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| SmartPlant Instrumentation Technical User Forum P2C2 (Houston SPI TUF) Meeting | February 5, 2007 8:00 am Jacobs Engineering |
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| Attendees | 38 Members in attendance 4 Online via Net Meetings | Copied To | |
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| Called By | John Dressel | Prepared By | Daniel Lopez |
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| Item | Topic | Notes | Action/Due |
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| 1 | Call to Order | <ul style="list-style-type: none"> - John Dressel called the meeting to order with an introduction to Jacobs | |
| 2 | Chairman's Notes | <ul style="list-style-type: none"> - Thanks to John Bolmanski and Jacobs for hosting the meeting and the presentations. - Thanks to members and guests for attending this meeting of the Houston SPI LTUF. - John Dressel spoke on using SPI automation to assist companies during the current business upturn. He pointed out that upgrading SmartPlant Instrumentation was a necessary part of using the tool. Both EPC's and Owner Operators have unique issues when it comes to upgrading from one version to another. - SPAR Laser Scanning Conference 2008 – March 3 – 5 -- Houston, Texas - GIS-T 2008 Transportation Symposium – March 17 – 19 -- Houston Texas - Automation World Conference & Exhibition – April 29 – May 1 -- Houston Texas - 2008 Offshore Technology Conference – May 5 – 8 -- Houston Texas - Intergraph 2008 International – June 2 – 5 -- Las Vegas, Nevada Attendance and participation to Intergraph 2008 held June 2-5 in Las Vegas Nevada were encouraged as having many of the Houston LTUF members would add emphasis. Sunday June 1st, the Technical User Forum will meet in Las Vegas, please submit discussion items to John Dressel, at your earliest convenience. | |
| 3 | Elections | <ul style="list-style-type: none"> - Being the first meeting of the year, election of officers was held with: - John Dressel re-elected to Chairman - Vicki Hutson re-elected to Vice-Chair, - Daniel Lopez was elected to the Secretary position. | |
| 4 | Minutes | <ul style="list-style-type: none"> - Minutes of last meeting approved | |
| 5 | Introductions | <ul style="list-style-type: none"> - Each member stood and introduced themselves and spoke of what their utilization of SPI is. - Welcomed several members who connected into meeting with Webex (including Sebastian Lieu with Phoenix Contacts,.Hamad Abad with Saudi Aramco, Michael Johnson with Burgess McDonald as well as Omar Gomez at Exxon Mobil.) | |

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| 6 | Phoenix Presentation | <ul style="list-style-type: none"> - Jim Massey of Phoenix Contacts delivered a presentation on Corporate Structure and Markets, new products and project engineering resources at their Houston - West Belt facilities including the CTC (Customer Technology Center). <ul style="list-style-type: none"> • CTC is available for any customer or user group meetings • Included at the CTC is a training facility for up to 50 people with PCs. • Training and Technical Seminars can be scheduled or are on the calendar already - Foundation FieldBus training with Chuck Carter of Lee College will be for a ½ day. - Training for entry level engineers on different technologies will be scheduled. - Master Design Guide Website is a tool that will soon be available at MDG.com - This Website has guides on topic regarding Industrial Wireless configurations, Surge Protection, Grounding and Bonding. Sebastian Lieu, the RBU Business Mgr is working a Rail Design that can be exported to SPI. - - Products and services were discussed included Mod Term Block, PCB communications, Industrial Plugs and connections, Surge Protection, Signal Conditioning, Automation and System Bridges, Function Blocks, Plugs and testing as well as terminals including Universal UT, Direct (no tools) DT, Spring ST, ST-Combi, QT (saves 70% labor) and Hybrids. - - Jim said he could provide Rail Samples, he announced a PLC called NanoLine would be coming out soon. Other items discussed were Power Supplies, Quint, a selective Fuse Breaking Technology and a managed Switch for Internet IP. | |
| 7 | Fieldbus Presentation | <ul style="list-style-type: none"> - John Bolmanski of Jacobs gave the following presentation: - How to Safely Force an Oracle Database to FIELDBUS - The following is to be used for those cases where you have a database (Seed File from a Client from before Fieldbus or an old Project that is resurrected) and you are going from Conventional Equipment (4-20mA) to one that requires Fieldbus. We are going to cover the worst possible scenario (where pieces are defined incorrectly) and turn it into a database that works when you use the Fieldbus functions. As always, use these steps on a copy of the original database. After this works the modified Database can become the new Master Database. These instructions are for an Oracle database, modifications may be necessary for SQL Server for a NULL string. - - STEP 1 - - 1) Are any of your devices set up (defined) for Fieldbus? This can be found on the I/O Type Table. | |

