

Intergraph Smart Instrumentation Conversion

Data Migration and Transformation

Summary

This service offers the conversion of an existing instrumentation design to the Intergraph Smart Instrumentation application.

Example of instrumentation design inputs include

- Instrument Index
- I/O List
- Process Data sheets
- Instrument Datasheets
- Instrument Field Wiring
- Loop Drawings
- Junction Box Wiring Drawing
- Marshalling Cabinet Wiring Diagram
- Cable and Junction Box Schedules

TecSurge gathers all documents to be migrated or converted to the SmartPlant Instrumentation database.

Differentiators

- Deep understanding of instrumentation design and engineering
- Years of working experience with EPC and Owner/Operator organizations
- In-house automation to accelerate migration and validation
- Cost-efficient and flexible to meet client scenarios and schedules

Challenges

There are different reasons why clients may wish to outsource the conversion of an existing instrumentation design to Smart Instrumentation, including:

- Non-conforming vendor or supplier deliverables
- Tight project deadlines and limited resource availability
- Client customization requirements and expectations
- Limit costs for a one-off or infrequent activity

TecSurge offers a cost-effective and efficient service capable of addressing these challenges and other potential scenarios.

Pressure Transmitter Specification Sheet							Sheet	1	of	1
							Spec'ed		By	
							Checked		By	
							Checked		Approved	
Customer	EDCMS ENGINEERING									
Project	NEW PLANT									
Plant Area										
Unit										
GENERAL	1	Tag No.	PH-PT-101							
	2	Service	None							
PROCESS CONDITIONS	4	Pressure	Minimum	Normal	Maximum	Design	Unit			
	5	Process Temperature	60	50	60	100	psig			
	6	Process Temperature	60	72	80	100	F			
	8	Process Temperature	60	72	80		F			
TRANSMITTER	7	Manufacturer	Rosemount Inc.							
	8	Model No.	3051S2C04A0R2Z0A1A04M004							
	9	Pressure Transmitter Type	Differential Pressure							
	10	Calibration Span	0	to	100	psi				
	11	Installation Flange	0.00	to	0.00	0.00	PSI			
	12	Installation	As per vendor data based on plant process							
	13	Body Rating								
	14	Process Flange Type	Copeland Flange: 1/2" 1/4" SST 316 SST							
	15	Case / Vent								
	16	Process Flange	Copeland Flange: 1/2" 1/4" SST 316 SST							
BODY	17	Material								
	18	Washer O-Ring								
	19	Housing	Stainless housing Aluminum 1/2-14 NPT							
	20	Boots								
	21	Mounting Brackets	Copeland Flange Bracket, all SST, 2-in. pipe and panel							
ELEMENT	22	Control Cable Size	Stainless housing Aluminum 1/2-14 NPT							
	23	Isolation Diaphragm	316L SST							
	24	Fill Fluid								
	25	Calibration Type	FM 100/1000 Self, Division 2							
OPTIONS	26	Display	Handheld LCD Display							
	27	Zero and Span Adjust								
	28	Transient Protection								
	29	Custom Configuration								
MANIFOLD	30	Manufacturer								
	31	Model No.								
	32	Manufacturer								
NOTES	33	Manifold Size								
	34	Manifold Type								
	35									
	36									

Sample datasheet to be converted

Deliverables

A typical project will produce a Smart Instrumentation database, populated with the input design data and able to generate the following automated deliverables:

- Instrument Index
- I/O List
- Process Data sheets
- Instrument Datasheets
- Instrument Field Wiring
- Loop Drawings
- Junction Box Wiring Drawing



- Marshalling Cabinet Wiring Diagram
- Cable and Junction Box Schedules

Samples or full sets of these deliverables can be generated by TecSurge progressively, or at client-determined milestones for review.

Work Process

Our work process involves several high-level stages, as follows:

Configure environment; either reviewing an existing configuration for suitability and identifying required changes to support the new data or preparing a new environment from first principles.

Approve Templates; we prepare deliverable templates with representative data and submit these templates for review and approval to ensure the deliverables from the converted data will align with expectations.

Execute conversion; we import the source data using a combination of in-house automation, application functionality and engineering expertise. Deliverables are also generated to verify functionality and data completeness.

Quality control: we check the generated deliverables using automated tools, reporting and manual checks. Any deviations or issues are managed and either reported to our client for resolution or rectified locally, with affected deliverables regenerated.

Submit deliverables; we submit our checked deliverables for review and approval at agreed checkpoints or milestones. Any feedback is incorporated into the database and affected deliverables regenerated and resubmitted.

Handover: once all deliverables are accepted, we submit the completed database, and can assist our client to import it into a target operational environment if necessary, completing the project.

Quality Assurance

We utilise a combination of in-house custom automation tools and reports, and manual deliverable review to maintain a high level of quality in our conversion projects.

Getting Started

In order to estimate the schedule and cost for this service, we require the following information:

The nature and quantity of the input design deliverables?

Why: Different input data formats and their quantities have a major bearing on the time and effort necessary to complete the conversion project.

Target application and database platform?

Why: We will use the identical application and database platform to guarantee a 100% compatible deliverable.

If this service describes your situation, and you're able to provide the engineering inputs and answers to the questions listed here, please [contact us](#) today to discuss your options. Let's talk.

Contact us

info@tecsurge.com

