

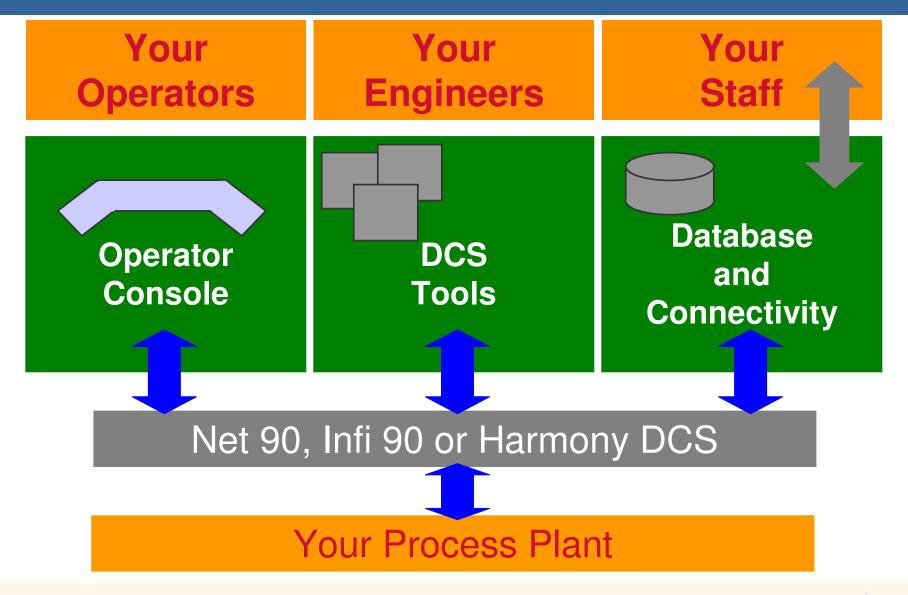
Overview

OPsCon Operators Console For ABB/Bailey[®] Net 90[®], Infi 90[®] & Harmony[®] DCS



Bailey, Infi 90, Net 90, Harmony are trademarks of ABB. GE, Proficy, iFIX, iHistorian and trademarks of GE.

For Each of Your Users



Net 90, Infi 90 & Harmony DCS Sites

- □ Need Updated Operator Consoles
- □ Need Modern DCS Tools
- □ Need Database Support
- □ Need Internet and Intranet Support
- □ Need OPEN Connectivity
- □ The Best Option MAY NOT be from ABB/Bailey!
 - > Check the functionality & flexibility
 - Check the connectivity
 - > Check the cost

What is OPsCon?

- □ Builds on GE Proficy iFIX Product Line
 - iFIX HMI, Historian, Web Portal
- □ Provides
 - > In-kind console replacement
 - Full operators console function
 - > Provides Information System
 - From the DCS to your browser if needed
 - For Net 90, Infi 90 & Harmony DCS Systems
- □ Over 350 servers & 900+ consoles installed
 - > All on Bailey DCS systems

Operators Console Replacement

□ Replace ABB/Bailey Console Model:

- ≻ OIU
- > MCS & MCS Plus
- PCV (Process Control View)
- ≻ LAN 90
- > OIS 10, 11, 12
- > OIS 20, 21, 22, 25
- > OIS 40, 41, 42, 43, 45
- Conductor NT & Conductor VMS
- > Operate^{IT} Process Portal A or B

Full Function Operators Console

- □ Supports 300, 10,000 or 30,000 Bailey Tags
- Operator Displays
 - Unlimited pages of high resolution process graphics
 - Customizable alarm and trend displays
 - Object based graphics with VBA scripting
 - Flexible page/object linking
- □ Various Interface types
 - Mouse or Touch Screen or Trackball
 - Keyboard (inc. OPsCon Membrane Keyboard)
- □ Flexible Security & Redundancy Options
- □ Comprehensive DCS Utilities
- □ Component in larger IT system
 - Long term historian plus information to any browser

Hosting Platform

Standard, Widely Used and Robust

The Platform Components

□ A firm foundation upon which to build

- > Your console
- Your process information system

Your Application

Previse OPsCon

GE Proficy iFIX Components

Microsoft Operating System

Computer and Network Hardware

Computer and Network Hardware

□ Standard Off-the-Shelf Platform Components

- > Computer
 - Standard "PC" equipment
 - Typically 2+ GHz, 2GB+ RAM, minimum
 - Mouse, touch screen, track ball
- > Network
 - Standard network components
 - 100baseT Ethernet minimum
 - Console supports dual redundant network
- > Detailed platform specification available

Benefit

- Package components to rack, pedestal or table top mount
- > Easy to source, easy to repair

Microsoft Operating System

□ OPsCon operator console platform

- > Microsoft Windows XP Pro latest SP
- > Microsoft Windows 2003/2008
- > Microsoft Windows 7 Pro 32 bit & 64 bit
- Geven For other GE Proficy components
 - ➤ Generally the same
 - > May be dependant on your specific requirements

Committed to keeping pace with new releases

The Relevant GE Proficy iFIX Product Line

Human Machine Interface

- GE Proficy iFIX HMI (Human Machine Interface)
 - Displays, trends, alarms [networking, security]
- Historian
 - Classic historian
 - Free within iFIX
 - > Proficy Historian
- □ Internet/Intranet
 - > Proficy Real Time Information Portal
 - DCS information and more to any browser

GE Proficy iFIX HMI Platform

□ GE Proficy iFIX HMI software

- > 20+ year product history with over 300,000 licenses sold
- > OPsCon accounts for almost 900 of these HMI installs
 - ALL on Bailey Net 90, Infi 90 and Harmony DCS systems
 - From 1996 to present
- > Well supported, robust and stable product
- > Proficy HMI products at 75% of Fortune 100 companies
- □ Benefit
 - Longer product life than typical Bailey console
 - Oldest OPsCon installs still operating since 1990's
 - > Wide support availability
 - > 7 X 24 phone/web support availability
 - ➤ Easy to learn.. Easy to use !!
 - Commitment from one of the worlds largest firms

General Historian Selector Guide

Classic Historian	Proficy Historian¹
Standard Performance	High Performance
Nominally to ~2500 tags	500 to 500,000+ tags
Store every few seconds or longer	Store faster
Store for 120 days	Store for years
Data from iFIX	Data from iFIX, OPC sources, lab data and others
Slower retrieval	High speed retrieval
Support trends	Same plus better for large systems, regulatory data, long term storage, faster acquisition
N/A	Perform calculations and annotate data with notes
Free with iFIX	Additional cost
Less features	More features

¹ Ask for more information if you wish to consider Proficy Historian

Previse OPsCon

- Connection to your ABB/Bailey DCS
- □ The broad console function your operators need
- □ Specialized functions required for DCS
 - > E.g. Tuning, module status, time synchronization
- Customizes GE Proficy iFIX
 - > Adds the Bailey "character" to iFIX

Platform

Firm Foundation to Build On Meets Console Requirement Basis for process IT system Build on GE Commitment

Field Equipment Connection

Robust ABB/Bailey DCS Connection Plus your other equipment too

Broad DCS Connectivity Support

- □ The same connections used by native ABB consoles
- □ All common CIU interfaces to DCS
 - > Via Serial RS-232:
 - CIC01, NCIU01, NCIU02, NCIU03, NCIU04, INICI01, INICI03/13, INICT03/13¹, IIMCP01, IIMCP02, INPCI02, INICI12
 - > Via High Speed SCSI:
 - INICI03/03A/13/13A¹, INICT03/03A/13/13A, IIMCP02
- □ Connect to Previse Bailey DCS Simulator
 - ▹ Via Serial RS-232 or TCP/IP
 - For console testing or operator training
- □ Capacity to 30,000 tags

