li>▪ Shorten Schedules</li> <li>▪ Faster Response</li> <li>▪ Offset Overtime</li> </ul> </li> </ul> </li> </ul> <p>Extend utilization of SPI experts</p> <ul style="list-style-type: none"> <li>• Allow experts to access SPI in from different locations to optimize Subject Matter Experts</li> <li>• Allow Specialized Users access to multiple projects</li> <li>• IT Hosting and Administrative Services</li> <li>• Utilize remote Vendor SPI Experts</li> <li>• Access for Technical Support</li> <li>• Share SPI Super Users</li> <li>• MAC Operations</li> <li>• Integrators</li> <li>• Clients</li> </ul> <p>Using the SPI As-Built Functionality</p> <ul style="list-style-type: none"> <li>• As-Built is created automatically when initializing an Owner Operator Domain</li> <li>• The As-Built is the Master Project that contains all Formatting for all other Projects.</li> </ul> |  |
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|  | <ul style="list-style-type: none"> <li>• The Domain Administrator creates Project Schemas for each Engineering Project</li> <li>• When an Engineering Project is complete it is Merged into the As-Built</li> </ul> <p>Work Sharing Technology</p> <ul style="list-style-type: none"> <li>• Typical Work Sharing Connection for SPI using Citrix Server</li> <li>• Microsoft Terminal Server <ul style="list-style-type: none"> <li>○ MS Terminal Server uses IP address security for faster firewall pass-through</li> <li>○ Uses virtual private networking (VPN) or point-to-point tunneling protocol (PPTP)</li> <li>○ Uses Remote Desktop for connection</li> <li>○ Costs less than Citrix Server</li> </ul> </li> <li>• Each user will require a Terminal Server or Citrix Logon and an SmartPlant Instrumentation Logon</li> <li>• Individual Folders and INtools.ini files will need to be created for each remote user</li> <li>• Mapping of local Drives and Printers is problematic with both platforms</li> <li>• Activities that run for long periods of time could corrupt database due to remote connection interruption</li> <li>• Terminal Server be configured similar to a desktop</li> <li>• Users access a single Application Server, <ul style="list-style-type: none"> <li>○ Pro - upgrading and maintenance is easy</li> <li>○ Con - single point of failure</li> </ul> </li> </ul> <p>SPI Licensing</p> <ul style="list-style-type: none"> <li>• License Sharing across several pillars can be an issue on joint venture projects</li> <li>• SmartPlant License Manage will allow access to several licenses Servers <ul style="list-style-type: none"> <li>○ Each pillar will have their own license for the seats they need</li> <li>○ The users INtools.ini will point to the proper license server</li> <li>○ License servers may need to be in the Application Server Environment</li> </ul> </li> <li>• Using Owner Operator licenses</li> <li>• Must Provide seats for every work share user</li> <li>• License Server accessible to Application Server</li> </ul> <p>SPI Hosting</p> <ul style="list-style-type: none"> <li>• The Database and server hosting will have a major impact on the work practices and function of SmartPlant Instrumentation</li> <li>• Who will Host the SPI Database? <ul style="list-style-type: none"> <li>○ Owner Hosted</li> <li>○ Third Party</li> <li>○ Main Engineering Contractor</li> <li>○ Main Automation Contractor</li> </ul> </li> <li>• Remote User Access to the SPI Database <ul style="list-style-type: none"> <li>○ Microsoft SQL Server</li> <li>○ Citrix MetaFrame</li> </ul> </li> <li>• What Database Engine will be used? <ul style="list-style-type: none"> <li>○ Microsoft SQL Server</li> <li>○ Oracle DBMS</li> </ul> </li> </ul> <p>SPI Administration</p> <ul style="list-style-type: none"> <li>• Administration of the Software, users, databases and servers needs to be addressed up front</li> <li>• IT Administration <ul style="list-style-type: none"> <li>○ Experience with Oracle or Microsoft SQL Server</li> <li>○ Experience with Citrix or Terminal Services</li> </ul> </li> </ul> |  |
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|  |  | <ul style="list-style-type: none"> <li>○ Experience with SmartPlant Instrumentation</li> <li>● System Administrator <ul style="list-style-type: none"> <li>○ Full time – Part Time – Location</li> </ul> </li> <li>● Domain Administrator <ul style="list-style-type: none"> <li>○ Full time – Part Time – Location</li> </ul> </li> <li>● Technical Support <ul style="list-style-type: none"> <li>○ In House</li> <li>○ Intergraph</li> <li>○ Third Party</li> </ul> </li> </ul> <p>SPI Data Consistency</p> <ul style="list-style-type: none"> <li>● Administration of the Software, users, databases and servers needs to be addressed at the beginning of a work share project</li> <li>● How to police contractors from changing plant standards <ul style="list-style-type: none"> <li>○ Best Method – Use As-Built Functionality</li> <li>○ Restrict Access Rights (not secure)</li> </ul> </li> <li>● Implementation Specification <ul style="list-style-type: none"> <li>○ Define Contractors Scope in SPI Specification</li> <li>○ Require any changes it Standard tables to be approved</li> </ul> </li> </ul> <p>SPI Integration</p> <ul style="list-style-type: none"> <li>● Integrating and Interfacing with external software resources or share base systems can get complicated on a Joint Venture project when attempting to connect remotely.