

2002
OSISOFT USERS CONFERENCE



**EXPANDING
THE POWER OF PI**

MONTEREY CALIFORNIA



PI-SMT

Ultimate PI Management Experience

Prabal Acharyya & Gerhard Matzen

Agenda

- **The Vision**
- **Where are we now? – Latest Releases**
- **What's Next?**
- **In-Depth Discussion**
 - PI TagConfigurator 2.0
 - PI-SDK Tag Search Dialog

The Vision

- **Graphical User Utilities**
- **Pleasurable Managing Experience**
 - Easy to Use
- **Remote Management**
 - Available on Client Machines

Original Design Criteria

- Use PI Building Blocks
 - PI-SDK...
- Common Look-n-Feel
- Integrated

Functionality

- **Configuration Management**
- **Monitoring**
- **Diagnostics**
- **Message Log (Event) Reader**



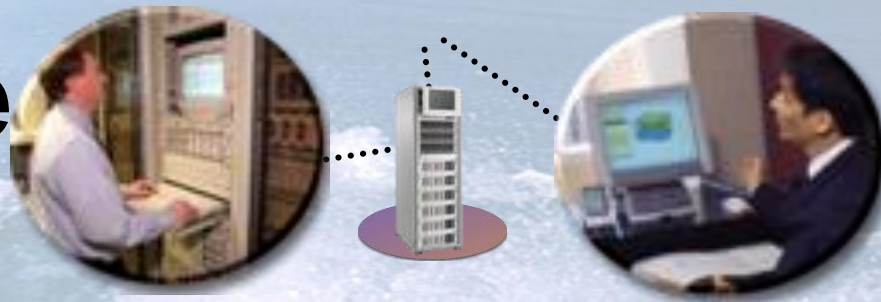
**Where are we
now?**

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Latest Release Details

- Integrated SMT Install Kit
 - Released last week (March 2002)
- Installs PI-SDK 1.1
- Advanced Setup Kit
 - Selection

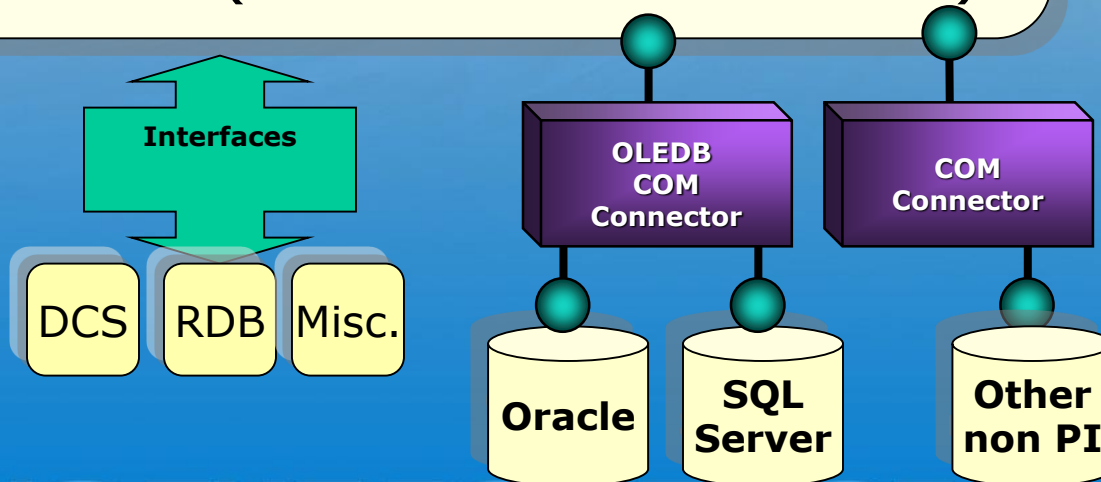
PI Architecture



PI Data Access (PI-SDK, OLE-DB,...)



