



EMERSON EXCHANGE 2025

ACCELERATING INNOVATION



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Emerson Exchange 2025

DeltaV Upgrades - Sustaining Reliability

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Inquiries should be directed to:
EmersonExchange@Emerson.com



Nilesch Kandharkar

DeltaV Upgrade Program Manager / Emerson



Bruce Greenwald

DeltaV Platform Business Development Sales Director / Emerson



Nilesh Kandharkar

Bruce Greenwald

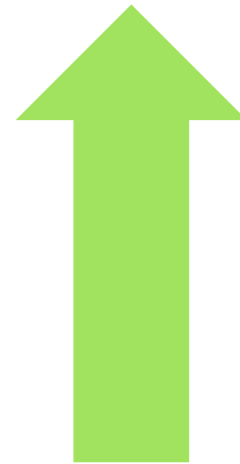
Sustaining Reliability through DeltaV Upgrades

Technology Features

What is DeltaV upgrade?

- **Definition:** DeltaV upgrade is the process of elevating it's software version.

DeltaV target version 16.LTS

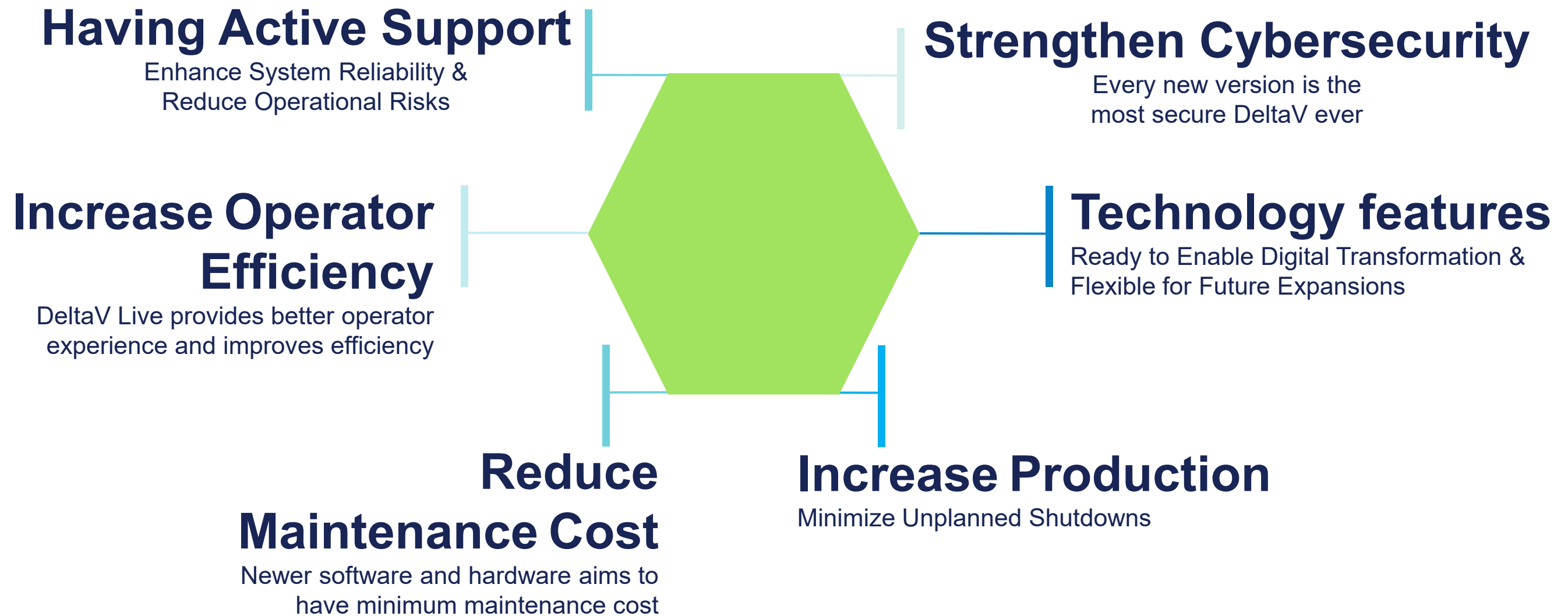


DeltaV base version 14.LTS

Example

The plant and DeltaV are already operational, why to plan for upgrade?

- To ensure your system is reliable and safe, upgrades should be a top priority in your lifecycle planning.



