PI Server 2017

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Data Archive: Recent Enhancements

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Feature	2015	
Future/Predictive Data		
Batch to Event Frame Migration		
Transport security		

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What's new in Data Archive 2017?

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What's new in Data Archive 2017

Improved security between HA Collective Members

Added Health Incidents for the Future PI Health Tool

Enhancements to support other products, bug fixes

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HA Collectives: Enhanced Security

Added support for Transport Security

- Now available in Data Archive, between HA Collective Nodes, PI SDK, AF SDK, and API 2016 for WIS

All Collective members must be upgraded

Implemented via Certificates

- You can use your own, or the one we generate for you

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Health Incidents

What is a Health Incident?

What Health Incidents will the Data Archive support?

- Corrupted Archives
- Data loss scenarios
  - Examples
    - Value already exists at this time
    - Writing to an archive gap
    - Writing to a read only archive
    - Writing to a corrupt archive
- Backup failures

Where will I see these Health Incidents?

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PI System Health

COMING SOON!

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PI System Health Tool

Dashboards | Incidents

Overview | Components

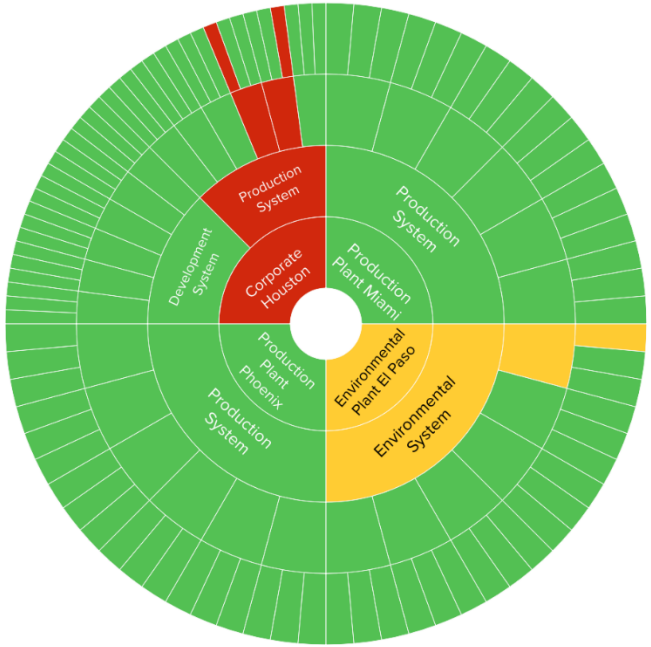
Filter Dashboards

- verview 3
- Corporate Houston
- Production System
  - Production Plant Overview
  - PISRV1
  - ProdInterface
  - ProdInterface2
  - Hogwarts
  - AreaRelay
- Development System
- Production Plant Miami
- Environmental Plant El Paso
- Production Plant Phoenix

Overview

24 hours

COMING SOON!



Health Summary

Healthy	Critical
131	2

Warning	Maintenance
1	0

Recent Incidents

Severity	Description	Machine	Component	Start	End	Duration
!	OPC1 Skipped Scans	ProdInterface	OPC Interface	2016-09-14, 09:00:00	-	0
!	Buffer Queue Filling	ProdInterface2	OPC Interface	2016-09-14, 09:00:00	-	0
⚠	Low Disk Space	EnvSRVR	PI Server Machine	2016-09-14, 09:00:00	-	0

