PI System Management Made Easy: From a Single Site to Your Entire Enterprise

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AGENDA

- Why?
- What is it?
- Demo
- Roadmap
- Future
- How you can get involved

What are customers telling us?

MULTITASKING

Managing the PI System isn't my only job.

I manage a large enterprise PI System with millions of data streams and thousands of users.

I'm busy just keeping the lights on, and struggle with being proactive.

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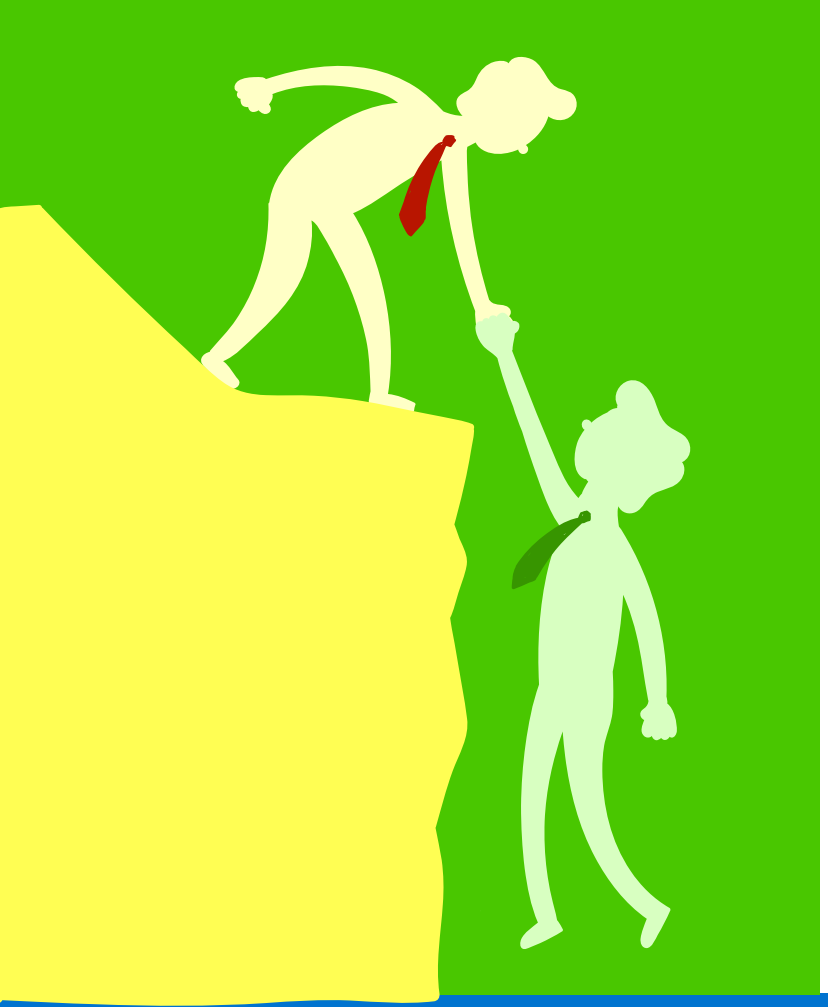

HELP!

I don’t know if I have a problem, unless my user calls to complain

I don’t know where the problem is

I don’t understand the error messages

I don’t know how to solve the problem

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What if...

PI SYSTEM HEALTH

- Enterprise view of your PI System Health
- Monitors the health of your Data Flow
- Incident reporting
- Offers guidance for troubleshooting
- Automatic generation of displays, notification and analyses
- Subscribe to incident notifications

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System Overview

Dashboards | Incidents

System | Components

Filter Dashboards

- System Overview 6
- Corporate Houston
- Production Plant Miami
- Environmental Plant El Paso
- Production Plant Phoenix

Critical	Warning
4	2

Maintenance	Healthy
0	129

Incidents

Severity	Location	Computer	Description	Start	Duration
!	Production	Prod1	incident description	2017-03-20 09:00:00	-
!	Environmental	1	incident description	2017-03-20 09:00:00	-
!	Environmental	2	incident description	2017-03-20 09:00:00	-
!	Environmental	4	incident description	2017-03-20 09:00:00	-
⚠	Environmental	4	incident description	2017-03-20 09:00:00	-

