2002
OSISOFT USERS CONFERENCE
EXPANDING
THE POWER OF PI
MONTEREY CALIFORNIA
OSIsoft™

2001 Review
2002 Look-ahead

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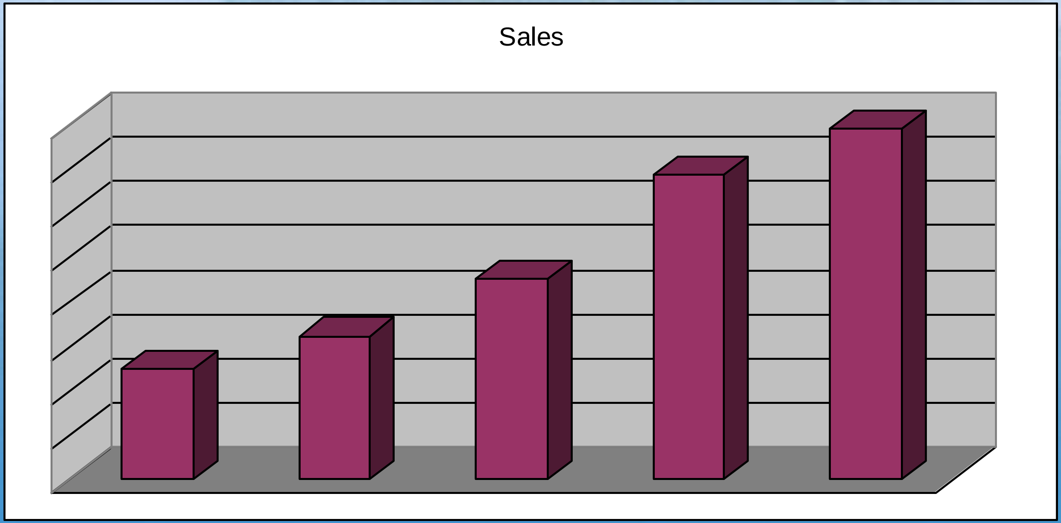
Topics

- 2001 Performance
  - Sales
  - Technically
- New products
- Marketing
- Surprise Topic

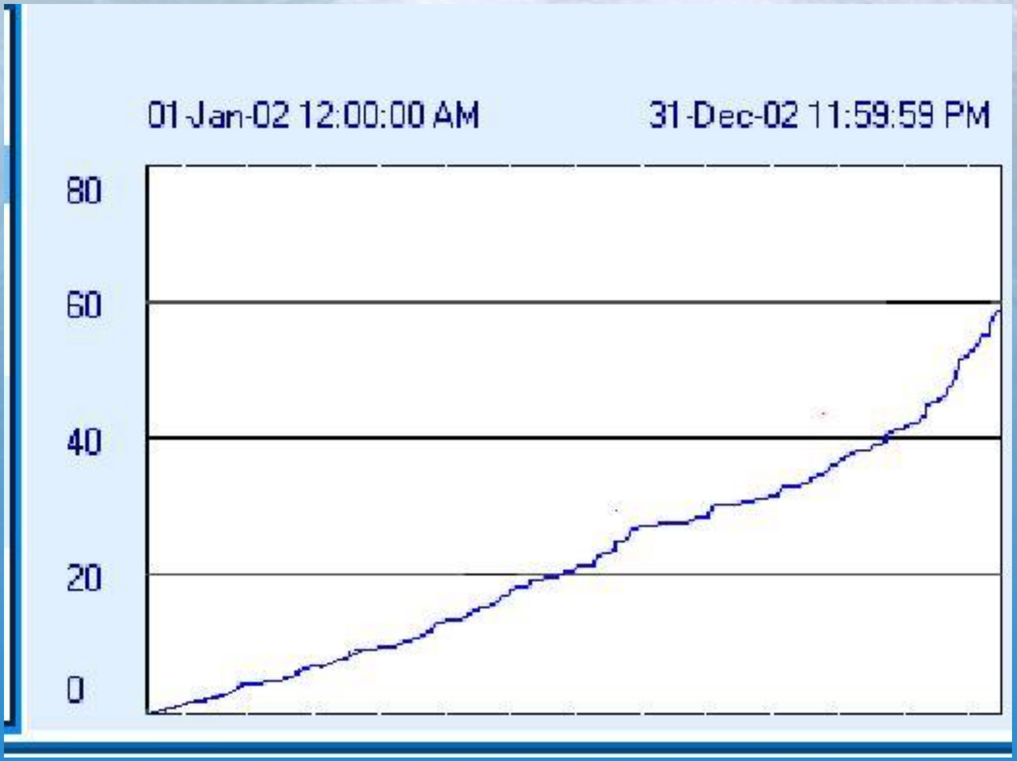
Year 2000 Results



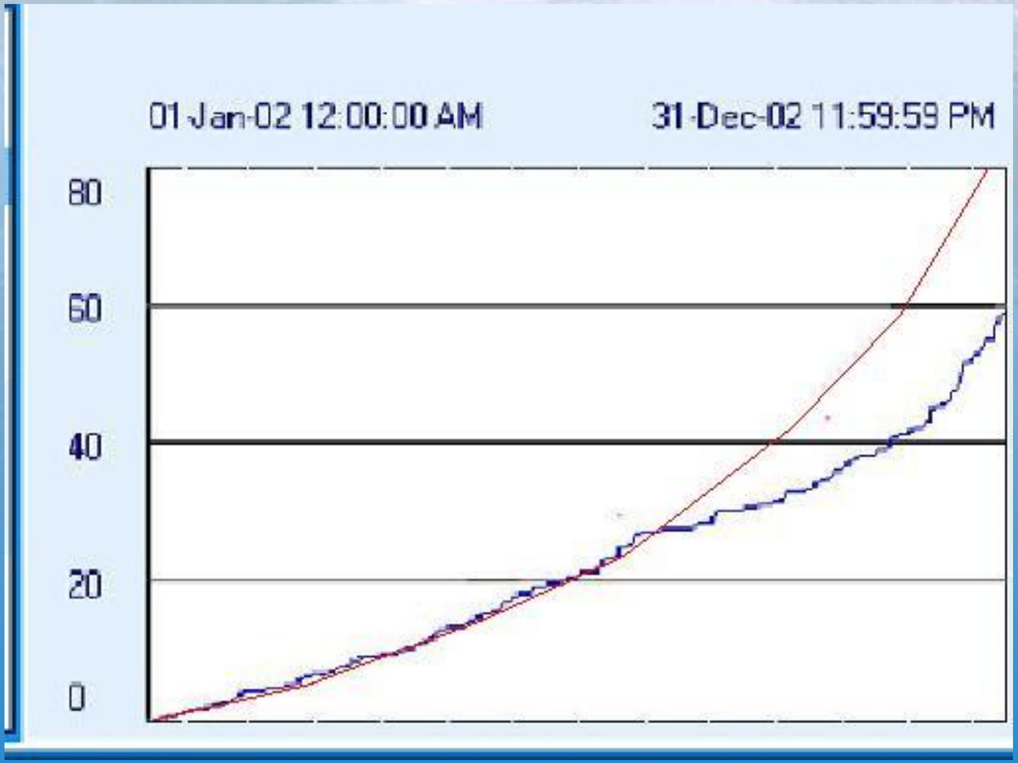
2001 Performance

- Correcting for an accounting change our 2001 sales equaled 2000 sales
  - $63 million in sales
- The environment
  - The industry as a whole was down

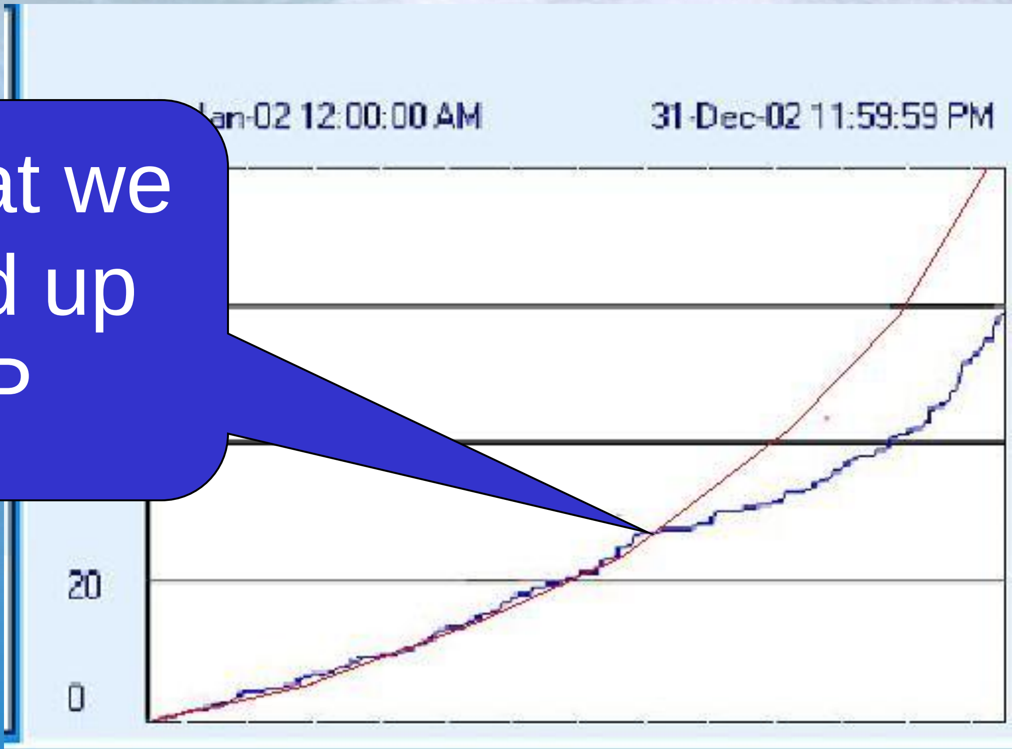
Sales by day for 2001



Sales by day vs. Target



Sales by day vs. Target



Day that we started up SAP

Good Things in 2001
Sales

- Sales growth in Europe
- Our best sales people continued to produce
- TSA – more timely quotes

