

# PIP DMDIM001 Instrument Metadata Requirements SIG Update

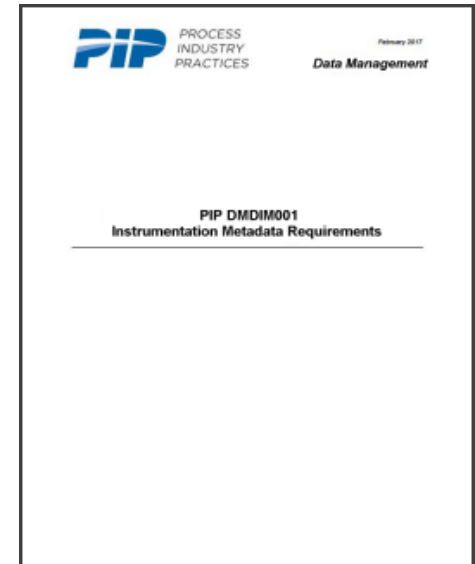
## SIG Data Field Identification Progress:

- 816 total fields identified In the DMDIM001 Data Map
- Process Data Fields
  - 110 Total Process Data Fields Required
  - 17 New Fields ( Possible new SPI Process UDF Fields)
- Flow Data Fields
  - 366 Total Flow Data Fields (-65 Process Data Fields)
  - 170 Unique to Flow ( Possible new SPI Spec UDF Fields)
  - 50 New Fields Identified by SIG
- Level Data Fields
  - 274 Total Level Data Fields (-50 Process Data Fields)
  - 111 Unique to Level ( Possible new SPI Spec UDF Fields)
  - 38 New Fields Identified by SIG
- Pressure Data Fields
  - 180 Total Pressure Data Fields (-42 Process Data Fields)
  - 11 Unique to Pressure ( Possible SPI Spec UDF Fields)
  - 25 New Fields Identified by SIG
- Temperature
  - 208 Total Temperature Fields (-41 Process Data Fields)
  - 156 Unique to Temperature ( Possible new SPI Spec UDF Fields)
  - 20 New Fields Identified by SIG
- Control Valve
  - 238 Total Control Valve Fields (-61 Process Data Fields)
  - 132 Unique Control Valves ( Possible new SPI Spec UDF Fields)
  - 119 New Fields Identified by SIG
- Relief Devices
  - 178 Total Relief Device Fields (-36 Process Data Fields)
  - 23 Unique to Relief Device ( Possible new SPI Spec UDF Fields)
  - 134 New Fields Identified by SIG

	A	B	C	D	E	F	G	H	I
1	Data Category	PIP Data Element Label	PIP Field Identifier	Flow Instrument	Level Instruments	Pressure Instrument	Temperature	Control Values	Relief Devices
2	General Data	Area Name	area_name						
		Application	cmprnt_application						
3	General Data								
166	Units of Measure	Design Temperature UOM	uom_design_temperature						
167	Units of Measure	Flow UOM	uom_flow						
168	Units of Measure	Maximum Shutoff Pressure UOM	uom_mas_shutoff_pressure						
169	Units of Measure	Pressure UOM	uom_pressure						
170	Units of Measure	Base Pressure UOM	uom_pressure_base						
171	Units of Measure	Design Pressure UOM	uom_pressure_design						
172	Units of Measure	Pressure Drop UOM	uom_pressure_drop						
173	Units of Measure	Sound Pressure Level UOM	uom_sound_pressure_level						
174	Units of Measure	Temperature UOM	uom_temperature						
175	Units of Measure	Base Temperature UOM	uom_temperature_base						
176	Units of Measure	Vapor Pressure UOM	uom_vapor_pressure						
177	Units of Measure	Viscosity UOM	uom_viscosity						
178	General Data	Work Breakdown Structure	work_breakdown_structure						
179	Design Conditions	Air Supply Pressure Maximum	pd_air_supply_pressure_max						
180	Design Conditions	Air Supply Pressure Minimum	pd_air_supply_pressure_min						
181	Design Conditions	Air Supply Pressure Normal	pd_air_supply_pressure_nor						
182	Design Conditions	Ambient Temperature at Sensor	pd_ambient_temperature_at_sensor						
183	Design Conditions	Ambient Temperature at Transmitter	pd_ambient_temperature_at_transmitter						
184	Design Conditions	Bi-Directional Flow	pd_bi_directional_flow						
185	Design Conditions	Buildup Tendency	pd_buildup_tendency						
186	Design Conditions	Compressibility Factor	pd_compressibility_factor						
187	Design Conditions	Conductivity Maximum	pd_conductivity_max						
188	Design Conditions	Conductivity Minimum	pd_conductivity_min						
189	Design Conditions	Conductivity Normal	pd_conductivity_nor						
190	Design Conditions	Corrosive	pd_corrosive						
191	Design Conditions	Critical Pressure	pd_critical_pressure						
192	Design Conditions	Density Maximum	pd_density_max						
193	Design Conditions	Density Minimum	pd_density_min						
194	Design Conditions	Density Normal	pd_density_nor						
195	Design Conditions	Dielectric Constant	pd_dielectric_constant						
196	Design Conditions	Differential Pressure Maximum	pd_diff_press_max						
197	Design Conditions	Differential Pressure Minimum	pd_diff_press_min						
198	Design Conditions	Differential Pressure at Shut Off	pd_diff_press_shut_off						
199	Design Conditions	Entrained Gas	pd_entrained_gas						
200	Design Conditions	Erosive	pd_erosive						
201	Design Conditions	Flow Coefficient (Cv) Maximum	pd_flow_coefficient_Cv_max						
202	Design Conditions	Flow Coefficient (Cv) Minimum	pd_flow_coefficient_Cv_min						
203	Design Conditions	Flow Coefficient (Cv) Normal	pd_flow_coefficient_Cv_nor						
204	Design Conditions	Flow Rate Maximum	pd_flow_max						
205	Design Conditions	Flow Max Velocity	pd_flow_max_velocity						
206	Design Conditions	Flow Rate Minimum	pd_flow_min						
207	Design Conditions	Flow Rate Normal	pd_flow_nor						
208	Design Conditions	Fluid Conductivity	pd_fluid_conductivity						
209	Design Conditions	Foaming	pd_foaming						
210	Design Conditions	Fouling	pd_fouling						

