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REGIONAL SEMINAR 2012

EMEA

The Power of Data

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Integrating PI with Enterprise Systems

Presented by

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Compliance Reporting Lab Calibration

Production Maintenance Inventory Quality

ISO

PI System

SAP

IBM

ORACLE

INFOR

IFS

MINCOM

Ventyx

CA.GOV

ERP and Asset Management System

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Business Integration – Why?

Enable business agility (time enough to act)

- Available-to-promise (ATP), better inventory, visibility into capacity
- Condition-based maintenance (CBM) for better asset reliability, reduce maintenance cost
- Quality – compare production runs, close out orders faster
- Visual – visibility into PI System data throughout the enterprise

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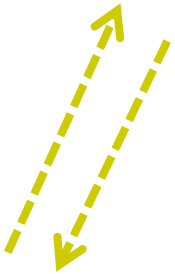
Business Integration - What?

- Data/Event integration (transactions)
  - 1000s/day
  - small amounts of data (per transaction)



- Visual integration

- Business Intelligence + Reporting (not covered in this talk)

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Business Integration - How?

- PI Data Access family of products
- PI Notifications
- Assets Synchronization

SAP

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ORACLE

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PI System

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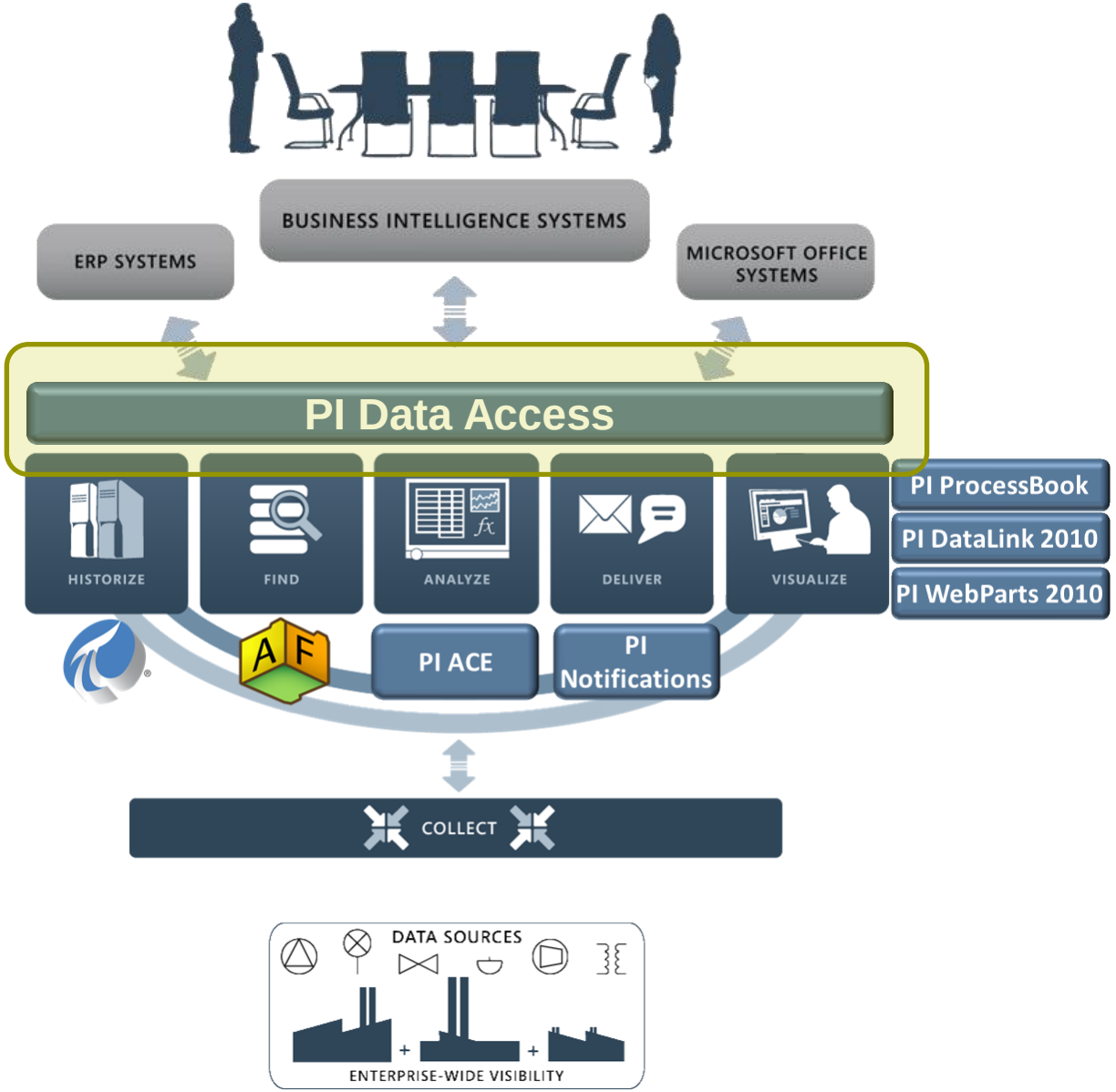
The PI System



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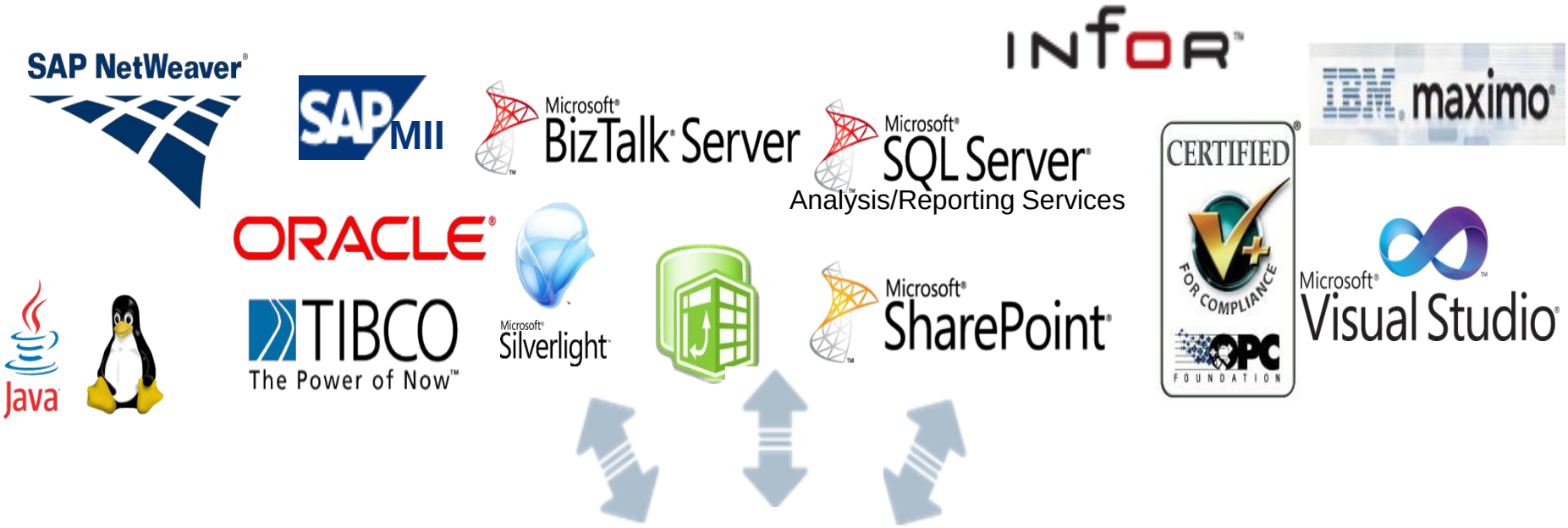
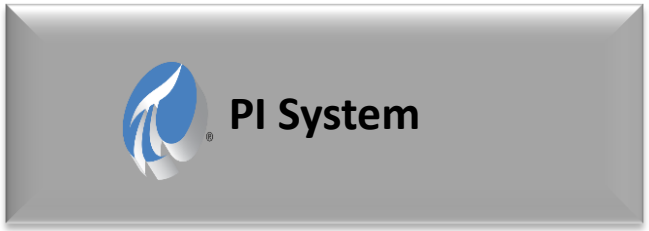
PI Data Access