Specific Support for the Tag Types You Need

- □ ANALOG (e.g. FC30 and others)
- □ DIGITAL (e.g. FC45 and others)
- □ RCM (e.g. FC62 and others)
- \Box RMSC (e.g. FC68)
- □ STATION (e.g. FC80, 21, 22, 23)
- □ DD (e.g. FC123)
- □ MSDD (e.g. FC129)
- □ RMCB (e.g. FC136)
- □ TEXT BLOCK (FC151)
- $\Box DAANG (FC177)$
- **UDE** (FC194)
- □ Harmony IO (FC222,Fc223, FC224, FC225)

Standard Bailey Communication Methods

□ By Exception

- Fully supported
- > As fast as native Bailey DCS communications
 - Round trip command/response time matches Bailey
 - Over 1,400 exceptions/second recorded with SCSI
- □ By Polling
 - > Any block address
 - > Module status
- □ Module activities
 - Supports module status, mode control, load/unload and more
 - Supports time synchronization
 - Supports redundant controllers

One to One Mapping from Bailey to iFIX

□ One iFIX Tag for each Bailey Tag

- Name and address don't change
- Easy to understand database

➢ iFIX tag has all DCS data, direct from DCS

	lution Fix Dynamics D abase <u>E</u> dit <u>V</u> iew <u>B</u> lo		nager - [FIXDYNA : 8 rows] Tools Help					_ 8 X
	Taq Name	Type	Description	Scan Time	I/O Dev	I/O Addr	Curr Value	Scan Stat 🗳
1	B_RMSC	RMS	Bailey Remote Manual Set Constant	E	CIU	MFC04:4006:0	10.00	ON
2	B_RMC	RMC	Bailey Remote Motor Control	E	CIU	MFC04:177:0	STOP	ON
3	B_RCM	RCM	Bailey Remote Control Memory	E	CIU	MFC04:120:0	ZERO	ON
4	B_ST	BST	Bailey Station	E	CIU	MFC04:127:0	66.53	ON
5	B_MSDD	BMD	Bailey MultiState Device Driver	E	CIU	MFC04:4011:0	STRTUP	ON
6	B_DI	BDI	Bailey Digital Input	E	CIU	MFC04:4002:0	OPEN	ON
7	B_DD	BDD	Bailey Device Driver	E	CIU	MFC04:153:0	OFF	ON
8	B_AI	BAI	Bailey Analog Input	E	CIU	MFC04:4000:0	47.00	ON
9			Properties			? ×		
10 11 12			Column Sort Query Color Font					
12 13 14				olay Columns :		_ =		<u>+</u>
15 16			Type I/C Description Ba	iley Tag Name Address iley Tag Alarm Sta	ate			<u> </u>
17			I/O Dev Ba	iley Feedback Sta iley Permissive St iley Red Tag India	atus			+
18 19 20			Ba H/W Options Scan Stat	iley High Alarm Lii iley Low Alarm Lir iley Inhibit Tag	mit nit			+
20			Eurr Mode Ba	lev Inhibit State		_		+

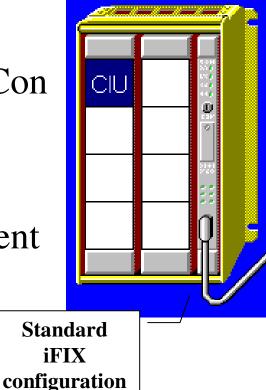
One Operator Console for All Your Equipment

□ iFIX Supports Up to 8 Drivers

- > One "Equipment Slot" used by OPsCon
- > Use the other 7 for other equipment

□ Benefit

- > One console serves multiple equipment
- > Same trends, alarms, and graphics
- > One historical storage
- ≻ E.g.
 - Bailey + Siemens PLC + Rockwell PLC
 - One slot can support many networked PLC



Summary Field Equipment Connection

Bailey DCS Communications

- > All common serial and SCSI CIU types
- > All the function code types you need
- Full communications protocol
- > Performs like native Bailey
- ➢ iFIX database updated continuously with DCS data
- ➤ Very reliable
- PLUS supports 100's of other field equipmentOne console to serve your control room needs

Bailey DCS Specific Console

Specifically designed to meet Net 90, Infi 90, and Harmony Requirements

Featured here with our optional standard screen system for iFIX

Supports Key Bailey Console Features

- □ Graphics
- □ Control Pop-Ups
- Operating Parameters
- □ Alarms
- □ Alarm History
- □ Alarm Display Panel
- □ Trends
- □ Change Tunable Specifications
- □ Station Tuning
- □ Review Module Status
- □ Security System
- □ Reports and Logs