Show All

PI System Health Tool

Dashboards | Incidents

Incidents

All Incidents

Active Incidents

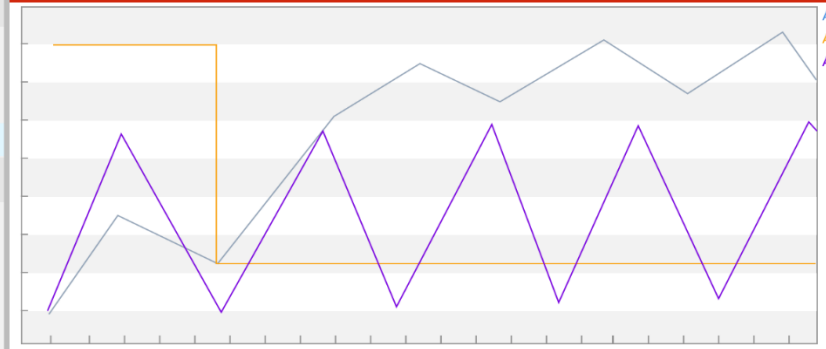
Recently Viewed Incidents

Incident Name - 9/15/2017 03:00:00

Maintenance

Incident: Incident Name - 9/15/2017 03:00:00 - In Progress

24 hours



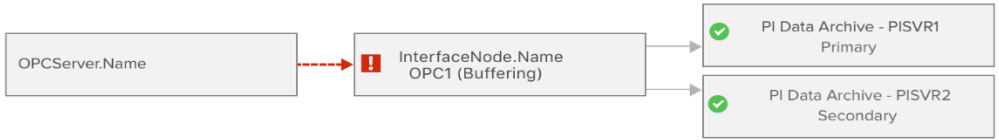
Incident Trigger Expression

Start Trigger:
'Attribute name' > ## and 'Attribute Name' > ###

Incident Trigger Attributes	start value	end value
Attribute Name	Value (unit)	Value (unit)
Attribute Name	Value (unit)	Value (unit)

Incident Event Attributes	start value	end value

Component Attributes	start value	end value
Attribute Name	Value (unit)	Value (unit)
Attribute Name	Value (unit)	Value (unit)
Attribute Name	Value (unit)	Value (unit)



COMING SOON!

Comment

Stat

Hi

This incident has occured # times in the last 24 hours.

Support

Full text description of error from log or trigger

Possible Causes

- Description of possible cause 1
- Description of possible cause 2
- Description of possible cause 3

Related Resources

Description/title of related resource

Link

Description/title of related resource

Link

Component Versions

Component: ##.##.##

Component: ##.##.##

Component: ##.##.##

If you have questions on how to resolve the incident please contact OSIsoft's Technical Support at: techsupport@osisoft.com or +1 510 297 5828

Export Support Information

Future Plans

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2018+

Under Consideration

- Data Quality
  - What does this mean to you?
- Data Retention policies
- Auto Archive management
- Better replication for High Availability
- Smaller footprint for PI Server as a whole
  - Edge device
- More Granular ACL's on tags
- …

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Asset Framework

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Major Features	2015	2016
Future Data support	✓	
Excluded and Hidden attributes	✓	
AF Identities and Mappings	✓	
Traits – Limits, Forecasts, Locations		✓
Annotations, Severity, Acknowledgements		✓
New notifications		✓
WSFC support for PI Analysis Service and PI Notifications Service		✓
Manual recalculation	✓	✓
Performance improvement, scalability	✓	✓
New analytic functions, SQC	✓	✓
Enhanced Search	✓	✓

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What's new in AF 2017

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I want to find my data as quickly as possible …

- More flexibility – filter based search
- Light weight search
  - Only gets requested fields
- Search by Modify Date and Creation Date
  - ***Find all elements modified in the last 5 minutes***
- PI Point search by value/timestamp/status
  - ***Find all the PI Points with values that haven't changed since yesterday***

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I want to do some aggregations with consistent UOM …

- Improved UOM handling for totalization
  - ***How many barrels of oil were produced from this well yesterday?***
- Rollup analyses
  - Handle different input UOMs
  - When possible, UOMs are converted prior to rollup
  - Keyed off output UOM

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I want to do more with event frames …

- New substitution parameters for %Duration%
  - ***Configure an EF attribute with duration of the EF***
- Aggregate event frames
  - Summaries such as min, max, avg, total, etc.
  - Group by discrete values
  - Bin on continuous values
  - ***Average temperature when pump was running over the last year segregated by month***

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I have late arriving data and need to recalculate quickly …

- Concurrent backfill/recalculation
  - Better utilization of resources
- Built in safe guard to minimize impact to real time calculations