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| 7 | Fieldbus Presentation (continued) | <ul style="list-style-type: none"> - SELECT * FROM COMPONENT_SYS_IO_TYPE - - FIELDBUS must be Compnt_Sys_Io_Type_Id = 7 or it will not work. - - The path forward is to do some shuffling to define the Fieldbus segment properly. Make sure the Tag Numbers defined as IO TYPE = PLC-AB-AI and IO TYPE = FIELDBUS are not going to be severely affected when you make your changes. The users probably had issues with wiring not working and brought this to your attention. At worst case, have the users change the Tag Numbers temporarily to another IO TYPE. - - Edit the FIELDBUS entry to something else (example OLD_FIELDBUS) – it is now a placeholder for the users to see when changing to the real FIELDBUS designation. - - If you open the Instrument Index you will see the changes immediately. Sweep through all of the tags in the database and change them as needed. - - Now that the FIELDBUS System I/O Type is defined the way Intergraph intended, it is time to follow through with the VIRTUAL TAG. - - STEP 2 - - 2) Use Internal Setup to determine if the Virtual Tag 'placeholder' for FIELDBUS has been set <ul style="list-style-type: none"> projectname.component_function_type_id = 153 - - SELECT * FROM component_function_type WHERE Cmpnt_Func_Type_Id < 200 - - In this example, the entry for Cmpnt_Func_Type_Id = 153 does not exist (and this is required for the FIELDBUS Virtual Tag). - - Insert the following into your database from Internal Setup - CRITICAL NOTE 1 – Proj_Id and Site_Id will be different for your databases, and you must get the correct values for your location. - - insert into component_function_type (Cmpnt_Func_Type_Id,Proj_Id,Site_Id,Chg_Num,Plant_Id,Chg_Status,User_Name,Cmpnt_Func_Type_Name,Cmpnt_Func_Type_Desc,Prf_Spec,Prf_Wiring,Prf-Cs_Point,Prf_In_Line_Device,Prf_Hu_Electrical,Prf_Hu_Pneumatic,Prf_Hu_Support,Prf_Hu_Process,Prf_Hu_Winterization,Prf_F1,Prf_F2,Prf_F3,Prf_F4,Prf_F5,Calc_Pd_Type_Id,Dwg_External_Blks_Id,Panel_Id,Cable_Id,Landing_Type_Id,Proc_Func_Id,Spec_Form_Id,Hu_Id,Hu_Type_Id,Bom_Include_Flg,Spec_Dwg_Id,Prf_Io_Type,Cmpnt_Io_Type_Id, | |