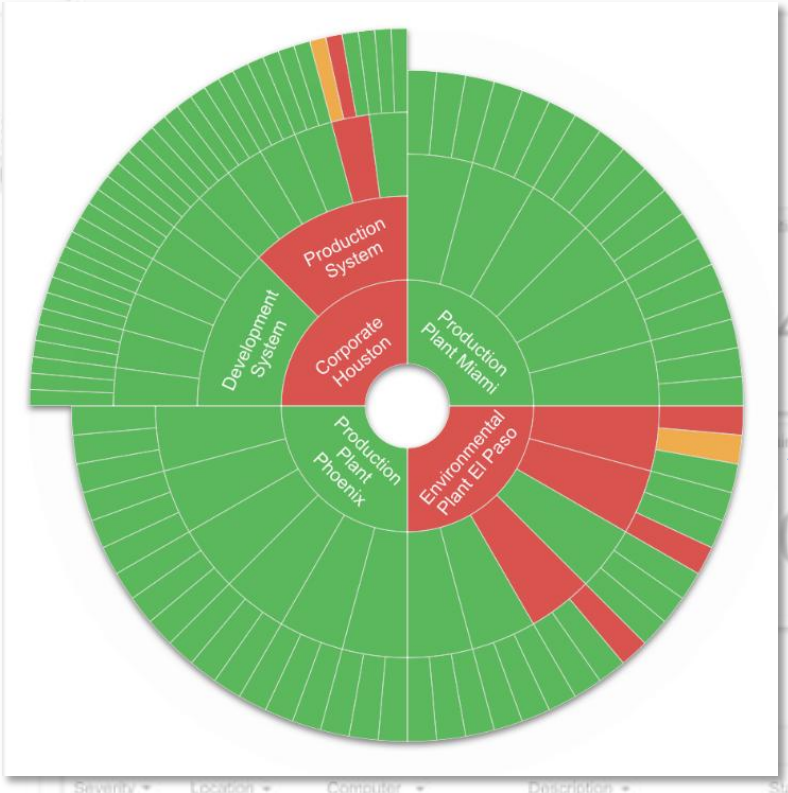
show all

Production System

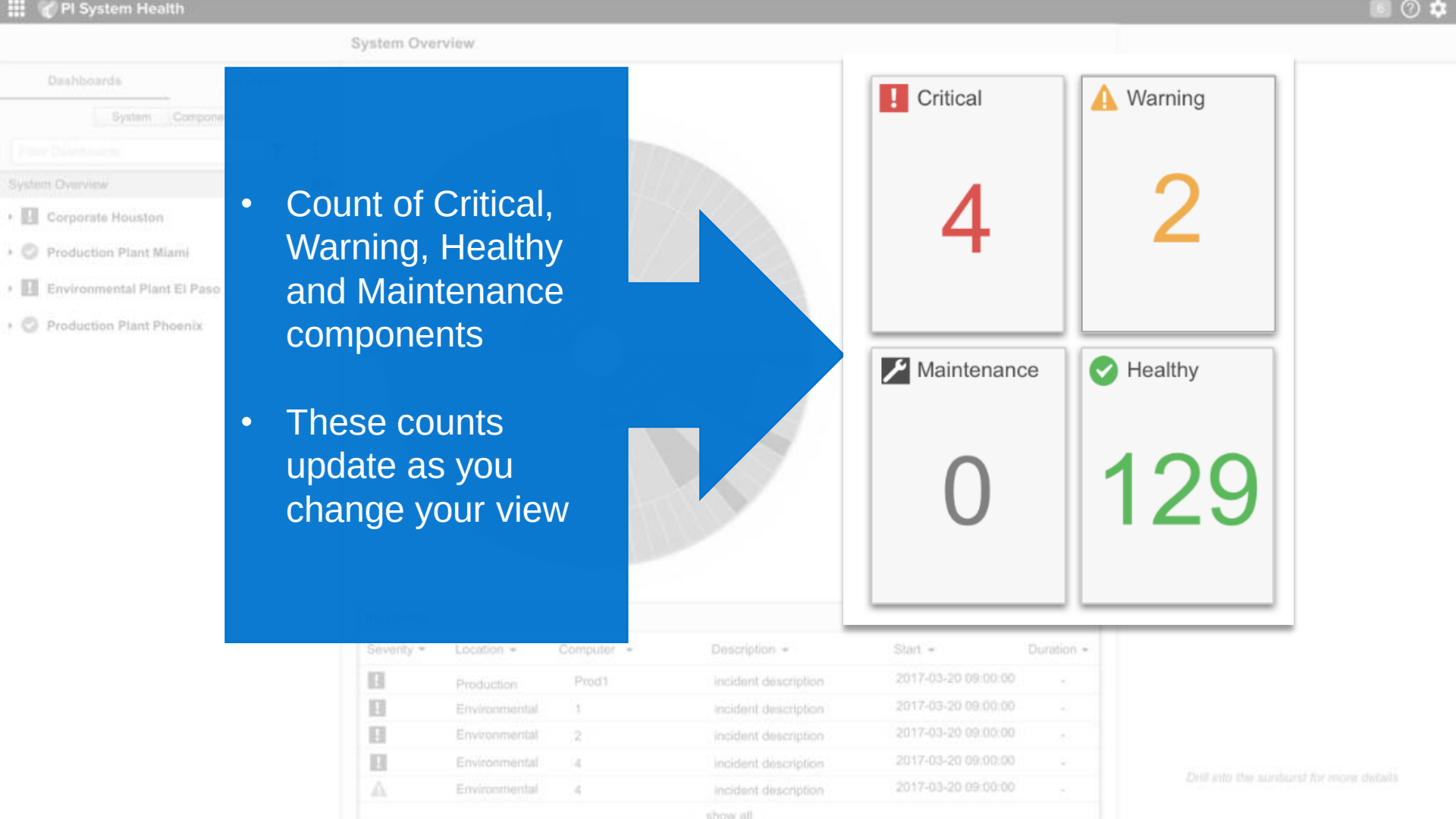
Number of Systems
5

Number of Computers
30

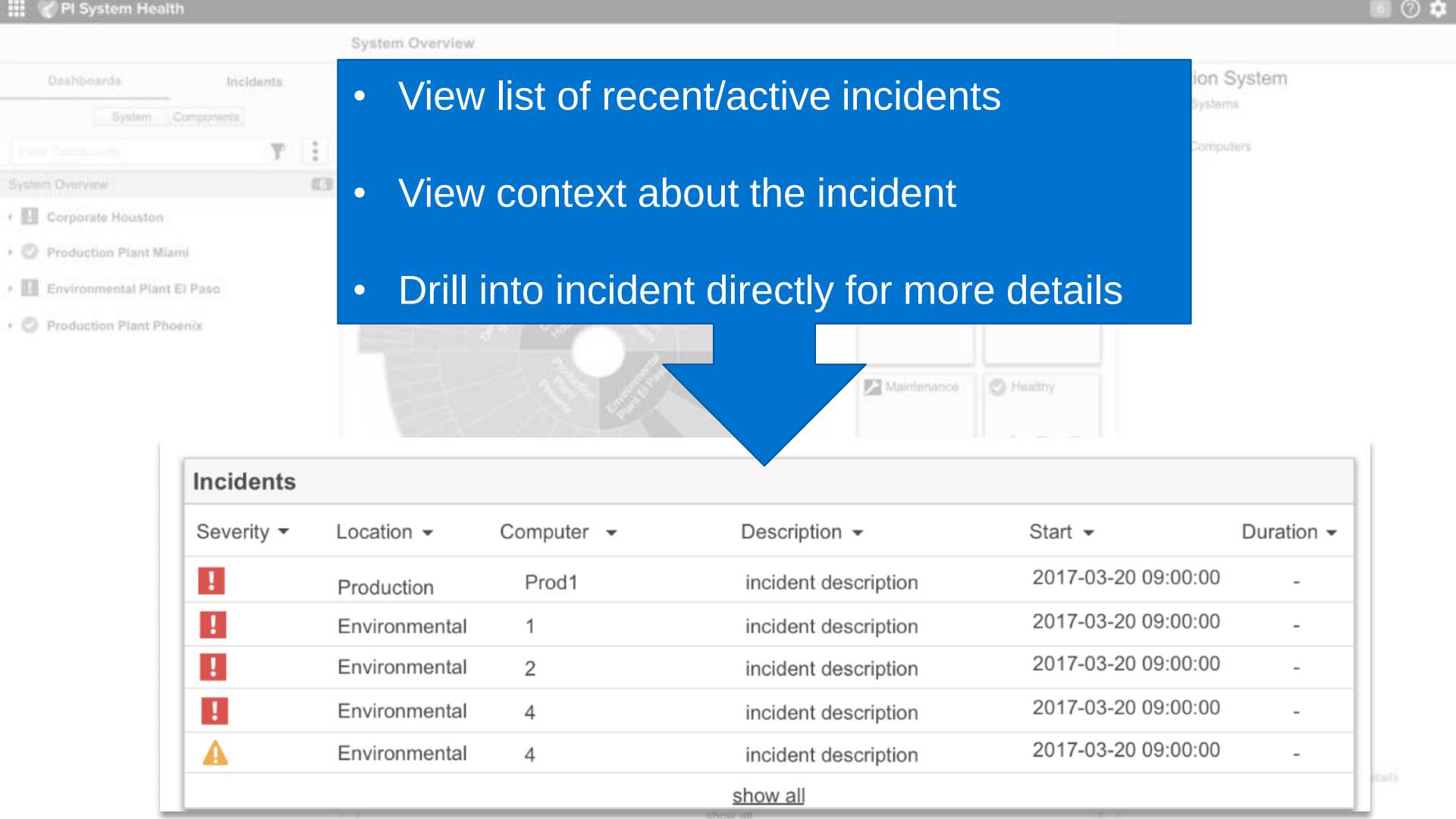
Drill into the sunburst for more details



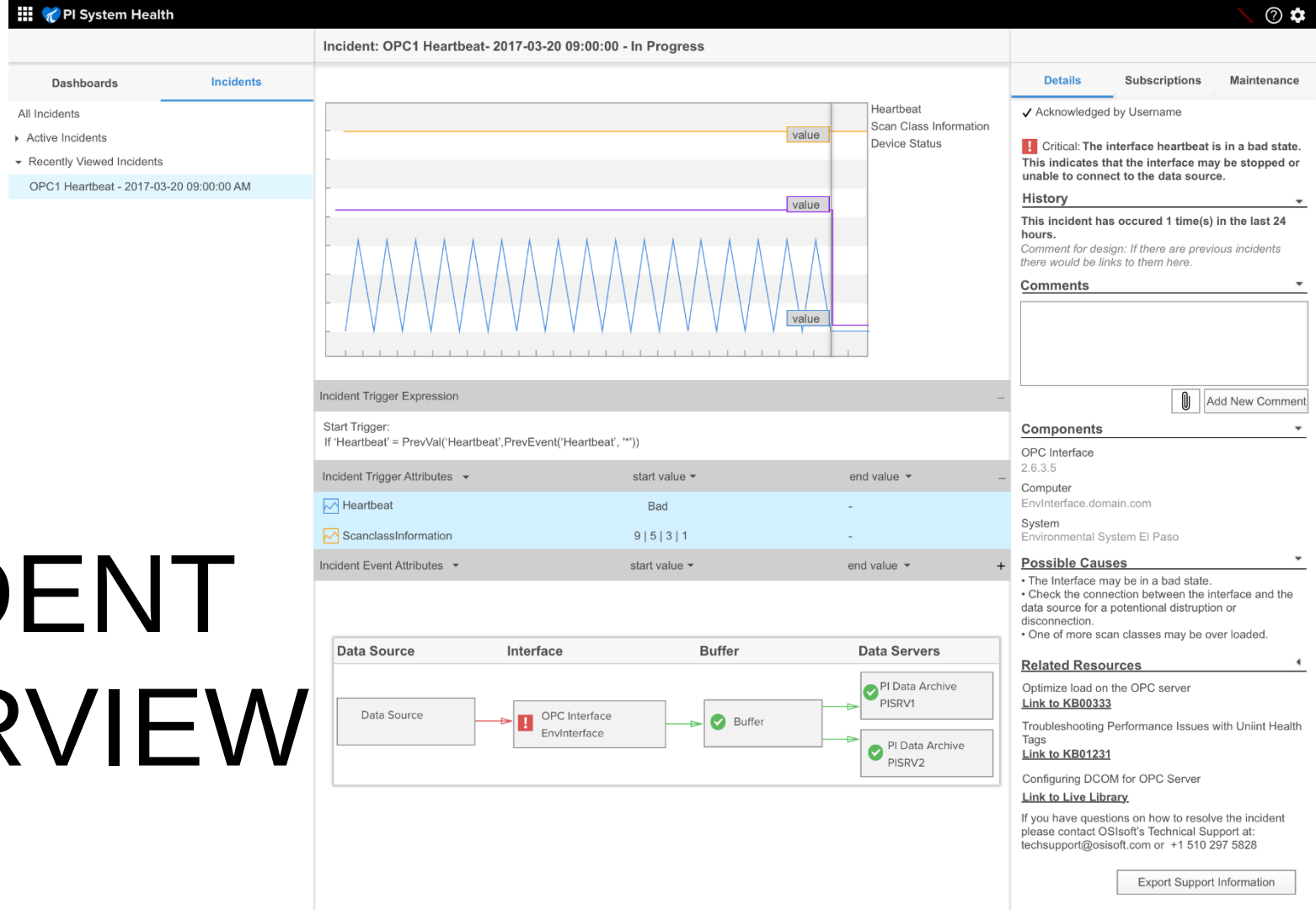
- View Health of entire Enterprise from one place
- Drill into problem areas to quickly identify issues and resolve them
- Hierarchy is defined in PI System Directory