Graphics

GENERATOR

A VAL

A VAL

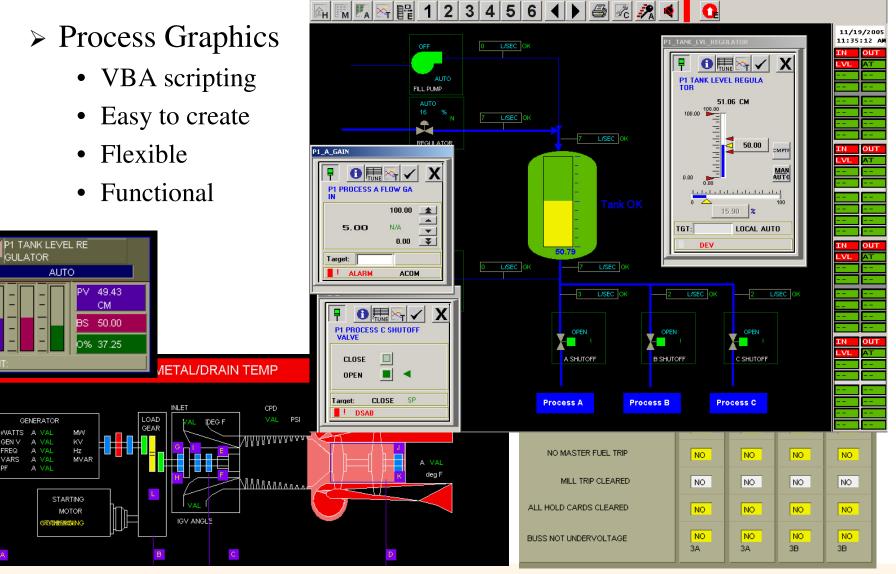
A VAL

WATTS A VAL

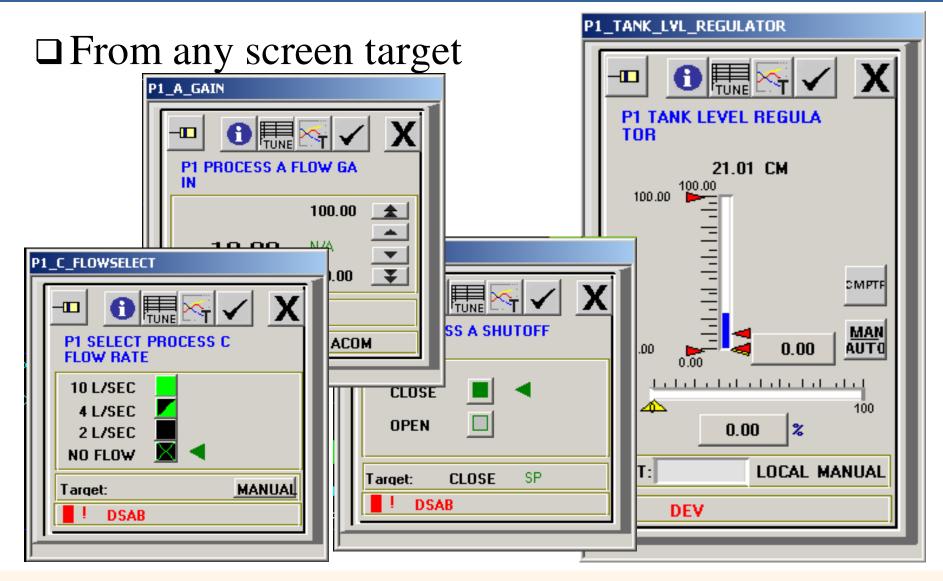
GEN V FREQ

VARS

> Process Graphics



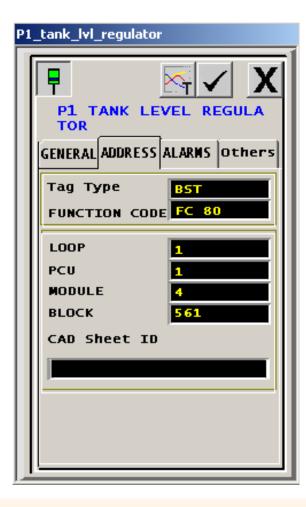
Control Pop-ups



Operating Parameters

□ From any screen target

F	K 🗸 X
P1 TANK L Tor	EVEL REGULA
GENERAL ADDRES	ALARMSOthers
Alarm Enable	e YES
Priority	H
Latched Ala	m DEA
Alarm Area	PILEVEL
Alarm Inhil	bit
Тад	
State	
Comments H	
Comments L	
Comments HD	
Comments LD	
Comments N	



Full Alarm Management System

□ All alarms determined in DCS

□ Implements:

- > Priority and Alarm Area/Group
- > ACK and page ACK
- Alarm comments
- Inhibit & suspend

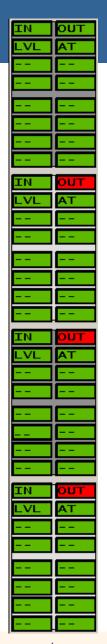
ALARMS			ALARMS ALL	FILTER	RECEN Priority	ALL P3OUTFLOW P4OUTFLOW BAILEYSTATUS	PERIOD	FREQUENCY Status	Value
ALL	FILTER		✓ 11/19/2005 ✓ 11/19/2005 11/19/2005 ✓ 11/19/2005	12:01:01.065 12:00:20.867	LOW P2 LOW P2 LOW P3 LOW P2	NONE P1TESTALARM P2TESTALARM P3TESTALARM	RATE RATE RATE RATE	LO LO LO LO	0.419998 0 3.948 0
Ack Date In ✓ 11/19/2005 ✓ 11/19/2005 11/19/2005	Time In 12:00:20.867 12:01:01.065 12:00:20.867	Priority P2 LOW P2 LOW P2 LOW P3		4	Alarms	P4TESTALARM	•		•
✓ 11/19/2005	12:00:58.461		C_FLOW_RAT			-	LO	0	
larms Total:	4	Ala	ms Unacknow	wledged:	1				

Alarm History LAST ALARMS BY TAG TRAINEF. P1 REGULATOR FL. Last 12 hr. RECENT/AREA RECENT/TAG FREQUENCY PERIOD ALL FILTER □ Query & report 🛛 🗙 🛃 🐬 100% 🔽 🛛 📢 ┥ 1 of 1 <u>)</u> historic alarms Preview 11/18/20 9:44:04A Recent Alarms Report Node: TRAINER Tag: P1_REGULATOR_FLOW P1 REGULATOR FLOW Period: Nov 17 2005 09:44:04 PM - Nov 18 2005 09:44:04 AM <u>Value</u> <u>Unit</u> Type Priority FOR PERIOD P1INFLOW - 2005/11/16 09:42 to 2005/11/18 09:42 42.000 L/SE HТ м 38.324 L/SE ΟK М RECENT/AREA RECENT/TAG ALL FILTER PERIOD FREQUENCY ΗТ м 42.000 1./SE ALARM FREQUENCY TRAINER Last 8 hrs >2 -All | × 🖨 🐬 100% 💌 | | 🛯 🖣 1 of 1 ▶ N = || A4 Preview RECENT/AREA RECENT/TAG PERIOD ALL FILTER FREQUENCY || × 🖨 🗲 100% 💽 || K 🔺 <u>)</u> 1 of 1 ▶ ▶ = ||#4 11/18/20 9:43:5 Preview Alarms by Period Report 11/18/20 9:42:28A Alarm Area: PlinFLOW Period: Nov 16 2005 09:42:00 AM - Nov 18 2005 09:42:00 **Frequency Report** Date/Time Description Type Prior. Value Node Tag Unit Node: TRAINER Alarm Area: All Period: Nov 18 2005 01:42:27 AM - Nov 18 2005 09:42:27 AM 11/17/2005 8:19:44PM TRAINER P1_REGULATOR_FLOW P1 REGULATOR FLOW ΗI 42.000 L/SE 11/17/2005 8:19:46PM TRAINER P1_REGULATOR_FLOW P1 REGULATOR FLOW # of instance TagName Description Unit 0K 38.052 L/SE 11/17/2005 8:22:05PM TRAINER P1_REGULATOR_FLOW P1_REGULATOR_FLOW ΗI ado.AlmPriority (String)/SE M P1_A_FLOW_RATE P1 PROCESS A FLOW RATE L/SE 11/17/2005 8:22:06PM TRAINER P1_REGULATOR_FLOW P1 REGULATOR FLOW 0K M 37.796 L/SE P2_A_FLOW_RATE P2 PROCESS A FLOW RATE L/SE 11/17/2005 8:24:43PM TRAINER P1_REGULATOR_FLOW P1 REGULATOR FLOW ΗI М 42.000 L/SE 30 P3_A_FLOW_RATE P3 PROCESS A FLOW RATE L/SE 11/17/2005 8:24:45PM TRAINER P1 REGULATOR FLOW P1 REGULATOR FLOW ŌК 38.611 L/SE - M 30 P4_A_FLOW_RATE P4 PROCESS A FLOW RATE L/SE 11/18/2005 9:28:21AM TRAINER P1_REGULATOR_FLOW P1 REGULATOR FLOW ΗI 42,000 L/SE M 10 P1_TANK_LVL_REGULA P1 TANK LEVEL REGULATOR CM 11/18/2005 9:28:24AM TRAINER P1_REGULATOR_FLOW P1 REGULATOR FLOW 0K 38.324 L/SE P1_REGULATOR_FLOW P1 REGULATOR FLOW L/SE б 11/18/2005 9:29:49AM TRAINER P1_REGULATOR_FLOW P1 REGULATOR FLOW 42.000 L/SE нт P1_TANK_LEVEL P1 TANK LEVEL СМ 11/18/2005 9:29:51AM TRAINER P1_REGULATOR_FLOW P1 REGULATOR FLOW OK . M 37,995 L/SE 11/18/2005 9:31:49AM TRAINER P1_REGULATOR_FLOW P1 REGULATOR FLOW ΗI М 42.000 L/SE 11/18/2005 9:31:53AM TRAINER P1_REGULATOR_FLOW P1 REGULATOR FLOW ŌК 37.929 L/SE