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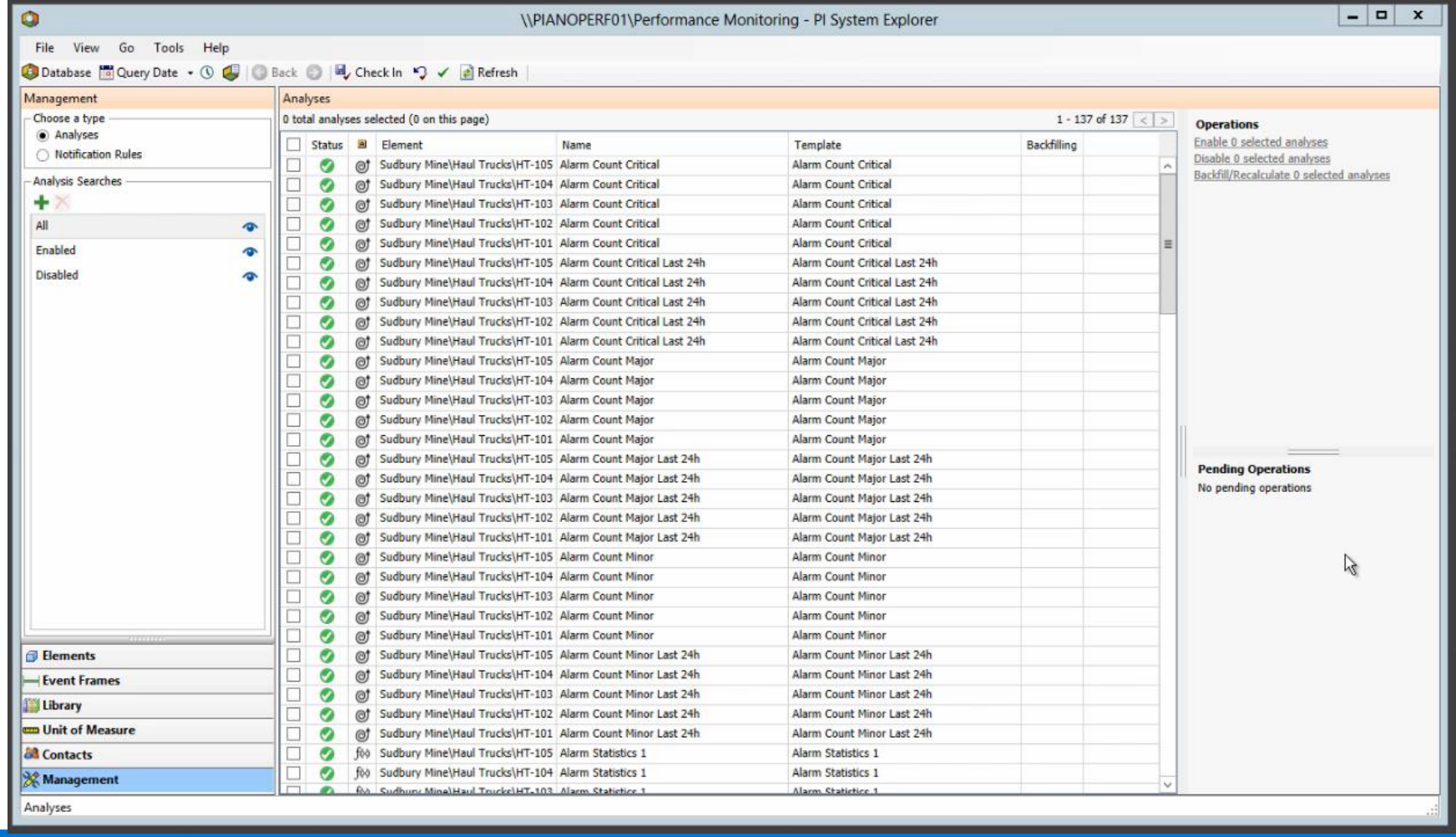

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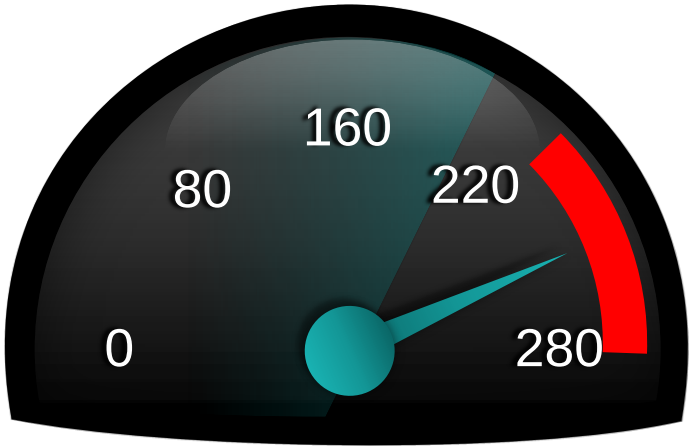
I want to know the worst performing analyses …