Good things in 2001

Technically

- Validation of the UDS Concept
  - Chevron – PI-less PI
- MDB
  - Customers actually using it
  - Potential
- ACE

Product Releases

2001:

- May - PI-SDK 1.1
- July - PI-ProcessBook 2.2
- Sept - PI ACE 1.0
- Oct - PI-OLEDB 1.0
- Oct - PI SQC Alarm Manager 1.0
- Oct - PI-ODBC 1.2
- Oct - PI Interface Configuration Utility 1.0
- Oct - PI-SQC 1.1
- Dec - PI-DataLink 2.0
- Dec - PI-ActiveView 2.2
- Dec - PI SQC Alarm Manager 1.1

Product Releases

2002:

- Jan - RLINK PM 1.2
- Mar - PI-SMT 2.0
- Mar - PI 3.3 SR 1

And

- >20 Interfaces and COM Connectors

New Products for 2002

The Missing Pieces of PI

Application Framework

Sigmafine 4

Infrastructure

Monitoring

ICE

ECHO

Interfaces

System Management Tools

New Products & Initiatives

- ICE
- Application Framework
- “Preconfigured PI”
- IT Monitor for Infrastructure Monitoring
- PI Enhancements To Address FDA (21CFR Part 11) & EPA Regulatory Requirements

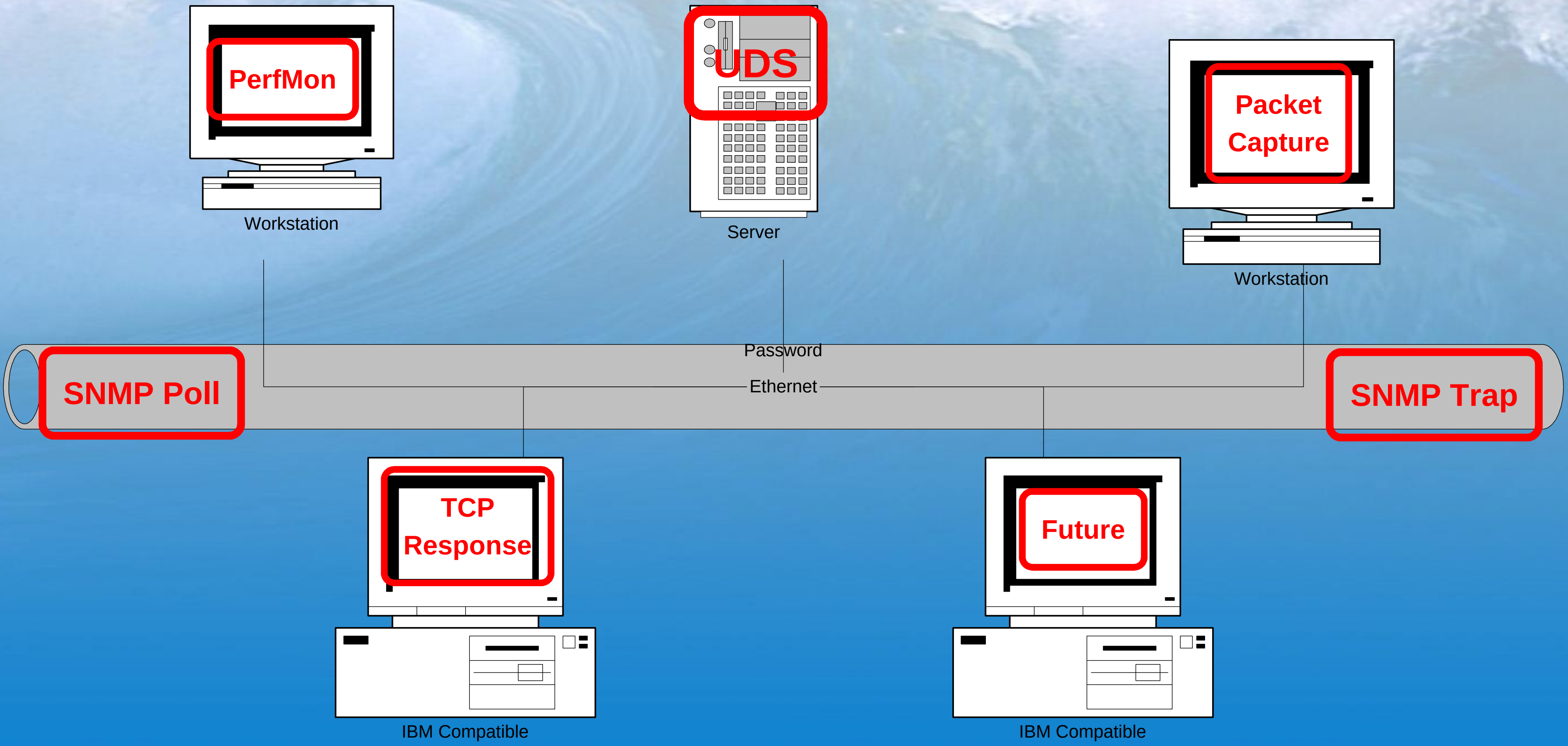
PI Enhancements to Address FDA Regulation 21CFR Part 11

- Audit Management Database (SR1) Released
  - Simplifies Compliance With 21 CFR Part 11 Audit Requirements
  - Supplies Tools & Audit Management Database to Generate Required Reports
  - Audits All Values, Configuration & Security Changes
  - Enforces Authorized Access Permissions & Provides Password Management
  - Detects Attempts to Modify Records in Database
  - Enforces Logon Security & Audit Trails for Any Manual Data Changes
- Meets FDA's Computer System Validation-Ready Requirements

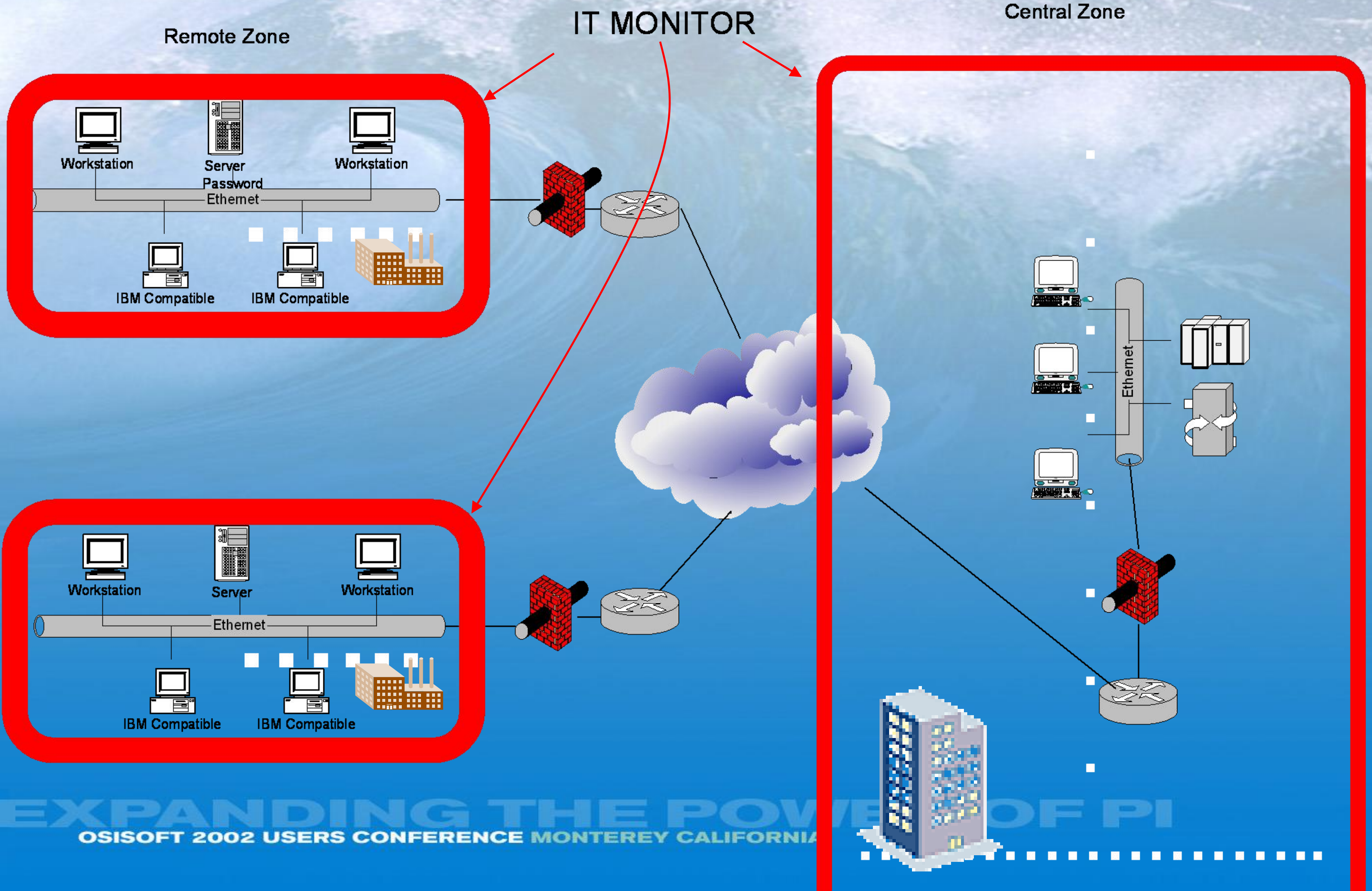
IT Monitor

- ✓ A “PI” System that collects **infrastructure** metrics.
- ✓ A collection of interfaces that “sees” networks, servers, applications
- ✓ A system that reduces support costs