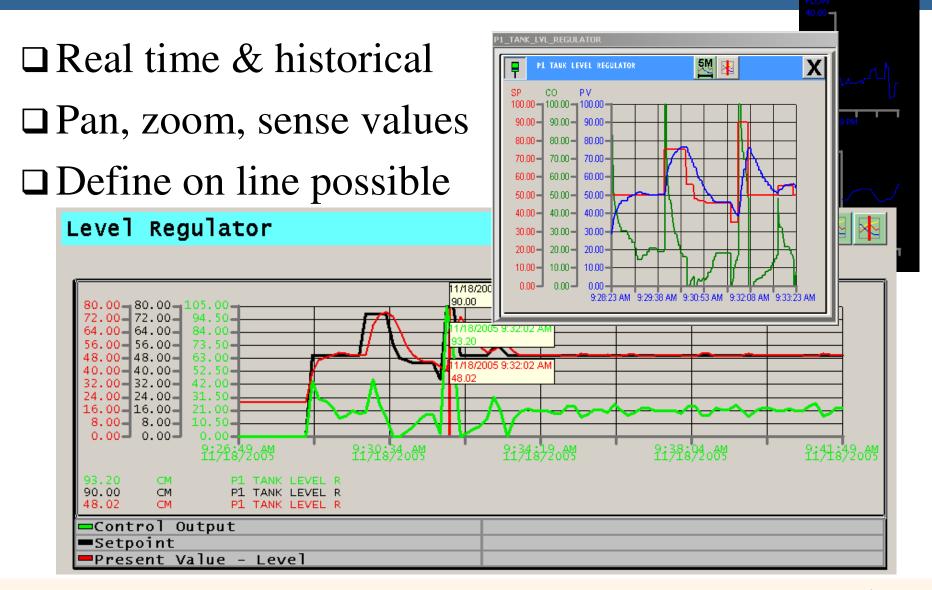
Alarm Display Panel

On screen ADP With 12, 20, 32 or 64 buttons On line ADP Administration

AD P	Confi	gu	ra	tio	n												
N	ode Nam	ie:	T	RAIN	ER]										
S	elect A	ADP:															
-	1 IN LV	_	-						IN	LVL					 	16	
17	7 IN LV	۲ L – -	-						IN	LVL					 	32	
33		_	-						OUT	AT					 	48	
49	9 <mark>OUT AT</mark>		-						OUT	AT					 	64	
	larm Ar escript			ne:			NFLOV ne of A	· · · · ·	Area M	lapped	to AE	P Butt	•• :on 0	• -			
D	isplay	Tit	:le	:		IN											
	escript					Title	for AE)P But	ton 0					j			
Р	rimary	Dis	sp1	ay:		P1	systen	noverv	view				•••			1	
D	escript	ior	1:			Prin	nary Di	splav	for AD	P Butto	on O			1	\checkmark		



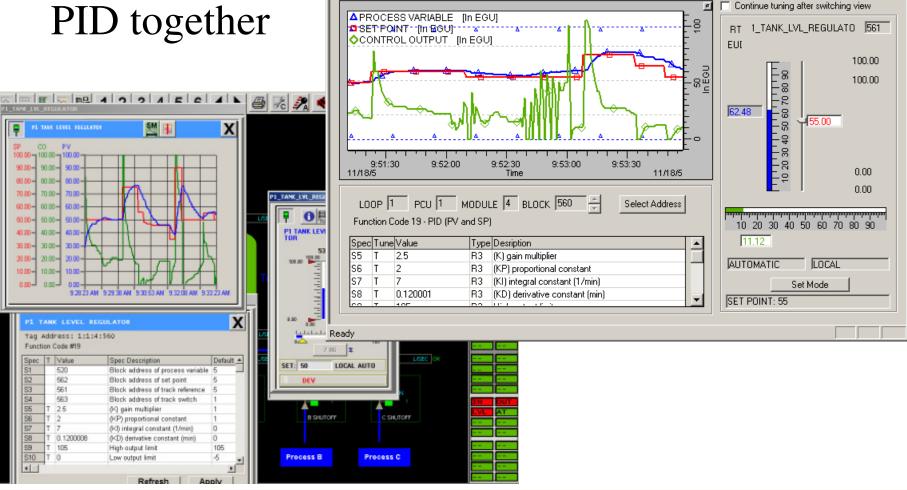
Trends



Tune	& monitor any		P1_tank_lvl_regulator P1 TANK LEVEL F Tag Address: 1:1 Function Code #19	
LOOP 1 PCL MODE EXECUTE Func FC 80 → Func SPECIFICATIONS Spec Tune/Value S4 S4 5 S5 700 S6 5 S7 T 100 S8 T 0 S9 T 10 S10 100 S11 0 S12 0 S13 -5 -5 -5 -5 -5	Help Help Image: Second strain str	ME P1_TANK_LVL_REG tune this block: select Tur OUTPUTS Blk Value N 21.1089 N+1 55 N+2 1 N+3 0 N+4 0 N+5 1 I	Spec T Value S2 562 S3 561 S4 563 S5 T 2.5 S6 T 2 S7 T 7 S8 T 0.1200008 S9 T 105 S10 T 0 S11 T 0 S11 T 0 S11 T 0 S11 T 0 Set point in engineer Mode Level Station mode Computer status flag	Spec Description Defa Block address of set point 5 Block address of track reference 5 Block address of track switch 1 (K) gain multiplier 1 (KP) proportional constant 1 (KI) integral constant (1/min) 0 (KD) derivative constant (min) 0 High output limit 105 Low output limit -5 Set point change Fals

Station Tuning

□ Tune station & PID together



📯 CLU - Configuration & Loading Utility

Connection View Server Help

I,

3

_ 🗆 🗙

Review Module Status

ProblemReport ActiveX Control Manual Mode	
Server Name	System Explorer
Server Name	File View Help Item Name Ciul.Loop1.Pcul.Module1 System Status Overview Node Status Summary Module Status Summary Item Name Ciul.Loop1.Pcul.Module1 System Status Overview Node Status Summary Module Status Summary Image: Ciul Loop1 Coop1 PCU 1 MODULE T TYPE IMAMM03, NAMM02/02A Image: Power Status Power Status N/A DATA COLLECTED AT 15:10 Status Soft Status Status Status Status Status Status Image: Power Status Module3 Problem Reports Image: Summary NVRAM initialized state Image: Summary NVRAM initialized state Summary NVRAM initialized state Summary NVRAM initialized state Summary calibration status is bad Summary calibration status is bad Summary calibration status Status
CU04 L00P 1 PCU CU04 C00 L00P 1 PCU CU04 C00 Communit Communit Communit CU04 C00 Communit Communit Communit CU05 P1 PCU3 00 00 01 01 01 01 01 01 01 02 02 02 03	ari a a a a a a a a a a a a a
Connect Disconnect Refresh	Auto Mode

Security System

□ Standard Security System

- > Five levels
 - Administer
 - Configure
 - Tune
 - Operate
 - View
- Create Username & Password for any user

~

- Assign User to specific security level
- > Auto-Login any level
- □ Optional to define additional levels
- □ Optional security by plant area
- □ Enable disable features at any level

LOGIN	
Change Password	Exit
	Change Password

Reports and Logs

□ Shift and period reports

- Easily added via
 - EXCEL
 - Access
 - Crystal Reports

Full Featured Operators Console

- □ Graphics
- □ Control Pop-Ups
- Operating Parameters
- □ Alarms
- □ Alarm History
- □ Alarm Display Panel
- □ Trends
- □ Change Tunable Specifications
- □ Station Tuning
- □ Review Module Status
- □ Security System
- □ Reports and Logs