- Analyses are logically grouped for management
- Sorted by lag
- # of skipped calculations
- Time to complete calculation
- Triggering frequency



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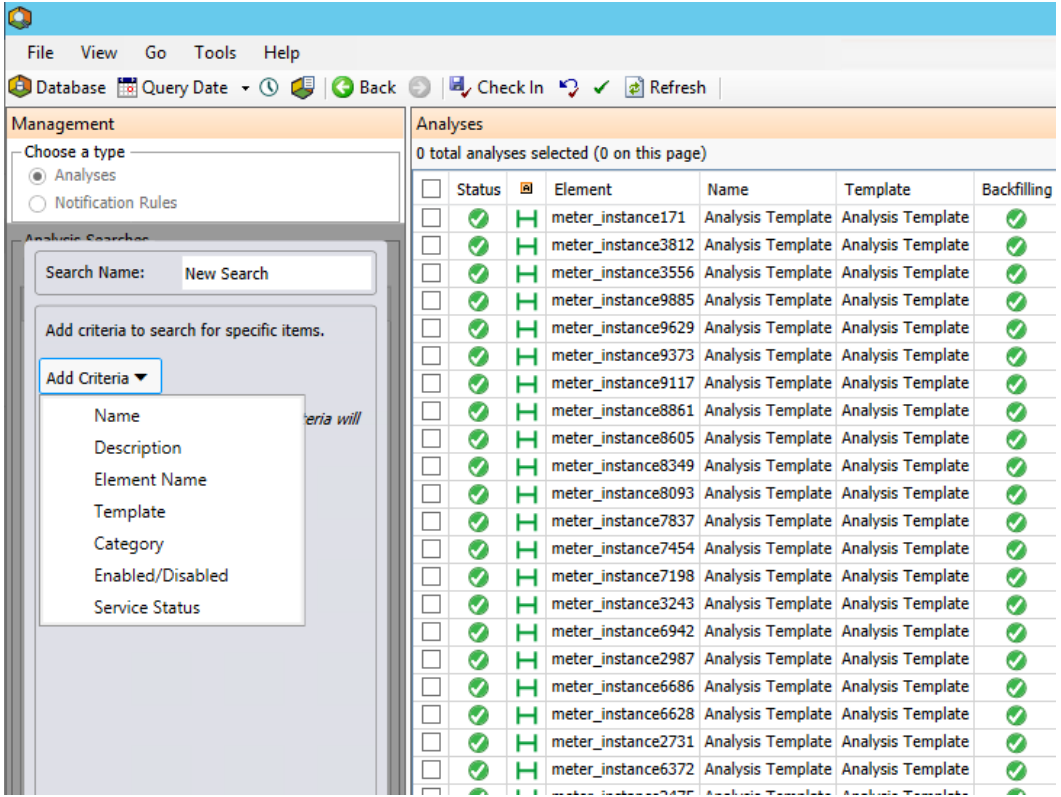
How do I find analyses and notification rules when I have so many?

- Single UI for managing analyses and notification rules
- Customize searches
- Persisted searches