PI Data Access family of products



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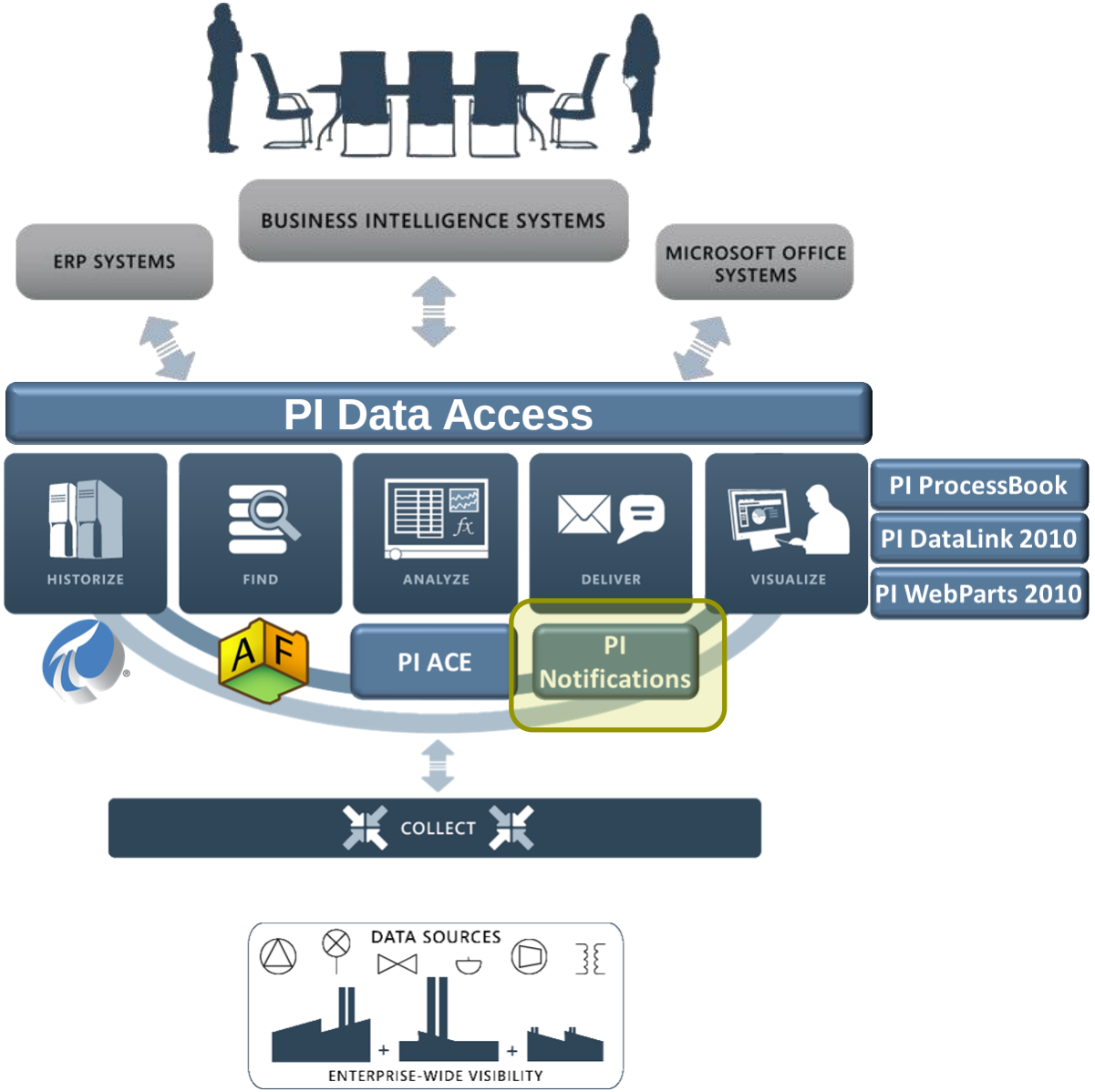
The PI System



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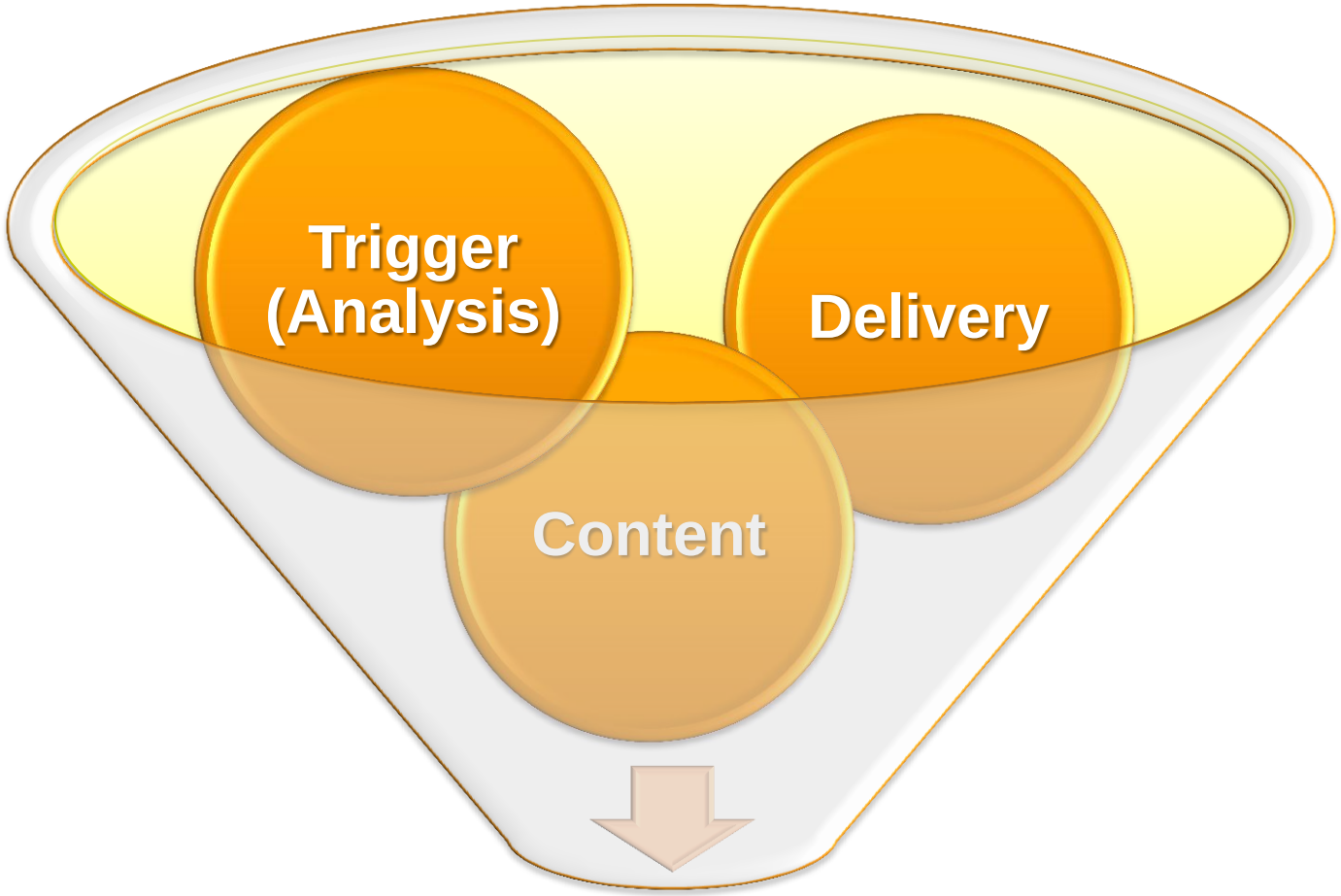
Base Concept of a PI Notifications