Maintainability

Simple Maintenance Tools Get the Job Done Without Headaches

Tag Database Maintenance

□ Functional

- > Add tags on-line from any workstation
- > Add tags once only
- Standard Configurator application

□ Benefit

- ➤ Simple
- Intuitive
- ≻ Easy to use

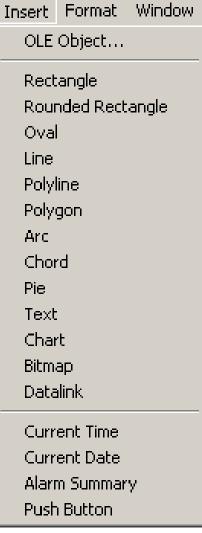
File Edit View Communications Options Help Image: I	C:\AKCROS\PDB\Boiler.CIU - OPsCon		
Configuration Alarm Configuration Boilter Description: BOILER 3 BURNER MFC05 Configuration Address: Oldress: Oldress: PsL_3.105 Point Index Point Index Phase: Configuration Configuration	File Edit View Communications Options	Help	
Image: Secondary Rate: 01 Image: Secondary Rate: 01 Image: Secondary Rate: 00		2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
TSH_3_109 PSL_3_110 PSL_3_111 PSL_3_112 PAL_3_113 PSL_3_114 PSL_3_116 PSL_3_116 HS_3_117 HS_3_118 Delay Time: D2 NUM SINGLE OFF-LINE	GUU0 CU10 CU10	Name: PCU2_MOD5 Enable Description: BOILER 3 BURNER MFC05 Addressing 0:2:5 Point Index 8 Node Desc: CTT Communication Timing Reply Timeout: 10 Retries: 3 Delay Time: 02	

Graphics Maintenance

□ Flexible graphics

- > VBA scripted, easily animated, intuitive
- □ Benefit
 - > Easier to use than native ABB tools

🖃 👆 📥 Group1	
- C Polygon19	
PolyLine10	
A Text34	Ø 8, 9
🗄 🗛 Text66_ed	STATE DVAL DLISEC ALARM
🗄 🗛 Text67_ea	
🗄 💁 Group17	
🗄 💁 Group18	Text66_ed_42 Animations
🗄 💁 Group23	
🗄 💁 Group3	General Visibility Size Misc Position 辛 Color Style 🔿 Text Behavior
🗄 💁 Group32	Properties
/ Line21	Property Name Current Setting Animate Property Description:
Polygon22	ForegroundColor (0,240,0) Y The color which will be used to
- A Text124	BackgroundColor (0,0,0) ill the interior of the shape.
A Text66_ed	EdgeColor (0,0,0)
+ A Text67_ea	
🗄 💁 Group34	
🗄 🖣 Group35	
🗄 🖣 Group36	
🗄 🖣 Group37	 Dynamic Setting for the ForegroundColor Property
🗄 🖣 Group38	Data Source: Fix32.trainer.P1_FP_FLOW.F_2
Line1	
Line10	ForegroundColor
Line11	Data Conversion: Table
Line12	
Line13	Output Error Mode: Use Current Output
/ Line14	C Exact Match Range Comparison
Line15	Low High Color Blink To
Line16	1 0.00 0.00 (0,240,0)
Line17	2 1.00 127.00 (240,240,0)
Line18	2 1.00 127.00 (240,240,0)
Line19	
Line2	Insert Row Modify Row Delete Row Advanced
Line20	Inset how Modify how Delete how Advanced
Line5	
Line6	
Line7	OK Cancel Help MC
Line8	



Intuitive Tools

The power of a mass market product Customized specific to Bailey

Other Features and Benefits

Making this the best console solution

Conversion Support Available

Automated Tools Based Conversion

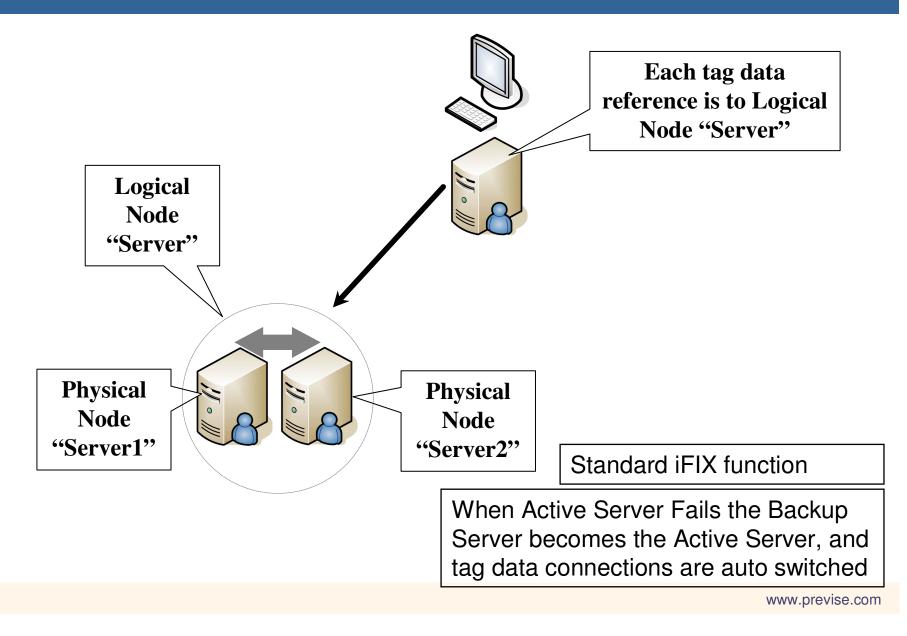
- Tag Database Conversion
 - Retain existing tag database
- > Alarm System Conversion
 - Alarm priority, groups, ADP, alarm comments and more
- Graphics Conversion
 - Reuse your existing graphics if you wish
- Benefit
 - Reduced conversion and commissioning costs
 - Previous installations in one week on site with no outage
 - Reduced operator training requirement

Factory or Site Acceptance Test Available

Review Prior to Install

- > Use our Bailey DCS Simulator
- > Set up FAT or SAT tests in a day
- > Use your controller files with simulated data
- Test fully integrated consoles before installation
 Benefit
 - > Reduced issues at actual installation
 - Risk mitigation

Fault Tolerance Via Client Failover



Embrace Open Standards

□ Supports industry standards

- Standard Intel PC
- > OPC, TCP/IP, ODBC and SQL
- Client Server and Internet/Intranet Capability
- > Microsoft standards including:
 - COM/DCOM/ADO/OLEDB/ActiveX
 - Visual Basic for Applications
 - Support for recent Microsoft OS
 - Terminal Server options available

Benefit

- Long product life assured via standards adherence
- > Unbeaten data connectivity via fully open standards