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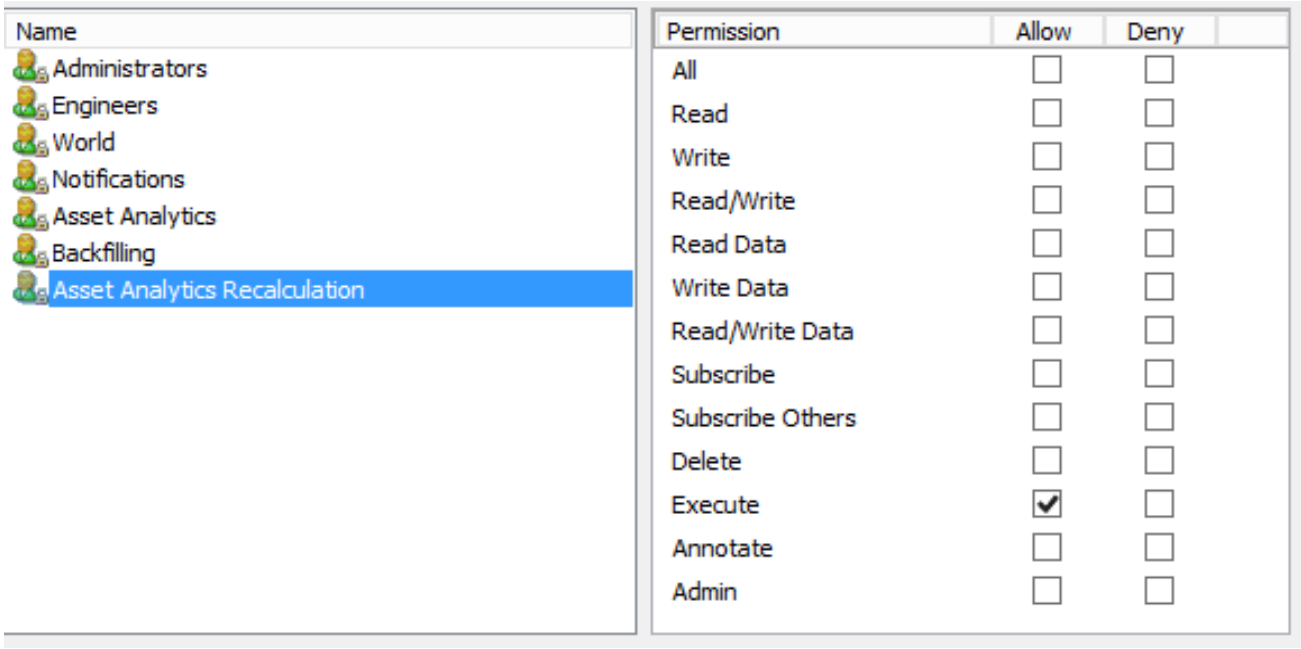
Only authorized persons can perform recalculations ...

- AF Identity to allow users to backfill and recalculation



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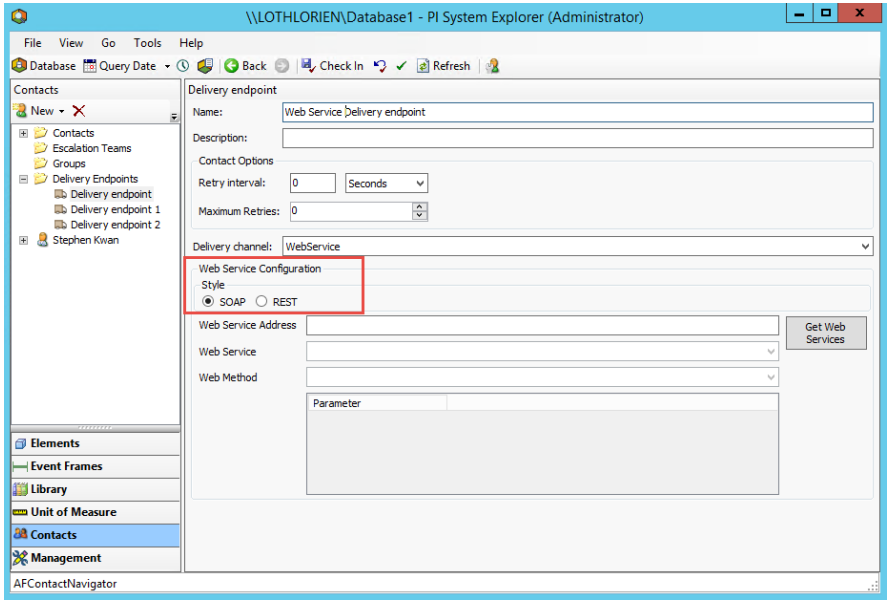
I want to send information from my important events to a web service …

- SOAP Web service delivery channel
  - Support for complex data type
  - E.g. ERP systems
- REST web service delivery channel
  - E.g. any modern web services



