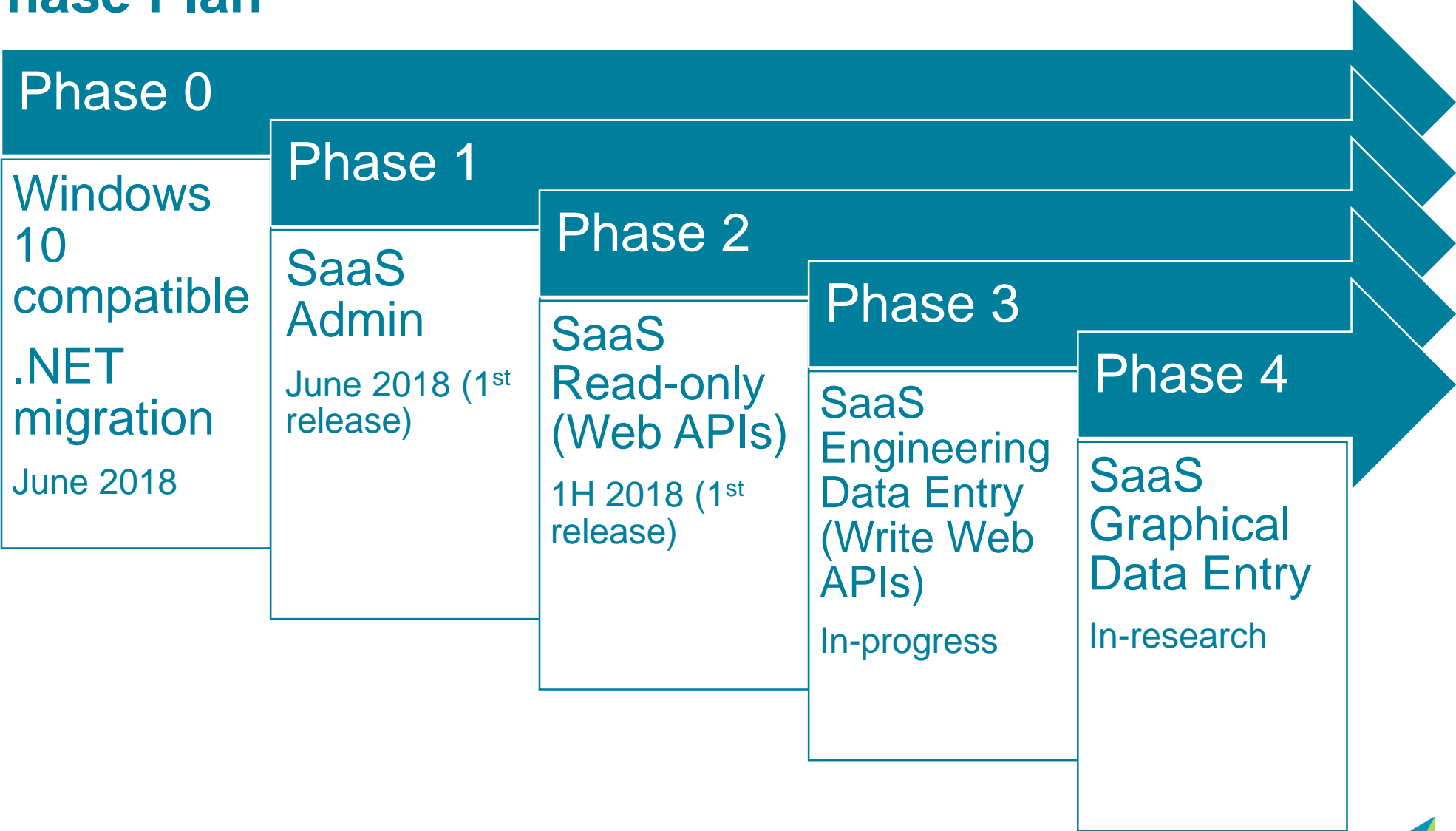


SmartPlant Instrumentation

Web API

David Kaiser – Schematics Product Owner

5-Phase Plan



SmartPlant Instrumentation – Roadmap

- Intergraph Smart® Instrumentation: Q2 2018
- New Backup/Restore platform
- New and enhanced upgrade technology
- New .NET ESR
 - Same Explorers as in main app
- WebAPIs
 - First release: Q1 2018
 - Baseline: SPI v2016 SP1
 - Continuous releases