Notification

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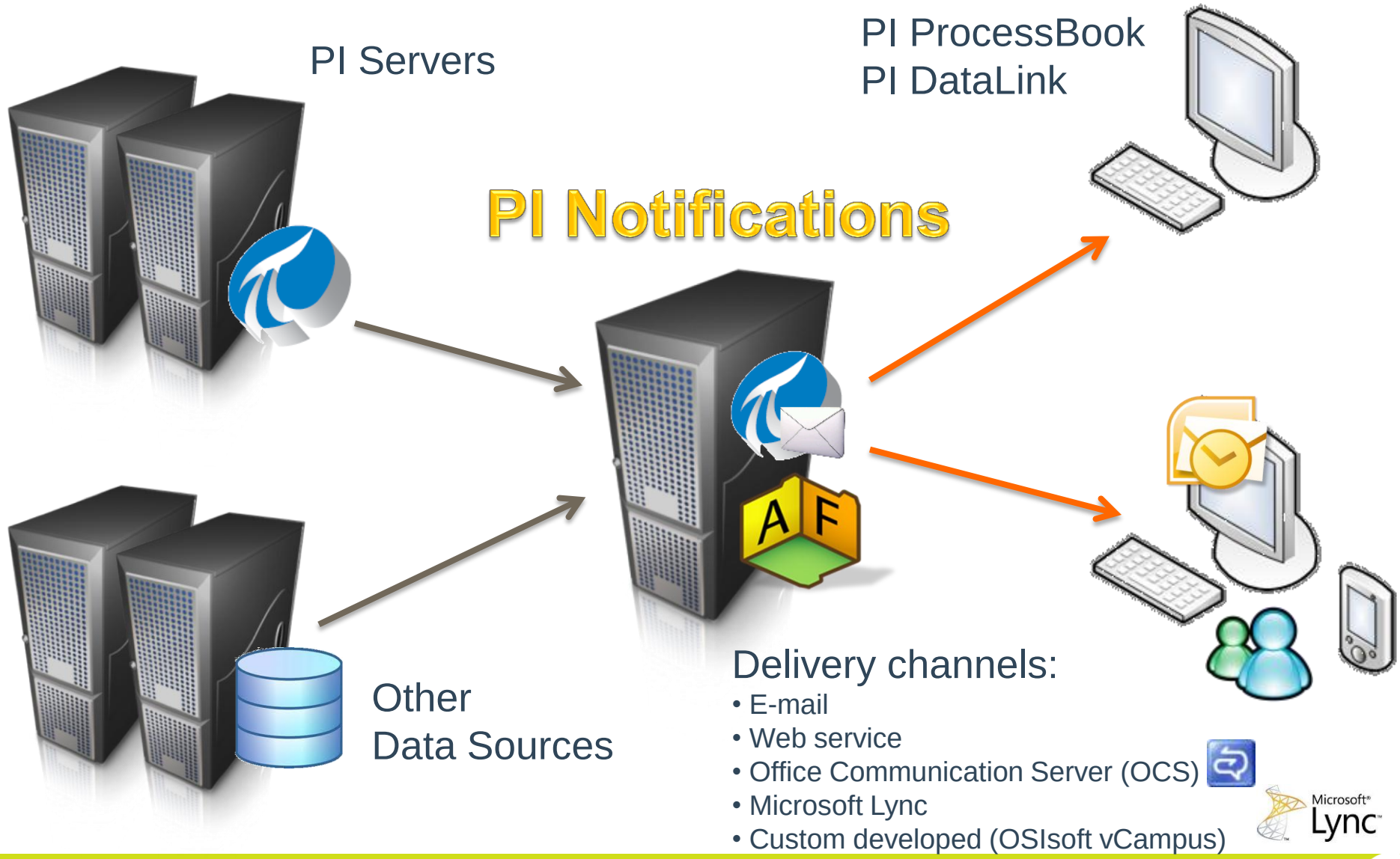
PI Notifications Architecture



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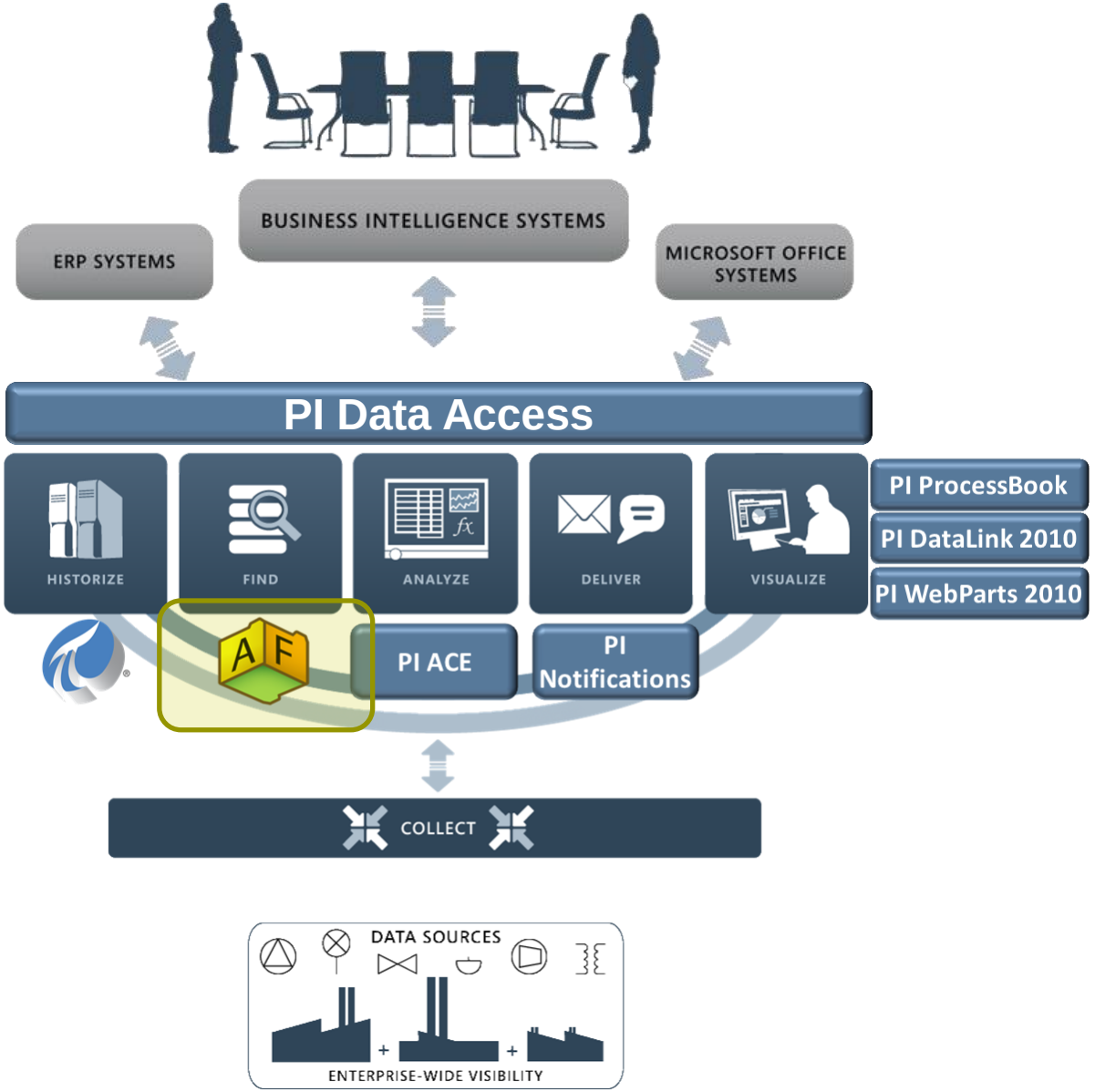
The PI System