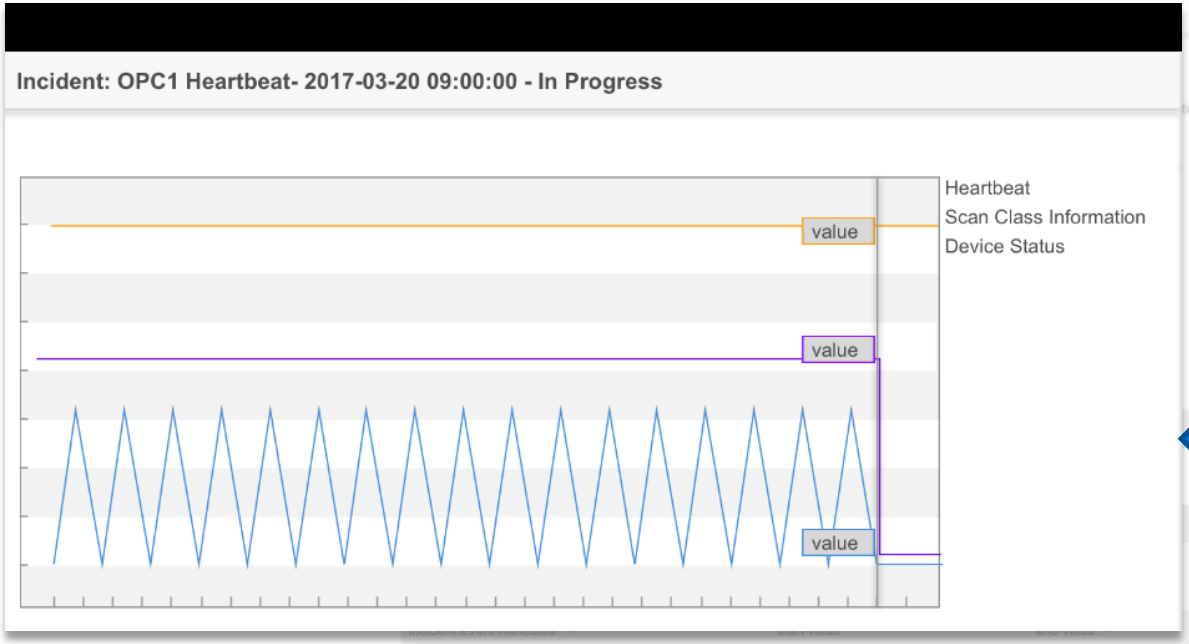


- Count of Critical, Warning, Healthy and Maintenance components
- These counts update as you change your view

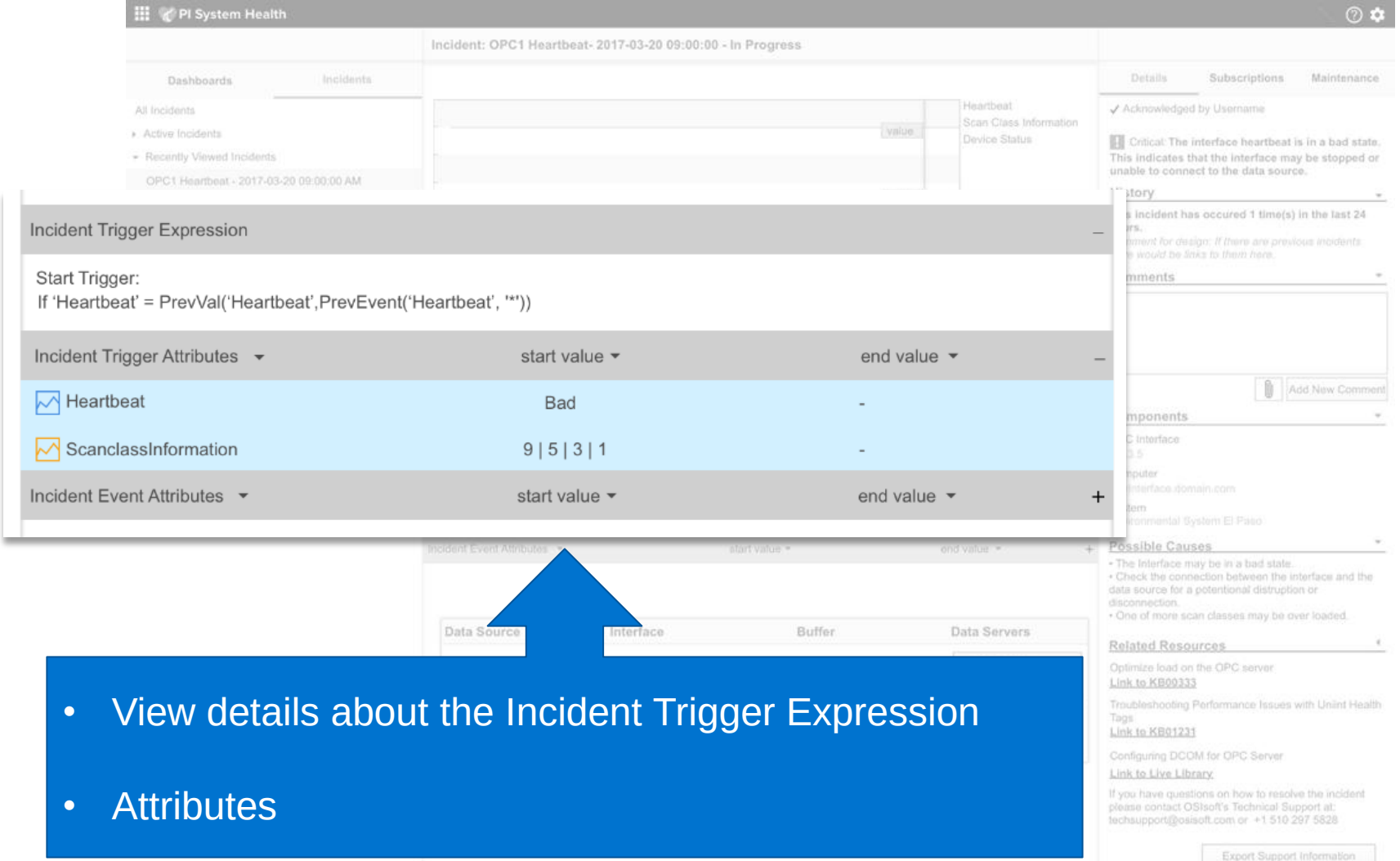

PI System Health
System Overview
Dashboards
Incidents
System
Components
System Overview
Corporate Houston
Production Plant Miami
Environmental Plant El Paso
Production Plant Phoenix
Maintenance
Healthy
• View list of recent/active incidents
• View context about the incident
• Drill into incident directly for more details
Incidents
Severity
Location
Computer
Description
Start
Duration
Production
Prod1
incident description
2017-03-20 09:00:00
-
Environmental
1
incident description
2017-03-20 09:00:00
-
Environmental
2
incident description
2017-03-20 09:00:00
-
Environmental
4
incident description
2017-03-20 09:00:00
-
Environmental
4
incident description
2017-03-20 09:00:00
-
show all

