

SmartPlant Instrumentation Technical User Forum P2C2 (Houston SPI TUF) Meeting		February 11, 2010 8:00 am ConocoPhillips HQ Houston, TX	
Attendees	52 Members in attendance 6 Online via Net Meetings	Copied To	LTUF Members
Called By	John Dressel	Prepared By	John Dressel

Item	Topic	Notes	Action/Due
1	Welcome and Presentation	<ul style="list-style-type: none"> • David Land, ConocoPhillips Welcomed members of the Houston SmartPlant Instrumentation Local Technical Users Forum Use of SPI by ConocoPhillips – David Land • 1992 First use of LIDS at Conoco (Litwin Instrument Design Software) • 1996 Converted LIDS data to Intools • 2002 Merger of Conoco and Phillips <ul style="list-style-type: none"> -- INtools was designated the corporate database for Instrumentation data • 2003 to 2009 Non-Conoco sites moved their instrument data to SPI/INtools • 2009 Implementation of the SPI to SAP data interface <ul style="list-style-type: none"> -- One point of entry for instrument data = SPI, interface automatically updates SAP. • 2 Corporate SPI Servers running on Citrix <ul style="list-style-type: none"> 1 in the US <ul style="list-style-type: none"> 13 Refineries 1 in Europe <ul style="list-style-type: none"> 3 Refineries <p>Average of 13,000 loops and 31,000 instruments per Refinery</p> • 75 concurrent user licenses • 600 total users within COP • 200 of those are contractors using SPI outside of the COP network but on the COP SPI servers 	

2	Chairman's Notes	<ul style="list-style-type: none"> John Dressel urges everyone to take advantage of the current downturn to review their SPI implementation and work processes. This is an opportunity for upgrading and considering additional Integration options. <p>Upcoming Conferences:</p> <p>DIGITAL PLANT Conference 2010 March 1 - 3, 2010 Hilton Americas, Houston Texas</p> <p>ISA 2010 Safety and Security Symposium April 28 - 29, 2010 Astor Crowne Plaza New Orleans, LA</p> <p>Offshore Technology Conference (OTC) May 3 - 6, 2010 Reliant Park Houston, TX</p> <p>Intergraph 2010 June 14 - 17, 2010 Gaylord Opryland Nashville, Tennessee</p>	
3	Minutes	<ul style="list-style-type: none"> Minutes of last meeting approved 	
4	Introductions	<ul style="list-style-type: none"> Each member stood and introduced themselves and spoke of their utilization of SPI. Welcomed several members who connected into meeting with NetMeeting. 	
	Election Of Officer	<ul style="list-style-type: none"> Election of Vice-Chair (nominees) John Dressel was elected to position Chairman Gene Haney was elected to position of Vice-Chair Daniel Siddiqui was elected to position of Secretary 	
6	Presentation	<p>New SPI Specification Libraries - John Dressel, Fluor 2007 Spec Libraries for Petrochemical and Biopharma</p> <p>New Spec Libraries for SPI 2007 & 2009</p> <ul style="list-style-type: none"> SPI 2007 Petrochemical Spec Library (SPI 2009 Library for SPI 2007.zip) SPI 2007 Biopharma Spec Library (Biopharma_Spec_SPI 2007.zip) Other SPI 2007 and 2009 Specification Libraries These libraries are included with SPI 2009, however they must be restored for use. These libraries will work in SPI 2007.6 and above. To install, use the Page Editor to open the Files and save as new Pages. 	

- Then create Forms from the Pages and use the SQL statement to create the required view.
- To obtain these libraries – turn in a service request to Intergraph

SPI 2007 Petrochemical Spec Library

This library is made up of 101 .psr pages that need to be assembled in different ways to build complete spec forms.