Risks of keeping your system unsupported

Total cost of ownership (TCO) increases with no investment in the system

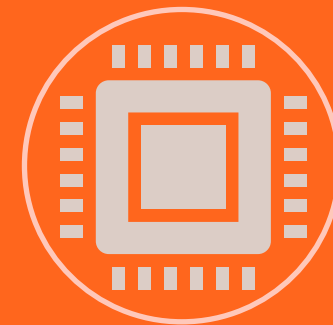
- Software vulnerabilities
- Limited compatibility
- Degraded security

Software



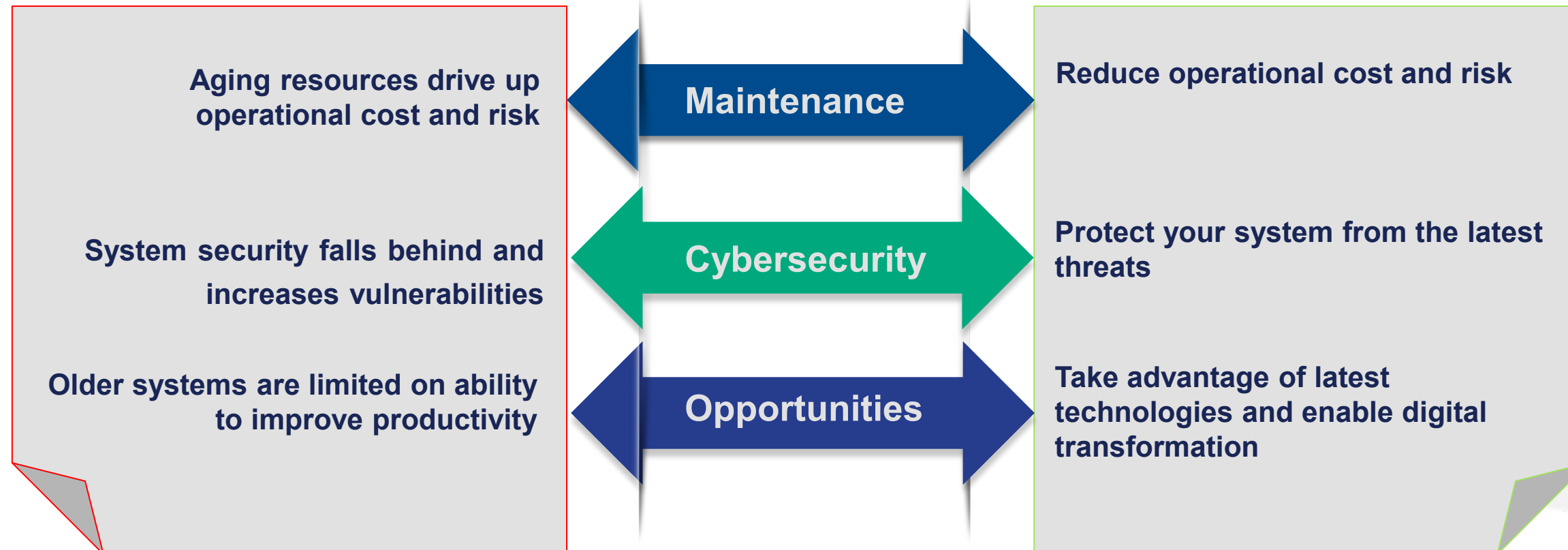
- Equipment failures
- Increased time: Replacing hardware
- Increased time: Repairing hardware