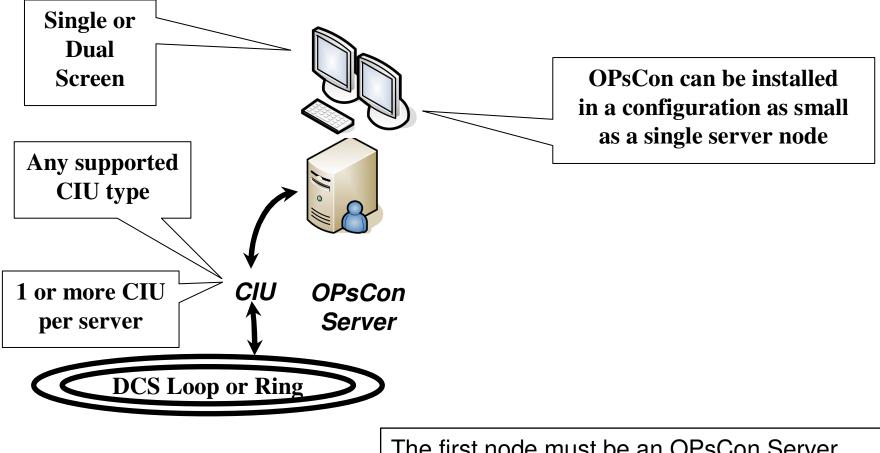




Network Structures

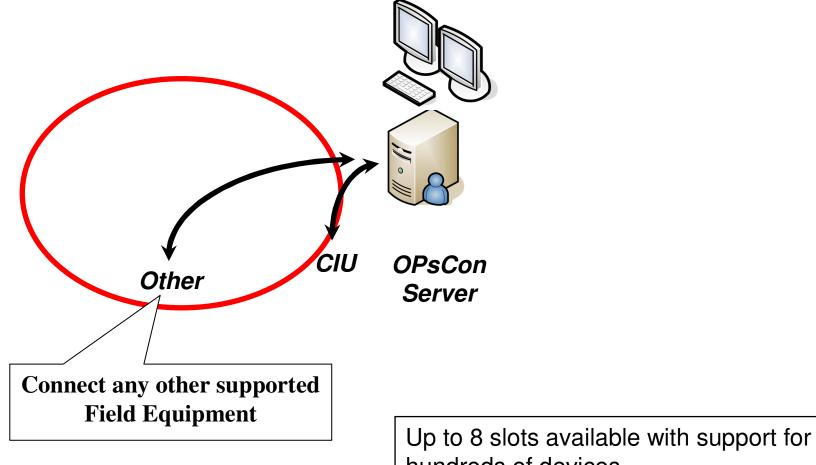
Flexible System Structure To Meet your Needs

Single Standalone Console



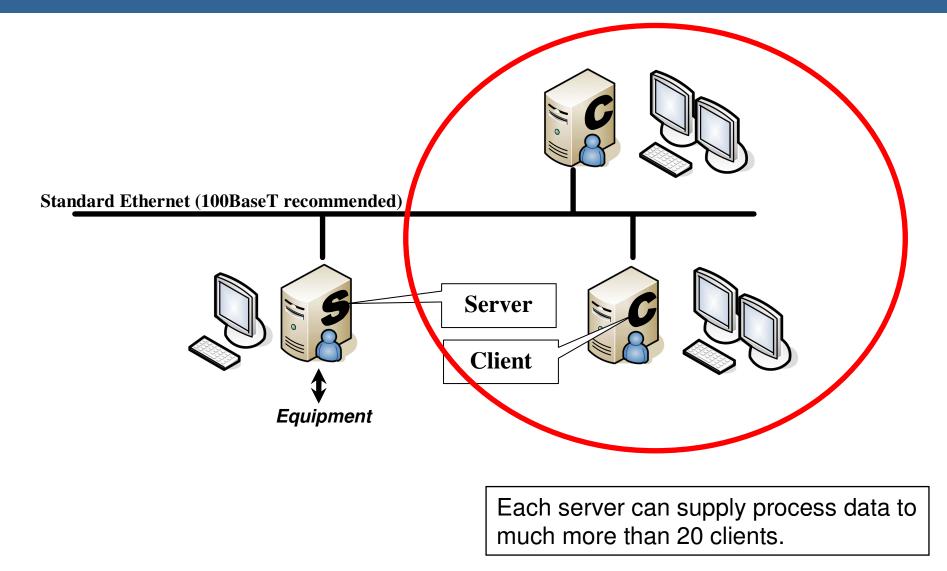
The first node must be an OPsCon Server, configured with an iFIX server + OPsCon

