Project Data Link

Houston SPI LTUF

Bryan Jones
November 14th 2017
Introduction

• Project Data Link is a tag centric, integrated engineering environment hosted in the cloud that efficiently translates project specification data, from multiple sources into project deliverables.

• Emerson has invested 5+ years in developing, evolving and piloting this software on DCS projects, we are now expanding the scope to include instrumentation.

• We view the digital transformation as a journey that will require collaboration to deliver value.
## Today’s Challenges with Data Management

### Manual Processes
- Entering data into spreadsheets
- Merging Emerson data with Customer data
- Converting data into standard formats
- Evaluating and Implementing changes

### Inconsistent
- Data formats
- Data inputs and outputs
- Processes for handling data
- Data integrity and completeness

### Timing
- Critical path and schedule dependencies
- Tasks in projects often depend on customer inputs
- Schedule mandates working with partial inputs

### Multiple Non-Standard Tools
- Lack documentation
- Complex and built without consideration for usability
- Training challenges
- Maintainability
Project Data Link acts as middleware between Engineering Design Tools (e.g. SPI) and Emerson platforms.
Project Data Link acts as middleware between Engineering Design Tools (e.g. SPI) and Emerson Tools.
Project Data Link

- Mitigates project risk by normalizing project data into a single data source with an integrated change management system
- Improves data handoffs by proactively identifying issues with data integrity and completeness
- Minimizes manual data entry and facilitates a data centric approach
- Includes full data traceability throughout the project lifecycle

Project Data Link takes the complexity out of data management and provides full data visibility and traceability to all project stakeholders.
Problem

How can an EPC complete piping design, easier, faster, and more reliably, as it relates to control valves?

Transfer control valve spec sheets and envelope dimensions as DATA rather than graphic PDF files
## Tag Centric Valve Data

### Dimensional Data for Piping

- The Piping Designer selects the Valve Tag and places the Fully Dimensioned Valve into the Model
- The Instrument Designer Checks the Instrument Connection, Maintenance Access and Orientation of the Valve

<table>
<thead>
<tr>
<th>Tags</th>
<th>Standard 3D shapes are referenced (Intergraph refers to these as Dimensional Groups)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 30 dimensions per 3D shape</td>
<td></td>
</tr>
</tbody>
</table>

Intergraph and Emerson have pre-defined 3D shapes for control valves with up to 30 dimension variables for each use in Intergraph Smart 3D (S3D)

FF2 references the Intergraph shapes and provides the 30 dimensions for each tag
In-Line instrumentation is the highest priority, but others can impact design and benefit from being parameterized for 3D modelling and consistency in workflow.
Emerson is excited to start working with the Hexagon/Intergraph API
Thank You!!!

Bryan.Jones@Emerson.com