PI UDS (Universal Data Server)



Module DB Editor

%OSI

Fol

PI ModuleDB PI BatchDB

PI BatchDB
PI ModuleDB
%AFSDK
%OSI
AllEquipment
CMF
Register PI Servers

Sub-Modules PI Aliases PI Properties

Module Name	Description	PI Headin
ACEExecutables		
AutoPointSync		
ClientApps	OSI Internal Clie...	
Components	OSI Internal Co...	
Framework	OSI Internal Fra...	
Interfaces	OSI Internal Inte...	
Server	OSI Internal Ser...	
SQCAalarm		

8 Objects Type: PIModule Aliases: 0 Properties: 0 Effective Date: 12/31/1969 4:00:01 PM

What is a PI Module?

*Almost
Anything!*

Enterprise →

Division →

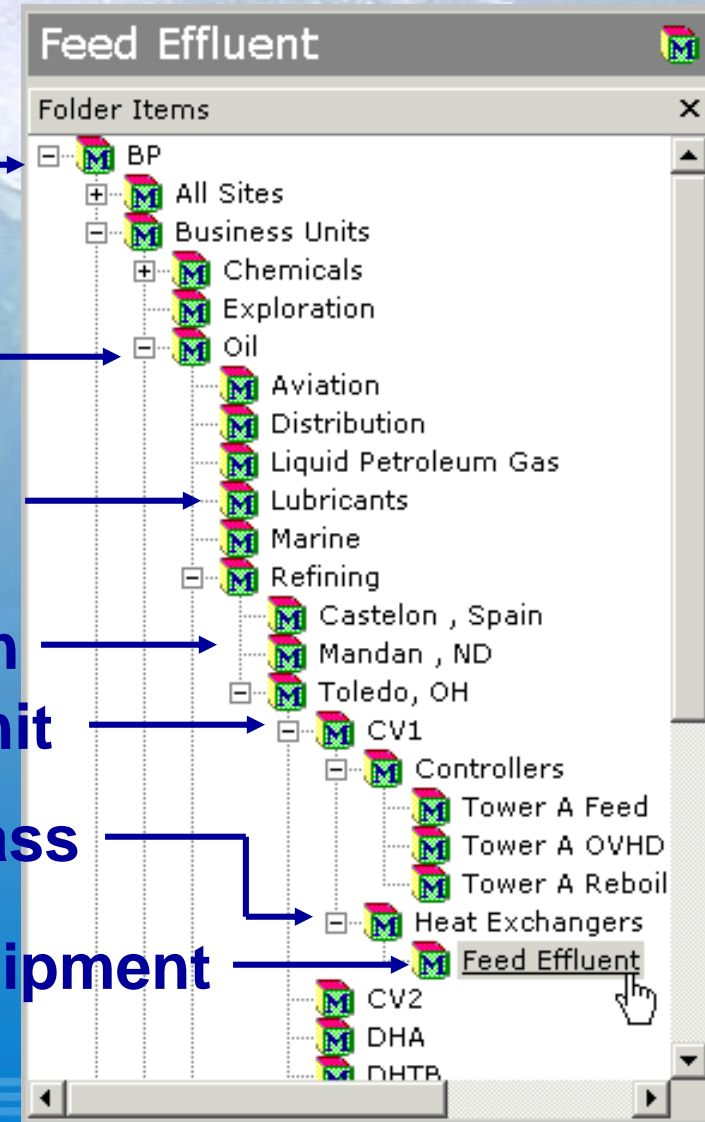
Department →

Location →

Unit →

Equipment Class →

Equipment →



PI Aliases

- PIAlias = PIPoint

The screenshot shows the 'Reboiler Pass Balancer' application window. The title bar indicates the path 'C:\Program Files\PIPC\SMT\MDBEditor\'. The interface includes a 'Folder Items' tree on the left, a 'Sub-Modules' tab, and a main data table. A tooltip is displayed over the 'Flow Pass 2' row, showing the PIPoint Pathname and a table of recorded values.