An example of a Control Valve Spec Form will involve:

- Combine the Selected Valve Mechanics with the Process Spec
- An Auxiliary Device page is added to the Control Valve Spec
- The resulting Spec sheet is three pages long and 330 data fields

An example of a Flow Element Form will involve:

- A complete Flow element and transmitter will require: A Flow Element page added to a Flow Process Spec and a separate Pressure transmitter page on another form

Issues with SPI 2007 Petrochemical Spec Library

- While the ISO9000 Title Block is nice the Notes Page reverts to Out of the Box SPI Title Block
- Component Identification Areas are only associated to the database for one of the Component Types and do not contain the instrument Tag Numbers
- The Tag Number and P&ID do not appear on every page
- The Forms are very complex to build and associate the proper pages to complete the required data
- The page descriptions should give Form relationships and Process Function
- Some Pages have wasted space
- The resulting Forms are too complex and time consuming to fill out properly or transmit to vendors for sizing and selection
- The pages contain "N/A" or Non-functional fields with no value
- Blank lines with Header and Data areas do not allow data input

SPI 2007 Pharmaceutical Spec Library

- This library is made up of 74 .psr pages that are stand alone forms. Features many new pages for specialty instruments

Valve Spec Selections Include:

- 7101 - Temperature Regulator
- 7102 - Pressure Flow Regulator
- 7103 - Blanketing Regulator
- 7201 - Ball Valve
- 7202 - 4 Way Valve
- 7203 - 3 Way Valve
- 7204 - Diaphragm Valve
- 7205 - Butterfly Valve On Off
- 7206 - 3 Way Diverter Valve
- 7207 - Sanitary Multi-port Valve
- 7301 - Globe Valve
- 7302 - Sanitary Control Valve
- 7303 - Butterfly Control Valve
- 7304 - V Ball Valve

Flowmeter Spec Selections include:

- 2501 - Coriolis Mass Flowmeter
- 2502 - Magnetic Flowmeter
- 2503 - Thermal Mass Flowmeter
- 2504 - Turbine Flowmeter
- 2505 - DP Transmitter flow
- 2506 - Positive Displacement Flowmeter
- 2507 - Vortex Flowmeter
- 2508 - Ultrasonic Flowmeter

Flow Element Selections include:

- 1101 Orifice Plate
- 1102 Annubar
- 1103 Rotameter
- 1104 Venturi Tube

Specialty Spec Selections include:

- 2610 - Total Organic Carbon Analyzer
- 2609 - Optical Density Analyzer
- 2611 - Turbidity Analyzer
- 2701 - Weigh Systems, Load Cell
- 2702 - Weigh Bench and Floor Scales
- 2703 - Weigh Precision Scales
- 4105 - Proximity for Bubble Trap
- 5101 - Bi-metallic Temp Indicator
- 7402 - Conservation Vent
- 7401 - Rupture Disk
- 7404 - Flame Arrestor
- 9305 - Speed Transmitter

Pros of SPI 2007 Pharmaceutical Spec Library

- ISO9000 Title Block blends with SPI Out of the Box but Notes Page reverts to Out of the Box Title Block
- P&ID Number on every Spec Page
- Has a selection of specialty Spec forms that supplement the SPI Out of the Box Specs
- The library matches the ISA20 Excel Library for Pharmaceuticals

Other Libraries for SPI 2007 & 2009

SPI Out of the Box Specification Library Pros

- Complete Library for most common Instruments
- Easily modified in SPI to fit most project specific needs
- Handles Single, Multi-Tag and Multi Item Specs
- Most SPI users are trained and skilled in the SPI Spec Library

SPI Out of the Box Specification Library Cons

- Title Box is not ISO-9000 compliant (no check or approved)
- P&ID number not on all Spec forms
- Forms have not been updated in several SPI versions
- Requires modifications to Specs on almost every project

Other Libraries for SPI 2007 & 2009

- The Overload Services Inc. SPI Spec Library is made up of 135 Forms and is the most comprehensive spec Library for SPI

Overload Services Inc. SPI Spec Library Pros

- Comes with OSI Seed file which is used by several Owner Operators
- P&ID Number on every Spec Page
- Title Block is ISO-9000 compliant but Notes Page reverts to