IT Monitor in Local Area Networks

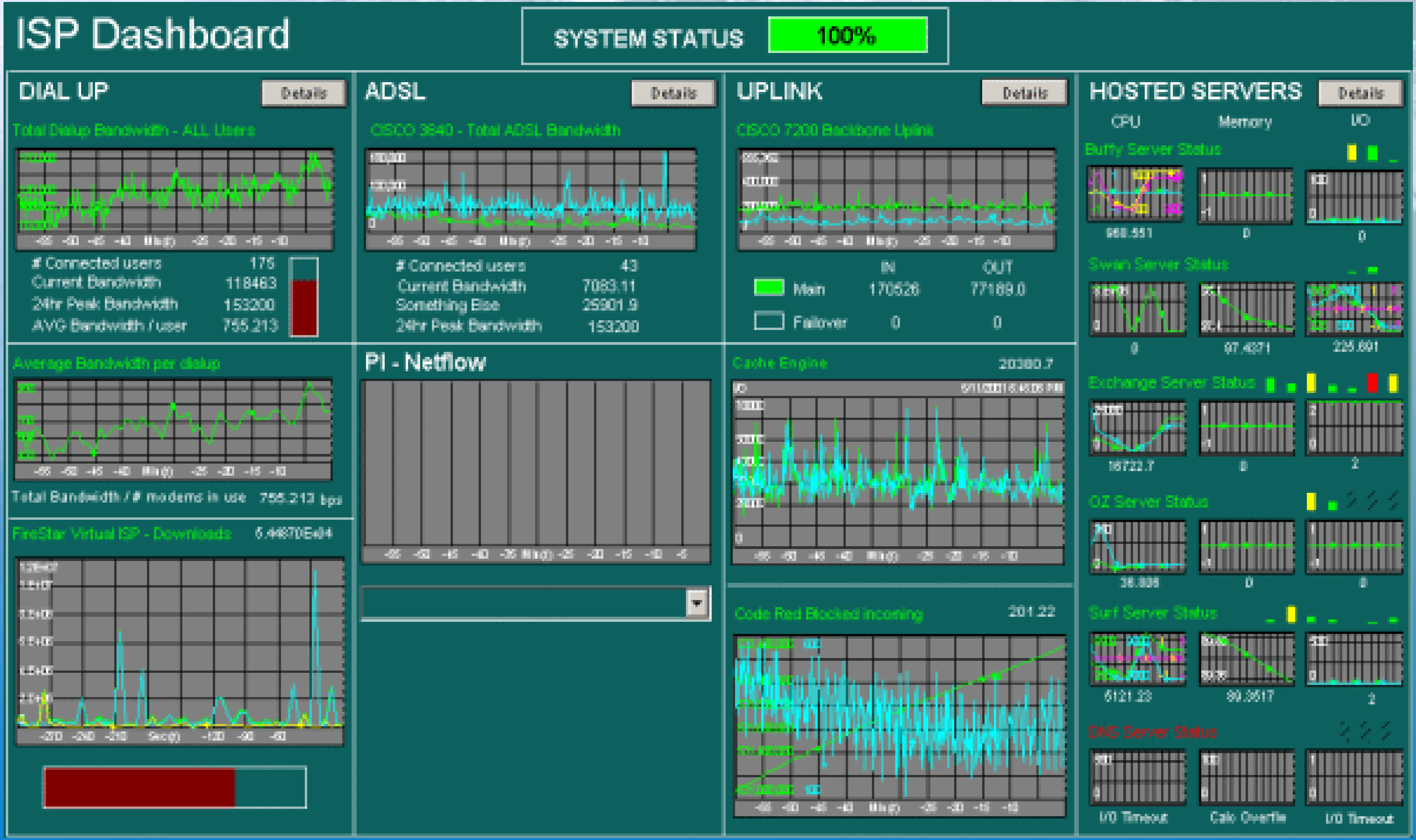

PerfMon
Workstation
UDS
Server
Packet Capture
Workstation
Password
SNMP Poll
Ethernet
SNMP Trap
TCP Response
IBM Compatible
Future
IBM Compatible

WAN Implementation



IT MONITOR
Remote Zone
Central Zone
Workstation
Server
Password
Workstation
Ethernet
IBM Compatible
IBM Compatible
Workstation
Server
Workstation
Ethernet
IBM Compatible
IBM Compatible
Ethernet

Example: Service Monitor


ISP Dashboard
SYSTEM STATUS
100%
DIAL UP
Details
ADSL
Details
UPLINK
Details
HOSTED SERVERS
Details
Total Dialup Bandwidth - ALL Users
CISCO 3640 - Total ADSL Bandwidth
CISCO 7200 Backbone Uplink
CPU
Memory
I/O
Buffy Server Status
Swan Server Status
Exchange Server Status
OZ Server Status
Surf Server Status
DNS Server Status
Average Bandwidth per dialup
PI - Netflow
Cache Engine
Code Red Blocked incoming
FireStar Virtual ISP - Downloads
I/O Timeout
Calc Overflw
I/O Timeout

DIAL UP

# Connected users	175
Current Bandwidth	118463
24hr Peak Bandwidth	153200
AVG Bandwidth / user	755.213

ADSL

# Connected users	43
Current Bandwidth	7083.11
Something Else	25901.9
24hr Peak Bandwidth	153200

UPLINK

	IN	OUT
🟩 Main	170526	77169.0
☐ Failover	0	0

Total Bandwidth / # modems in use 755.213 bps

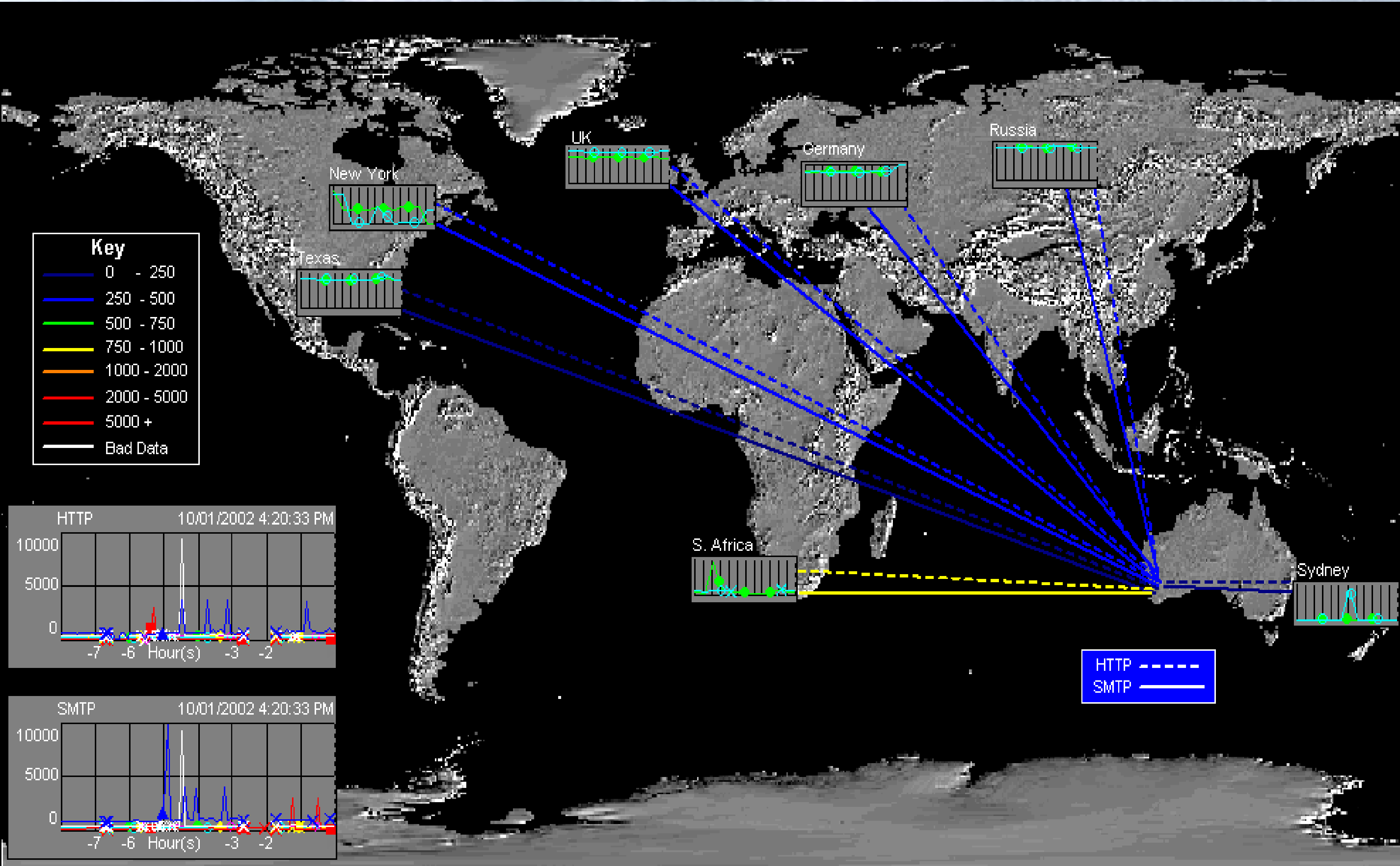
FireStar Virtual ISP - Downloads 6.44870E+04