Hardware



Upgrades Maximize ROI & Status Quo is NOT Free

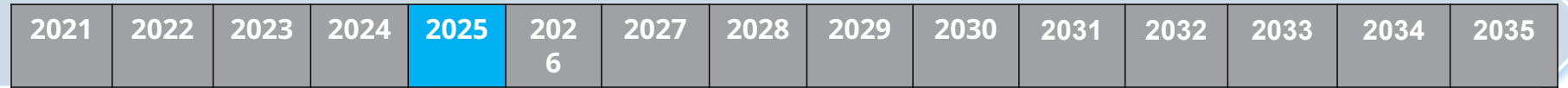
Upgrade: Return of Investment Maximizes



Do Nothing: Total Cost of Ownership Increases

Planning Upgrades

DeltaV Lifecycle Support Timeline



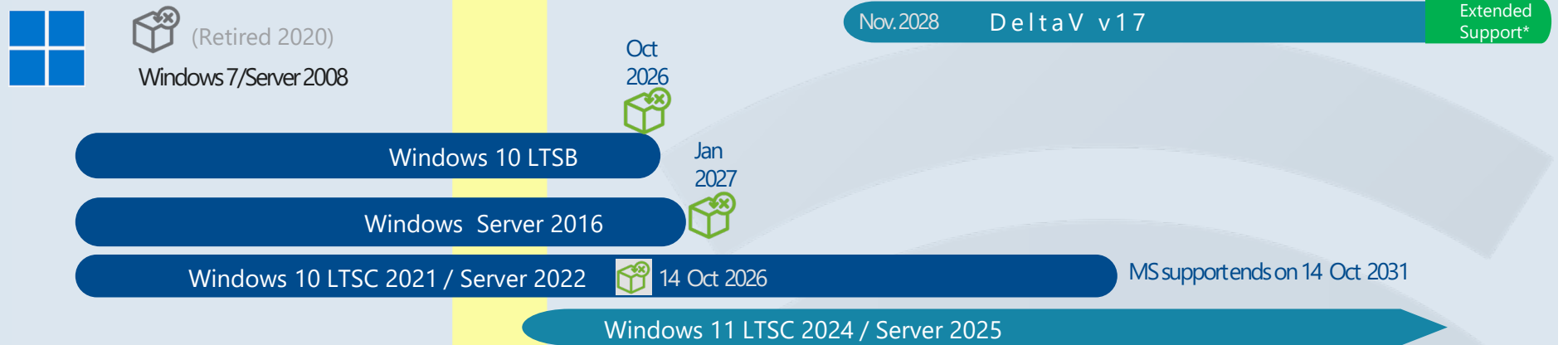
Replace any MD, MD+ & SD+ controllers



DELTA V **GUARDIAN**
Plan your upgrade for active software support if you are using DeltaV v14 and earlier versions!



Protect your system from any cybersecurity threats by using Microsoft supported operating system



Upgrade your HMI to DeltaV Live. DeltaV Operate software support will be ending with launch of DeltaV v17



We Can Help

Emerson can help with project justification, lowering risk and project execution

Project approval is difficult

Getting Started

- Site Evaluation
- ROI Calculator
- Budgetary Proposal

Upgrades have risk

Minimizing Any Risks

- Standardized Process
- Online Upgrades

You are already busy

Utilize Our Resources

- Certified Service Engineers
- Enhanced Tools
- Best Practices



Upgrade Successful

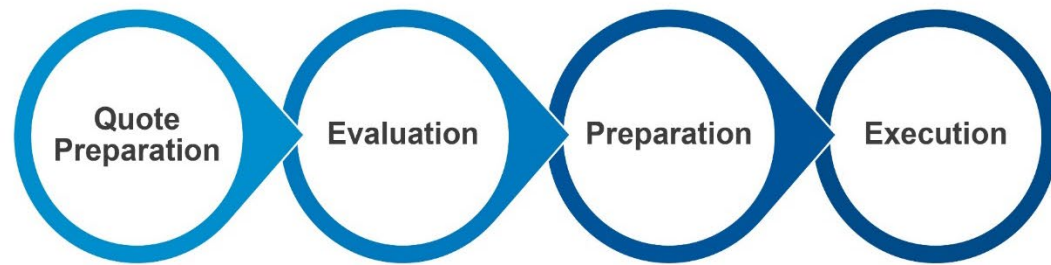
DeltaV Upgrade Service Program

Upgrades have risk

Shutdown window availability

Streamlined Global Process

Tiered Offering



Tier	Upgrade Type	Explanation
1	Offline	Offline upgrade within the time constraints
2	Partially Online	No production, some systems operational
3	Online	Normal production - no disruption

We are already busy

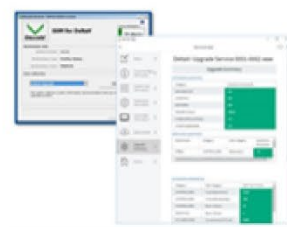
Standardized Efficiency Tools

Certified Engineers

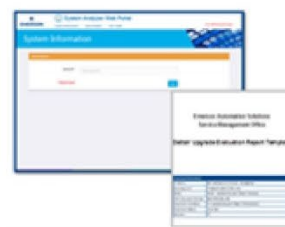
- ✓ SMS and EET
- ✓ SMS and Services App
- ✓ System Analyzer