</li> <li>● Basic interfaces – must reside on server <ul style="list-style-type: none"> <li>○ Import / Export utilities</li> <li>○ Save As and Print To Interfaces</li> </ul> </li> <li>● SmartPlant Interfaces – determined by TEF Adaptors <ul style="list-style-type: none"> <li>○ SmartPlant Foundation</li> </ul> </li> <li>● Software linking interfaces – neutral file format <ul style="list-style-type: none"> <li>○ Vendor Interfaces</li> <li>○ Contractor Interfaces</li> </ul> </li> <li>● Utility interfaces – neutral file or reside on server <ul style="list-style-type: none"> <li>○ Analytical and Auditing Interfaces</li> <li>○ Special report and deliverable Interfaces</li> </ul> </li> </ul> <p>SPI Deliverables</p> <ul style="list-style-type: none"> <li>● The generation of Deliverables and Document Management in a shared environment can have issues</li> <li>● Generation of deliverables when remote hosting <ul style="list-style-type: none"> <li>○ Controlling printer drivers in host server</li> <li>○ Mapping local drives from remote servers</li> <li>○ Adding standard MS Office to remote server</li> <li>○ PDF file creation over remote connection: <ul style="list-style-type: none"> <li>▪ Adobe Acrobat PDF Writer</li> <li>▪ Adobe Acrobat PDF Distiller</li> <li>▪ PDF995 Freeware</li> <li>▪ FinePrint Utility</li> </ul> </li> </ul> </li> <li>● Configuring ESL over remote connection</li> <li>● CAD drawing generation over Citrix</li> <li>● Running External editor remotely</li> </ul> <p>SPI Security</p> <ul style="list-style-type: none"> <li>● Security is always a major concern when extending access to servers and data to external contractors</li> <li>● Work Share IT Security Concerns <ul style="list-style-type: none"> <li>○ Password Protection</li> <li>○ Virus Scanning Software</li> <li>○ Shared Printers and Drives</li> </ul> </li> <li>● Data Security maintenance <ul style="list-style-type: none"> <li>○ User Rights management</li> </ul> </li> </ul> |  |
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|   |              | <ul style="list-style-type: none"> <li>○ Support Table Control</li> <li>○ Data Auditing Software</li> <li>• Firewalls and Terminal Services <ul style="list-style-type: none"> <li>○ Firewall exceptions</li> <li>○ Network Monitoring</li> <li>○ Encryption Issues</li> </ul> </li> </ul> <p>SPI Risk Management</p> <ul style="list-style-type: none"> <li>• Risk mitigation and management is an important part of Work Sharing on a Joint Venture Project</li> </ul> <p>Work Share Game Changers</p> <ul style="list-style-type: none"> <li>• Some things that can add to the complexity and costs of a work shared Joint Venture Project <ul style="list-style-type: none"> <li>○ Selection of DBMS and Terminal Host</li> <li>○ Risk Management issues <ul style="list-style-type: none"> <li>▪ 24-7 Support</li> <li>▪ 24-7 Administration</li> <li>▪ IT Work Orders</li> <li>▪ Down Time Management</li> <li>▪ Consistent User Training</li> </ul> </li> <li>○ Change management issues <ul style="list-style-type: none"> <li>▪ Change notification across pillars</li> <li>▪ Change tracking methods</li> <li>▪ Revision control on documents</li> </ul> </li> <li>○ Keep Scope of work within SPI Capabilities</li> <li>○ Single Client Contact for Administration</li> </ul> </li> </ul> |  |
| 7 | Oral Report  | <p>Owner / Operator Committee Report - Jim Federlein, ISA</p> <ul style="list-style-type: none"> <li>• Now have: <ul style="list-style-type: none"> <li>– 30 members</li> <li>– Representing 20 companies</li> <li>– And continuing to grow</li> </ul> </li> <li>• Next meetings will be: <ul style="list-style-type: none"> <li>– May 17 from 10 AM – Noon EDT (9-11 AM CDT).</li> <li>– July 19 from 10 AM – Noon EDT (9-11 AM CDT).</li> </ul> </li> </ul>  |  |
| 8 | Presentation | <p>SmartPlant Instrumentation Update – Alex Koifman, Intergraph</p> <p><u>NOTE:</u> This document is designed to communicate a perspective of likely R&amp;D prioritization based on the current indicators of client demand. It will change both in scope and timing in response to industry demand, which is quite dynamic. Intergraph retains all decision rights as to what will be included in a particular release, and does not make binding commitments outside of a written commercial contract.</p> <p>SmartPlant Instrumentation Upcoming Release Details</p> <p>Next Planned Hot Fixes</p> <ul style="list-style-type: none"> <li>• HF-120649, 120473 and 120039 – DCS integration in file mode</li> <li>• HF-121545 – SPI Setup not to break SPP&amp;ID installation</li> <li>• HF-119268 – Custom cable cross-wiring claim and merge (O/O mode)</li> <li>• HF-121360 – ESL: Show not connected wire of cable</li> <li>• HF-121086 – Certain rules can fail</li> <li>• HF-120442 and 121302 – Document binder issues</li> <li>• HF-120853 – Custom page specification revisions</li> <li>• HF-121171 – Error in Document selection wizard</li> <li>• And more</li> </ul>  |  |