Cache Engine 20380.7

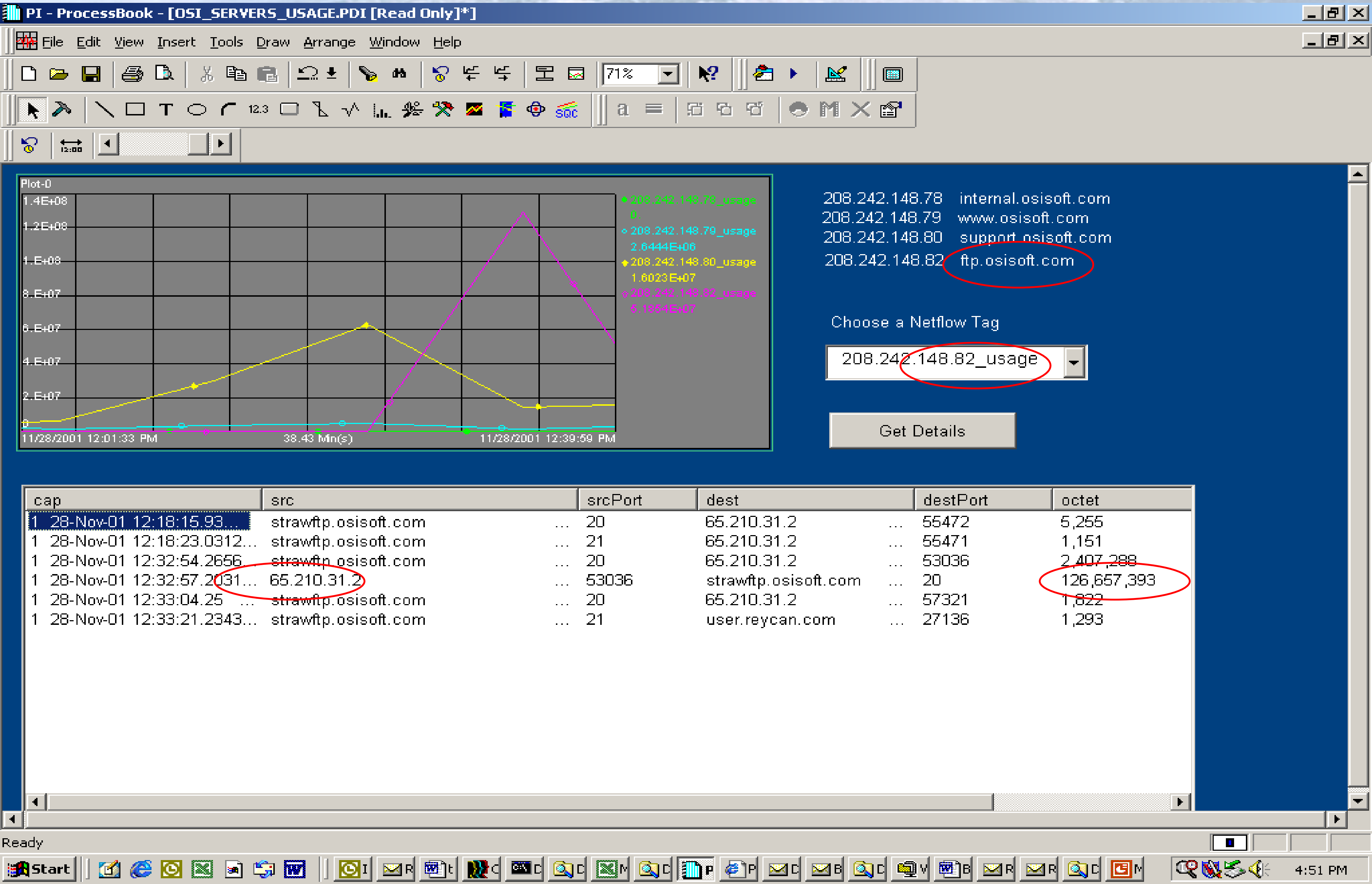
Code Red Blocked incoming 201.22

	CPU	Memory	I/O
Buffy Server Status	968.551	0	0
Swan Server Status	0	97.4371	225.691
Exchange Server Status	16722.7	0	2
OZ Server Status	36.808	0	0
Surf Server Status	5121.23	89.3517	2

Example: Response Monitor


UK
Germany
Russia
New York
Texas
S. Africa
Sydney
Key
0 - 250
250 - 500
500 - 750
750 - 1000
1000 - 2000
2000 - 5000
5000 +
Bad Data
HTTP
SMTP
HTTP 10/01/2002 4:20:33 PM
10000
5000
0
-7
-6
Hour(s)
-3
-2
SMTP 10/01/2002 4:20:33 PM
10000
5000
0
-7
-6
Hour(s)
-3
-2

Example: Packet Monitor


PI - ProcessBook - [OSI_SERVERS_USAGE.PDI [Read Only]*]
File Edit View Insert Tools Draw Arrange Window Help
71%
Plot-0
1.4E+08
1.2E+08
1.E+08
8.E+07
6.E+07
4.E+07
2.E+07
0
11/28/2001 12:01:33 PM
38.43 Min(s)
11/28/2001 12:39:59 PM
208.242.148.78_usage
0.
208.242.148.79_usage
2.6444E+06
208.242.148.80_usage
1.6023E+07
208.242.148.82_usage
5.1854E+07
Get Details
Ready
Start
4:51 PM

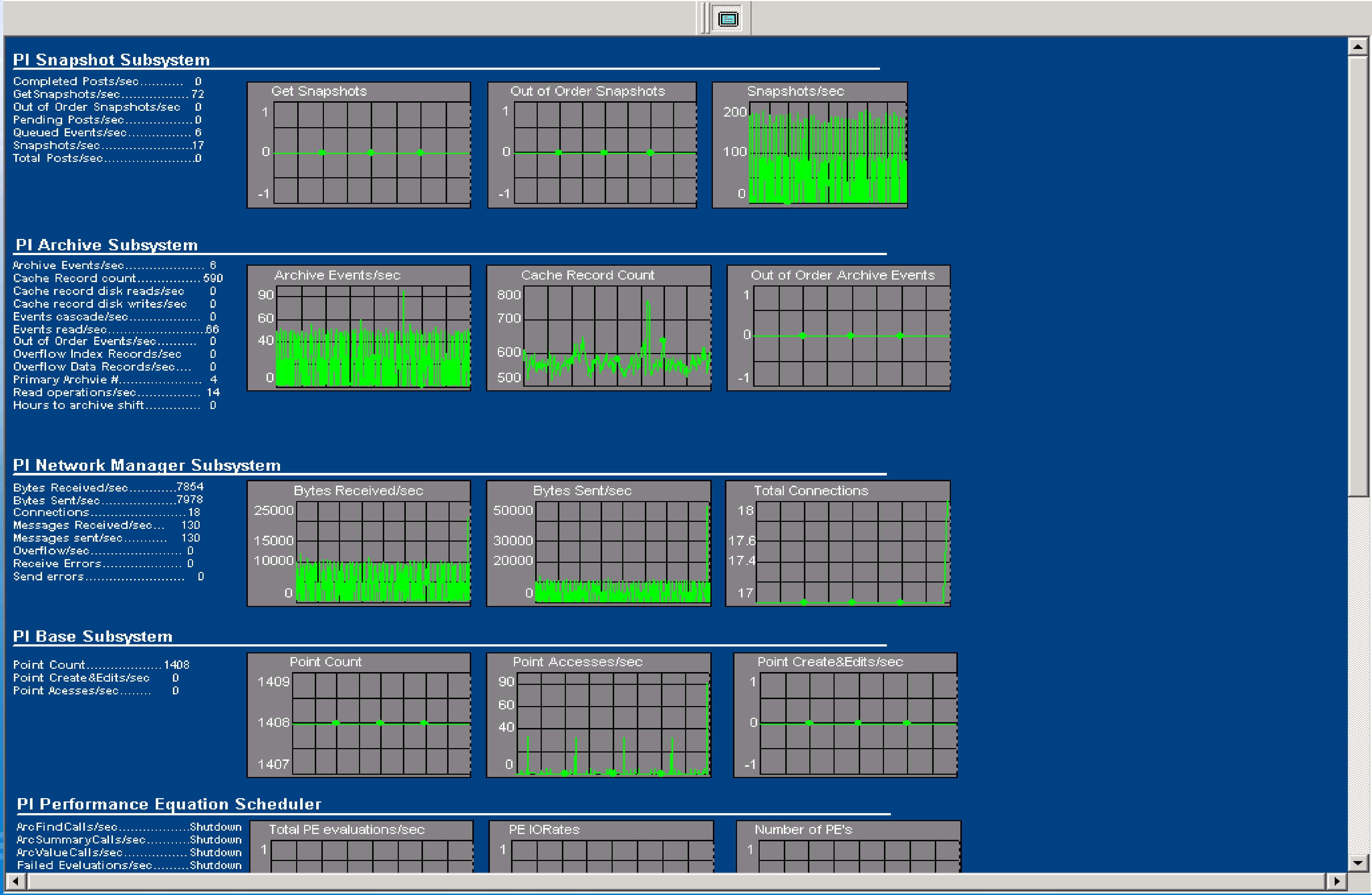
208.242.148.78	internal.osisoft.com
208.242.148.79	www.osisoft.com
208.242.148.80	support.osisoft.com
208.242.148.82	ftp.osisoft.com