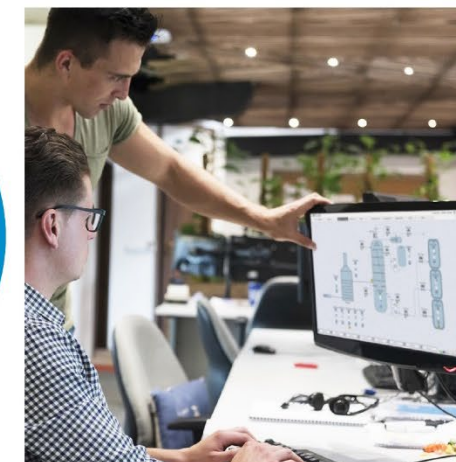
Quoting Tools



Site Data Collection Tools



Upgrade Evaluation Tool



World Area wise number of Certified Engineers



Technology Features

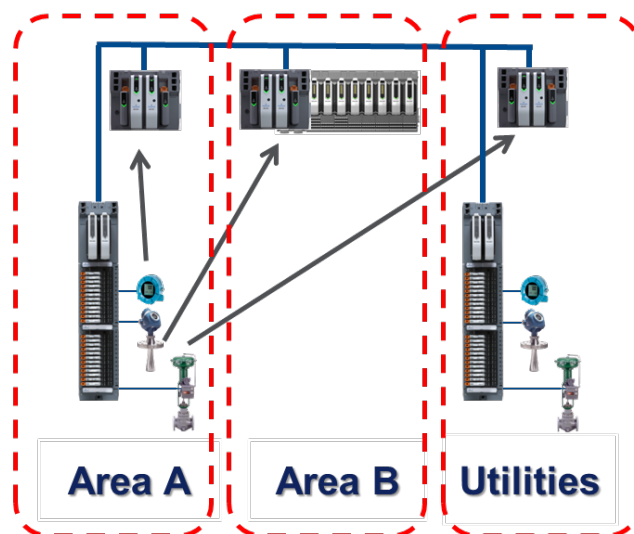
Bruce Greenwald

CIOC2 Limits With PK Controllers Are Doubled

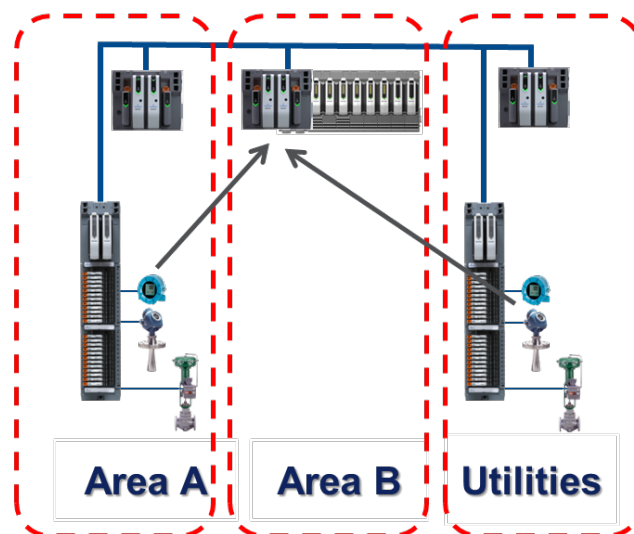
- Each CIOC2 can now report to up to 8 different PK or PK Flex Controllers
- Each PK or PK Flex Controller can have IO assigned from up to 32 CIOC2's
- Limits for original CIOC's and MX/MQ/SX/SQ controllers has not changed



Each CIOC2 can assign I/O to up to 8 different PK controllers



Each PK controller can have I/O assigned from up to 32 different CIOC2s



Reduce overall cost and complexity on large Electronic Marshalling project pursuits

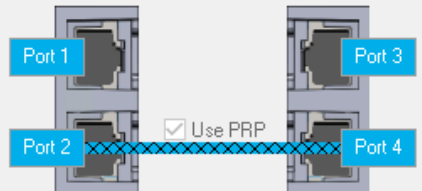
Eliminate barriers on Modernization projects using IO.Connect solutions

Network Configuration For PK Controller And EIOC

Enhanced IOP Management

- Enhanced Interfaces for network communications


EIOC1 - Manage Network Interfaces



Use PRP

Name	Redu...	Ports	IP Addresses	Gateway IP Addr...
Primary ACN	None	1		
Secondary ACN	None	3		
Primary Device Network	PRP	2, 4	192.168.1.10	
Secondary Device Network	None			

PKCTLR-4CC67E - Network Interfaces Diagram



Port 1 - Primary ACN (10.4.0.10)			
IP Address	Subnet Mask	Subnet	Subsystems/Ports

Port 2			
IP Address	Subnet Mask	Subnet	Subsystems/Ports

Port 3			
IP Address	Subnet Mask	Subnet	Subsystems/Ports

Port 4 - Secondary ACN (10.8.0.10)			
IP Address	Subnet Mask	Subnet	Subsystems/Ports