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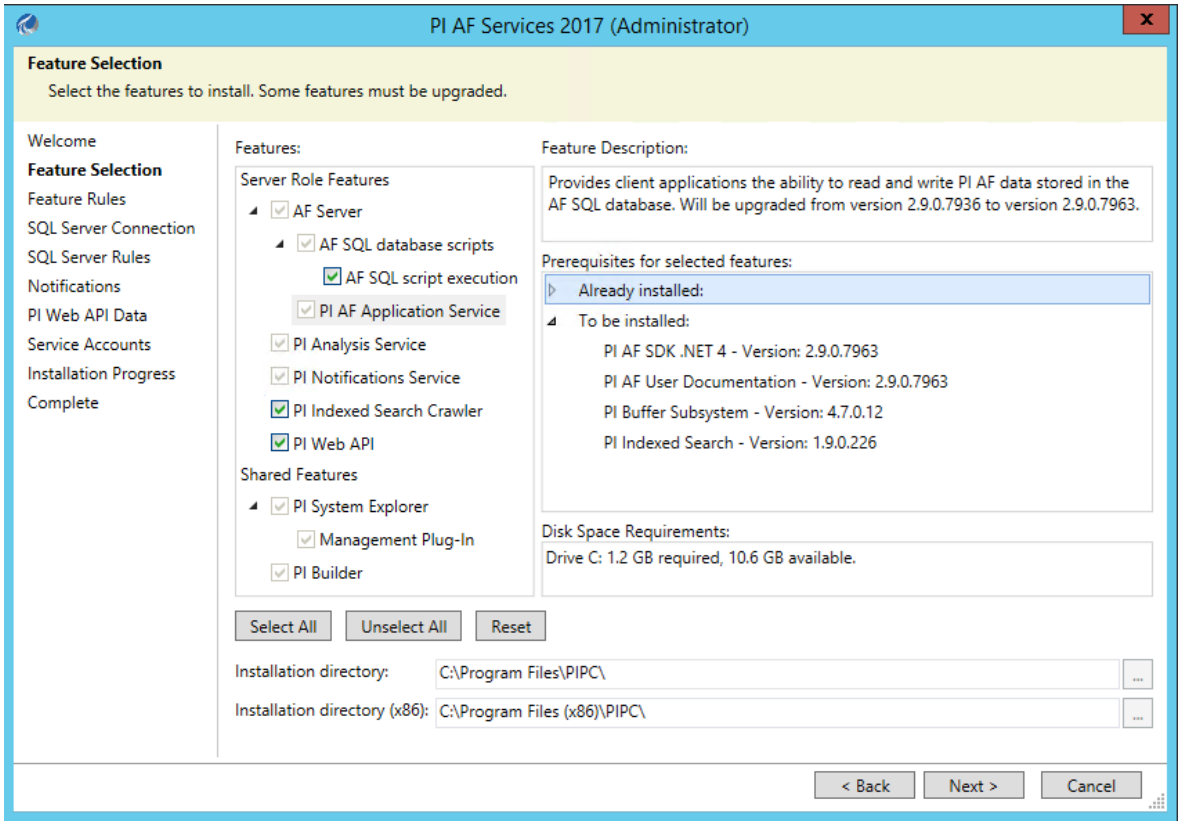
I want a more streamlined installation experience …

- Single integrated install for AF Services



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AF 2017 R2 and Beyond

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AF 2017 R2 – Planning Stage

Enhanced Streaming Calculation	• Auto recalculation • Calculations on event frames
Manageability	• Support PI System Health
Performance and Scalability	• Event frame scale • Better diagnostics for analyses and notification rules • Search capabilities
Usability and Features	• Attribute display names • Hierarchical enumeration sets • Notifications push to phone

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AF 2018 and Beyond – Research

Enhanced Streaming Calculation	• Integrate with 3rd party analytics – MATLAB, R, etc.
Manageability	• Enterprise deployment • Web based configuration
Performance and Scalability	• PI Analysis Service scaling • PI Notifications Service scaling
Usability and Features	• Incorporate Data Quality into the PI System • Flag stale data • Identity provider

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Have an idea how to improve our products?

OSIsoft wants to hear from you!

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Questions

Please wait for the **microphone** before asking your questions

State your **name & company**

Please remember to…

Complete the Online Survey for this session

http://bit.ly/uc2017-app

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감사합니다

谢谢

Danke

Merci

Gracias

Thank You

ありがとう

Спасибо

Obrigado

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