Choose a Netflow Tag

208.242.148.82_usage

cap	src	srcPort	dest	destPort	octet
1 28-Nov-01 12:18:15.93...	strawftp.osisoft.com ...	20	65.210.31.2 ...	55472	5,255
1 28-Nov-01 12:18:23.0312...	strawftp.osisoft.com ...	21	65.210.31.2 ...	55471	1,151
1 28-Nov-01 12:32:54.2656...	strawftp.osisoft.com ...	20	65.210.31.2 ...	53036	2,407,288
1 28-Nov-01 12:32:57.2031...	65.210.31.2 ...	53036	strawftp.osisoft.com ...	20	126,657,393
1 28-Nov-01 12:33:04.25 ...	strawftp.osisoft.com ...	20	65.210.31.2 ...	57321	1,822
1 28-Nov-01 12:33:21.2343...	strawftp.osisoft.com ...	21	user.reycan.com ...	27136	1,293

Example: PI Monitor



PI Snapshot Subsystem

Completed Posts/sec.......... 0
Get Snapshots/sec................72
Out of Order Snapshots/sec 0
Pending Posts/sec................0
Queued Events/sec............... 6
Snapshots/sec......................17
Total Posts/sec.....................0

Get Snapshots
1
0
-1
Out of Order Snapshots
1
0
-1
Snapshots/sec
200
100
0

PI Archive Subsystem

Archive Events/sec.................... 6
Cache Record count...............590
Cache record disk reads/sec 0
Cache record disk writes/sec 0
Events cascade/sec................. 0
Events read/sec.........................66
Out of Order Events/sec......... 0
Overflow Index Records/sec 0
Overflow Data Records/sec.... 0
Primary Archvie #.................... 4
Read operations/sec............... 14
Hours to archive shift............. 0

Archive Events/sec
90
60
40
0
Cache Record Count
800
700
600
500
Out of Order Archive Events
1
0
-1

PI Network Manager Subsystem

Bytes Received/sec...........7854
Bytes Sent/sec.................7978
Connections.........................18
Messages Received/sec... 130
Messages sent/sec.......... 130
Overflow/sec....................... 0
Receive Errors................... 0
Send errors......................... 0

Bytes Received/sec
25000
15000
10000
0
Bytes Sent/sec
50000
30000
20000
0
Total Connections
18
17.6
17.4
17

PI Base Subsystem

Point Count..................1408
Point Create&Edits/sec 0
Point Acesses/sec........ 0

Point Count
1409
1408
1407
Point Accesses/sec
90
60
40
0
Point Create&Edits/sec
1
0
-1

PI Performance Equation Scheduler

ArcFindCalls/sec.................Shutdown
ArcSummaryCalls/sec...........Shutdown
ArcValueCalls/sec................Shutdown
Failed Evaluations/sec.........Shutdown

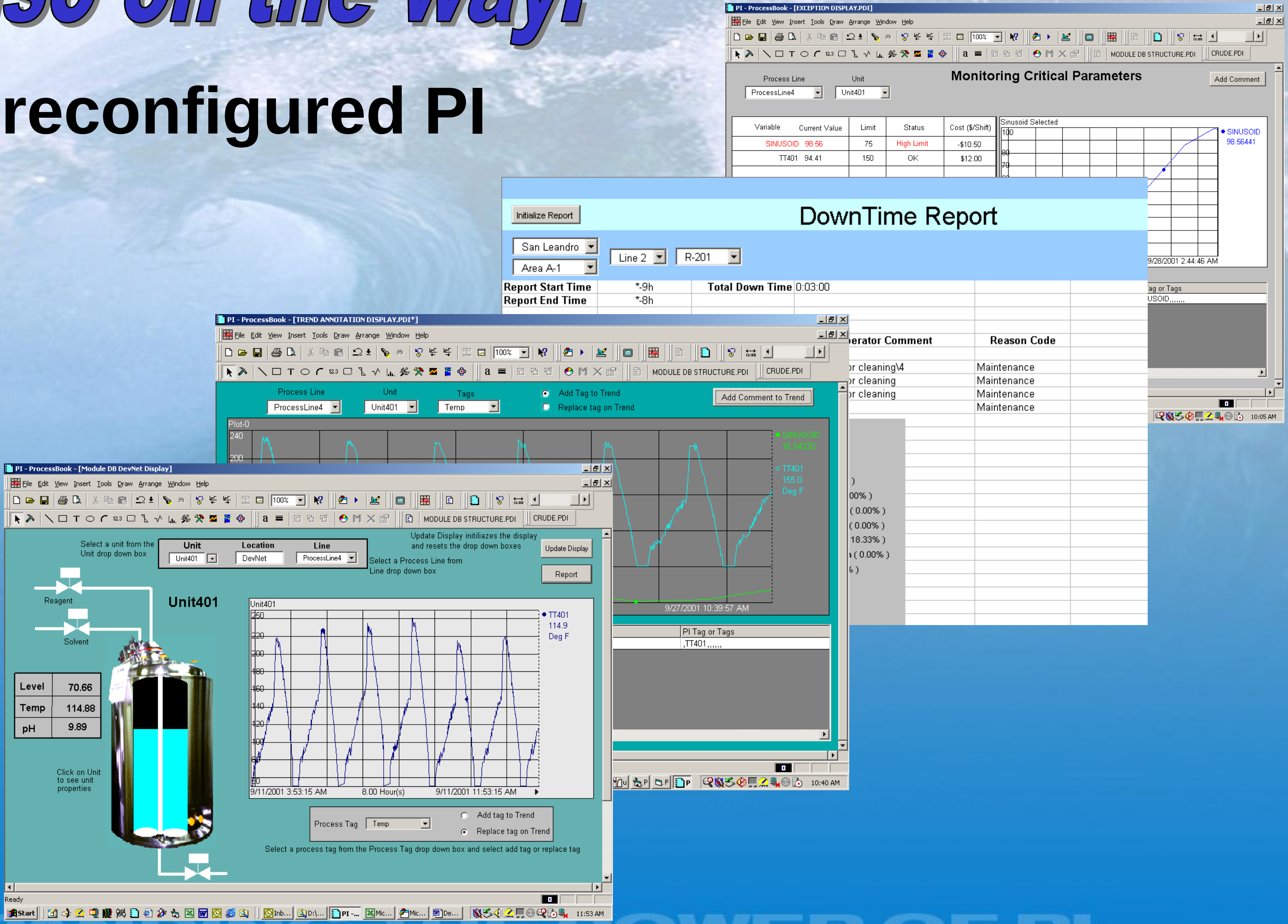
Total PE evaluations/sec
1
PE IORates
1
Number of PE's
1

Also on the way:

"Preconfigured PI"

Also on the way:

Preconfigured PI



PI - ProcessBook - [EXCEPTION DISPLAY.PDI]

Monitoring Critical Parameters

Process Line: ProcessLine4

Unit: Unit401

Variable	Current Value	Limit	Status	Cost ($/Shift)
SINUSOID	98.56	75	High Limit	-$10.50
TT401	94.41	150	OK	$12.00

Sinusoid Selected

SINUSOID 98.56441

9/28/2001 2:44:46 AM

DownTime Report

San Leandro

Area A-1

Line 2

R-201

Report Start Time	*-9h	**Total Down Time**	0:03:00
Report End Time	*-8h		

erator Comment	Reason Code
or cleaning\4	Maintenance
or cleaning	Maintenance
or cleaning	Maintenance
	Maintenance

00%)

(0.00%)

(0.00%)