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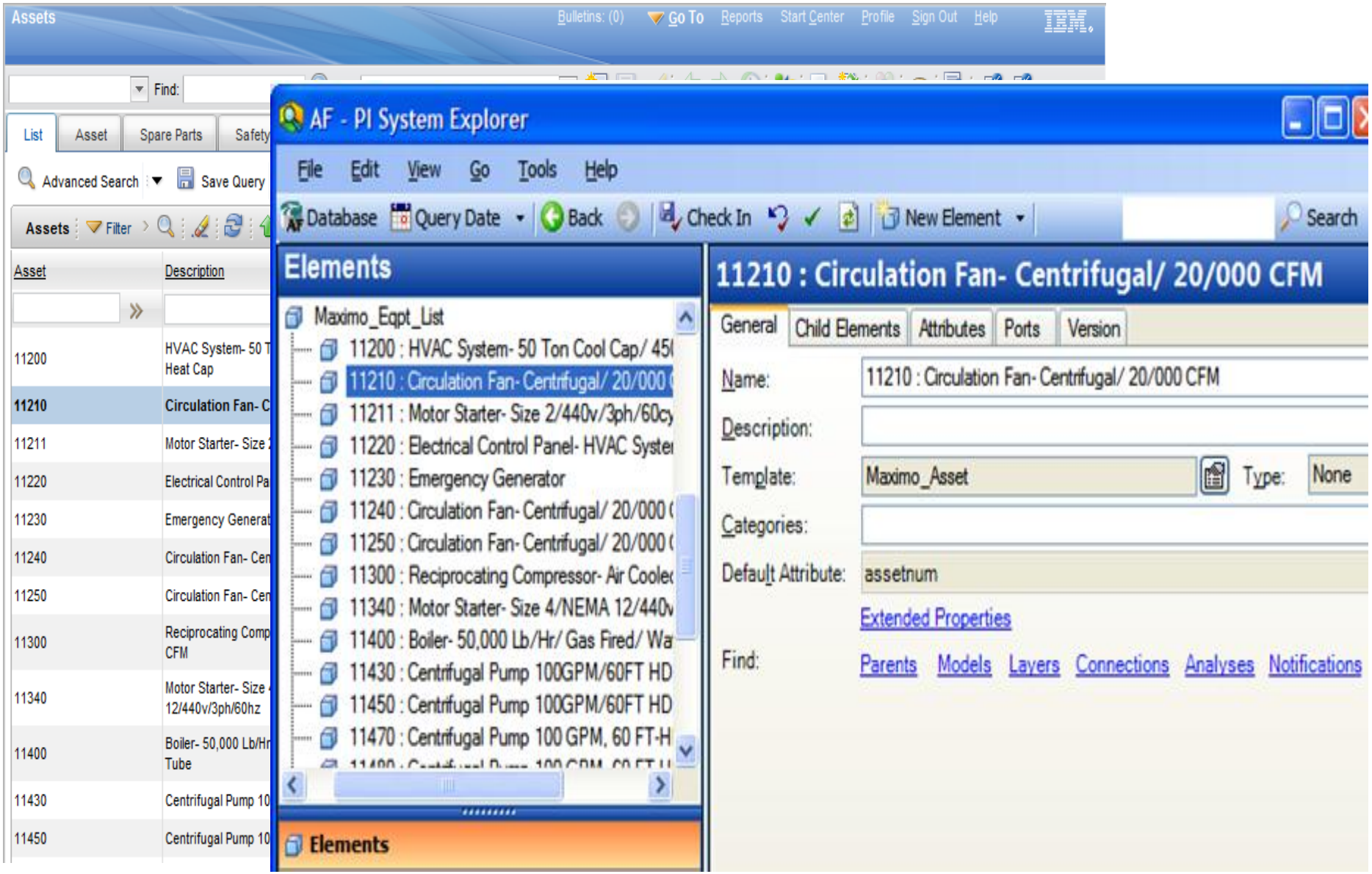
Business Integration – asset naming convention



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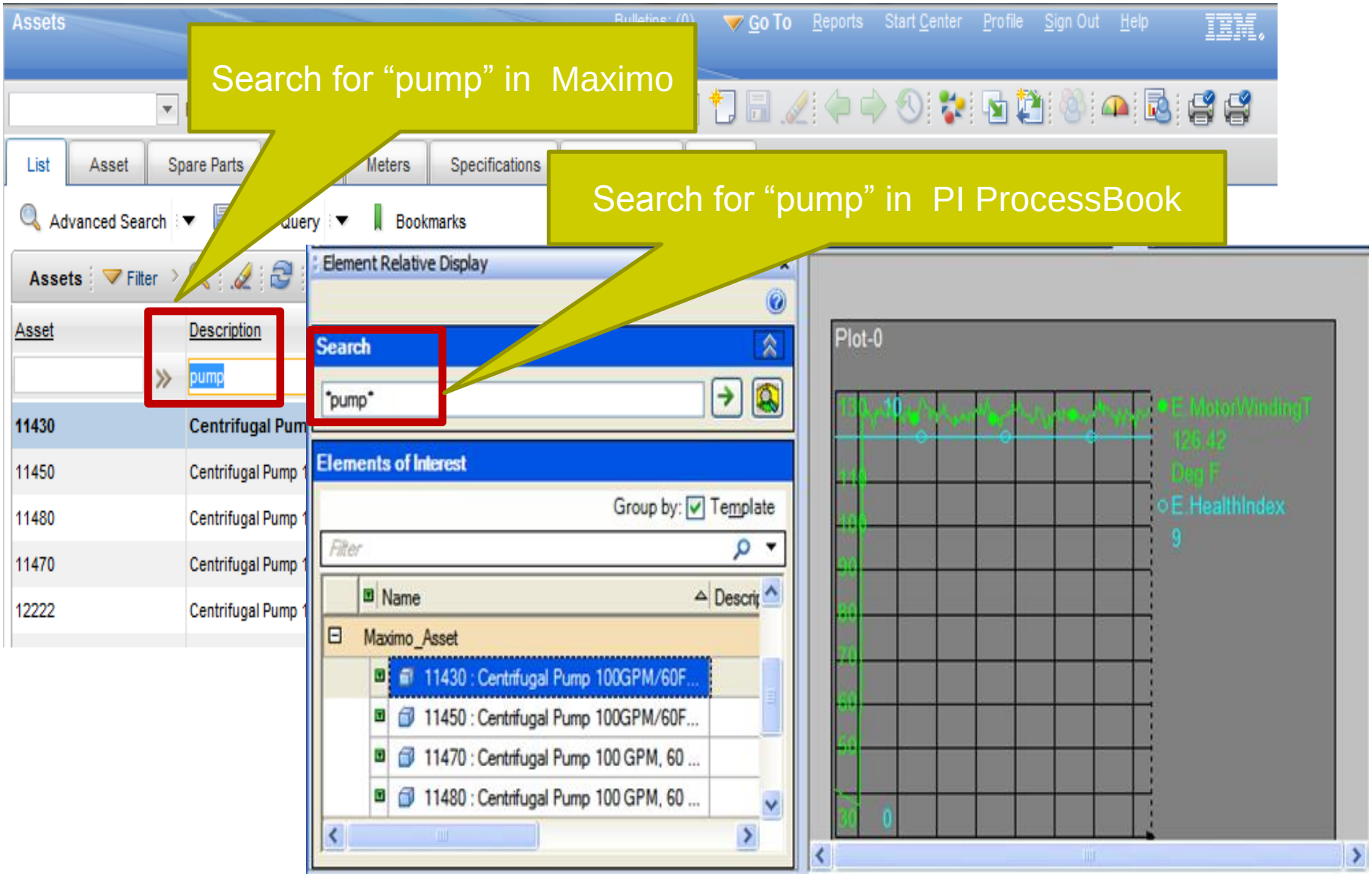
Business Integration – shared asset names