Connect Additional Field Hardware

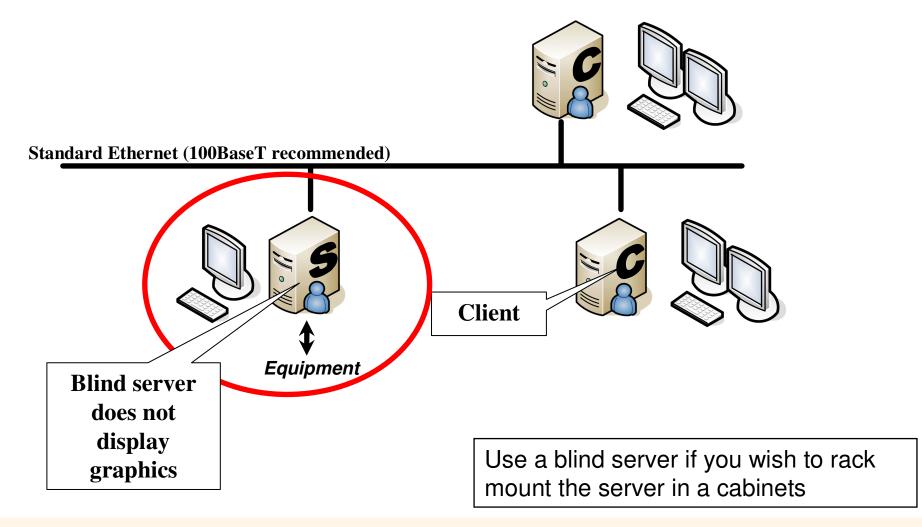


hundreds of devices

Add Clients to Single Server



Blind or Non-Blind Server

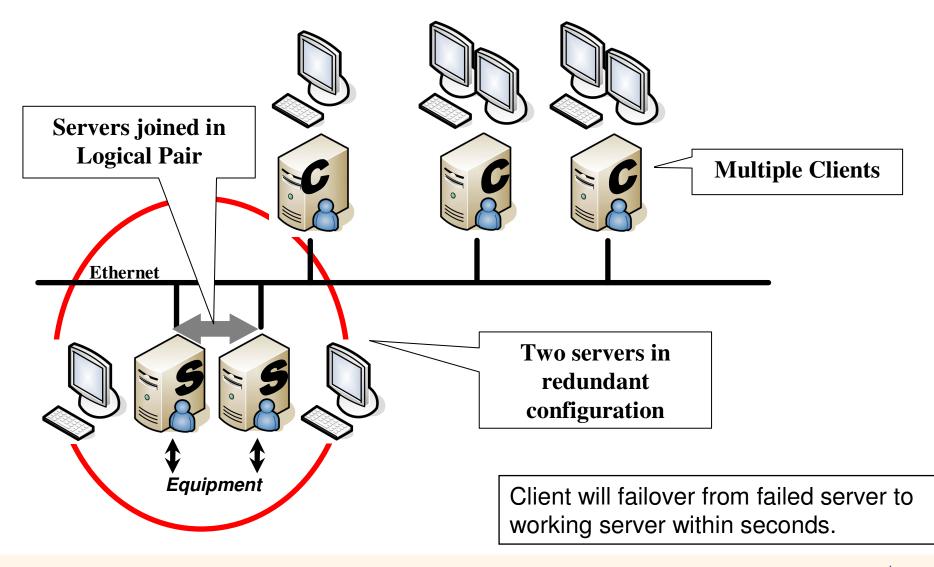


Eliminate Single Point of Failure

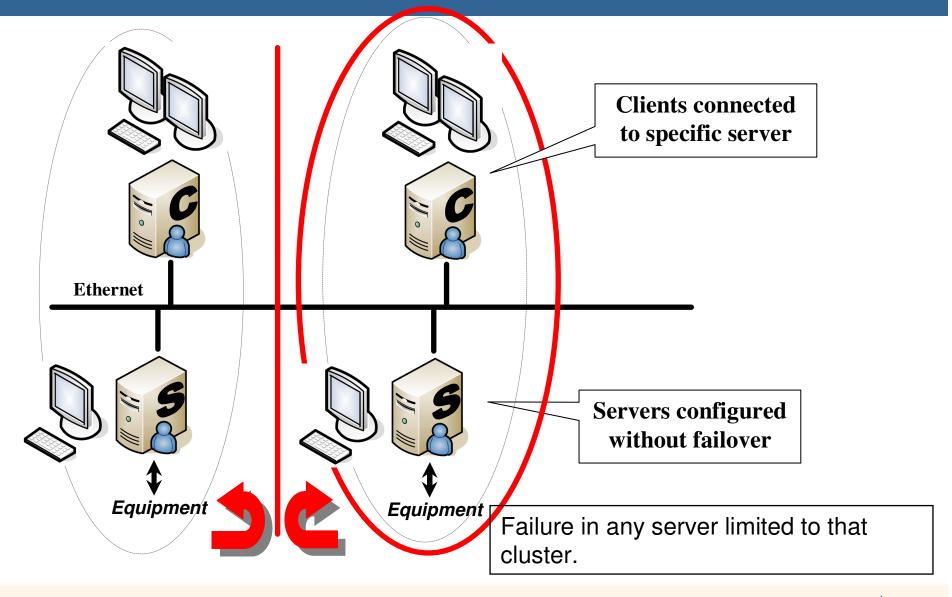
□ Redundant Servers

- > WITH Client Failover
- > WITHOUT Client Failover

Redundant Servers with Client Failover



Redundant Servers without Client Failover

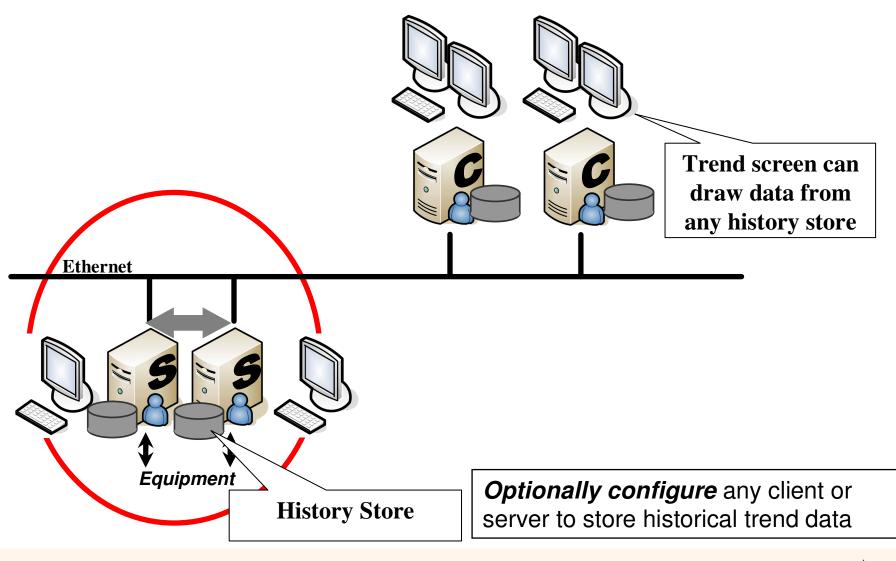


A Choice of Historians

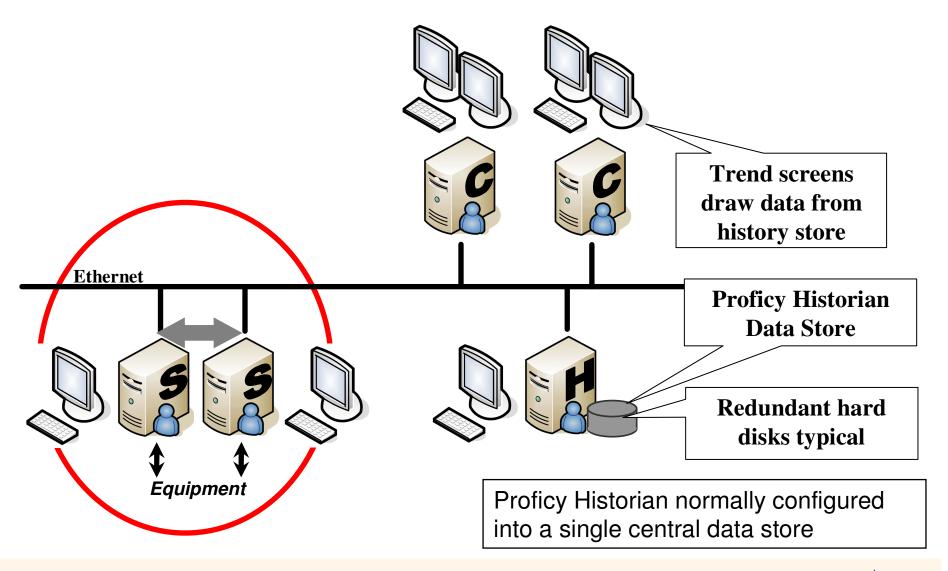
GE Proficy offers Two Standard Historians

- Classic Historian ships *Free* with iFIX
- > Proficy Historian Offers Maximum
 - Performance
 - IT System Flexibility