18.33%)

a (0.00%)

PI - ProcessBook - [TREND ANNOTATION DISPLAY.PDI*]

Process Line: ProcessLine4

Unit: Unit401

Tags: Temp

● Add Tag to Trend

○ Replace tag on Trend

SINUSOID 16.54330

TT401 155.0 Deg F

9/27/2001 10:39:57 AM

PI Tag or Tags: ,TT401,,,,,,

PI - ProcessBook - [Module DB DevNet Display]

Select a unit from the Unit drop down box

Unit	Location	Line
Unit401	DevNet	ProcessLine4

Update Display initiliazes the display and resets the drop down boxes

Select a Process Line from Line drop down box

Unit401

Level	70.66
Temp	114.88
pH	9.89

Click on Unit to see unit properties

TT401 114.9 Deg F

9/11/2001 3:53:15 AM — 8.00 Hour(s) — 9/11/2001 11:53:15 AM

Process Tag: Temp

○ Add tag to Trend

● Replace tag on Trend

Select a process tag from the Process Tag drop down box and select add tag or replace tag

Ready

File
Edit
View
Insert
Tools
Draw
Arrange
Window
Help
100%
MODULE DB STRUCTURE.PDI
CRUDE.PDI
Add Comment
100
80
70
Initialize Report
Add Comment to Trend
Plot-0
240
200
Update Display
Report
Reagent
Solvent
Unit401
250
220
200
180
160
140
120
100
80
Start
11:53 AM
10:40 AM
10:05 AM

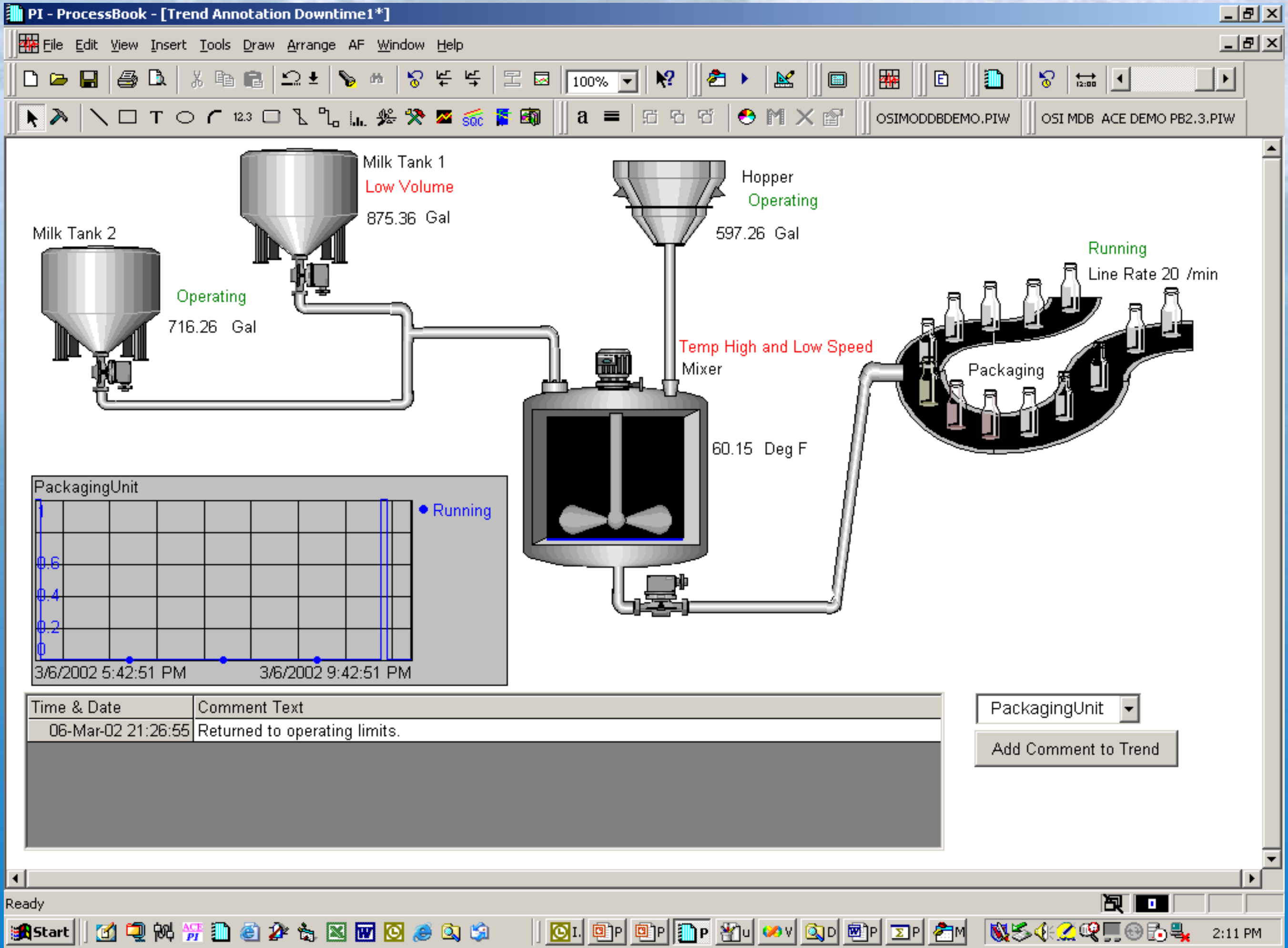
Preconfigured PI

- Starter Kit
- DevNet
- Preconfigured PI
  - Use of the PI Module Database
  - Method for building Standardized structures
  - Applications
  - Displays and Reports automatically constructed

Application Framework

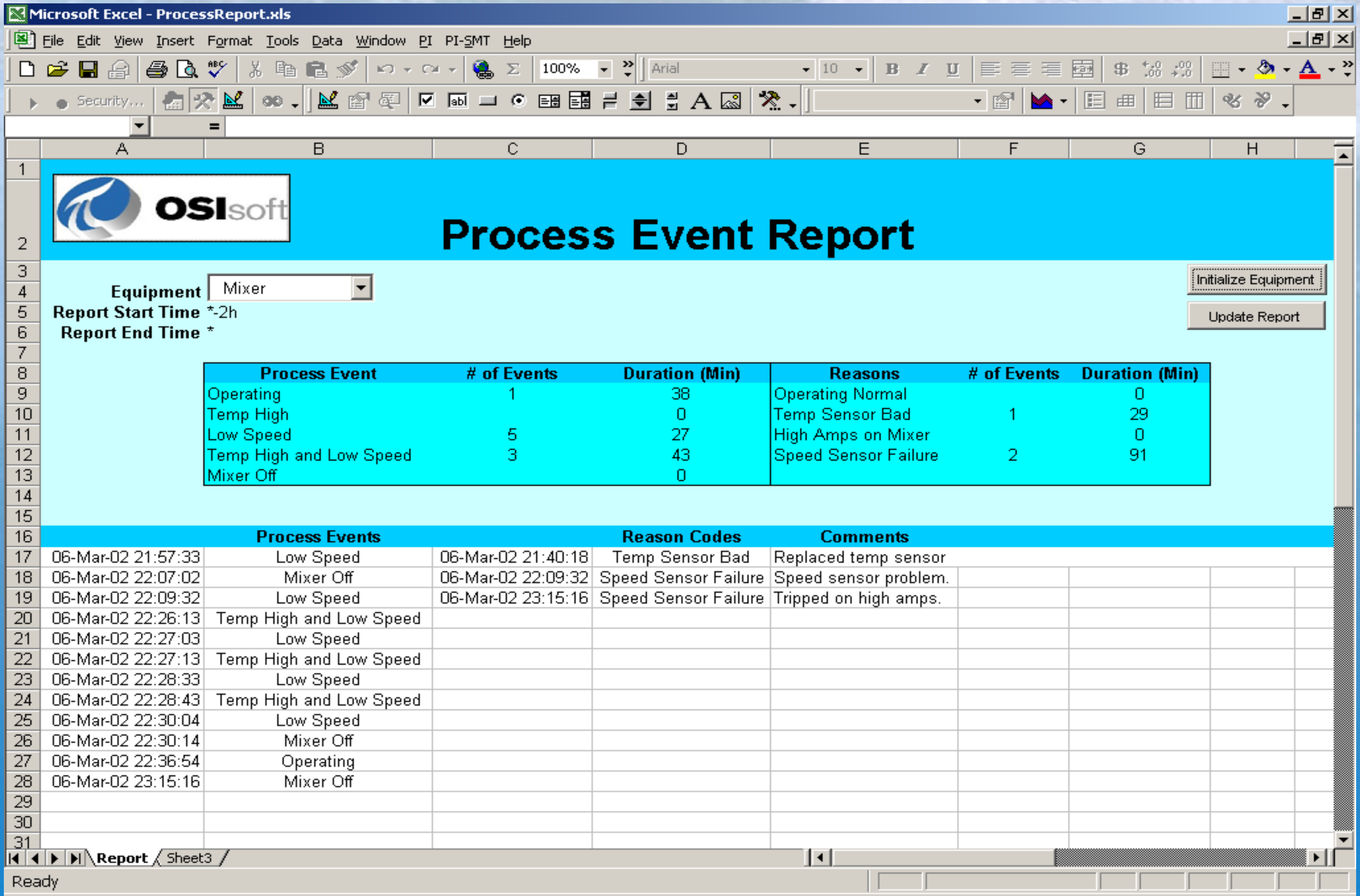
- Provides the foundation for many applications
- Define “elements”
  - Connectivity between elements
  - Extensibility
  - Programmability (AF – SDK)

ProcessBook Display


PI - ProcessBook - [Trend Annotation Downtime1*]
File Edit View Insert Tools Draw Arrange AF Window Help
100%
OSIMODDBDEMO.PIW
OSI MDB ACE DEMO PB2.3.PIW
Milk Tank 1
Low Volume
875.36 Gal
Milk Tank 2
Operating
716.26 Gal
Hopper
Operating
597.26 Gal
Temp High and Low Speed
Mixer
60.15 Deg F
Running
Line Rate 20 /min
Packaging
PackagingUnit
Running
0.6
0.4
0.2
0
3/6/2002 5:42:51 PM
3/6/2002 9:42:51 PM
PackagingUnit
Add Comment to Trend
Ready
Start
2:11 PM

Time & Date	Comment Text
06-Mar-02 21:26:55	Returned to operating limits.