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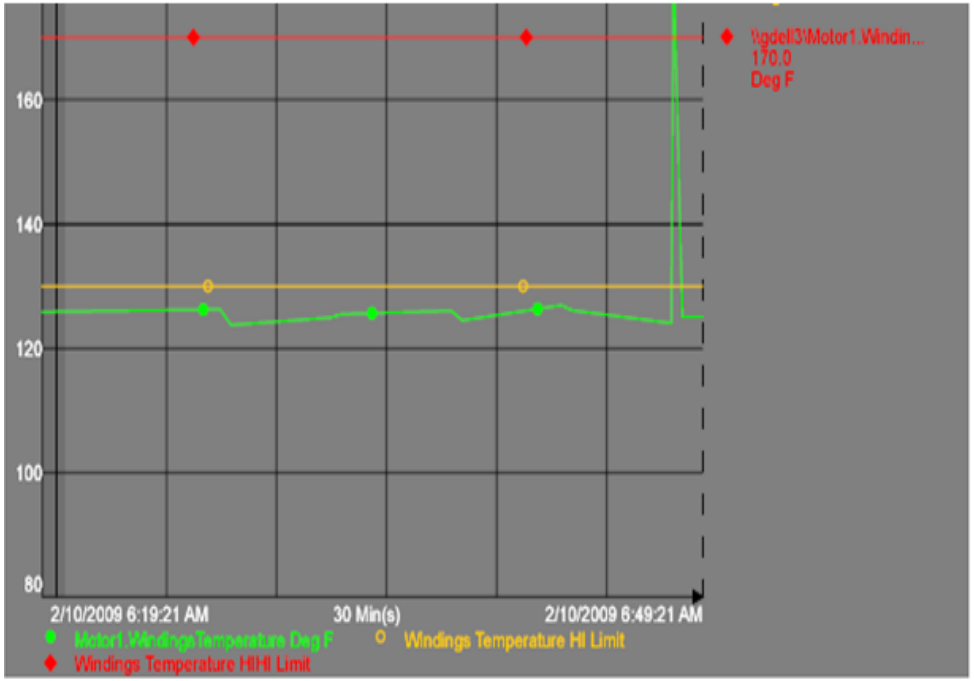
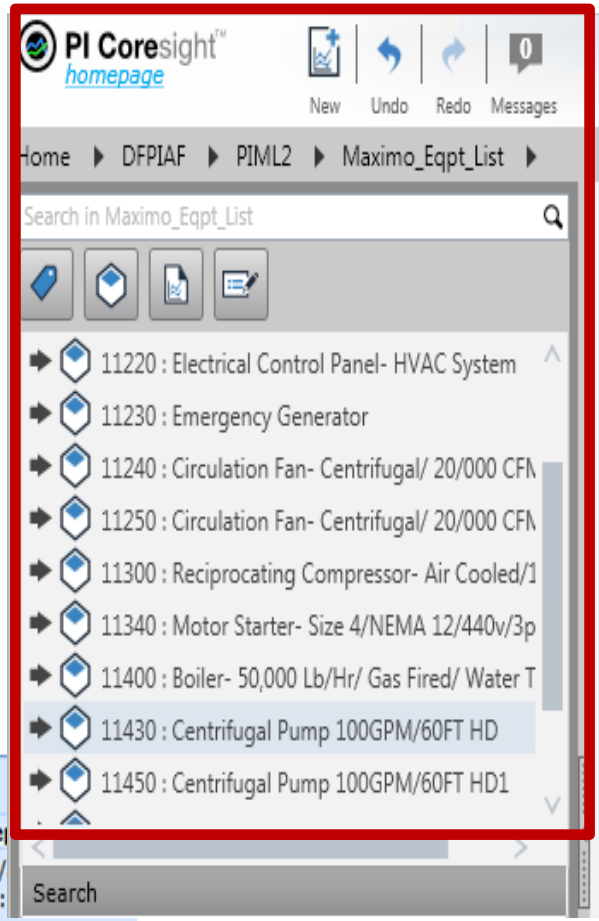
Business Integration – shared asset names





Maximo Work Orders

Equipment	WoNum	PM	Description	Status	StatusDate	Location	ReportedBy	Re
11430	1668		HiTempAlert	COMP	12/8/2008 10:22:18 AM	BR430	WILSON	12/ 10:
11430	1666		HiTempAlert	COMP	11/21/2008 10:21:53 AM	BR430	WILSON	11/21/2008 10:21:53 AM
11430	T1573		Check pump operation.	WSCH	5/2/2008 1:33:34 PM	BR430	MAXADMIN	5/2/2008 1:33:22 PM
11430	T1574		Check pump float switch.	WSCH	5/2/2008 1:33:34 PM	BR430	MAXADMIN	5/2/2008 1:33:23 PM
11430	T1575		Check seal and housing for leaks.	WSCH	5/2/2008 1:33:33 PM	BR430	MAXADMIN	5/2/2008 1:33:23 PM

Maximo Work Orders for "pump" 11430 in PI Web Parts

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Enterprise Integration Use Cases

- Maintenance
  - Usage-based maintenance (as opposed to calendar- based maintenance)
  - Condition-based maintenance
- Production
  - Real-time Inventory
  - Real-time Costing
- Implementation
  - Machine runhours (PI Totalizer Tag) is posted to CMMS
  - PI Alert posted to CMMS as a Work Request
  - Raw material consumption (PI Tag value) posted to SAP

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PI Totalizer reading to Maximo

- PI Notifications (with XML Delivery Channel)
- Push data from PI
- Transaction Objects in AF for mapping
- No middleware required