Port 5			
IP Address	Subnet Mask	Subnet	Subsystems/Ports

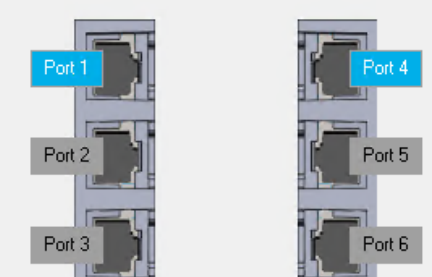
Port 6			
IP Address	Subnet Mask	Subnet	Subsystems/Ports

Primary ACN IP Addresses and Routes

IP Address	Alternate IP Address	Subnet Mask

Gateway IP Address	Network Destination	Subnet Mask	Metric

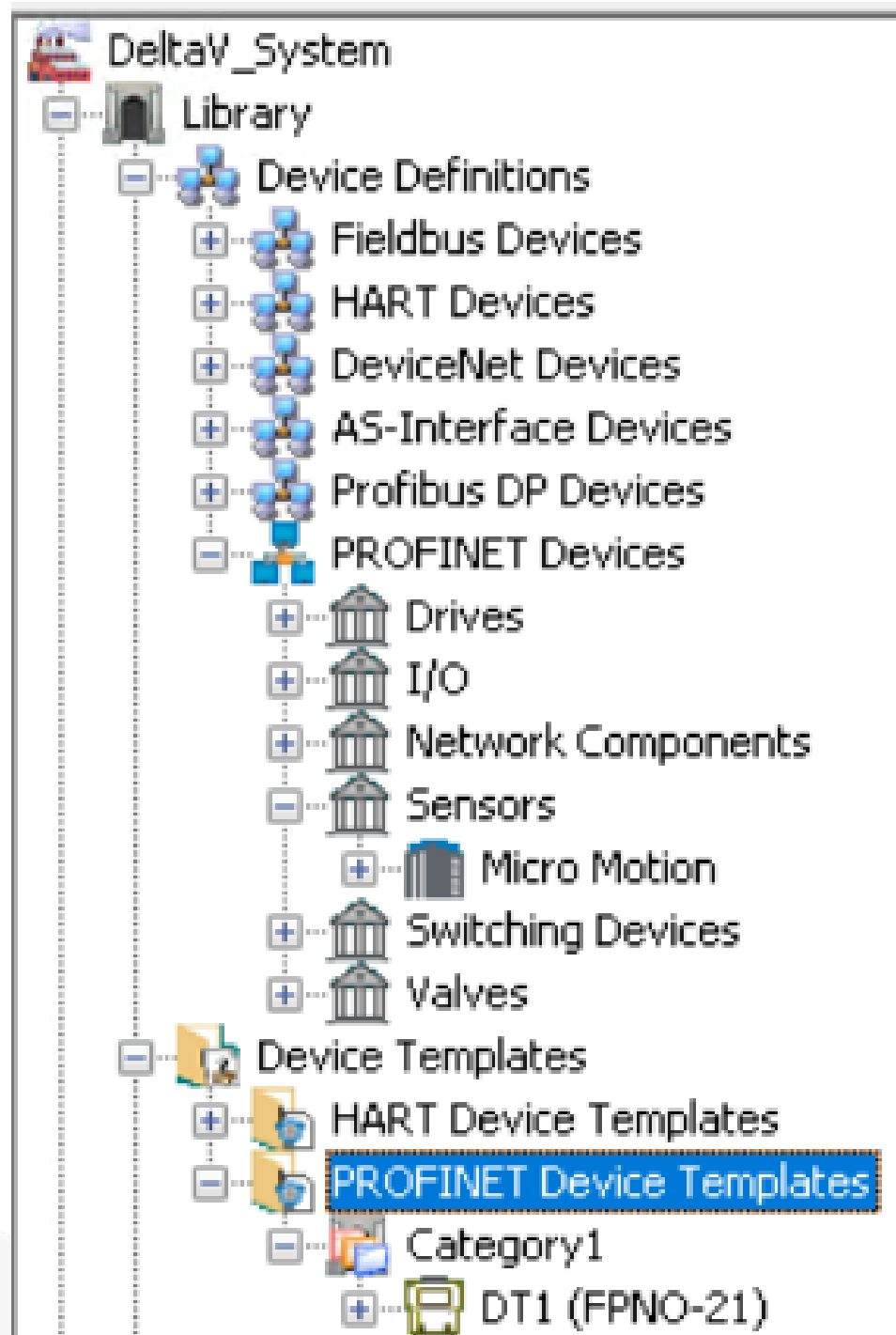
PKCTLR-4CC67E - Manage Network Interfaces



Name	Redu...	Ports	IP Addresses	Gateway IP Addr...
Primary ACN	None	1		
Secondary ACN	None	4		