# PIP DMDIM001 Instrument Metadata Requirements SIG Update

- Houston SPI LTUF IDTC SIG Completed Action Items:
  - Identify data elements from list that exist in SPI
  - Review, consolidate, expand list of data elements not in SPI
  - Develop the New Control Valve data elements to the IDTC
  - Develop the New Relief Devices data elements to the IDTC
- Houston SPI LTUF IDTC SIG Possible Future Action Items:
  - Develop New Analyzer data elements for the IDTC
  - Provide SIG Recommendations to the PIP DMDIM001 IDTC committee
  - Provide recommended SPI schema changes to Hexagon PPM
    - Normalized Spec\_UDF Mapping - or -
    - Provide Recommended Add\_Spec Tables
  - Correlate IDTC Data Table with ISA SPI Data Map
  - Review and Recommendation of Standards for PIP DMDIM001 Inclusion:
    - ISO 15926 Parts 3-6 Reference, Implementation and Publishing
    - Namur Prolist NE100 Minimum Data Correlation
    - CFIHOS Handover Specification Correlation



# PIP DMDIM001 Instrument Metadata Requirements SIG Update

- Building a new Smart Instrumentation Spec Sheet Data Dictionary for Smart Form Generator (SFG)
- Create method by which users can develop and use their own standardized Specification Data Dictionaries
  - Add Spec and process user defined tables to the Smart Form Generator properties selection
  - Create a method to export Spec and process user defined tables from an external file from Smart Instrumentation
  - Create a method to import Spec and process user defined tables from an external file into Smart Instrumentation
  - This will allow the Smart Form Generator to use customized Data Dictionaries for Spec Form Generation
- **This will allow users to develop and utilize their own Spec Data Dictionary using PIP DMDIM001 or ISA or CIFOS or any other standard they wish to use**

The image shows a screenshot of a data dictionary table. The table has multiple columns and rows, with some cells containing text and others containing numerical values. The table is organized into several sections, with some rows highlighted in blue. In the bottom right corner of the table, there is a logo for HEXADON, which consists of a green stylized 'H' and the word 'HEXADON' in a bold, sans-serif font.

# PIP DMDIM001 Instrument Metadata Requirements SIG Update

- Current Houston SPI LTUF SIG Members:
  - Gene Haney, McDermott (SIG Chair)
  - Bob Zerda, PIP
  - Alex Koifman, ProLytX
  - Betty Alexander, JGC
  - Chris Cordes, Covestro
  - Guillermo Vigna, Endress+Hauser
  - John Dressel, Fluor
  - Kory Johnson, Marathon
  - Nezar Faitouri, Mangan, Inc.
  - Brian Shefler, Flowserve
  - Daryl Konen, WorleyParsons
  - Dee Dee Honea, Eichleay
  - Eric Rangel, Shell
  - Ahmed Esaklul, McDermott
  - Jose Farach, Oxy
  - Lawrence Addison, Shell
  - Maria Cunningham, Chevron
  - Oliver Nava, Chevron
  - Phillip Rumler, Endress+Hauser
  - Scott Gallagher, Phillips 66
  - Sharon Wildey, Bechtel