Web API with Postman

Web API – Sample Using Postman

The screenshot displays the Postman interface with a REST client request and its response. The request is a GET call to the following endpoint:

```
GET {{baseUri}}/api/spi/v1/Sites('{{SiteId}}')/EngineeringProjects('As-Built')/Instruments?$filter=Cmpnt_Name_367 ne '101-FT-100'&$count=true&$select=Id,Cmpnt_Name_367,Cmpnt_Serv_374,Loop_Id_416,Cmpnt_Mfr_Id_365,Cmpnt_Mod_Id_366
```

The response is a JSON array of two objects, each representing an instrument. The status is 200 OK, the time is 9864 ms, and the size is 5.3 KB.

```
{
  "Id": "4150",
  "Cmpnt_Name_367": "101-FE -100",
  "Cmpnt_Serv_374": "Feed from V-8",
  "Loop_Id_416": "101-F -100",
  "Cmpnt_Mfr_Id_365": "FLOWSERVE-KAMMER",
  "Cmpnt_Mod_Id_366": "015000"
},
{
  "Id": "4159",
  "Cmpnt_Name_367": "101-FY -100",
  "Cmpnt_Serv_374": "Feed from V-8",
  "Loop_Id_416": "101-F -100",
  "Cmpnt_Mfr_Id_365": "DANIEL",
  "Cmpnt_Mod_Id_366": null
}
```

Web API with Power BI

File Home Modeling Help

Clipboard: Paste, Cut, Copy, Format Painter

External data: Get Data, Recent Sources, Enter Data, Edit Queries, Refresh

Insert: New Page, New Visual, Ask A Question, Text box, Image, Shapes

Custom visuals: From Marketplace, From File

Relationships: Manage Relationships

Calculations: New Measure, New Column, New Quick Measure

Share: Publish

e_14356	Cmpnt_Cat_Id_355	Cmpnt_Certif_Id_356	Cmpnt_Critical_Id_357	Cmpnt_Drawing_Seq_358	Cmpnt_Find_Rem_359	Cmpnt_Func_Type_Desc_12194	Cmpnt_Func_Type_Id_360	Cmpnt_Func_Type_Name_14158
	Conventional		None			ALARM SIGNAL	ALARM - ALARM SIGNAL (General)	ALARM
	Conventional		None			D/P TYPE FLOW ELEMENT	FE - D/P TYPE FLOW ELEMENT (Flow)	FE
	Conventional		None			D/P TYPE FLOW TRANSMITTER	FT - D/P TYPE FLOW TRANSMITTER (Flow)	FT
	Conventional		None			I/P TRANSDUCER	FY - I/P TRANSDUCER (General)	FY
	Conventional		None			CONTROL VALVE	FV - CONTROL VALVE (Control Valve)	FV
	Conventional		None			LOCAL INDICATOR	FI - LOCAL INDICATOR (General)	FI
	Conventional		None			I/P TRANSDUCER	LY - I/P TRANSDUCER (General)	LY
	Conventional		None			CONTROL VALVE	LV - CONTROL VALVE (Control Valve)	LV
	Conventional		None			LOCAL INDICATOR	LI - LOCAL INDICATOR (General)	LI
	Conventional		None			LOCAL INDICATOR	FI - LOCAL INDICATOR (General)	FI
	Telecom		None			TELEPHONE	TELE - TELEPHONE (General)	TELE
	Telecom		None			TELEPHONE	TELE - TELEPHONE (General)	TELE
	Telecom		None			TELEPHONE	TELE - TELEPHONE (General)	TELE
	Telecom		None			TELEPHONE	TELE - TELEPHONE (General)	TELE
	Telecom		None			SPEAKER	SPK - SPEAKER (General)	SPK
	Telecom		None			SPEAKER	SPK - SPEAKER (General)	SPK
	Telecom		None			SPEAKER	SPK - SPEAKER (General)	SPK
	Telecom		None			SPEAKER	SPK - SPEAKER (General)	SPK
	Telecom		None			PERSONAL COMPUTER	PC - PERSONAL COMPUTER (General)	PC
	Telecom		None			PERSONAL COMPUTER	PC - PERSONAL COMPUTER (General)	PC
	Telecom		None			PERSONAL COMPUTER	PC - PERSONAL COMPUTER (General)	PC
	Telecom		None			PERSONAL COMPUTER	PC - PERSONAL COMPUTER (General)	PC
	Foundation Fieldbus		None			Fieldbus FT	FT - Fieldbus FT (Flow)	FT
	Foundation Fieldbus		None			Fieldbus FT	FT - Fieldbus FT (Flow)	FT
	Foundation Fieldbus		None			Fieldbus FT	FT - Fieldbus FT (Flow)	FT
	Foundation Fieldbus		None			FieldBus PT	PT - FieldBus PT (Pressure)	PT
	Foundation Fieldbus		None			FieldBus PT	PT - FieldBus PT (Pressure)	PT
	Conventional		None			D/P TYPE FLOW TRANSMITTER	FT - D/P TYPE FLOW TRANSMITTER (Flow)	FT
	Conventional		None			I/P TRANSDUCER	FY - I/P TRANSDUCER (General)	FY