DataLink Report


Microsoft Excel - ProcessReport.xls
File Edit View Insert Format Tools Data Window PI PI-SMT Help
100%
Arial
10
Security...
OSIsoft
Initialize Equipment
Update Report
Report
Sheet3
Ready
Start
2:17 PM

Process Event Report

Equipment Mixer
Report Start Time *-2h
Report End Time *

Process Event	# of Events	Duration (Min)	Reasons	# of Events	Duration (Min)
Operating	1	38	Operating Normal		0
Temp High		0	Temp Sensor Bad	1	29
Low Speed	5	27	High Amps on Mixer		0
Temp High and Low Speed	3	43	Speed Sensor Failure	2	91
Mixer Off		0			

	Process Events		Reason Codes	Comments
06-Mar-02 21:57:33	Low Speed	06-Mar-02 21:40:18	Temp Sensor Bad	Replaced temp sensor
06-Mar-02 22:07:02	Mixer Off	06-Mar-02 22:09:32	Speed Sensor Failure	Speed sensor problem.
06-Mar-02 22:09:32	Low Speed	06-Mar-02 23:15:16	Speed Sensor Failure	Tripped on high amps.
06-Mar-02 22:26:13	Temp High and Low Speed			
06-Mar-02 22:27:03	Low Speed			
06-Mar-02 22:27:13	Temp High and Low Speed			
06-Mar-02 22:28:33	Low Speed			
06-Mar-02 22:28:43	Temp High and Low Speed			
06-Mar-02 22:30:04	Low Speed			
06-Mar-02 22:30:14	Mixer Off			
06-Mar-02 22:36:54	Operating			
06-Mar-02 23:15:16	Mixer Off			

Surprise Topic:

Surprise Topic: Pricing

- Next to product naming, the second most difficult subject in Sales and Marketing
- Interdependencies and complexities

Surprise Topic: Pricing

- Next to product naming, the second most difficult subject in Sales and Marketing
- Interdependencies and complexities

Planned Announcement

Surprise Topic: Pricing

- Next to product naming, the second most difficult subject in Sales and Marketing
- Interdependencies and complexities

Planned Announcement

OSI Introduces:
The new PI Pricing Training Class

Instead, we'd like to announce:

Instead, we'd like to announce:

Simplification of Pricing

- Basic PI Historian
- Single Server PI
- Enterprise PI
- Small, Medium, and Large

Final Topic: Marketing

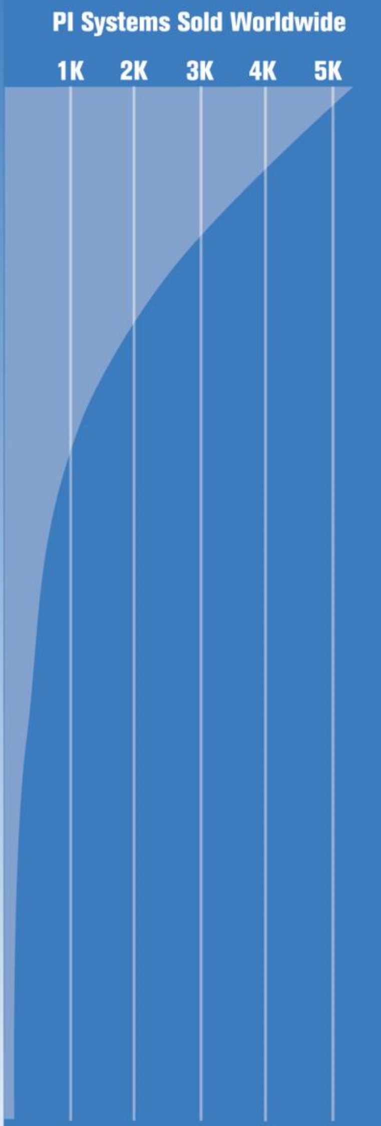
Final Topic: Marketing

Three Primary Goals

- General awareness
- Lead generation
- Support of sales effort

PIsystem™ evolution

Echo (Component Historian)	2002
PI SDK, Module Database & PI ACE ● Web Portal PI ICE ● PI Applications Framework ● Microsoft Certified Partner	2001
DevNet Launched ● OSIsoft Trade Name ● PI SDK 1.0	2000
Microsoft Certified Solution Provider (MCSP) ● Sigmafine & SQC Products ● PI on Web via PI ActiveView	1999
Microsoft ActiveX Container and enhanced VBA support in ProcessBook 2.0	1998
PI BatchView	1997
RLINK certified by SAP ● PI Profile for Windows ● VBA added to PI ProcessBook	1996
PI for Alpha/VMS ● PI ODBC ● Server NT ● Unix	1995
PI ProcessBook	1994
PI Batch for VMS ● Client / Server ● DataLink	1993
PI 2.0 (Formula Library) ● Graphics Package for VMS ● PI API for VMS, Windows and Unix	1992
PI Profile for VMS	1991
XWindows Support for VMS ● First PI Users Conference	1990
Real-time SQC and Event Logger for VMS	1989
Report Writer and PI Net for VMS	1988
Data Analysis Package	1987
VAX / VMS	1986
HP1000	1985
	1984
	1983



OSIsoft™

informed decisions

Management & Financial
Planning & Maintenance
Production & Operations
SAP R/3

PIsystem™

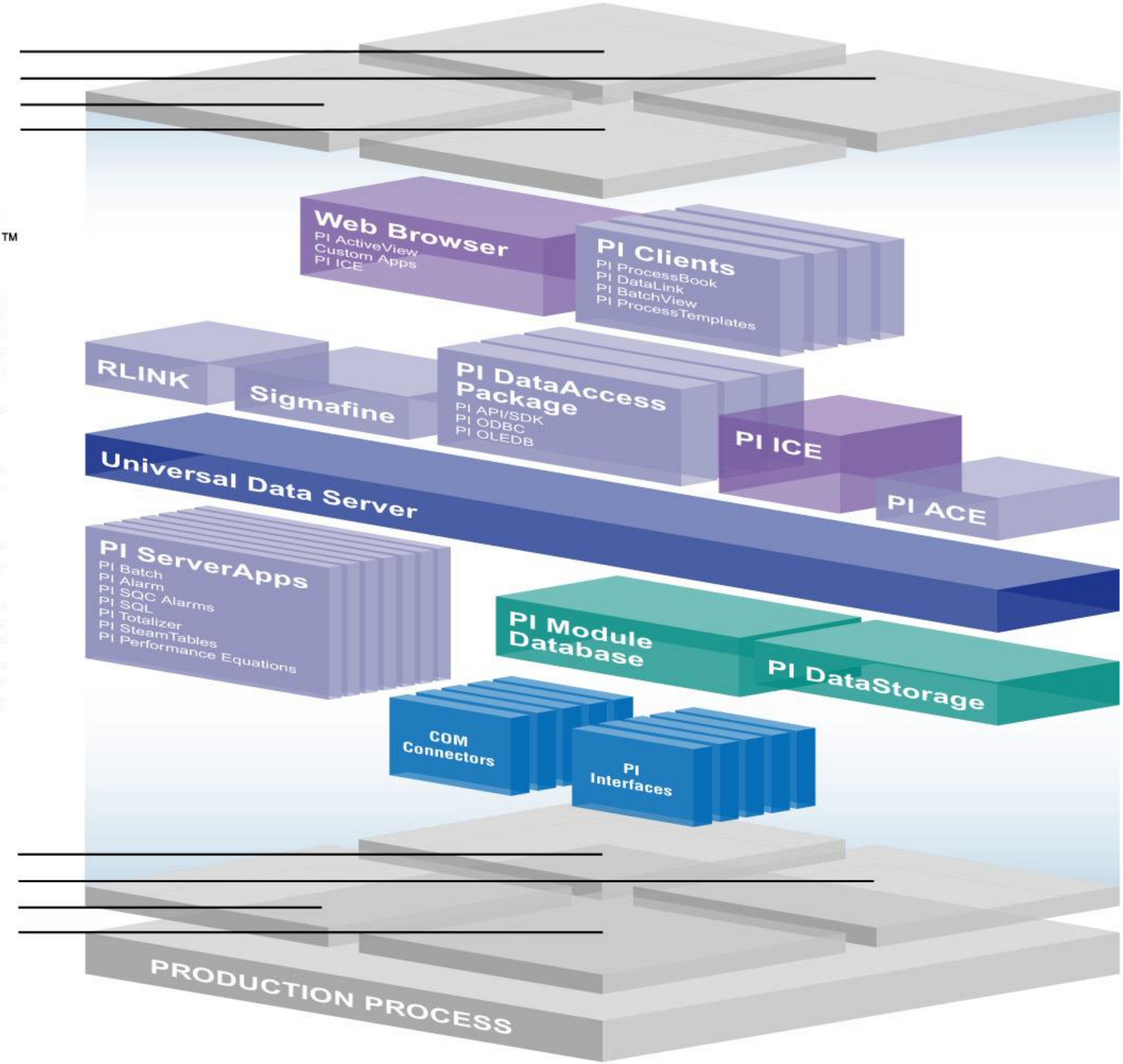
The PI System provides a technological infrastructure that closes the time and information gap between management and actual production floor operations. Real-time operations data is acquired, routed, processed and displayed simultaneously on desktops, portables and PDAs throughout the enterprise worldwide, at the push of a button.