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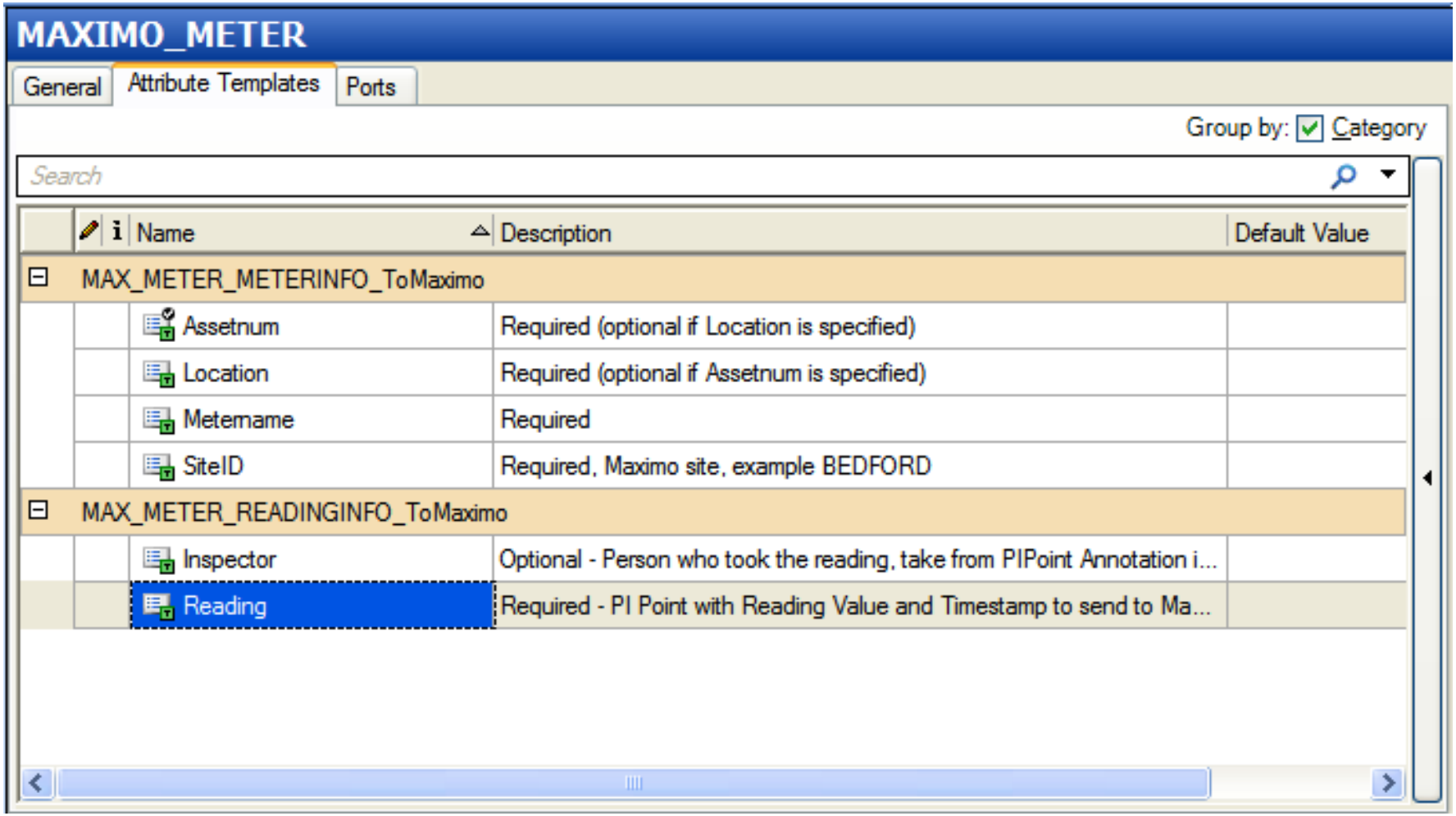

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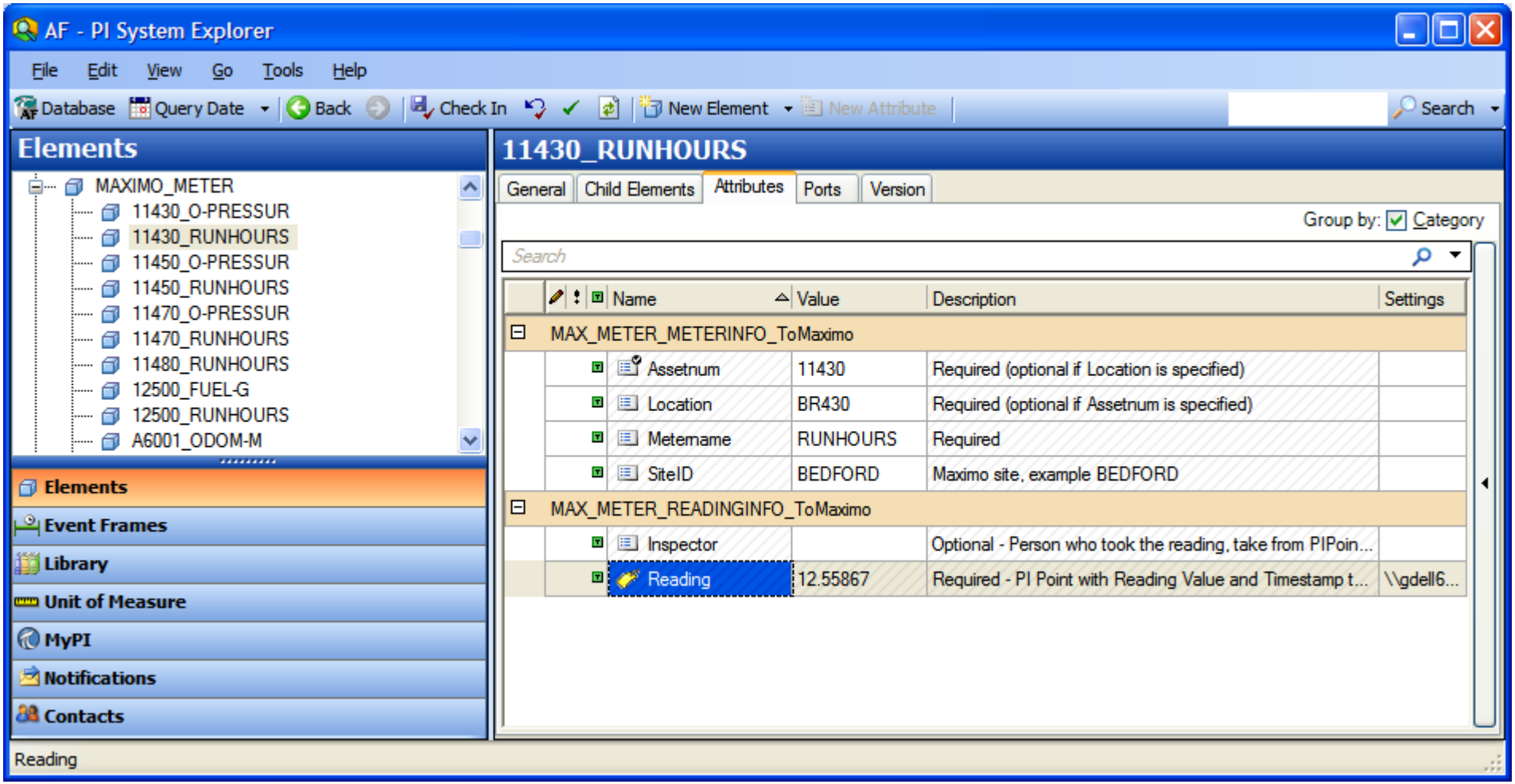