Next Planned Point Release

- CR-98152 – Enhance ESL access rights
- RI-107906 – Improve Upgrade and Hot Fix delivery mechanism
- CR-80542 and others – Macro expansion from SP P&ID, Typical entity and batch loop creation management in SPI
- CR-56829 – Option to recover after failure of Spec binder revision
- CR-84213 – Unit, area and plant UDF's on ESL title block
- CR-102415 – Support loop and Hook-up generation on AutoCAD 2009, 2010 and 2011
- CR-110916 - Document binder revs on PST ESL report
- CR-112171 – Expand DDP library for SP3D
- And more

Next Planned Major Release

- CR-78416 – Develop Custom Browser wizard
- CR-69094 – Calculations to support ISO-5167-2003
- RI-100856 – Add missing UOM's
- RI-84114 – Enhanced DbChecker
- CR-73914 – Develop Logic diagramming capability
- RI-102537 – Support wireless instrumentation design
- RI-111126 – Remove dependency on InfoMaker
- RI-72770 – Improve access rights management
- CR-75058 – Ability to modify KKS classification
- And more

Release plans and schedules

- Current version: v.2009 SP2
- Next release: v.2009 Service Pack 3, main objectives are:
  - Develop Macro expansion from SPP&ID
  - New upgrade and Hot Fix delivery mechanism
  - Support multiple lines per instrument (with integration with SPP&ID)
  - Integration fixes and enhancements
  - Additional enhancements
  - Maintain the robustness of the product achieved in v.2009
- After next releases:
  - V.2009 SP4 and
  - V.2013 planned for H2 2012; will include support for Oracle 11
  - V.2013 R1 for new functionality (Browser Wizard, Control & Logic Diagrams, etc) and continued customer issues resolution (TR's).