INCIDENT OVERVIEW



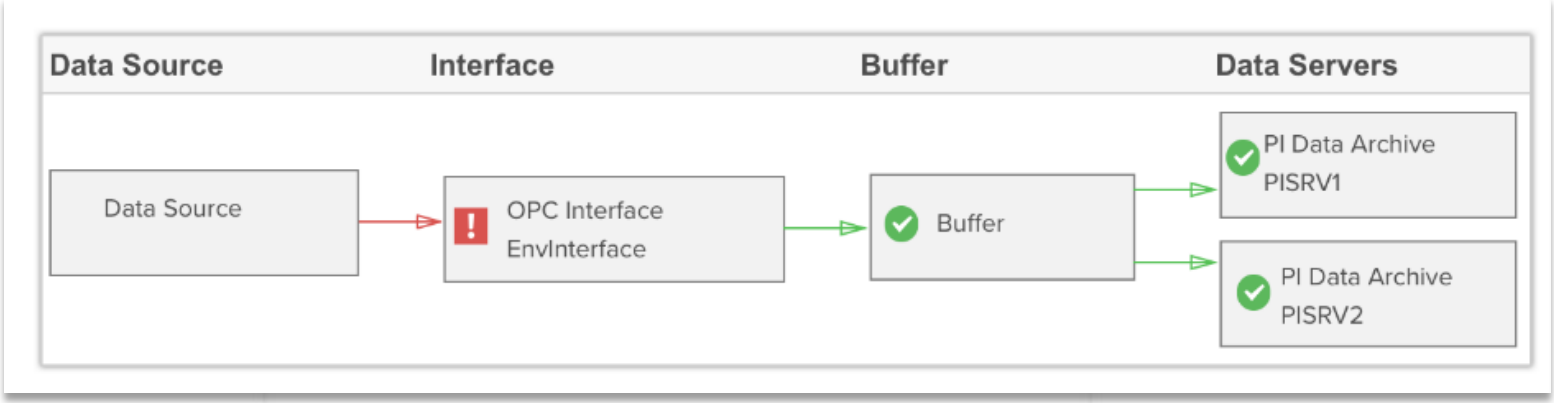


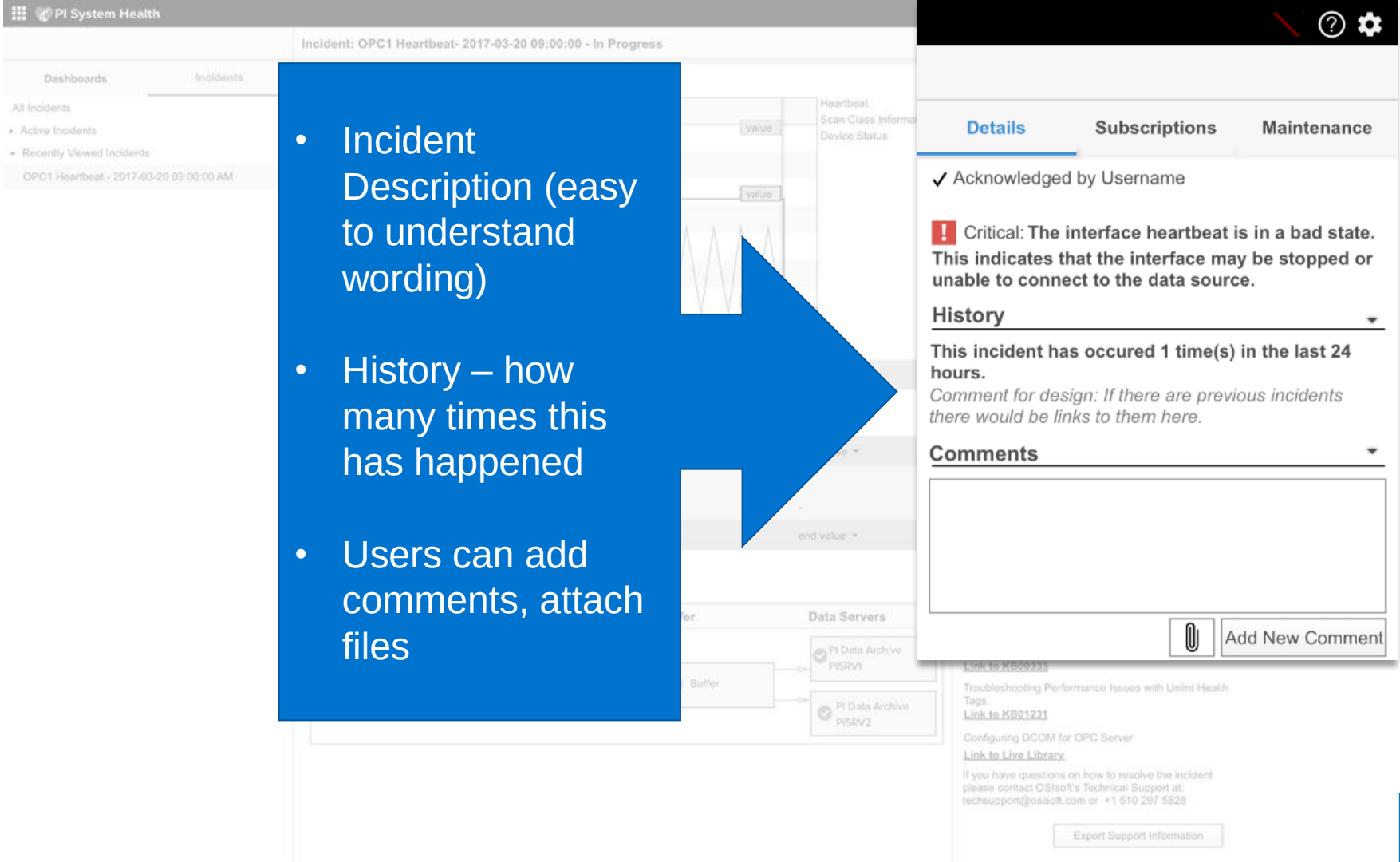
- Visualize important information



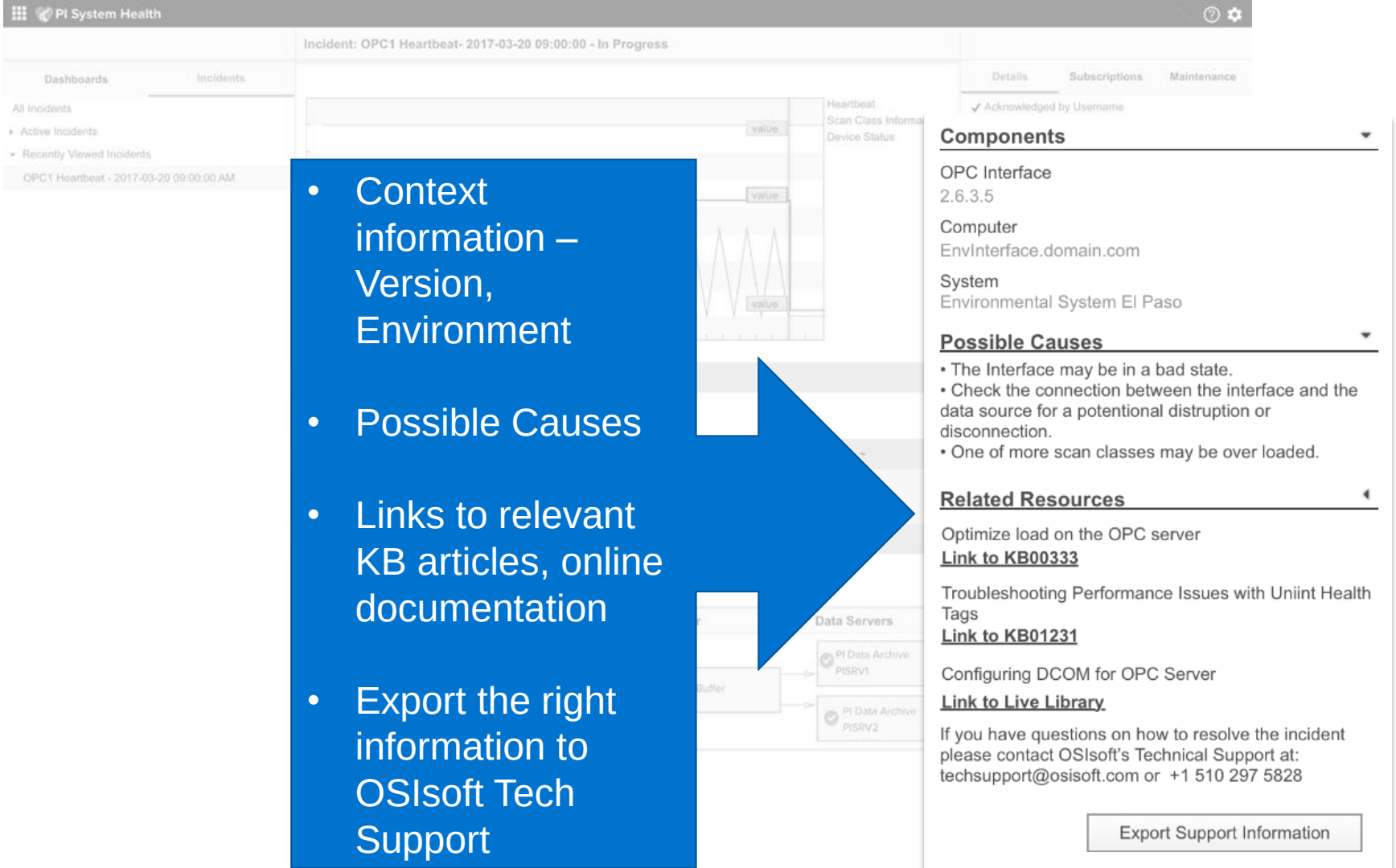
- View details about the Incident Trigger Expression
- Attributes

- Data Flow Diagram
- Quickly see which component is having the problem





- Incident Description (easy to understand wording)
- History – how many times this has happened
- Users can add comments, attach files



- Context information – Version, Environment
- Possible Causes
- Links to relevant KB articles, online documentation
- Export the right information to OSIsoft Tech Support

What if...

PI SYSTEM DIRECTORY

- Inventory management
- Upgrade planning
- Informs PI System Health what to monitor

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Components | Hierarchy

Components: Default

Clear All Filters

Filter by Name	Select Types	Select Software	Filter by Version	Filter by Computer	Select Labels

Name	Type	Software	Version	Computer	Labels
CorpPI1	PI Data Archive	PI Data Archive 2016 R2	3.4.405.1198	CP905	Corporate
CorpPI2	PI Data Archive	PI Data Archive 2016 R2	3.4.405.1198	CP906	Corporate
CorpPI1	Computer	Windows Server 2012	6.2	CP905	Corporate
CorpPI2	Computer	Windows Server 2012	6.2	CP906	Corporate
HoustonDev-AF	PI AF	PI AF Server 2016 R2	2.8.7759	H505	Houston, Plant
HoustonDev-DA	PI Data Archive	PI Data Archive 2016 R2	3.4.405.1198	H505	Houston, Plant
HoustonDev	Computer	Windows Server 2012	6.2	H505	Houston, Plant
HoustonInterface	Computer	Windows Server 2008	6.0	H907	Houston, Plant
HoustonPI-AF	PI AF	PI AF Server 2012	2.5.0	H905	Houston, Plant
HoustonPI-DA	PI Data Archive	PI Data Archive 2012 R2	3.4.390.18	H905	Houston, Plant
HoustonPI	Computer	Windows Server 2012	6.2	H905	Houston, Plant
PI Analysis	Asset Analytics	PI Analysis 2016 R2	2.8.5.7759	CP905	Corporate
PI Buffer	PI Buffer Subsystem	PI Buffer Subsystem	3.4.405.1198	H505	Houston, Plant, Dev
PI Buffer	PI Buffer Subsystem	PI Buffer Subsystem	3.4.405.1198	H907	Houston, Plant
PI Buffer	PI Buffer Subsystem	PI Buffer Subsystem	3.4.405.1198	H905	Houston, Plant
PI Buffer	PI Buffer Subsystem	PI Buffer Subsystem	3.4.405.1198	SD123	San Diego, Plant
PI Buffer	PI Buffer Subsystem	PI Buffer Subsystem	3.4.405.1198	SD125	San Diego, Plant
PI Coresight	PI Vision	PI Coresight 2016 R2	3.1.0.7	CP905	Corporate