Data is stored for decades, yet remains instantly accessible at its original time resolution for automated reporting, trending and analysis.

The PI System is your global window on the process. All of your decision-makers will be seeing the same data at the same time, enabling faster, more informed decisions for enhanced competitive agility, better predictive maintenance, pin point batch and quality control, precision reporting, and more comprehensive planning and analysis. The results are greater efficiencies, and a more profitable enterprise overall.

operations data

Legacy Information System
Relational Database
Advanced Control System
Lab System


Web Browser
PI ActiveView
Custom Apps
PI ICE
PI Clients
PI ProcessBook
PI DataLink
PI BatchView
PI ProcessTemplates
RLINK
Sigmafine
PI DataAccess Package
PI API/SDK
PI ODBC
PI OLEDB
PI ICE
Universal Data Server
PI ACE
PI ServerApps
PI Batch
PI Alarm
PI SQC Alarms
PI SQL
PI Totalizer
PI SteamTables
PI Performance Equations
PI Module Database
PI DataStorage
COM Connectors
PI Interfaces
PRODUCTION PROCESS

Marketing

- A lot of work has been done in the past year
  - Developed a whole new message
  - New web site
  - Industry brochures
  - Trade shows
  - Technology seminars
  - User’s Conference
  - Business Now Video
  - Public Relations

New Industry Brochures

THE POWER OF PI IN chemicals

THE RIGHT DATA RIGHT NOW

OSIsoft™

THE POWER OF PI IN water management

THE RIGHT DATA RIGHT NOW

OSIsoft™

THE POWER OF PI IN metals, materials&mining

THE RIGHT DATA RIGHT NOW

OSIsoft™

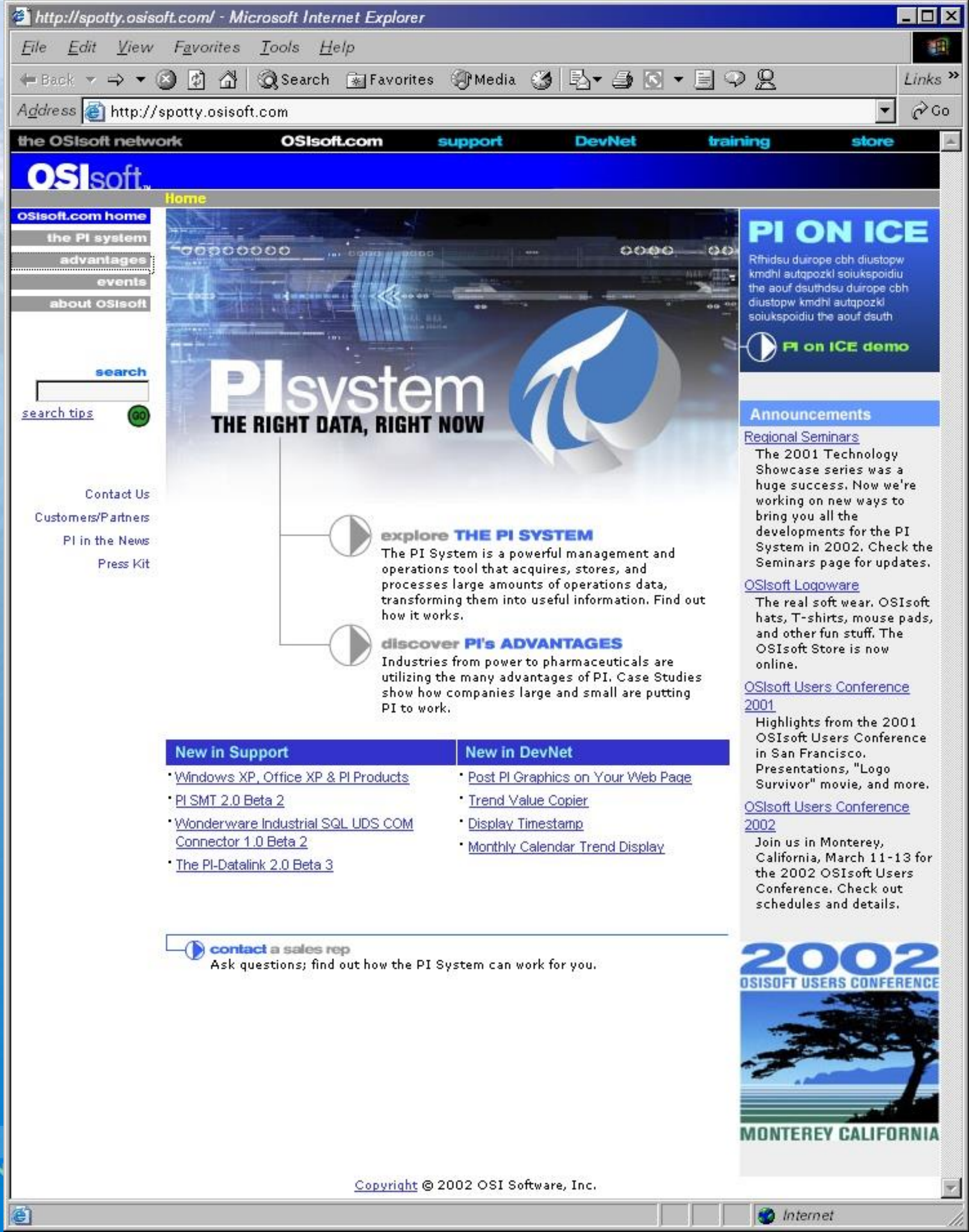
THE POWER OF PI IN pharmaceuticals&biotech

THE RIGHT DATA RIGHT NOW

OSIsoft™

New Web Site

- Entirely new content
- Entirely new layout


http://spotty.osisoft.com/ - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Links
Address http://spotty.osisoft.com
Go
the OSIsoft network
OSIsoft.com
support
DevNet
training
store
OSIsoft
Home
OSIsoft.com home
the PI system
advantages
events
about OSIsoft
search
search tips
GO
Contact Us
Customers/Partners
PI in the News
Press Kit
PI system
THE RIGHT DATA, RIGHT NOW
Internet

PI ON ICE

Rfhidsu duirope cbh diustopw kmdhl autqpozkl soiukspoidiu the aouf dsuthdsu duirope cbh diustopw kmdhl autqpozkl soiukspoidiu the aouf dsuth

PI on ICE demo

explore THE PI SYSTEM

The PI System is a powerful management and operations tool that acquires, stores, and processes large amounts of operations data, transforming them into useful information. Find out how it works.

discover PI's ADVANTAGES

Industries from power to pharmaceuticals are utilizing the many advantages of PI. Case Studies show how companies large and small are putting PI to work.

New in Support

- Windows XP, Office XP & PI Products
- PI SMT 2.0 Beta 2
- Wonderware Industrial SQL UDS COM Connector 1.0 Beta 2
- The PI-Datalink 2.0 Beta 3

New in DevNet

- Post PI Graphics on Your Web Page
- Trend Value Copier
- Display Timestamp
- Monthly Calendar Trend Display

contact a sales rep

Ask questions; find out how the PI System can work for you.

Announcements

Regional Seminars

The 2001 Technology Showcase series was a huge success. Now we're working on new ways to bring you all the developments for the PI System in 2002. Check the Seminars page for updates.

OSIsoft Logoware

The real soft wear. OSIsoft hats, T-shirts, mouse pads, and other fun stuff. The OSIsoft Store is now online.

OSIsoft Users Conference 2001

Highlights from the 2001 OSIsoft Users Conference in San Francisco. Presentations, "Logo Survivor" movie, and more.

OSIsoft Users Conference 2002

Join us in Monterey, California, March 11-13 for the 2002 OSIsoft Users Conference. Check out schedules and details.

2002 OSISOFT USERS CONFERENCE

MONTEREY CALIFORNIA

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Friends and Family

Finally – Signs for the Building