		<p>Out of the Box Title Block</p> <ul style="list-style-type: none"> Additional Specs available for Consolidated Relief Valves and Level Transmitter Calculations <p>Overload Services Inc. SPI Spec Library Cons</p> <ul style="list-style-type: none"> Must be purchased from Overload Services Inc. as a standalone library or as part of a OSI SPI Seed file <p>SPI Specification Sheet Tips & Tricks</p> <ul style="list-style-type: none"> Selection of Spec Libraries and Forms need to be based on your project needs. Each user and project is different and no one available Library will have all the Spec Forms needed. A modified title box will not show up on the second notes page. An overlaid title box will show on the second sheet. If you modify a title box, create an overlay title box and associate it to sheets that use a second notes page or only use an overlaid title box. Always open InfoMaker with the Export icon in SPI to allow InfoMaker to open and link to the project database To provide a margin at the top of datasheet reports, set a parameter "TOPMARGIN = 250" in the INTOOLS.INI file [PRINTER] section. When adding a column to a spec page, Use the Page Editor in SPI to select an unused column. InfoMaker allows selection of columns that are already on the Spec. Enter the Form Numbers in the Description field of the Page Editor so you know what forms a page is used on. When saving Spec Sheet pages to PDF files, Include the Form number in the filename. This makes them easier to recognize when searching for a particular type of Spec. Change the headers in the Spec data dictionary to make more sense and shorten to fit the browser area. For blank lines on a spec, Name the headers with the line number instead of Spec_udf numbers. This will make more sense in the browser To print spec sheets filtered on a specific field: Create and Name a filter in a Spec Browser View Select the Named filter from the "Find" dialog box and select the Specs you wish to print. 	
7	Presentation	<p>SPI V7 and Higher I/O Cards and I/O Termination Configurations</p> <p>by: Nezar M. Faitouri, Overload Services, Inc.</p> <p>The purpose of this presentation is:</p> <ul style="list-style-type: none"> Show the SPI user the proper ways of configuring "creating" I/O cards and I/O terminations in SPI V7 and higher. Make Recommendations for creating I/O terminations Proper upgrade setup from V6 to V7 and higher for I/O Cards SPI DCS Interface rules <p>Scenario No.1</p> <ul style="list-style-type: none"> Wiring Directly to an I/O Card Ex: Allen Bradley, Bently Nevada, DeltaV, Honeywell "C200, C300" the SPI Hierarchy will be: <ul style="list-style-type: none"> Panel – Rack – Slot – I/O Card – Strip – Channel - Terminals 	

Scenario No.2a

- Wiring to an I/O Termination “FTA or ETB” with NO I/O Redundancy
- Ex: Honeywell TDC3000, Triconex
- The SPI Hierarchy will be:
 - Panel – Rack – Slot – I/O Card
 - Panel – I/O Termination - Strip – Channel - Terminals

Scenario No.2b

- Wiring to an I/O Termination “FTA or ETB” with I/O Redundancy
- Ex: Honeywell TDC3000, Triconex
- The SPI Hierarchy will be:
 - Panel – Rack – Slot – I/O Card
 - Panel – I/O Termination - Strip – Channel - Terminals

Scenario No.3a

- Wiring to an I/O Termination “FTA or ETB” with NO I/O Redundancy
- Ex: Honeywell TDC3000, Yokogawa CS3000
- The SPI Hierarchy will be:
 - Panel – Rack – Slot – I/O Card
 - Panel – I/O Termination - Strip – Channel - Terminals

Scenario No.3b

- Wiring to an I/O Termination “FTA or ETB” with I/O Redundancy
- Ex: Honeywell TDC3000, Yokogawa CS3000
- The SPI Hierarchy will be:
 - Panel – Rack – Slot – I/O Card
 - Panel – I/O Termination - Strip – Channel - Terminals

Scenario No.4

- Field MUX Wiring
- Ex: Honeywell C200, C300
- The Usage of the General Signal for the MUX I/O Termination and I/O Card Connection
- I/O Card connection “Strip” and general Signal propagation
- The SPI Hierarchy will be:
 - Panel – Rack – Slot – I/O Card
 - Panel – Rack – Slot - Strip

Not Recommended to DO:

1. Building an I/O Card and an I/O termination within the Same SLOT. This is common these days by users to reflect I/O redundancy especially for DeltaV.