Details | Labeling

CorpPI1

Name: CP905

Display As: CorpPI1

Cancel Save

Notes

Location: Building 7, Room 243

Contact: 24 hr - Bill Washerman

Collected Information

Name
CP905

Type
PI Data Archive 2016 R2

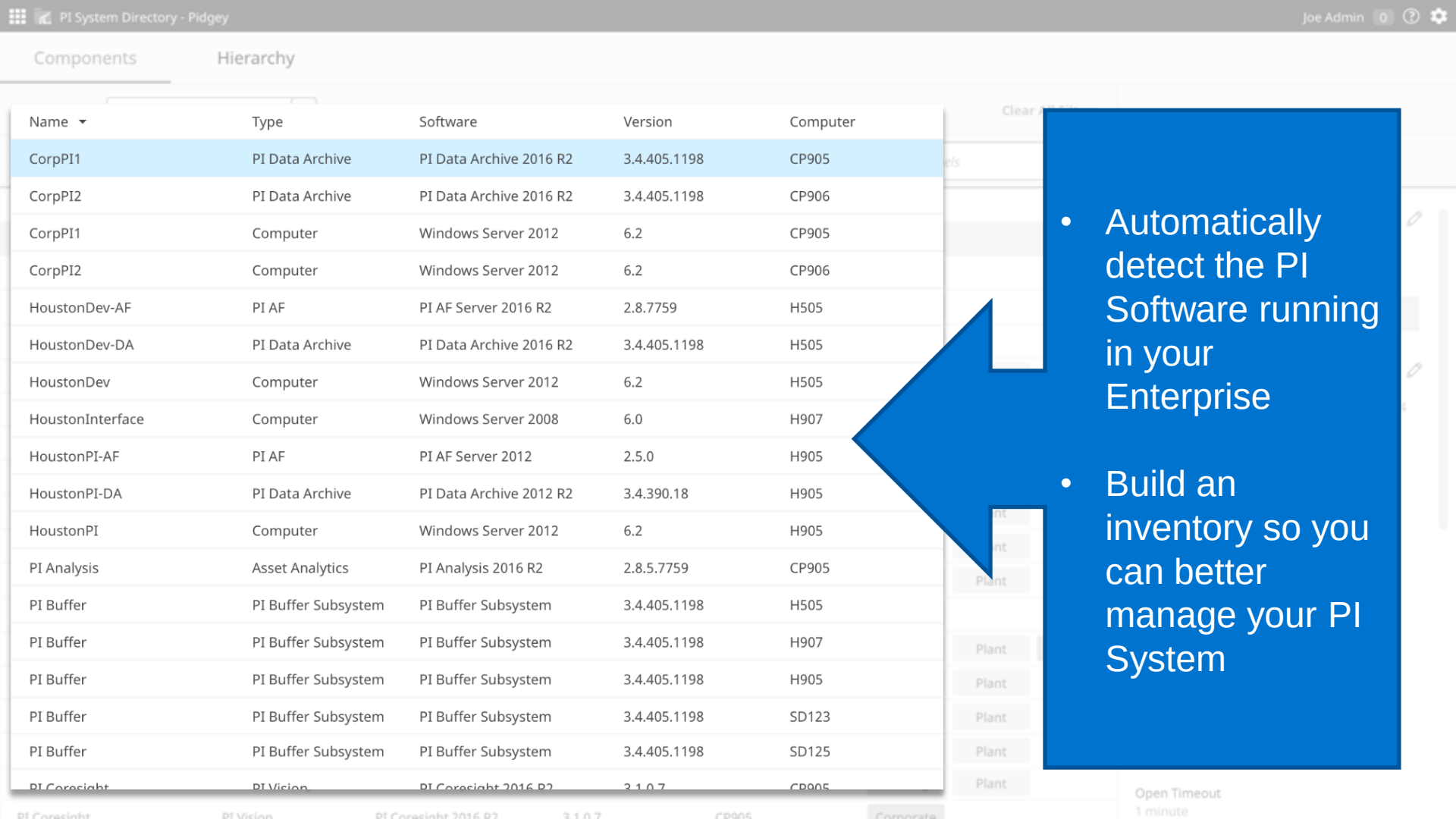
Version
3.4.405.1198

Description
Houston Plant PI Data Archive

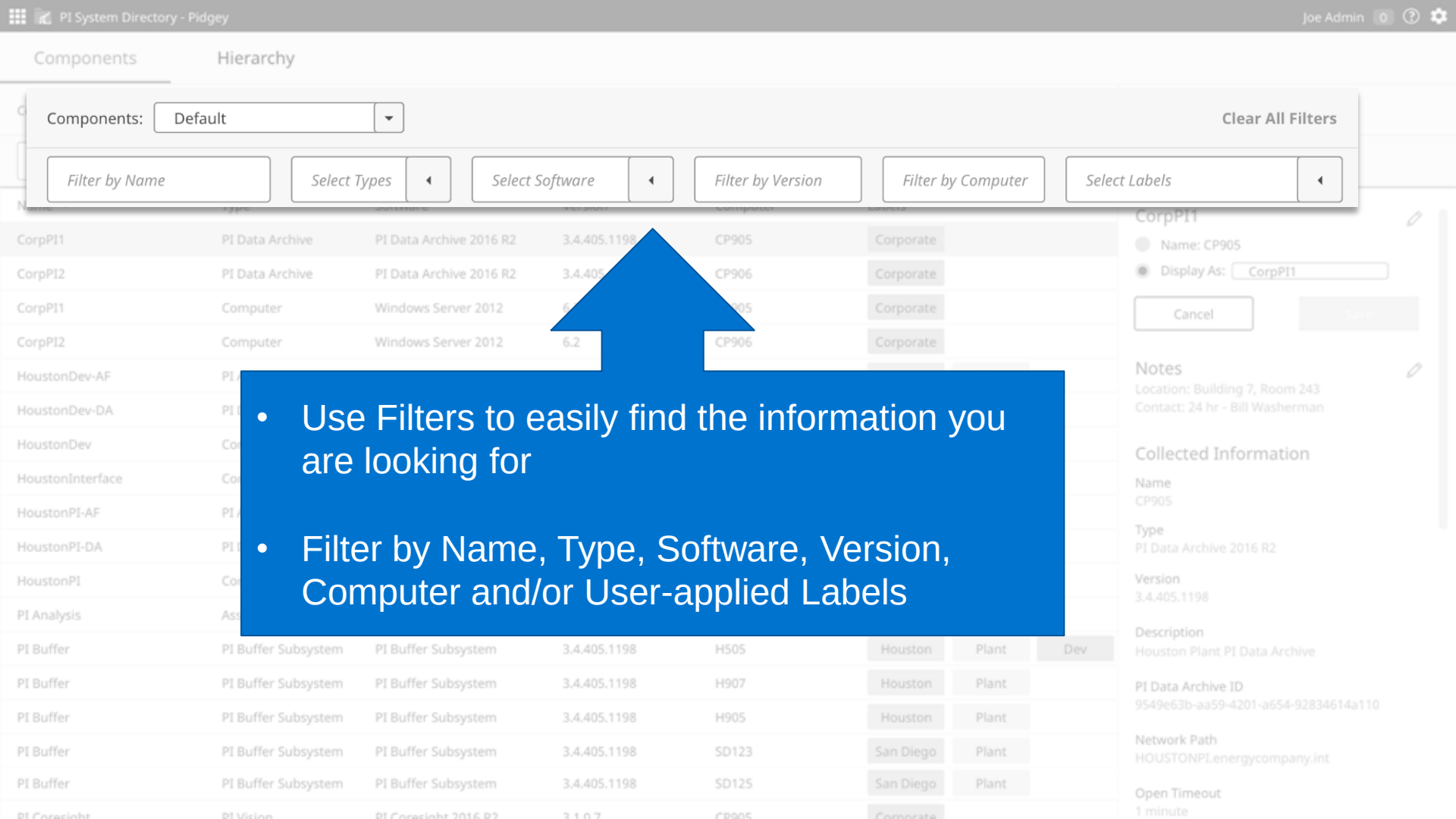
PI Data Archive ID
9549e63b-aa59-4201-a654-92834614a110

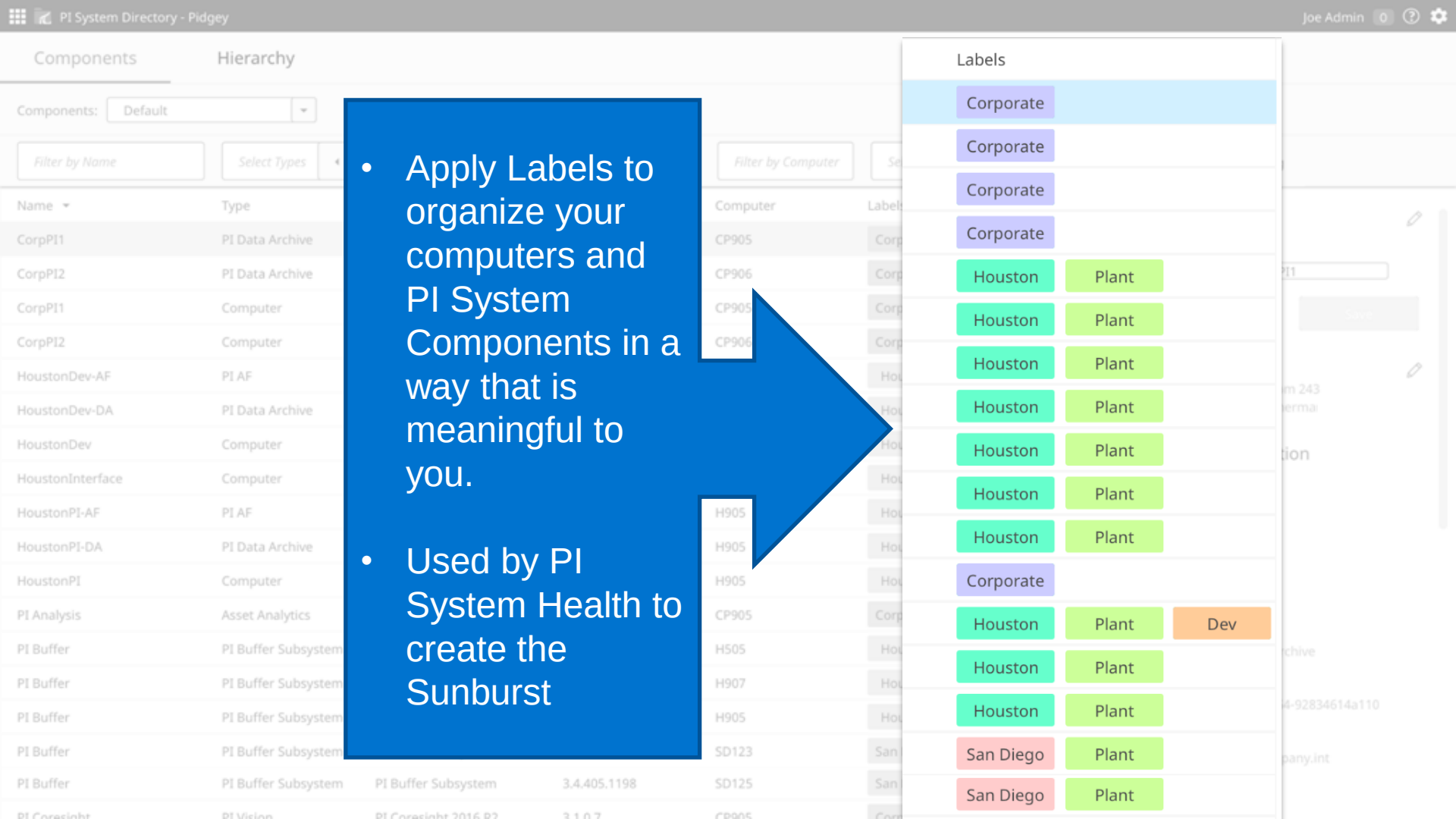
Network Path
HOUSTONPI.energycompany.int