PROFINET - Easy Configuration

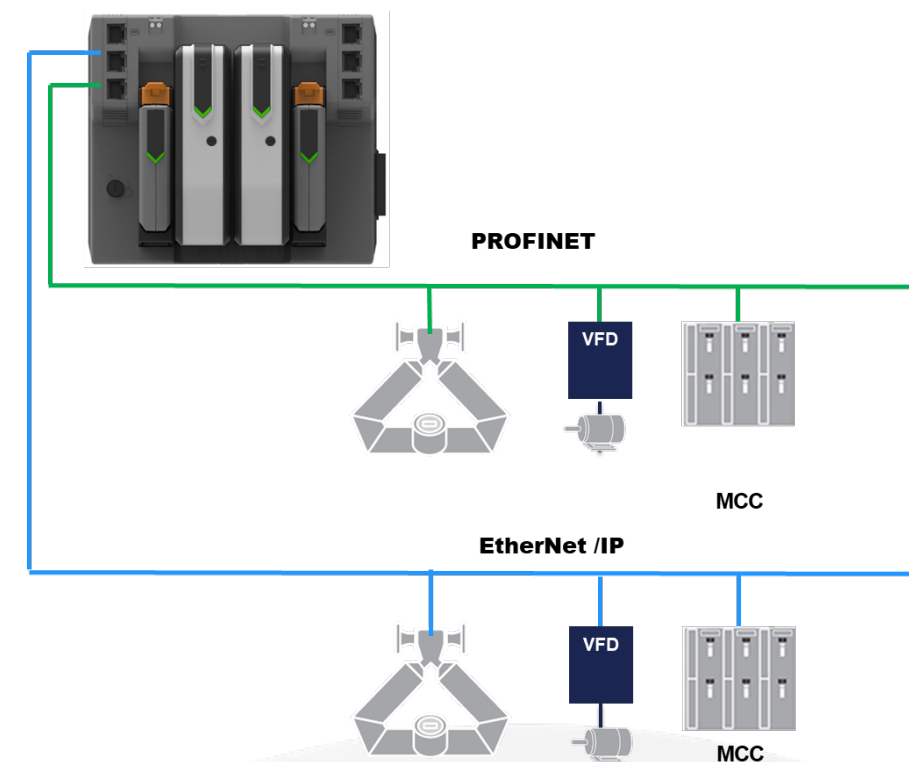
- Easy configuration by supporting vendor GSDML file and device templates
- Real Time cyclic data (RT) for control and Device Diagnostics
- Works with Ethernet APL- Advance Physical Layer Devices (need APL Switches for connectivity) and Supports Basic APL Profiles (generic GSDML file)



PROFINET Capabilities

- Support for both S1 and S2 devices
- Enable other protocols in parallel with PROFINET on the same PK
- PROFINET DST consumption model:
 - For devices, every 16 signals counts as 1 DST
 - For remote IO, the first 16 signals count as 1 DST; signals 17 and above count a 1 DST each
- PROFINET and P01 device limits:

