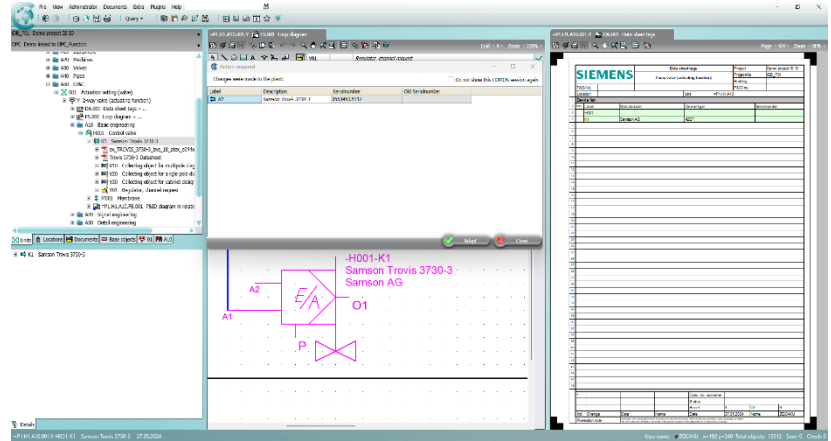The use case "Automated as-Built" detailed in the NE176 NOA Information Model involves conducting a comparison between the instrumentation currently installed and the planned status. This process includes comparing parameters stored in the field devices with those documented in engineering records within a CAE tool (Computer-Aided Engineering).

A specialized comparison tool is utilized to read the parameter values from the field devices (As-Built), match them with the values in the planning CAE tool (As-Planned), and identify any discrepancies.

A dashboard for field devices could look like the following, where a field device, TT01, has an issue:

AssetId	IL string	Status
TT01	id.abb.com/9AAC129112?SN=3K650000554982	not ok
TT02	id.abb.com/9AAC129112?SN=3K650000678342	ok
TT03	id.abb.com/9AAC129112?SN=3K650000554984	ok
PT01	id.abb.com/9AAC158718?SN=3K650000123562	ok
PT02	id.abb.com/9AAC158718?SN=3K650000647838	ok
...		...

VALUE OF PA-DIM

USING PA-DIM ALLOWS USERS TO IDENTIFY DEVIATIONS QUICKLY AND TRANSPARENTLY WITHOUT THE NEED FOR AN ON-SITE INSPECTION & IDENTIFICATION

The detailed view for Temperature Transmitter TT01 shows that the signal TTS01 was planned with Grad Celsius but built with Grad Fahrenheit:

IRDI	Parameter	As planned	As build	Status
0112/2///61987#ABA565	Manufacturer	ABB	ABB	ok
0112/2///61987#ABN591	ManufacturerUri	abb.com	abb.com	ok
0112/2///61987#ABA567	Model	TTH300	TTH300	ok
0112/2///61987#ABA300	ProductCode	9AAC129112	9AAC129112	ok
0112/2///61987#ABN590	ProductInstanceUri	id.abb.com/9AAC1291	id.abb.com/9AAC129112?SN=3K650000554982	ok
0112/2///61987#ABA038	AssetId	TT01	TT01	ok
0112/2///61987#ABB271	SignalTag	TTS01	TTS01	ok
technology specific	EngineeringUnits	**Grad Celsius**	**Grad Fahrenheit**	**not ok**
technology specific	EURange	0-100	0-100	ok
technology specific	InstrumentRange	0-1000	0-1000	ok
0112/2///61987#ABB271	SignalTag	TTS02	TTS02	ok
technology specific	EngineeringUnits	Grad Celsius	Grad Celsius	ok
technology specific	EURange	0-100	0-100	ok
technology specific	InstrumentRange	0-1000	0-1000	ok
	More NE131 parameter			
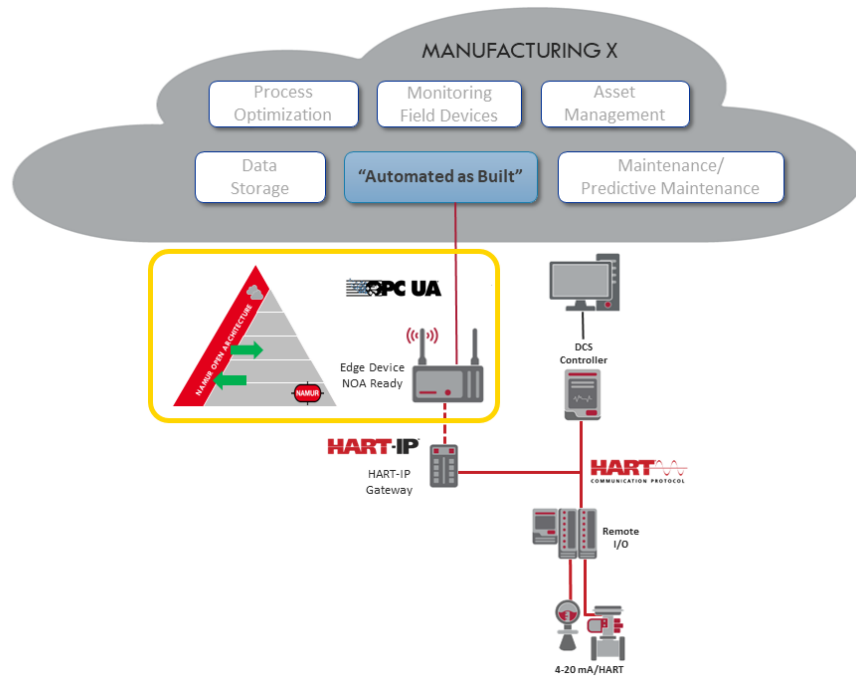
From HART to PA-DIM

- ✓ Simple Access to Field device Data via NOA IM (PA-DIM)
- ✓ No configuration required
- ✓ All device-specific data available
- ✓ Description files (FDI Device Package / EDD) from an integrated pool
- ✓ Available for all devices from HART v5
- ✓ Standardized Data directly usable for many other Monitoring and Optimization (M+O) solutions