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| 7 | Fieldbus Presentation (continued) | <p>Prf_Location, Cmpnt_Loc_Id, Prf_Pd_Tag, Prf_No_Loop, Prf_Pm, Prf-Cs_Tag, Prf_Dimension, Dim_Grp_Id, Prf_Pd_Requir, Spec_Format_Id, Cstag_Func_Type_Name, Proc_Func_Cat_Id, Prf_Udt, Udt_Support_Id1, Udt_Support_Id2, Udt_Support_Id3, Udt_Support_Id4, Udt_Support_Id5, Udt_Support_Id6, Udt_Support_Id7, Udt_Support_Id8, Udt_Support_Id9, Udt_Support_Id10, Udt_Support_Id11, Udt_Support_Id12, Udt_Support_Id13, Udt_Support_Id14, Udt_Support_Id15, Udt_Support_Id16, Symbol_Path, Device_Type_Id)</p> <p>- values ('153', '5', '12345', '0', '1', 'W', 'INTOOLS', 'VFD', 'VFD VIRTUAL FIELD DEVICE',,,,,,,,,,,,,,'0','0','0','1','0','0','0','0','N',,,,,,,,,,,'0',,,,,,,,,,,,,,'VFD','0',,,,,,,,,,,,,,'0','0','0','0','0','0','0','0','0','0','0','0','0','0','0',,,,,,,,,,,'0',,,,,,,,,,)</p> <p>-</p> <p>- What does this code mean? Here is a listing of the Table Names and the appropriate values FIELDDBUS</p> <p>-</p> <p>- VALUES to insert into projectname.component_function_type</p> <p>-</p> <p>- Cmpnt_Func_Type_Id '153'</p> <p>- Proj_Id '5' CRITICAL NOTE 1</p> <p>- Site_Id '12345' CRITICAL NOTE 1</p> <p>- Chg_Num '0'</p> <p>- Plant_Id '1'</p> <p>- Chg_Status 'W'</p> <p>- User_Name 'FISHERB'</p> <p>- Cmpnt_Func_Type_Name 'VFD'</p> <p>- Cmpnt_Func_Type_Desc 'VFD VIRTUAL FIELD DEVICE'</p> <p>- Prf_Spec ''</p> <p>- Prf_Wiring ''</p> <p>- Prf-Cs_Point ''</p> <p>- Prf_In_Line_Device ''</p> <p>- Prf_Hu_Electrical ''</p> <p>- Prf_Hu_Pneumatic ''</p> <p>- Prf_Hu_Support ''</p> <p>- Prf_Hu_Process ''</p> <p>- Prf_Hu_Winterization ''</p> <p>- Prf_F1 ''</p> <p>- Prf_F2 ''</p> <p>- Prf_F3 ''</p> <p>- Prf_F4 ''</p> <p>- Prf_F5 ''</p> <p>- Calc_Pd_Type_Id '0'</p> <p>- Dwg_External_Blks_Id '0'</p> <p>- Panel_Id '0'</p> <p>- Cable_Id '1'</p> <p>- Landing_Type_Id '0'</p> <p>- Proc_Func_Id '0'</p> | |

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| 7 | Fieldbus Presentation (continued) | <ul style="list-style-type: none"> - Spec_Form_Id '0' - Hu_Id '0' - Hu_Type_Id '0' - Bom_Include_Flg 'N' - Spec_Dwg_Id " - Prf_Io_Type " - Cmpnt_Io_Type_Id '0' - Prf_Location " - Cmpnt_Loc_Id '0' - Prf_Pd_Tag " - Prf_No_Loop " - Prf_Pm " - Prf-Cs_Tag " - Prf_Dimension " - Dim_Grp_Id " - Prf_Pd_Requir " - Spec_Format_Id " - Cstag_Func_Type_Name 'VFD' - Proc_Func_Cat_Id '0' - Prf_Udt " - Udt_Support_Id1 '0' - Udt_Support_Id2 '0' - Udt_Support_Id3 '0' - Udt_Support_Id4 '0' - Udt_Support_Id5 '0' - Udt_Support_Id6 '0' - Udt_Support_Id7 '0' - Udt_Support_Id8 '0' - Udt_Support_Id9 '0' - Udt_Support_Id10 '0' - Udt_Support_Id11 '0' - Udt_Support_Id12 '0' - Udt_Support_Id13 '0' - Udt_Support_Id14 '0' - Udt_Support_Id15 '0' - Udt_Support_Id16 '0' - Symbol_Path " - Device_Type_Id " - - You can determine your Proj_Id and Site_Id with the following from Internal Setup: - - SELECT * FROM PROJECT Questions & Answers | |