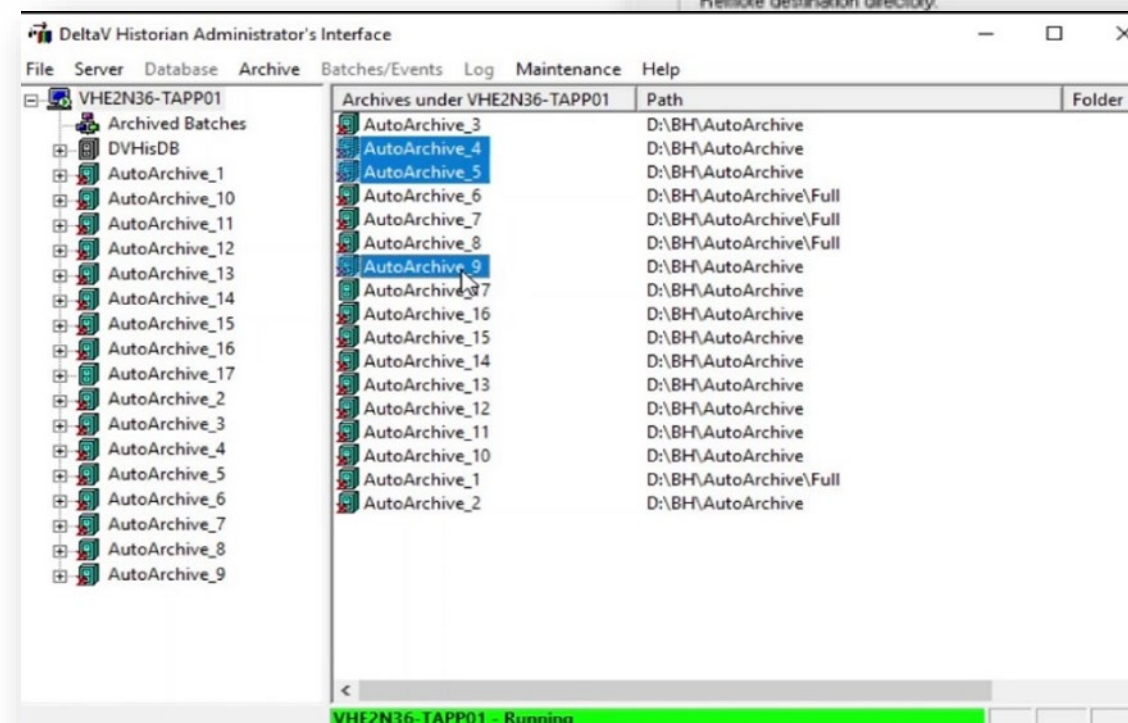
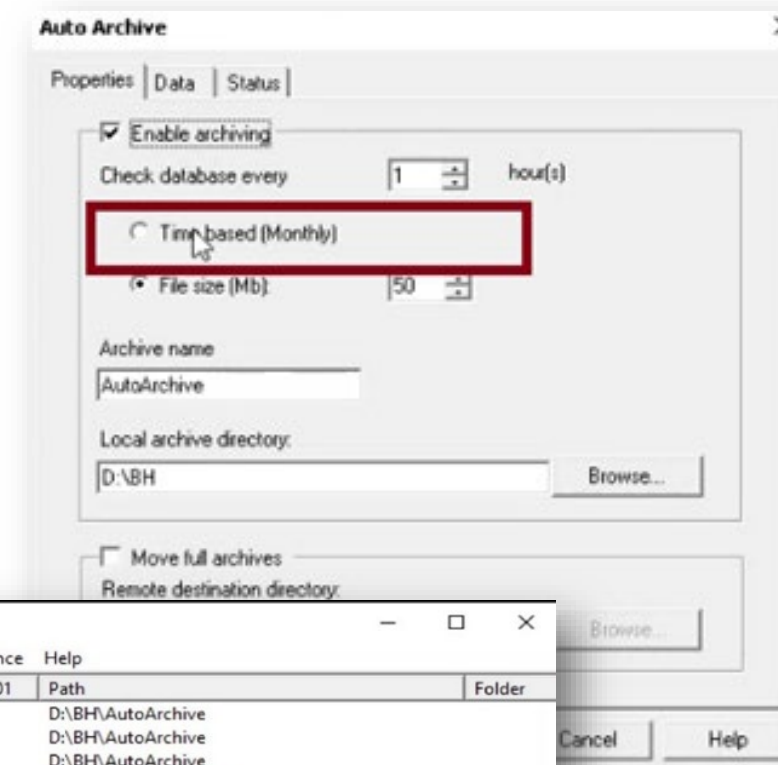
PK Controller	P01 Devices	PROFINET Devices
PK100	16	100
PK300	32	250
PK750	64	250
PK1500	128	250



Comply with industry standards while reducing hardware and licensing requirements