Recommended to reflect this using Scenario No.2 to match the SPI upgrade process from V6 to V7 or V2007

Change Preference Setting that allows an I/O Card and an I/O

		<p>termination to be built within the same SLOT</p> <ol style="list-style-type: none"> 2. Building the Plug-in System cable between the I/O Termination and the I/O Card "Building the I/O termination as an Apparatus or a Regular strip and the I/O Card with channels and terminals". 3. Building the MUX I/O Termination as an Apparatus or a Regular strip and the IO Card with channels and terminals". 4. Building an I/O Card or an I/O Termination with multiple strips "Channels and terminals". <p>Upgrading from INtools V5 or V6 to SPI V7 and Higher</p> <p>The key the proper upgrade for an I/O card/termination is the "Set within a Distant Cabinet check box and the Define Redundant I/O in the I/O properties dialog box"</p> <ol style="list-style-type: none"> 1. If neither boxes are checked, the upgrade will result in reflecting scenario No.1 2. If the distant cabinet is checked, and redundant is checked or not checked, the upgrade will result in reflecting scenario No.2 or No.3 depending on the Cabinet Name. 3. Upgrade Special Instructions Document <p>Check the proper DCS Interface and I/O Card - Double Width and Redundant Check Boxes</p> <p>Some of the DCS Interface Rules:</p> <ol style="list-style-type: none"> 1. Yokogawa CS3000 <ul style="list-style-type: none"> • Panel Name FCS0011 and can not exceed 7 characters • Manufacture name must be CENTUM CS3000 "Panels, I/O cards, etc" • I/O Card Name must match the IO Card Type Name • Some data is in read-only mode and can not be modified such as channel address, and controller. 2. DeltaV <ul style="list-style-type: none"> • DeltaV carrier is considered as a rack in SPI and not a controller • Controller name must be Upper case and populated in the controller table • Primary slot must be an odd number and secondary slot must be an even number <p>Please Contact Intergraph Support for a complete list/document of these rules and limitations</p>	
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8	Presentation	<p>SmartPlant Instrumentation 2009 Features</p> <p>Ron Williams of Intergraph was to give a presentation of several new features of SPI 2009 - The presentation was suppose to be a live demo, but due to technical difficulties he later recorded the demo and sent it to John Dressel who compiled this presentation on the following:</p> <ul style="list-style-type: none"> • How to load the new Spec Libraries in SPI 2009 • How to create Multi-Form browsers in SPI 2009 • How to use the User Defined Macro function in SPI 2009 • How to add new Pile Schedules to the Line Standards table • How to change a Fieldbus tag class to conventional • General Changes and enhancements to the Calibration Module 	
9	Presentation	<p>Houston LTUF Owner/Operator Committee 1st Meeting Report</p> <p>Attendees: Aarash Badozzaman, Pasadena Refining Rick Graham, Exxon Mobil Bernadette, Thornton Chevron Vic Lovuola, Bayer Technology Services Greg Brueckner, Bayer Technology Services Jim Federlein, Bayer Technology Services</p> <p>Meeting Minutes</p> <p>The Owner/Operator committee was announced at the 10/6/09 Houston LTUF meeting at ISA Expo in Houston. Those at the LTUF meeting and interested in the committee were invited to remain after the LTUF meeting.</p> <p>Six people remained after the LTUF meeting to discuss owner/operator issues.</p> <p>The committee discussed issues related to Intergraph SPI that are or particular interest to owner/operators.. For this first meeting, it was decided to simply list the issues of concern to the owner/operators represented at the meeting. These issues included:</p> <ul style="list-style-type: none"> • Managing multiple as-built databases. • Use (and acceptance) of SPI by Maintenance and Operations. • Getting data from package vendors incorporated into As-built. • How is SPI being incorporated into owner/operator work flow? (One example is using SPI for mechanical equipment information and then sending that information to SAP). • Should SPI be able to handle heavy text-based specifications? 	

		<ul style="list-style-type: none"> • Migration of legacy information into SPI. • Management support of SPI. • Where does owner/operator find administrators who have sufficient time and training? <p>It was agreed that this was only a brief start for this committee. These minutes are to be distributed to all Houston LTUF members to determine the level of interest in an owner/operator committee to address issues such as those noted above.</p>	
10	Forum Topics	<p>The following topics were discussed or surveyed from the attendee:</p> <ul style="list-style-type: none"> • Houston LTUF Workshops • SmartPlant Foundation • SPI Telecom Module • Handling Electrical Interlocks • SPI LTUF Websites 	
14	Close	<ul style="list-style-type: none"> - Next meeting will be held on: May 6, 2010 - John Dressel closed meeting 	