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Improvements to the SPEL-SPI integration work flow

Alex Koifman

Intergraph PPM

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Agenda

- Status of the two applications
- General improvements
- Integrated I&E functional roles
- SPI-SPEL-SP3D interface when working in the integrated environment (SPE/TEF)

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- SPI is a de-facto industry standard for instrumentation controls

- SPEL is the solution for managing electrical power distribution and has growing adoption among Intergraph customers, especially those that already adopted SPI as a standard.

- SPI and SPEL already separate some of the tasks without duplicating them but there are some that can be done in both places (i.e. cable routing)

- Current integration addresses 2 main tasks:

  - Management of power supply for instrument entities (cabinets, panels and externally powered instruments)

  - Management of electrical I/O signals in control systems.

  - It is also possible to cross-report on SPI control loop diagram in SPEL and cross-report on SPEL schematic in SPI when both products are installed on the same workstation.

CR-49441 – Add more SPI attributes to map between SPI and SPEL – manufacturers, ranges, alarms, etc to be included in the SPEL schematics

CR-40105 – Automatically create devices from the SPEL retrieve based on the Electrical tag instrument type profile

CR-65500 – Add cable name that carries signal from MCC to PLC/DCS to the attributes published from SPI to SPEL

One of the issues with the current integration is that SPI and SPEL are two applications and not one. Mainly this is because traditionally SPI is primarily used by I&C department or instrument or I&C section of the I&E department, while SPEL is designed to be used by Electrical department or by the electrical section of the I&E department.

There are customers, mostly in Europe, where both functions of I&C and electrical (low voltage) are combined in one functional role. They would like to see more similarity in SPEL and SPI user interface, especially in

- Similar properties for the same/related items (electrical signals, device panels, etc);
- Extended representation of the SPEL tree/data in SPI
- Extended presentation of the SPI data in SPEL and similar.

The question we face is how relevant/important this is for the broad user community and users in both applications? This will be one of the subjects of discussion at the June 1 Global TUF meeting during the joint I&E session between Instrumentation and Electrical TUF's

In trying to find the most optimal path for integration between the three applications we constantly face these questions:

- Is there a need for a single common cable schedule?

- Where should such cable schedule reside?

- Is there a need for a single cable routing reporting/documentation mechanism for both I&E cables and if so which discipline is usually responsible for it and what tool should be the master for this function?

- SPEL and SP3D have an interface as part of the SP Enterprise integration (SPE). Does it make sense to develop separate SPI-SP3D interface using a similar interface or does it make more sense to extend SPI-SPEL integration to cover cables and to/from locations and use SPEL as a common cable schedule?

This will be one of the subjects of discussion at the June 1 Global TUF meeting during the joint I&E session between Instrumentation and Electrical TUF's.