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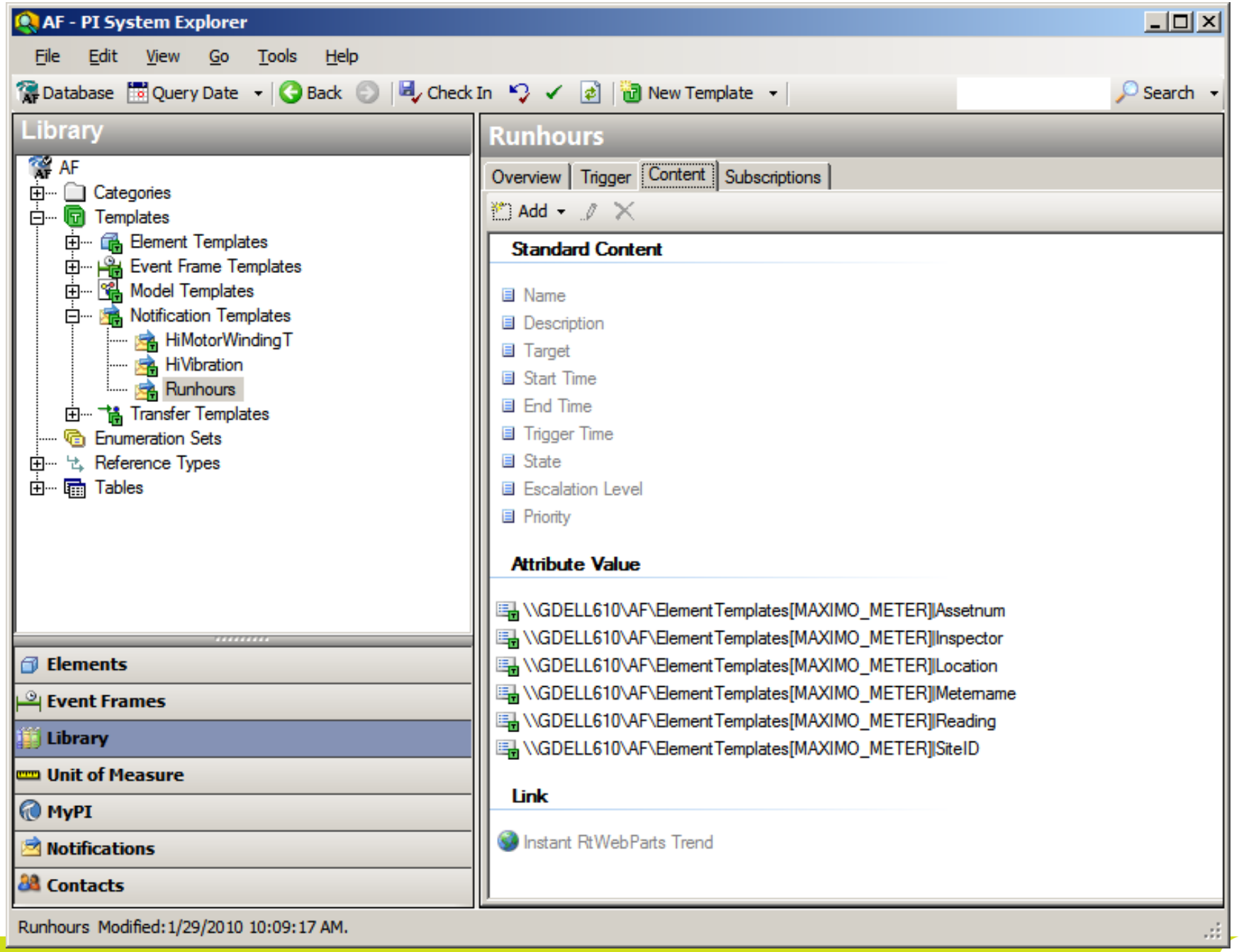

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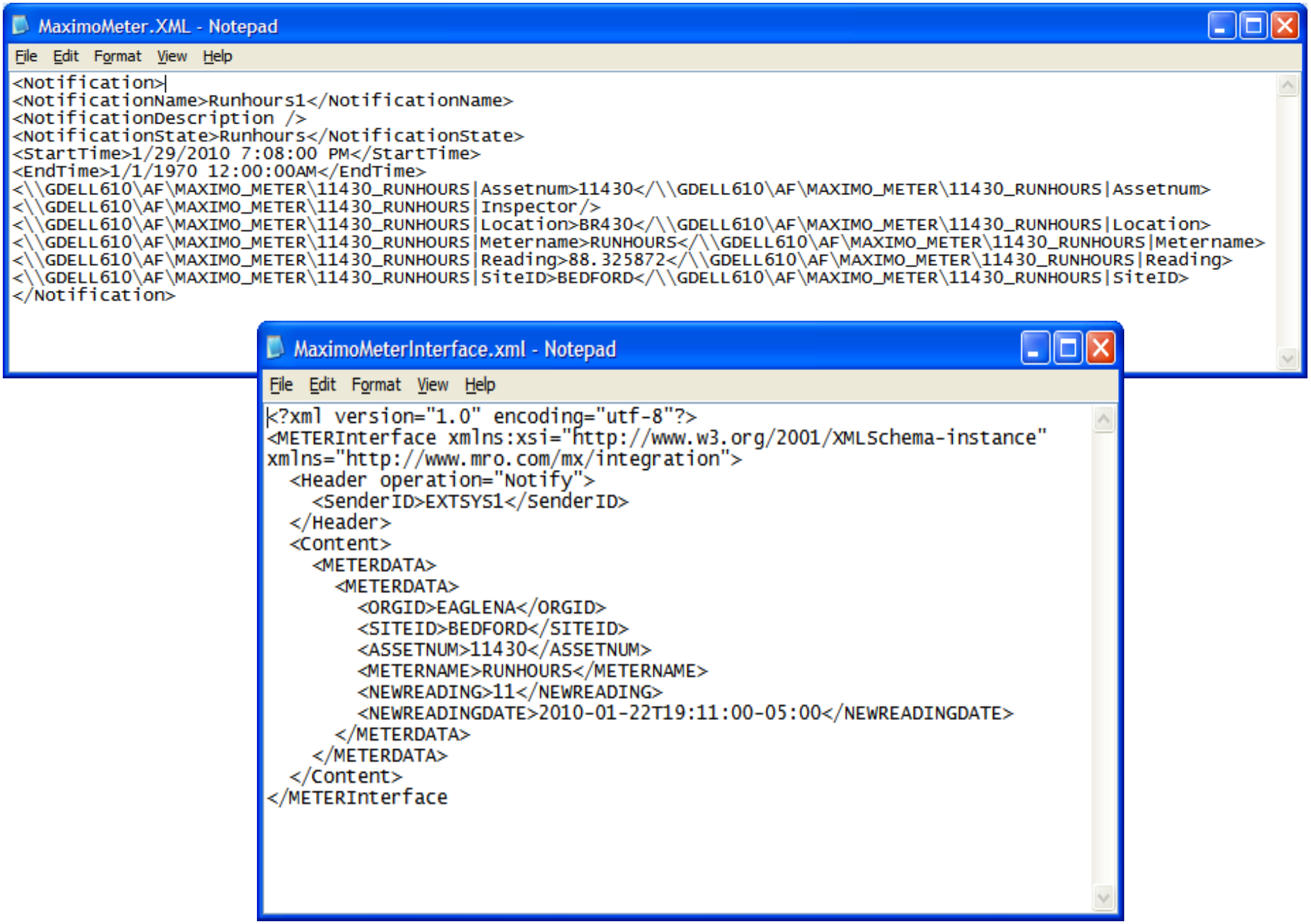