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| 8 | Status of SmartPlant Instrumentation | <ul style="list-style-type: none"> - SPI v.2007 Roadmap update - Alex Koifman, SmartPlant Instrumentation (INtools) product manager - Upgrade status - 2007.1, 2007.2, 2007.3 and 2007.4 released - 2007.5 planned will probably go to SP 9 or 10 - Beyond SPI v.2007 – plans for v.2008 - v.2007 Release summary - continued Current upgrades - Rolled out at RTM at two operating site with As Build working on MSS 2005 on Citrix Metaframe in the US, others internationally - Several EPC's started new projects with 2007 or 2007.1/2 and are upgrading to 2007.3 - Several customer configuring system for integrated project (with SPPID, SPEL and SPF). - Multiple customers go through evaluation and upgrade planning Beyond 2007 – new release structure - Introducing quarterly 200x.x releases – Service packs but with planned schedules every quarter; mostly fixing bugs (TR's) and streamlining existing functionality; also an opportunity to implement items that are not TR's but have critical customer demand - Released 2007.1 in April , 2007.2 in July, 2007.3 in October, 2007.4 is planned for December 2007, 2007.5 is planned for April 2008 and 2007.5 is planned for July 2007.6 2007.1 - Released in April, 2007. - Includes 2 noticeable RI/CR's: - Support AutoCAD 2007 (RI-74061) - Import into multiple engineering projects simultaneously (CR-78164) - Delivered updated Tutorial and Installation and upgrade documentation. - Includes a number of TR's, predominantly v.2007 specific. 2007.2 - Released in July, 2007. - Several new items: - Resolve some outstanding internationalization and localization issues; - Re-implementation of the user list in the Administration module for connection administration (not for license management); - Maintain default view in Index when working in domain with Multiple plants; - Improve invalid domain deletion mechanism; | |

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| 8 | Status of SmartPlant Instrumentation (continued) | <ul style="list-style-type: none"> - Add distinction between Process Control and Safety Process Control controllers - Solution to enhanced security issues on MSS2005 - Make Signal-Strip enhanced wiring report capable of displaying multiple strips on the same sheet - Includes a number of TR's, both internal and customer reported. <p>2007.3</p> <ul style="list-style-type: none"> - Released first week of October, 2007. - Several new items: - New interface with Emerson DeltaV; - Support of first phase of Namur NE-100 vendor data exchange mechanism; - Remove the limitation of 200 fields per Browser view; - Decrease the frequency of accessing INTOOLS.INI file improving performance on complex networks - Include substantial number of TR's both internal and reported by customers. <p>2007.4</p> <ul style="list-style-type: none"> - Planned for December 15, 2007. - Several new items: - Enhancements to the SmartPlant Integration ToDoList – Selection or related tasks and ability to ignore certain tasks from from current and future execution; - Support for Vista business client; - Support for Office 2007 - Additional multi-strip ESL report - Additions to the DDP library for enhanced integration with SP3D <p>2007.5</p> <ul style="list-style-type: none"> - Planned for April, 2008. - Several new items: - Fixing remaining Internationalization (I18N) and localization (L10N) issues - Supporting PDF generation without the need for Adobe or Ghostscript (all documents using internal PDF generation library) – tentative only - Create specification browsers across multiple forms - Fixing TR's critical for production <p>2007.6</p> <ul style="list-style-type: none"> - Planned for July, 2008. - Several new items: - Enhancements to the Calibration module - Supporting PDF generation without the need for Adobe or Ghostscript (all documents using internal PDF generation library) – tentative only - 2 additional items under consideration (important enhancements for all users). | |