Classic Historian



Proficy Historian

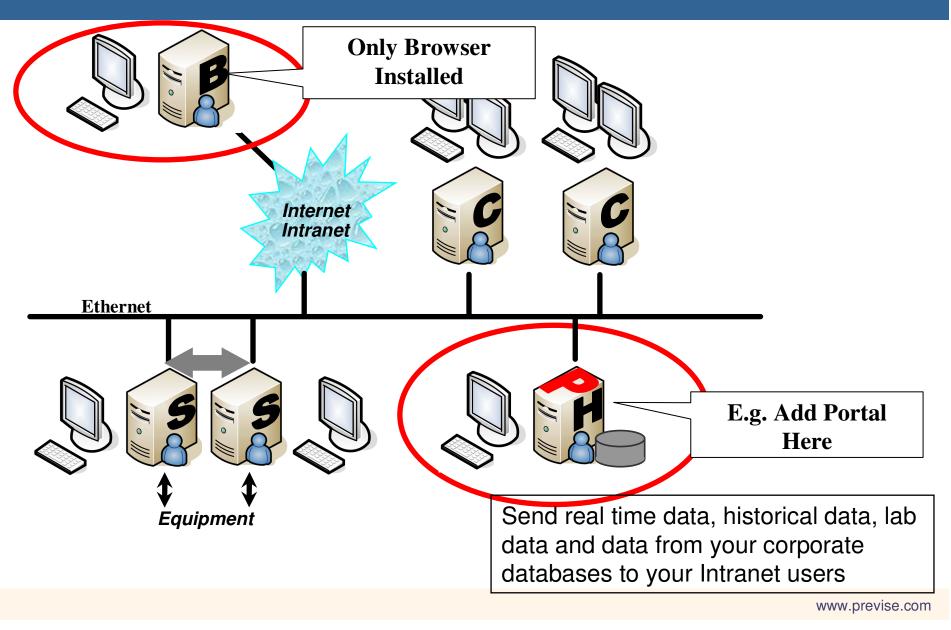


The Internet or Intranet

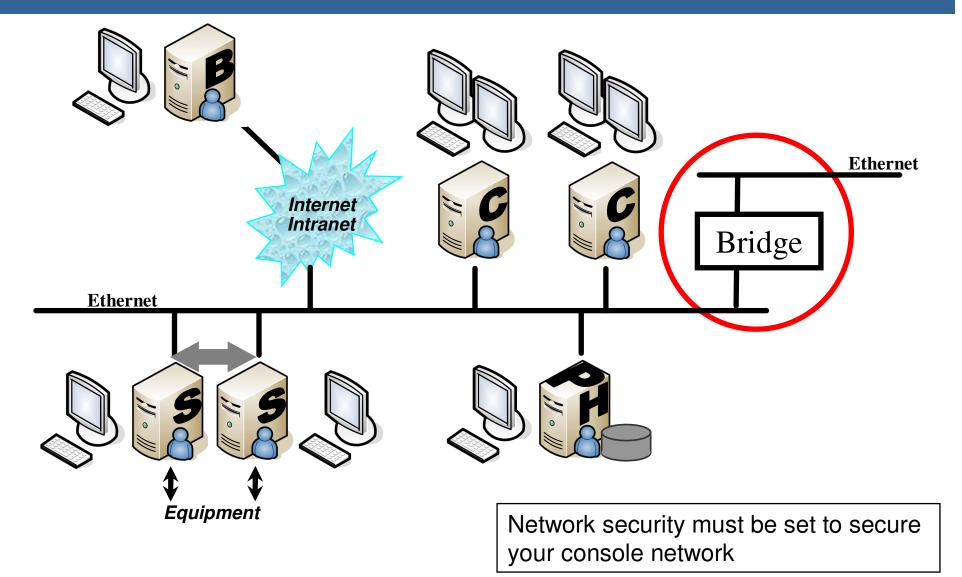
GE Proficy Real Time Information Portal¹

- > Bring almost any data to almost any browser
 - DCS data
 - From Classic or Proficy Historian
 - OPC data from anywhere
 - Most common ODBC or SQL data sources
 - And much more
- > View the data in any form
 - Trends, graphics, tables
 - Mixed real time and historic
 - Calculated Performance Indicators

Add Real Time Information Portal

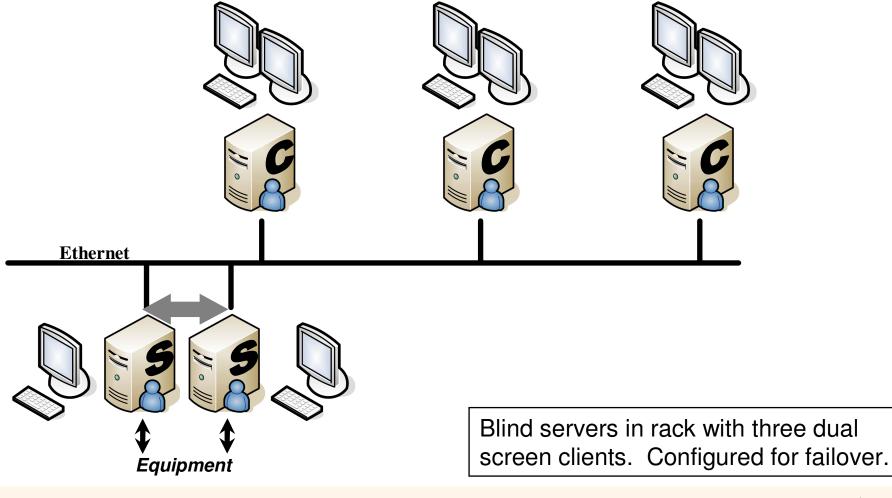


Bridge to the Plant wide Network



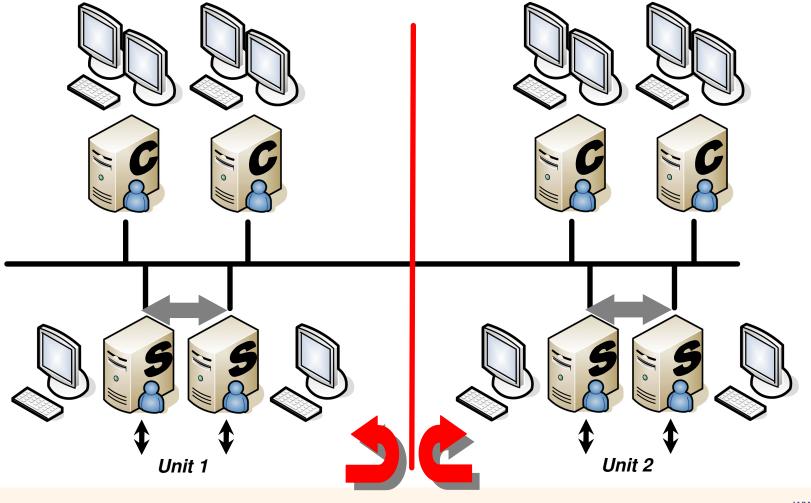
Typical Configuration # 1

□ Suits a single unit power plant or cement plant



Typical Configuration # 2

□ Suits a two unit power plant with unitization



Summary - Network Structures

□ Size to meet your requirements □ Grow as you do

□ A firm foundation upon which to build

Services Available

Flexible Service Offering To Meet Your Need

Support Levels

□ First Level

- Your local contractor or integrator
 - Assisted by Previse
- □ Second Level
 - > Previse resolves most issues
 - Assisted by GE and Microsoft
- □ Third Level
 - ➤ GE and Microsoft

Project Services by Previse

□ Network Planning

- □ Projects
 - From D.I.Y. through to full turnkey install
 - > Project Management
 - > Optionally via local Engineering/Integration firm
- □ Integration
 - Single Source Procurement
 - GE and OPsCon components and services
 - Other components as required
 - System assembly, configuration, checkout
 - > Automated graphics and database conversion

Project Services by Previse

□ FAT/SAT as required

- Acceptance test support
- Based on Previse Bailey DCS Simulator
- □ Installation
 - Bailey DCS Upgrades as required
 - Typically no outage required for new console install
 - Depends on scope of DCS upgrades required.
 - Install and commission system
 - Follow-up on any issues or problems
- □ Training
 - Standard prepared operator & technical training
 - > At your site !
- □ Other assistance as required

Post Installation Support Services

□ Deal with Previse for problem resolution

□ Annual Support

- Bundled annual support for GE and OPsCon components
 - GE iGlobalCare program
 - Version updates, phone/web/email support, knowledge base
 - Previse Extended Support Program
 - Version updates, phone/web/email support

\Box On site services

- > Periodic maintenance
- > Installation of updates & HMI changes

□ Web Services

Seminars and web based topical training

Services

As much or as little as you need Designed to be helpful We help ensure success

Wrapping Up

Next Steps

Additional Information Available

□ Have we answered your questions ?

□ Ask us for more about:

- Standard screen system for iFIX
- > Proficy Historian
- > Proficy Real Time Information Portal
- > Remote support
- > Bailey DCS Simulator

□ If you need further information please ask

Next Steps?

□ Available now !

 \Box If you need to know more:

- > Questions to *support@previse.com*
- > Ask us for a conference call to review your need
 - With web based product demonstration if requested
- Ask us to quote your specific requirements
 - Just call us.. We'll walk you through the rest
- □ Free assessment of your application
 - > To see what additional support you may require
 - > To ensure our quote to you is 100% complete
- □ If you want to work with existing suppliers
 - > Just ask us.. We'll be happy to work with existing suppliers
 - E.g. Existing controls engineers or integrator.
 - E.g. Turnkey installation by your local integrator

Thank You

Question & Answer