V.2009 SP2 release features

- Support new infrastructure platforms (Windows 2008 server, MS SQL 2008, Windows 7 client)
- As Built improvements and fixes
- Improved composite specifications management
- Area and Unit note length to be increased to allow for full length

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|  |  | <p>retrieval from SPF (when retrieving PBS)</p> <ul style="list-style-type: none"> <li>▪ KKS – changed cable numbering uniqueness validation logic from hardcoded to rule driven and configurable (using the Rule manager)</li> <li>▪ Enhanced Telecom and general wiring functionality delivering: new Telecom Explorer tree schema, Plug &amp; Socket Wiring Equipment Wizard and ability to include WE as separate objects on the Cable Block Diagrams (CBD)</li> <li>▪ Improved document binder reporting capabilities for included ESL and regular wiring reports</li> <li>▪ Symbol Batch association for different entities</li> </ul> <p>V.2009 SP3 release features (planned)</p> <ul style="list-style-type: none"> <li>▪ RI-107906 – Changes to the upgrade and Hot Fix delivery mechanism</li> <li>▪ CR-102415 - AutoCAD 2009, 2010 and 2011 supported (as well in HF for v.2009 SP2)</li> <li>▪ CR-98152 - Access rights enhancement within ESL – users without the ability to save to the Layout can still assign loops to a layout.</li> <li>▪ SPI framework evolution – changes to the infrastructure bringing more stability and new look and feel of the UI</li> <li>▪ Ability to save files from InfoMaker v.12 to be used in v.2007.x and v.2009.x (availability late summer 2011)</li> <li>▪ CR-80542 - Handle macro expansion between SPPID and SPI including revamp of the Typical Loop mechanism (including CR-60697 – Typical tags and Loop shown in Reference Explorer) and management of different tag classes as typical loops/macros</li> <li>▪ CR-115160 – Resolve issues with the presentation of the nested objects in the ESL in custom mode (regression in v.2007/2009)</li> <li>▪ CR-121696 - Documentation on SmartPlant Schema Configuration Wizard</li> <li>▪ CR-56829 – Option to recover after failure of the Spec Binder revision process.</li> <li>▪ CR-84213 – Plant, area and unit UDF's available on ESL titleblocks.</li> <li>▪ CR-104462 – Create electrical signals automatically when retrieving P&amp;ID from the SPPID</li> <li>▪ CR-110916 – Ability to see Document Binder information on panel strip reports in ESL.</li> <li>▪ CR-112171 – Expand and synchronize SP3D and SPI DDP libraries</li> <li>▪ CR-115785 – API to support Loop Specification</li> <li>▪ CR-117561 – Support Microsoft Office 2010</li> <li>▪ CR-117615 – Telecom::Panel patch wiring for plug &amp; socket cables</li> <li>▪ CR-110532 – Cable display is optimized in ESL reports.</li> </ul> <p>Next release features (planned)</p> <p>Plans for the next release are still being discussed but will likely include</p> <ul style="list-style-type: none"> <li>▪ Integration enhancements and fixes</li> <li>▪ Browser Wizard</li> <li>▪ Develop control logic diagramming capability</li> </ul> |  |
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|   |              | <ul style="list-style-type: none"> <li>▪ NE-100 integration (through standard SPF integration mechanism)</li> <li>▪ Customizable Process Datasheets (forms)</li> <li>▪ As Built enhancements/fixes</li> <li>▪ Add separate access rights to Instrument Index supporting tables.</li> </ul> <p>And other features.</p> <p><u>SPI 2009 Roadmap (Q&amp;A, Comments)</u></p> <p>Will Infomaker and version 11.2 be functional for SP3?</p> <ul style="list-style-type: none"> <li>▪ Intergraph can provide Infomaker 10.2 and 11.2<br/>Late summer will have no dependency on the version of Infomaker.<br/>Eventually, SPI will have a Query Tool Browser without using Infomaker.</li> </ul> <p>What is the future status of SPF Integration?</p> <ul style="list-style-type: none"> <li>▪ SPF Integration will be more simple.</li> <li>▪ DCS Vendors will be more seamless.</li> </ul> <p>In the SPI Version 2009 Admin Module- Is merging allowed with multiple users but claim will not allow users?</p> <ul style="list-style-type: none"> <li>▪ Oracle has issue with claiming in the database</li> </ul> <p>Will we have SP7 for SPI 2007?</p> <ul style="list-style-type: none"> <li>▪ Not his year/No CR's this year. Focus is on SPI 2009 since customers are upgrading</li> </ul> <p>What are the dates of SP3 and SP4 for SPI 2009?</p> <ul style="list-style-type: none"> <li>▪ SP3 – 3 more months ~ Dec 2011</li> <li>▪ SP4 – End of Year/Early next year</li> </ul>   |  |
| 9 | Presentation | <p>SPI V7 – SPI V2009 Work Flow Feature<br/>- Nezar M. Faitouri, Overload Services, Inc.</p> <ul style="list-style-type: none"> <li>• The SPI Workflow is the communication part between the Process Group (SPI process data module) and the Engineering group (SPI specification module). This feature only applies to SPI instrument tags.</li> <li>• The function must be turned ON by the system administrator if the domain is an Engineering Company domain or by the system or domain administrator if the domain is an Owner Operator Domain.</li> <li>• There are 2 options for this feature (Full and Without Document Binder).</li> <li>• It will require the creation of 2 SPI groups, one for Process and the other for Engineering. This means separate SPI access rights as well.</li> <li>• In the workflow browser view, for each instrument tag, there will be 5 options to choose from: <ol style="list-style-type: none"> <li>1. Process Data Not Required: (Available for Engineering Group to change) <ul style="list-style-type: none"> <li>• This is the default setting for any instrument.</li> <li>• Instrument does not require any process data information.</li> <li>• Instrument spec can be created and issued (revision).</li> </ul> </li> <li>2. Process Data Required: (Available for Engineering and Process Group to change) <ul style="list-style-type: none"> <li>• If the instrument type profile is set for Process Data Workflow required, then the instrument by default will have this flag.</li> </ul> </li> </ol> </li> </ul> |  |