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| 8 | Status of SmartPlant Instrumentation (continued) | <ul style="list-style-type: none"> - Fixing TR's critical for production - Plans for 2008 - Release target date – October 2008. - Noticeable items: - Allow adding to the line piping data - Resolve some outstanding internationalization and localization issues - Allow selecting flow conditions (@flow, @standard, @normal) for instrument and DCS ranges - Enable merging entities from the project to As Build in non-exclusive mode - Enhanced integration with SPF (SmartPlant Enterprise) including additional documents to be shared/published to SPF as well as ability to publish much more data from SPI - Improvements to the interface with SPEL - Improve database security and control - Discontinue some obsolete functionality - Improvements supporting off-line engineering project execution when host is As Built domain (not final) | |
| 9 | Upgrading SmartPlant Instrumentation | <ul style="list-style-type: none"> - Upgrading SmartPlant Instrumentation - By John Dressel <p>Why Upgrade SmartPlant Instrumentation</p> <ul style="list-style-type: none"> - Current Software Version Outdated (Over two years old) - Maintain Intergraph Support - Added Functionality - Stay Competitive - New Features - Bug Fixes - Service Packs - New Versions <p>Before You Upgrade SPI</p> <ul style="list-style-type: none"> - Resolve any issues with SPI DBMS before upgrading - Read Special Instructions! - Prerequisites for Upgrading <p>Upgrade Notes</p> <ul style="list-style-type: none"> - Review and Select Upgrade Service Pack - Backup Database and User-Defined Views - Prepare project setup per Special Instructions - Suspend all user operations and lock DBMS - Test Upgrade and run Upgrade Utilities | |

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| 9 | Upgrading SmartPlant Instrumentation (continued) | <p>SPI Upgrade Utilities</p> <p>Utility to Update Process Data Tables</p> <ul style="list-style-type: none"> - This utility should be run on all SPI domains, after upgrading to SPI v2007, in order to avoid problems with the Process Data module. - <p>Download the "UtilityUpd.zip" file from Siebel Tools and Utilities for SmartPlant Instrumentation</p> <p>After You Upgrade SPI</p> <ul style="list-style-type: none"> - Rebuild Default Views in Domains (Admin Module) - Rebuild Archived Revisions (archived_rev_update.exe) - Regenerate Spec Forms (That Do Not Open) - Review Work Processes for New Functionality - Train Users on New Features and Functions - Update Knowledge Base and Documentation - Clean-Up or Remove Old Version Information - Upgrade Other SmartPlant Instrumentation Programs and Utilities (ESL, IEE, DDP, API, SAP) - <p>Known Issues with Upgrades</p> <ul style="list-style-type: none"> - Version to Version Upgrades - Version 6 to 7 - Operating Owners should de-allocate entities before upgrade - Users must rebuild the I/O cards and Terminations to match new hierarchy - Users must create Virtual Fieldbus Tags for devices on segments - - Version 7 to 2007 - Oracle Character Set must be set to AL23UTF8 in the DBMS - - Service Packs - In Service Pack 08.00.01.03 there were 10 Outstanding TR's associated with Upgrades - Service Pack 08.00.04.08 - General - TR-62985 <p>Problem: When upgrading default I/O cards, the software cannot tell whether the I/O card needs to appear in Version 7.0 is an I/O card or I/O termination card. Therefore, all default I/O cards that existed prior to Version 7.0 appear in Version 7.0 as reference I/O cards.</p> <ul style="list-style-type: none"> - Workaround: Contact Intergraph Support to convert the required reference I/O cards to I/O termination cards. - TR-75206 <p>Problem: The software displays the 'Domain upgrade successfully completed' message even if the domain upgrade process fails to complete.</p> <ul style="list-style-type: none"> - Workaround: Not available - SQL Server | |

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| 9 | Upgrading SmartPlant Instrumentation (continued) | <ul style="list-style-type: none"> - TR-61693 Problem: On SQL Server, when the System Administrator runs the Rebuild Stored Procedures and Triggers options, rebuilding audit trail triggers can take a significant time. - Workaround: Not available - Sybase Adaptive Server Anywhere - TR-50866 Problem: Upgrade of an Operating owner domain in Sybase Adaptive Server Anywhere takes a significant time. - Workaround: Not available - Open Forum on Upgrading SPI - | |
| 10 | CR Ranking | <p>SmartPlant Instrumentation CR Ranking (See attached Spreadsheet) The following were briefly discussed and have had more emphasis than others on the list.</p> <ul style="list-style-type: none"> - - CR-71651 – Paper size defaults to A4 most can be predefined for instance the specification is defined per the PSR definition; the index size should be 11 x 17 as well as wiring reports etc... - - CR-72770 – Rework the access rights mechanism - - CR-75076 – Wiring and non-wiring associations on Loop Diagrams - - CR-78416 – Custom Browser wizard you may compose different data from UDTs to records - - CR-84114 – Need to run Check DB and send to Intergraph - - CR-41406 – Text String Functions - - CR-52407 – Scaling - - CR-66280 & 81140– Custom and Auto generation methods - - CR-83131 – References on panel strip report and drawing numbers on Loop Diagrams - - CR-73912 – Packages - Leave as a Vendor Package or extract as a package without having to use merge utility - - CR-76116 – provisions for SIL / SIS data fields - - CR-82939 – Report on balance of available tags - - CR-78417 – Provision for Location Plans | |