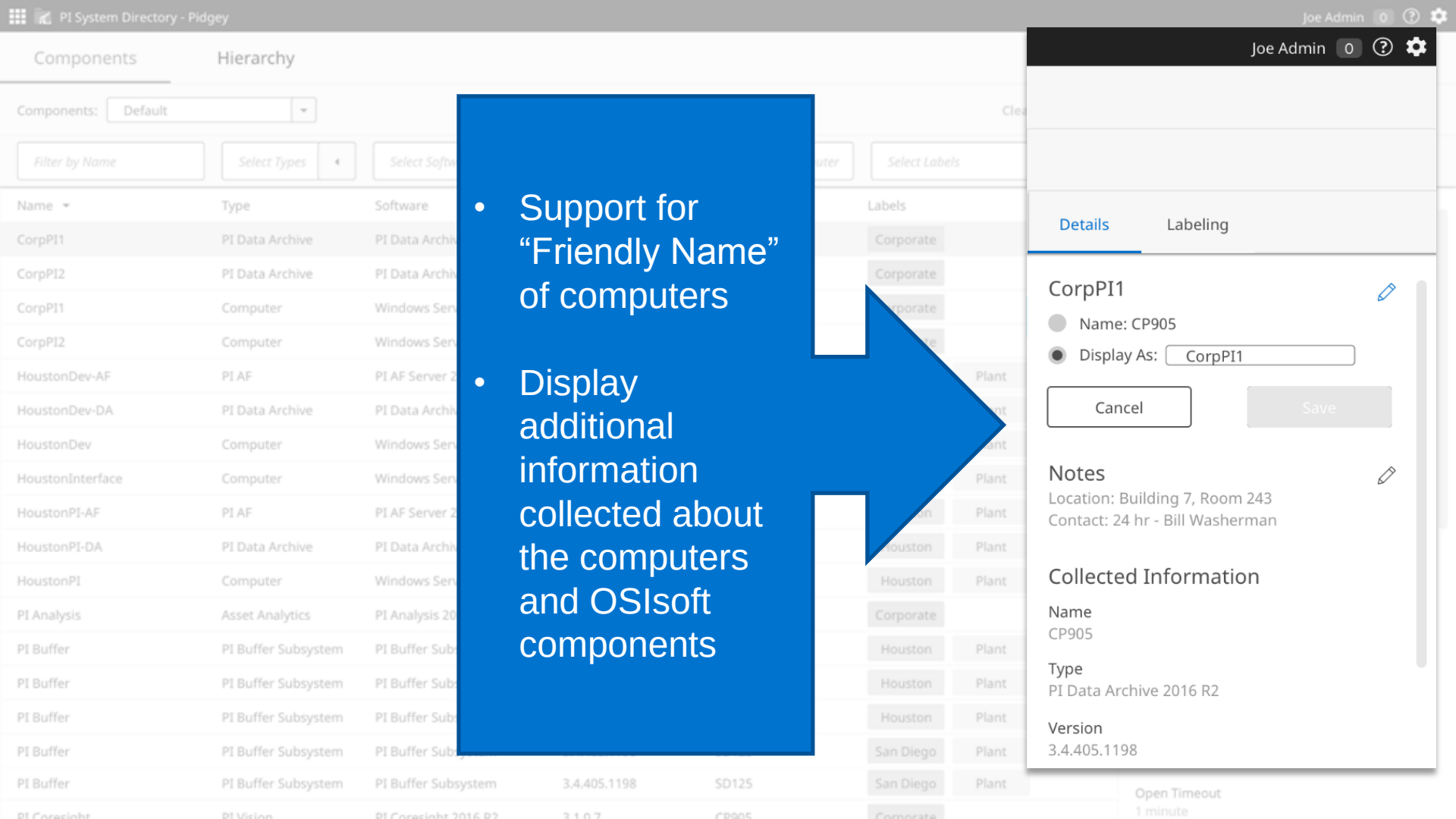
Open Timeout
1 minute

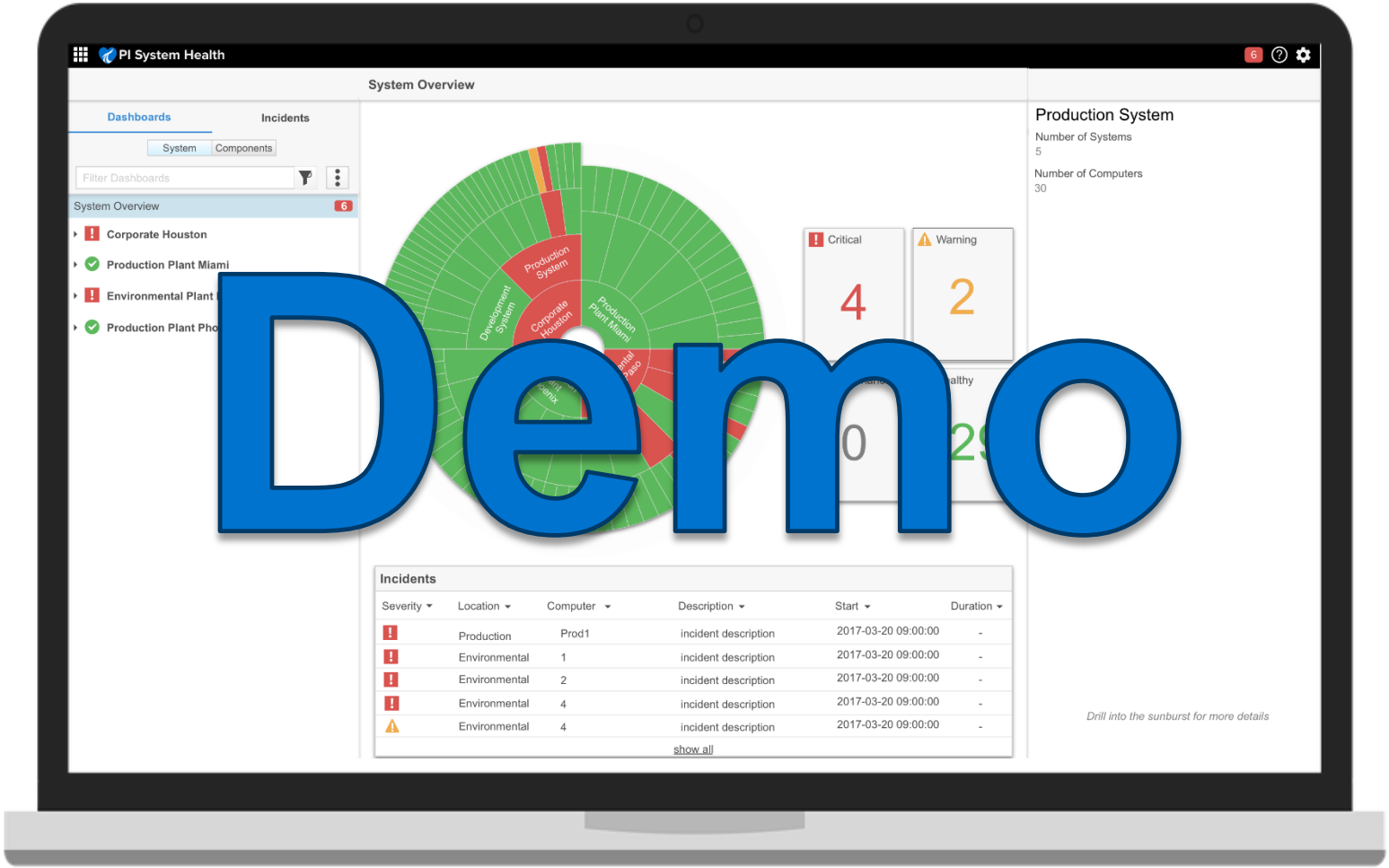


- Automatically detect the PI Software running in your Enterprise
- Build an inventory so you can better manage your PI System