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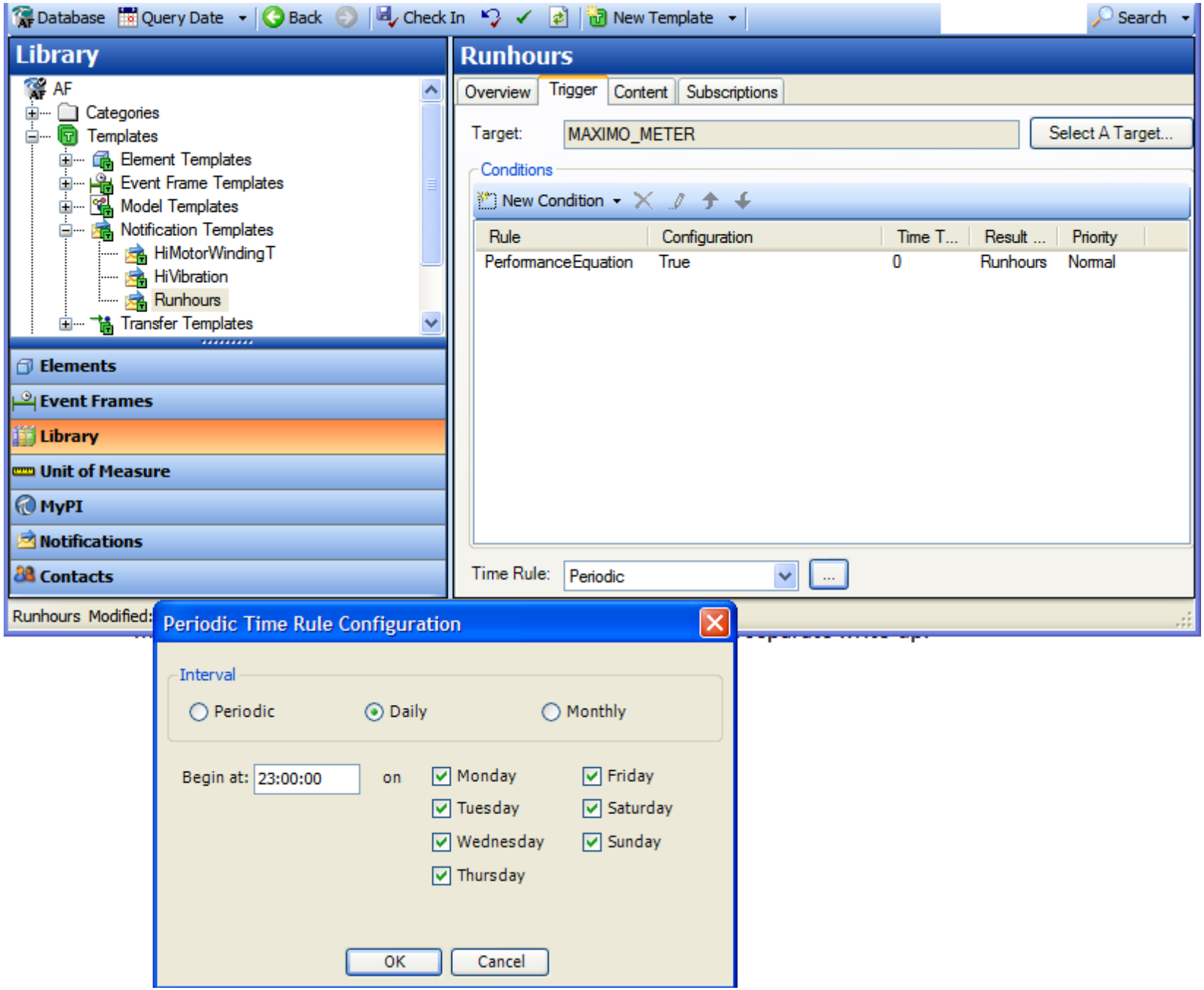

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Bearing temperature high alert to Maximo Work Request

- Condition assessment using PI
- PI Web Services
- Middleware: Microsoft BizTalk

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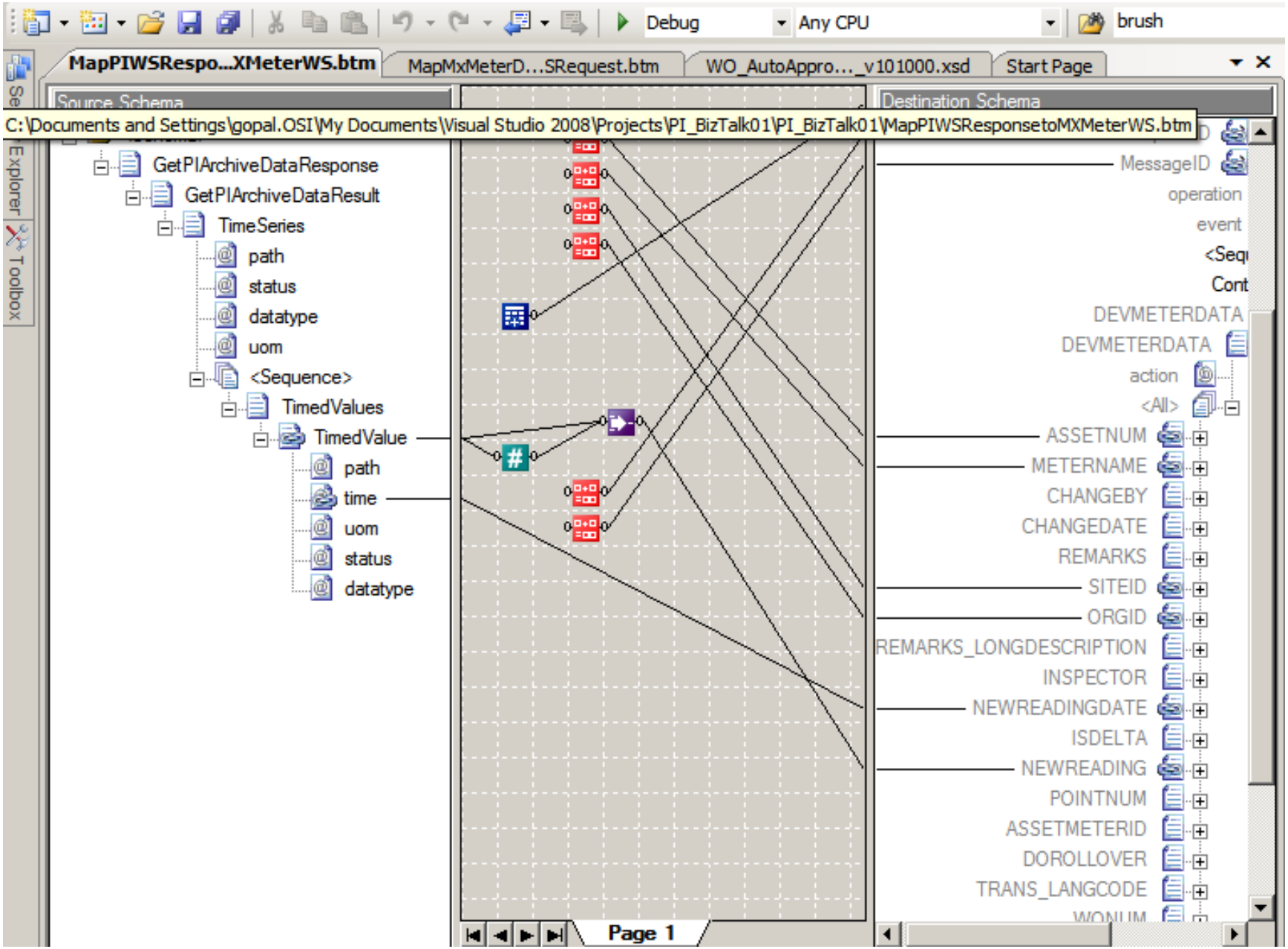

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