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|  |  | <ul style="list-style-type: none"> <li>• Instrument does require process data information.</li> <li>• Instrument spec can be created and issued (revision).</li> </ul> <p>3. Lock Out from Instrument: (Available for Process Group to change)</p> <ul style="list-style-type: none"> <li>• Instrument spec can not be issued (revision) while process data is not issued yet.</li> </ul> <p>4. Release to Instrument: (Available for Process Group to change)</p> <ul style="list-style-type: none"> <li>• Process data is issued and the instrument is released to the spec to issue.</li> </ul> <p>5. Lock Out from Process: (Available for Engineering Group to change)</p> <ul style="list-style-type: none"> <li>• Instrument is not available for process data modification after issued</li> <li>• Instrument spec can be issued (revision) and revised as well.</li> </ul> <ul style="list-style-type: none"> <li>• SPI Workflow flags available to change by Engineering Group <ul style="list-style-type: none"> <li>○ Process Data Not Required</li> <li>○ Process Data Required</li> <li>○ Lock Out From Process</li> </ul> </li> <li>• SPI Workflow flags available to change by Process Group <ul style="list-style-type: none"> <li>○ Process Data Required</li> <li>○ Lock Out From Instrument</li> <li>○ Release To Instrument</li> </ul> </li> <li>• Instrument is set to Process Data Not Required <ul style="list-style-type: none"> <li>○ Type in the tag number in process data tag window will result in the message below:<br/>“You cannot open process data for this tag number because the Workflow status is Process Data Not Required”</li> <li>○ Using the search command, tag number will not appear.</li> </ul> </li> <li>• Instrument is set to Process Data Required <ul style="list-style-type: none"> <li>○ Type in tag in number process data tag window will open process data sheet.</li> <li>○ Process user MUST Save the changes to set the flag to Lock Out from Instrument OR user can change the flag from the Workflow browser.</li> </ul> </li> <li>• Instrument is set to Lock Out from Instrument <ul style="list-style-type: none"> <li>○ Instrument spec can be modified with the exception of process information.</li> <li>○ Instrument spec can not be issued.</li> </ul> </li> <li>• Instrument is set to Lock Out from Process <ul style="list-style-type: none"> <li>○ Process data can not be modified by the Process Group.</li> <li>○ Instrument spec can be modified with the exception of process information.</li> <li>○ Instrument spec can be issued.</li> </ul> </li> <li>• Workflow and Document Binder <ul style="list-style-type: none"> <li>○ If an instrument spec is assigned to a spec document binder, SPI enables the “Release this item to Spec” check box when saving instrument spec.</li> <li>○ If checked, it allows a formal revision issue to be applied to the document binder.</li> <li>○ If unchecked, it does not allow a formal revision issue to be applied to the document binder until the check box is checked again or the flag is changed in the document binder</li> </ul> </li> </ul> |  |
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|   |              | <p>Notes:</p> <ul style="list-style-type: none"> <li>• Workflow feature works with process data cases function.</li> <li>• Individual Instrument tag calculation can be performed only if the Workflow flag is set to Process Data Required <u>or</u> Release to Instrument <u>or</u> Lock Out from Instrument; however, as a workaround the user can calculate using the Batch Calculation method if the Workflow is set to Lock Out from Process. <ul style="list-style-type: none"> <li>○ Calculation Module</li> <li>○ Batch Calculation (flow, Control Valve, etc)</li> <li>○ Find the tag</li> <li>○ Once tag listed, highlight it, then click batch calculate (batch) or calc data for (individual)</li> </ul> </li> <li>• If an instrument tag is set to Lock Out from Process, a process data report can not be generated from the process data module, it can be generated either from the domain explorer (tag – right click – reports – process data) <u>or</u> from the instrument index browser view (documents function) <u>or</u> from the document binder module using the General document binder <ul style="list-style-type: none"> <li>○ Document Binder Module</li> <li>○ Create general document binder</li> <li>○ Assign the process data report to the binder from the Document Explorer</li> <li>○ Open the report either by double clicking the document <u>or</u> right click – open</li> </ul> </li> <li>• Unfortunately, there is a BUG with the SPI regarding process data modification by the Engineering group (TR-PB52159). The Engineering group can not modify process data from instrument specs, process data module, calculation module, specification browser, and the general process data browser; however, the Engineering group can modify process data from the remaining process data browsers (Flow, Control Valve, etc).</li> </ul> |  |
| 9 | Forum Topics | <p>Process Data Module</p> <ul style="list-style-type: none"> <li>○ Process Data Report - Spec notes overwrite the title blocks – Workaround: A4 Paper size to PDF</li> <li>○ Process notes are now available in Spec Sheets; especially needed for valve sizing</li> </ul> <p>Instrument Type Profiles</p> <ul style="list-style-type: none"> <li>○ Associate UDT to profile on project – Workaround: Declare UDT on each plant; Work at unit level to enter data</li> </ul> <p>TW calculations</p> <ul style="list-style-type: none"> <li>○ TW calculations need to be based on the new ASME PTC 19:3-2010 calculation standard.</li> <li>○ This standard has already been adopted by most TW vendors</li> <li>○ SPI ASME Calculation method is 20 years old and does not account for tapered TW or new metallurgy.</li> </ul> <p>Relief Valves datasheets</p> <ul style="list-style-type: none"> <li>○ The SPI Relief valve calculation and Spec Sheets are Complex and hard to get an accurate calculation – Workaround: Consolidated has a free SPI relief valve datasheet form that works with their calculation software.</li> </ul> <p>Using SPI 2009 Rule Manager</p> <ul style="list-style-type: none"> <li>○ Doesn't work properly</li> <li>○ Build before database</li> <li>○ Existing database doesn't work</li> <li>○ Index to Spec field but not vice-versa</li> </ul>  |  |