PIAlias Name	Snapshot Value	Snapshot Time
Reboiler Flow	81.16656	3/8/2002 1:01:00 PM
Flow Pass 1	74.5	3/8/2002 12:11:10 PM
Flow Pass 2		
Flow Pass 4		
Flow Pass 3		

PIPoint Pathname = \\PHDCOM\CDT158

RECORDED VALUES:	
Timestamp	Value
=====	=====
3/8/2002 1:13:05 PM	77.47397
3/8/2002 1:13:30 PM	75.08811
3/8/2002 1:14:00 PM	76.44395
3/8/2002 1:14:30 PM	75.05551
3/8/2002 1:15:00 PM	75.58974

PI Properties

- Hierarchical Name Values Collection
- Almost all Data Types are Supported.

Folder Items

- Chem 45
- Coker
 - Fractionator
 - Pump1
 - Overhead
 - Pump1
 - Overview

Sub-Modules | PI Aliases | **PI Properties**

PIPropertyName	Value	Datatype
DBInfo		String
Safety Metrics		String
Connect String	DSN=OSI;uid=Admin;password=	String
SQL	SELECT * FROM ScorecardCoker;	String

Datatype = String
Value = SELECT * FROM ScorecardCoker;

3 Objects Type: PIModule Aliases: 0 Properties: 1 Effective Date: 12/31/1969 4:00:01 PM Creator: piadmin

Module DB Editor Live Demo

Address

Current Release Summary

- PI-PointBuilder
- PI Module DB Editor
- PI-Tag Configurator
 - Bulk point building in Excel – PI 2 and PI 3
- PI-HealthCheck
 - GUI to various command-line utilities
- PI-SQC Alarm Manager
 - Build PI points only knowing SQC



**How have we
done so far?**

SMT – How have we done?

- **Vision**
 - Graphical User Utilities
 - Pleasurable Managing Experience
 - Remote Management
- **Design Criteria**
 - Use PI Building Blocks
 - Common Look-n-Feel
 - Integrated
- **Functionality**
 - Configuration Management
 - Monitoring
 - Diagnostics
 - Event (Log) Reader





What's Next?

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SMT.NET

- Using Microsoft .NET Framework
- XML Web Services and ASP.NET Technologies
- Web Based Access
- Thin Client Administration
- Preliminary Design Stage

SMT.NET

Clients

PI Data Access (PI-SDK, OLE-DB,...)



PI UDS (Universal Data Server)

Tools

Interfaces

PI Data Access (PI-SDK, OLE-DB,...)

PI UDS (Universal Data Server)

Interfac

DCS

RDB

Misc.

OLEDB
COM
Connector

Oracle

SQL
Server

COM
Connector

Other
non PI

DCS

RDB

Misc.