PI System Directory - Pidgey
Joe Admin
Components
Hierarchy
Components: Default
Clear All Filters
Filter by Name
Select Types
Select Software
Filter by Version
Filter by Computer
Select Labels
CorpPI1
Name: CP905
Display As: CorpPI1
Cancel
Notes
Location: Building 7, Room 243
Contact: 24 hr - Bill Washerman
Collected Information
Name
CP905
Type
PI Data Archive 2016 R2
Version
3.4.405.1198
Description
Houston Plant PI Data Archive
PI Data Archive ID
9549e63b-aa59-4201-a654-92834614a110
Network Path
HOUSTONPI.energycompany.int
Open Timeout
1 minute
• Use Filters to easily find the information you are looking for
• Filter by Name, Type, Software, Version, Computer and/or User-applied Labels


PI System Directory - Pidgey
Joe Admin
Components
Hierarchy
Components: Default
Filter by Name
Select Types
Filter by Computer
Name
Type
Computer
Labels
CorpPI1 PI Data Archive CP905
CorpPI2 PI Data Archive CP906
CorpPI1 Computer CP905
CorpPI2 Computer CP906
HoustonDev-AF PI AF
HoustonDev-DA PI Data Archive
HoustonDev Computer
HoustonInterface Computer
HoustonPI-AF PI AF H905
HoustonPI-DA PI Data Archive H905
HoustonPI Computer H905
PI Analysis Asset Analytics CP905
PI Buffer PI Buffer Subsystem H505
PI Buffer PI Buffer Subsystem H907
PI Buffer PI Buffer Subsystem H905
PI Buffer PI Buffer Subsystem SD123
PI Buffer PI Buffer Subsystem PI Buffer Subsystem 3.4.405.1198 SD125
Apply Labels to organize your computers and PI System Components in a way that is meaningful to you.
Used by PI System Health to create the Sunburst
Labels
Corporate
Corporate
Corporate
Corporate
Houston Plant
Houston Plant
Houston Plant
Houston Plant
Houston Plant
Houston Plant
Houston Plant
Corporate
Houston Plant Dev
Houston Plant
Houston Plant
San Diego Plant
San Diego Plant


PI System Directory - Pidgey
Joe Admin
Components
Hierarchy
Components: Default
Filter by Name
Select Types
Select Labels
Name
Type
Software
Labels
CorpPI1 PI Data Archive
CorpPI2 PI Data Archive
CorpPI1 Computer
CorpPI2 Computer
HoustonDev-AF PI AF
HoustonDev-DA PI Data Archive
HoustonDev Computer
HoustonInterface Computer
HoustonPI-AF PI AF
HoustonPI-DA PI Data Archive
HoustonPI Computer
PI Analysis Asset Analytics
PI Buffer PI Buffer Subsystem
PI Buffer PI Buffer Subsystem
PI Buffer PI Buffer Subsystem
PI Buffer PI Buffer Subsystem
PI Buffer PI Buffer Subsystem
PI Coresight PI Vision
Corporate
Plant
Houston
San Diego
3.4.405.1198
SD125
CP905
Joe Admin 0
Details
Labeling
CorpPI1
Name: CP905
Display As: CorpPI1
Cancel
Save
Notes
Location: Building 7, Room 243
Contact: 24 hr - Bill Washerman
Collected Information
Name
CP905
Type
PI Data Archive 2016 R2
Version
3.4.405.1198
Open Timeout
1 minute
• Support for “Friendly Name” of computers
• Display additional information collected about the computers and OSIsoft components



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PI System Directory - SDHEALTH

OSI\jwong

Group By Computer

Clear All Filters

Details | Labeling

Please select a component to view details.

Filter Names	Filter Items	Filter Software	Filter Versions	Filter Computers	Filter Labels
Name	Item	Software	Version	Computer	Labels
THEROOFISONFIRE					
THEROOFISONFIRE	Computer	Microsoft Windows Server 2008 R2 Enterprise Service Pack 1	6.1.7601.65536	THEROOFISONFIRE	
TheRoofIsOnFire	PI Data Archive	PI Data Archive 2016 R2	3.4.405.1198	THEROOFISONFIRE	
PIPerfMon	Interface	PI Interface for Performance Monitor (PIPerfMon)	2.1.0.88	THEROOFISONFIRE	
PIPing	Interface	PI Ping (PIPing) Interface	2.0.0.20	THEROOFISONFIRE	
PISNMP	Interface	PI SNMP (PISNMP) Interface	1.5.1.306	THEROOFISONFIRE	
TCPResponse	Interface	PI TCPResponse (TCPResponse) Interface	1.1.6.0	THEROOFISONFIRE	
PI Connector for PI System Health	Connector	PI Connector for PI System Health	1.0.1.13	THEROOFISONFIRE	
PI Buffer Subsystem	PI Buffer Subsystem	PI Buffer Subsystem	4.7.0.25	THEROOFISONFIRE	
PI Directory Publisher	PI System Directory - Publisher	PI System Directory Publisher 2017 R2	1.0.0.885	THEROOFISONFIRE	
AFNCNS					
AFNCNS	Computer	Microsoft Windows Server 2008 R2 Enterprise Service Pack 1	6.1.7601.65536	AFNCNS	
AFNCNS	PI AF	PI AF Server 2017 R2	2.9.5.8249	AFNCNS	
AFNCNS	PI Data Archive	PI Data Archive 2016	3.4.400.1162	AFNCNS	
PIPerfMon	Interface	PI Interface for Performance Monitor (PIPerfMon)	2.1.0.88	AFNCNS	
PIPing	Interface	PI Ping (PIPing) Interface	2.0.0.20	AFNCNS	
PISNMP	Interface	PI SNMP (PISNMP) Interface	1.5.1.306	AFNCNS	
TCPResponse	Interface	PI TCPResponse (TCPResponse) Interface	1.1.6.0	AFNCNS	
PI Buffer Subsystem	PI Buffer Subsystem	PI Buffer Subsystem	4.7.0.26	AFNCNS	
PI Directory Publisher	PI System Directory - Publisher	PI System Directory Publisher 2017 R2	1.0.0.917	AFNCNS	
JCUPGRADE85					
JCUPGRADE85	Computer	Microsoft Windows Server 2012 R2 Standard	6.2.9200.0	JCUPGRADE85	
JCUPGRADE85	PI AF	PI AF Server 2017 R2	2.9.5.8227	JCUPGRADE85	
PI Buffer Subsystem	PI Buffer Subsystem	PI Buffer Subsystem	4.7.0.26	JCUPGRADE85	
PI Directory Publisher	PI System Directory - Publisher	PI System Directory Publisher 2017 R2	1.0.0.810	JCUPGRADE85	
JCUPGRADE5					

PI System Health

Secure | https://mlwin10demo.osisoft.int/#/health/systemOverview

PI System Health OSI\rclendenon

Dashboards | Incidents

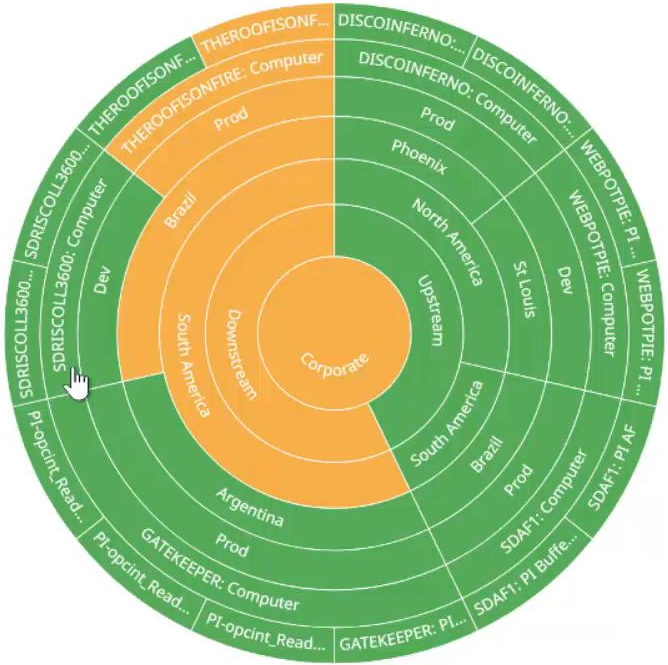
System | Components

System Overview

- Corporate
  - Upstream
    - North America
      - Phoenix
        - Prod
          - DISCOINFERNO: Computer
            - DISCOINFERNO: PI Data Archive
            - DISCOINFERNO: PI Buffer Subsystem
      - St Louis
        - Dev
          - WEBPOTPIE: Computer
            - WEBPOTPIE: PI AF
            - WEBPOTPIE: PI Buffer Subsystem
    - South America
      - Brazil
        - Prod
          - SDAF1: Computer
            - SDAF1: PI AF
            - SDAF1: PI Buffer Subsystem
  - Downstream
    - South America

System

Corporate



Healthy	Error
18	0

Warning	Maintenance
2	0

Recent Incidents

Severity	Name	Description	Computer	Start	End	Duration
⚠	Service Stopped Incident 2017-10-15 08:06:11.000		GATEKEEPER	Oct 15, 2017, 11:06:11 AM	Oct 15, 2017, 11:07:30 AM	a minute