FIELDS

Search

- Cables
- CableSets
- Documents
- Instruments
 - Analyzer_Flg_338
 - Area_Id_339
 - Backup_Link_Master...
 - Calib_Range_Max_341
 - Calib_Range_Min_342
 - Calib_Range_Uflg_M...
 - Calib_Range_Uom...
 - Calib_Range_Uom...
 - Capacitance_347
 - Capacitance_Uom_3...
 - Cell_349
 - Chg_Date_350
 - Circuit_353
 - Circuit_Name_14356
 - Cmpnt_Cat_Id_355
 - Cmpnt_Certif_Id_356
 - Cmpnt_Critical_Id_357
 - Cmpnt_Drawing_Se...
 - Cmpnt_Find_Rem_359
 - Cmpnt_Func_Type_D...

File Home View Modeling Help

Paste Cut Copy Format Painter Clipboard

Get Data Recent Sources External data

Edit Queries Refresh

New Page New Visual Ask A Question Insert

Text box Image Shapes

From Marketplace From File Custom visuals

Switch Theme Themes

Manage Relationships Relationships

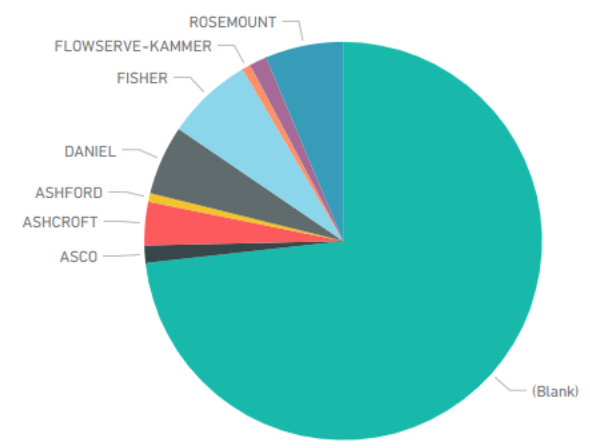
New Measure New Column New Quick Measure Calculations

Publish Share

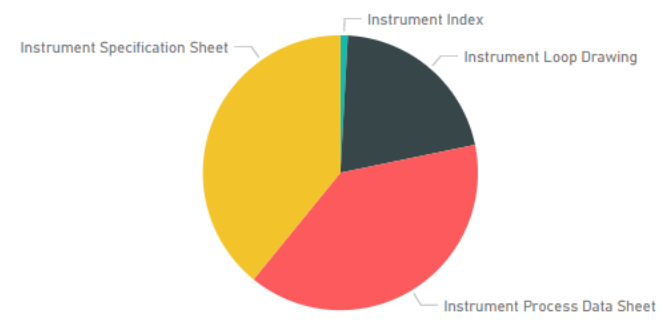
- Cmpnt_Func_Type_Na...
 - ALARM
 - FE
 - FI
 - FT
 - FV
 - FY
 - HV
 - HY
 - JS
 - LI
 - LT
 - LV
 - LY
 - M
 - PC
 - PI
 - PRV
- Cmpnt_Mfr_Id_365
 - (Blank)
 - ASCO
 - ASHCROFT
 - ASHFORD
 - DANIEL
 - FISHER
 - FLOWSERVE-KAMMER
 - MASONEILAN
 - ROSEMOUNT
- Cmpnt_Name_367
 - 101-ALARM-001
 - 101-FE -100
 - 101-FE -102
 - 101-FE -1122
 - 101-FE -1133
 - 101-FE -201
 - 101-FE -2212
 - 101-FE -2213
 - 101-FE -2214
 - 101-FE -2214
 - 101-FE -905
 - 101-FE -906
 - 101-FE -907
 - 101-FE -908
 - 101-FE -908
 - 101-FE -910
 - 101-FE -919
 - 101-FF -R001

142
Count of Cmpnt_Name_367

Count of Cmpnt_Name_367 by Cmpnt_Mfr_Id_365



Count of Dwg_Name_645 by Document_Type_Id_13911



VISUALIZATIONS FILTERS



Thank You!

David.kaiser@Hexagon.com