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| 11 | Forum Topics & user comments | <p>Status of Integration exchange and calibrators effort</p> <ul style="list-style-type: none"> - Catalogs available - license per site - Emerson Delta V – rolled out - Yokogawa CS-3000 - ABB – work in progress - Invensys – initial stages - Honeywell – Bi-Directional is on-hold - Fluke - Beamex - <p>Recent issues with SmartPlant Instrumentation and comments from Alex Koifman:</p> <ul style="list-style-type: none"> - In Version 6 Safeguards were put in place so one cannot delete the Virtual Tag; however many have renamed and used for some other device. Virtual Tag's I/O Type must be 7. Contact Intergraph support if this is an issue. - - Check DB verifies the integrity of the database. Current the Intergraph development item is to resolve outstanding Check DB items. As part of the maintenance of your database run Check DB then send it to Tech Support. - - Tag Class from FF to Conventional. - This concern is not from Conventional to FF however if the conversion is done before a Function Block as a separate record in DB is created then it is less difficult. There is currently no front end to accomplish this. - <p>SPI 2007 V.8 Upgrades</p> <ul style="list-style-type: none"> - Customers are worldwide the need to modify UOM and add Special Characters is included in soon to be released Service Pack 4. Should be available online within the next two weeks. - <p>Beyond 2007</p> <ul style="list-style-type: none"> - Service Packs are planned for release every quarter - Service Packs 4 is due this quarter and SP-5 is planned for the summer of 08. - There will be no Data Dictionary for 2007. - SP has updates to Documentation, which is installed automatically - 2007.3 October / Emerson interface improvements and additions / Namur NE-100/ No Limitation to # of fields/ - For Citrix SPI will not need to read .ini files as often - 2007 will be the last version to use Oracle 9i - Check DB / Diskspace - Special Instruction only works within a 32 bit environment. - Character set compatible for Integration tools. | |

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| 11 | Forum Topics & user comments (continued) | <ul style="list-style-type: none"> - Change features / DD not ready - CAD applications – AUTOCAD aggressive on upgrades - Migration from SPI 6 to SPI 7 had many wiring issues and addition of I/O card hierarchy - Process Data – must create additional record DD Update utilities - CASE recovered by utility - Add on Module for Watcom (Standalone DB) cost of one license. - Prior Agreement did not provide full use of Watcom - 2007.4 - Smart Plant Integration To Do will List Ignored certain tasks - Vista compatible however has two gaps (Spec Binder and PDF Generator) - Support of Office 2007 - Any selected panel out to field <ul style="list-style-type: none"> - Multiple strips from MR out to field - PLC or Vendor package - Option to show DCS soft tags - Dependent on Size of Dwg - Fieldbus Properties made available for Profibus - PA and DP tags carried from Version 7 - DDP Library integration with SP 3D - Instrument Tag Profile can define default Maint Event Record - 480 numeric 100 long – Character 255 in Add Spec tables - Rule “Exists in the list” allow UDT tag naming validation and populate UDT values for tag number free segments. - Copy and paste in Browser has better memory management | |
| 12 | Close | <ul style="list-style-type: none"> - Review of meeting - Review of action items - Next meeting to be May 21, 2008 at Black & Veatch - John Dressel closed meeting | |