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|----|-------|--|--|
|    |       | <p>Using SmartPlant Foundation</p> <ul style="list-style-type: none"> <li>○ Limited amount of data that can be transferred</li> <li>○ Controls change management</li> <li>○ Revision Control takes over and can't change revisions</li> <li>○ Need to create SPI Index Tags and P&amp;ID Tags</li> <li>○ Ownership has to be identified to Process, Instrument, or Piping</li> <li>○ SPEL can't migrate Signals to SPF</li> </ul> <p>Open Discussion</p> <ul style="list-style-type: none"> <li>○ External Editor 2007 – Adding new manufacturer kills session (HF)</li> <li>○ Linked-IN has INtools and SPI Forums</li> <li>○ Utilizing device-net – limit of number of devices (99); Declare it as a FF</li> <li>○ User can define UDF'S in the browser and doesn't have to be defined in Admin module. Users need a certain number of fields but needs to be restricted. Allow "free data" declared in Admin module. Name the fields in the Admin Module "UDF-01" so no-one can re-alias</li> </ul> |  |
| 11 | Close | <ul style="list-style-type: none"> <li>○ <b><u>Next meeting on August 11<sup>th</sup> 2011 at AMEC-Paragon</u></b></li> <li>○ John Dressel closed meeting</li> </ul>   |  |