OLEDB
COM
connector

Oracle

SQL
Server

OLEDB
COM
Connector

Oracle

SQL
Server

OLEDB
COM
Connector

Oracle

SQL
Server

COM
Connector

Other
non PI

Oracle

SQL
Server

Other
non PI

Oracle

SQL
Server

Other
non PI

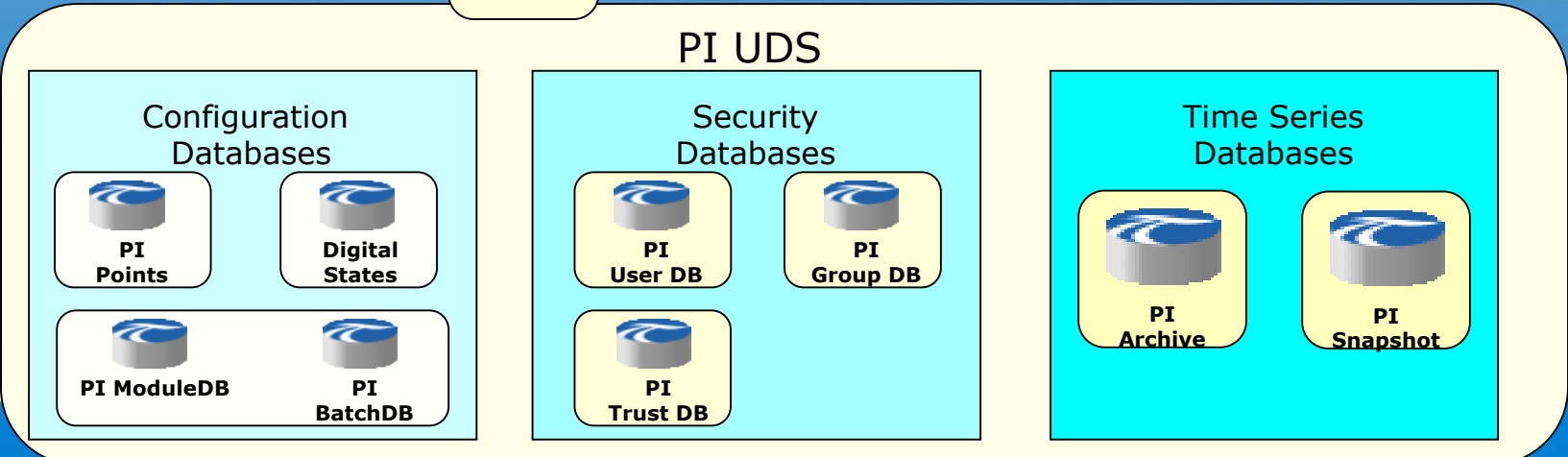
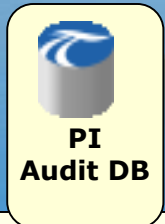
PI Audit Viewer

Action	XML Namespace	PI Server Name	OS User	PI Server IP Address	Export Audit Data to CSV
Edit PI	<input type="text"/>	SeaNettle	SEANETTLE\Administrator	208.243.230.143	
Export Audit Data	W3C Schema	Audit File	Export Date	Mask	Export Audit Data to ASCII
View Audit Data	<input type="text"/>	C:\PI\log\pibasessAudit.d	3/8/2002 3:31:47 PM	fffffffh	

	Group	Database	PIUser	PITime	Action	DB Record
1	PIConfigurationDI	PIPoints	piadmin(id=1)	3/8/2002 3:30:48 pm	Edit	PointID=552 (Name = CDT1) ▲
2	PIConfigurationDI	PIPoints	piadmin(id=1)	3/8/2002 3:30:38 pm	Add	PointID=552 (Name = CDT1)
3	PISecurityDB	PIUsers	piadmin(id=1)	3/8/2002 3:31:38 pm	Edit	UserID=20026144 (Name =
4	PISecurityDB	PIUsers	piadmin(id=1)	3/8/2002 3:31:11 pm	Add	UserID=3 (Name = SMTUser) ▼

PIBase

PIArchive



SMT – New Projects

- **SMT.NET**
- **PI Audit Viewer**
- **Module Database Import / Export**
- **New PI Tag Alias Search**

Agenda

- ✓ The Vision
- ✓ Where are we now? – Latest Releases
- ✓ How we have done so far?
- ✓ What's Next?
- **In-Depth Discussion**
 - PI TagConfigurator 2.0
 - PI-SDK Tag Search Dialog

Motivation

- Port to PI-SDK
- Bug fixes

Enhancements

- Improved error handling
- Imports / exports can be aborted
- Progress bar for imports / exports
- Custom point classes
- Support for localized settings



Demo

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Summary

- SMT Overview
 - Integrated setup kit
 - Improved and new utilities
 - Future (SMT.NET)
- Demo Room (This Afternoon)
- All feedback is welcome.



Unused Slides

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