Type here to search

11:16 AM
10/15/2017

Roadmap

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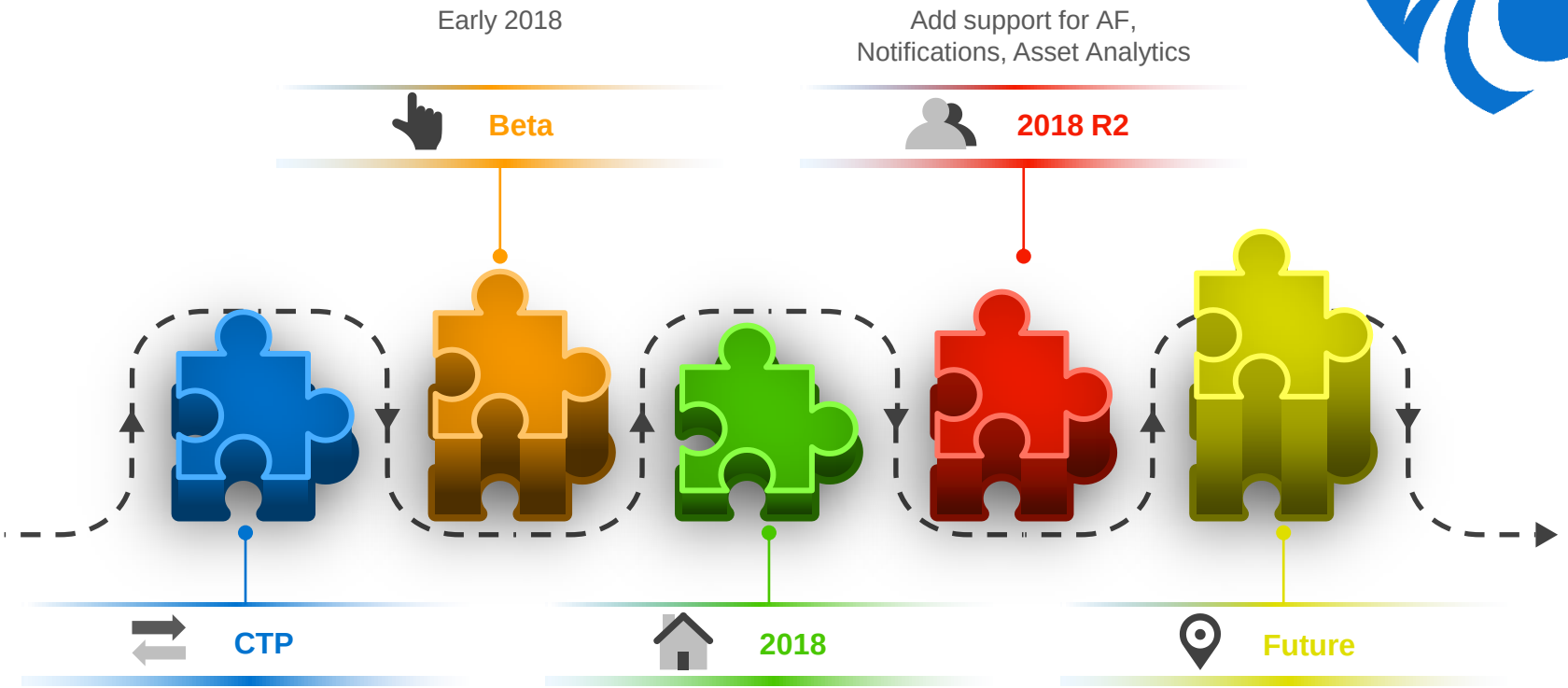
PI System Health Roadmap



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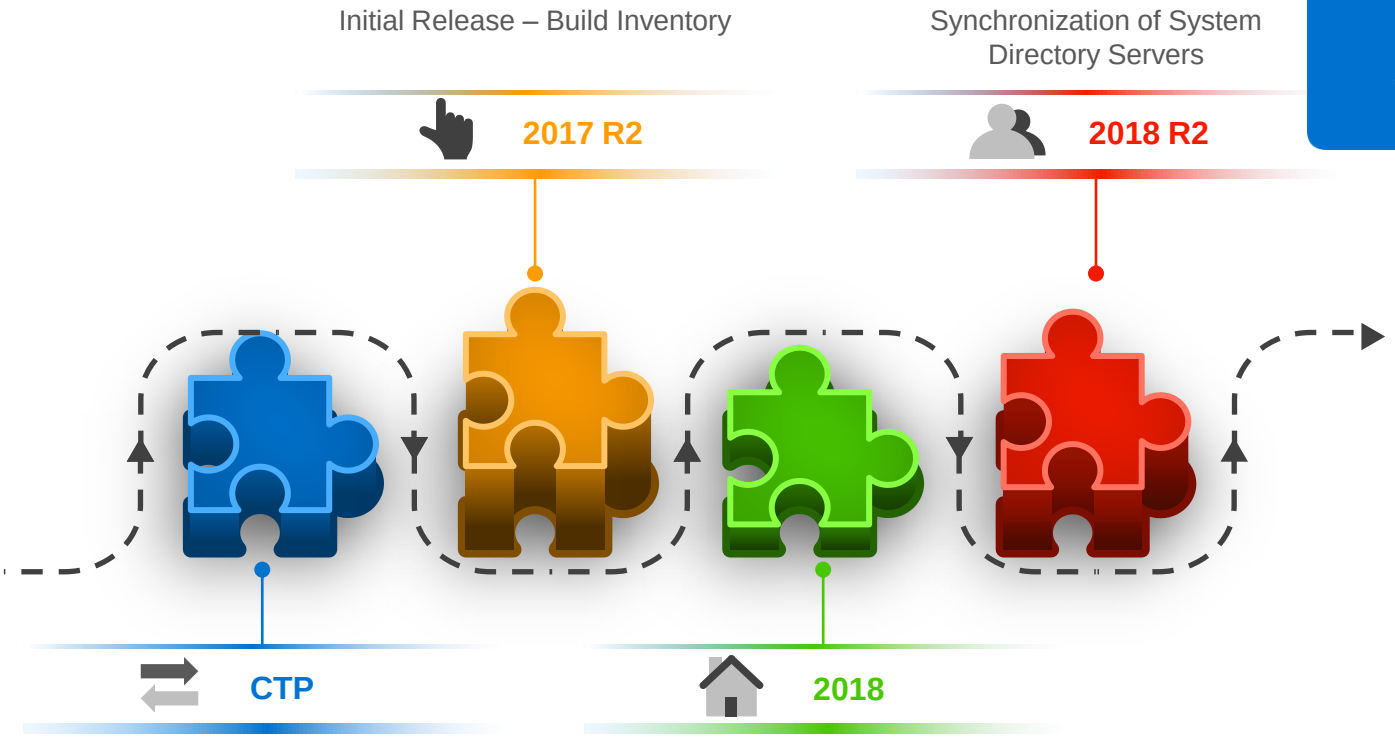
PI System Directory Roadmap



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LICENSING

- Every customer will get PI System Health
- Included with the PI Server License
  - Customers responsible for licensing of PI Tags
- Future:
  - Add-on subscription services
  - Additional charge for these

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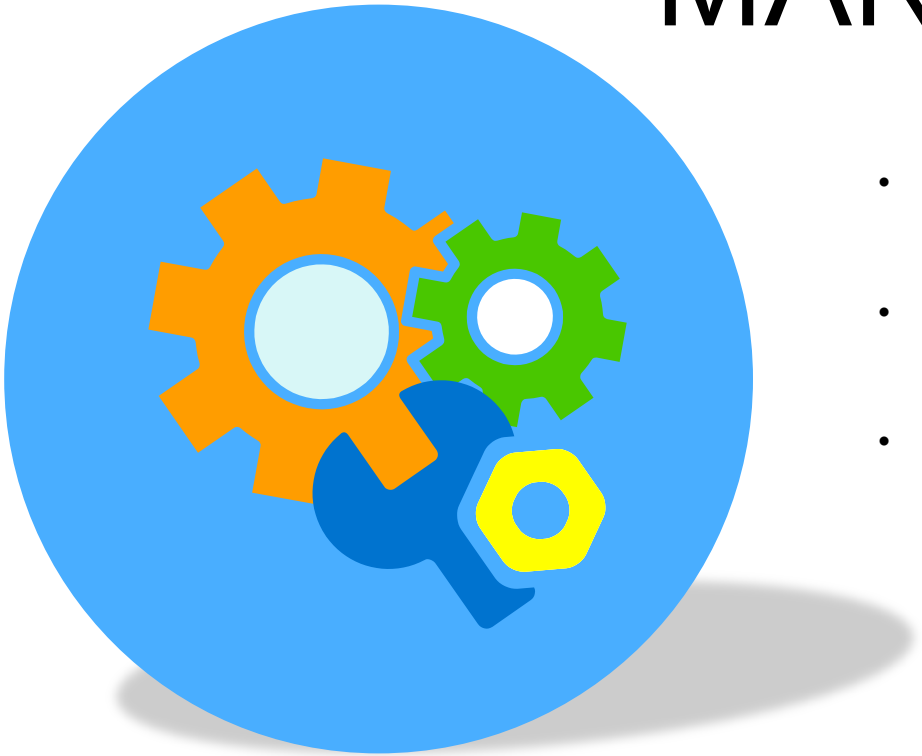
Looking Ahead

MANAGEABILITY



- Centralized Management, Administration and Configuration of your PI Servers
- PI System Health, PI System Directory will be part of this
- In research now

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How you can get involved

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PI System Health & PI System Directory

- Come to the Booth
- Sign up for the Beta
- Let us know what you think!

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PI System Manageability

- Contact Janelle Minich or Tom LeBay if you want to provide feedback and participate in our research effort
- janelle@osisoft.com
- tlebay@osisoft.com

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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

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감사합니다

Danke

谢谢

Merci

Gracias

Thank You

ありがとう

Спасибо

Obrigado

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