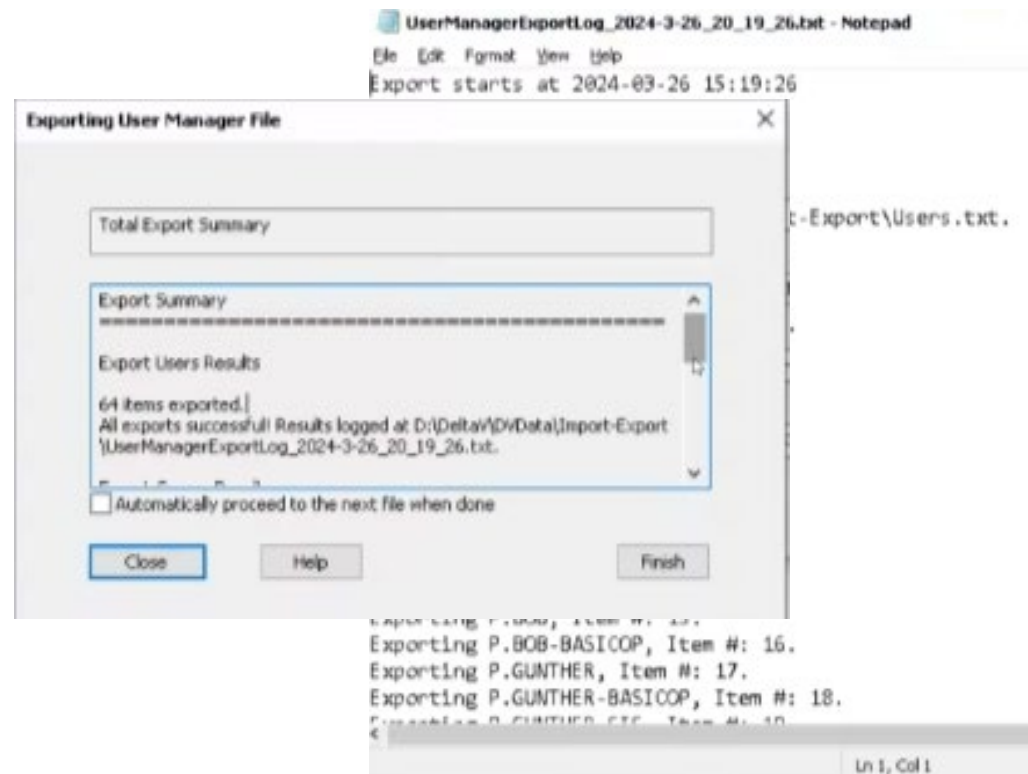
Batch Enhancements

- Added time-based auto-archival function
- Improved Batch Redundancy diagnostic indication for communication and synchronization
- Added logging functionality to help diagnose root causes
- Batch Historian Administration performance improvements
- Multi-select capability
- Faster refresh / loading time



UDEP Request

Allow Bulk Editing of Configuration Options in User Manager



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	user	full_name	descriptio	dv_works	dv_datab	dv_systen	disable_d	win_acco	computer	disable_w	role	dv_admin	dv_batch	dv_batch	dv_event	win_desk	win_admi	allow_ren	password	user_cant	password	logon_scri	home_di
2	ADMINISTRATOR	Built-in ac	BD-v15LTS	T	0000-0000	F	T		<Unspecif	T	Default Rc	T	F	F	F	F	T	F	T	F	F		Local
3	CONFIGURE		BD-v15LTS	T	0000-0000	F	F		F		Default Rc	F	F	F	F	F	F	F	F	F	F	T	
4	DEMODOI Demo Doug		BD-v15LTS	T	0000-0000	F	T		<Unspecif	F	Default Rc	F	F	F	F	F	F	F	F	F	F		Local
5	DVADMIN dvadmin		BD-v15LTS	T	0000-0000	F	T		<Unspecif	F	Default Rc	T	F	F	F	T	F	F	F	F	F	T	Local
6	DefaultAccount	A user acc	BD-v15LTS	F			F	T	<Unspecif	T	Default Rc	F	F	F	F	F	F	F	F	F	F	T	Local
7	EMERSON		BD-v15LTS	T	0000-0000	F	T		<Unspecif	T	Default Rc	F	F	F	F	T	F	F	T	F	F		Local
8	Guest	Built-in ac	BD-v15LTS	F			F	T	<Unspecif	T	Default Rc	F	F	F	F	F	F	F	F	T	T		Local
9	KRAKEN Ethan Cair Testing 1		BD-v15LTS	T	0000-0000	F	T		<Unspecif	F	Default Rc	T	T	T	T	T	T	T	F	F	T		Local
10	MAINTAINER		BD-v15LTS	T	0000-0000	F	F		F		Default Rc	F	F	F	F	F	F	F	F	F	F		
11	OPERATOR		BD-v15LTS	T	0000-0000	F	F		F		Default Rc	F	F	F	F	F	F	F	F	F	F	T	
12	SIS_CONFIGURE		BD-v15LTS	T	0000-0000	F	F		F		Default Rc	F	F	F	F	F	F	F	F	F	F	T	
13	SUPERVISOR		BD-v15LTS	T	0000-0000	F	F		F		Default Rc	F	F	F	F	F	F	F	F	F	F	T	
14	TestCStl		BD-v15LTS	F			F	T	<Unspecif	F	Default Rc	F	F	F	F	T	F	F	F	F	T		Local
15	WDAGUtilityAccount	A user acc	BD-v15LTS	F			F	T	<Unspecif	T	Default Rc	F	F	F	F	F	F	F	F	F	F		Local
16	defaultuser0		BD-v15LTS	F			F	T	<Unspecif	T	Default Rc	F	F	F	F	F	F	F	F	F	F		Local
17	testagent testagent		BD-v15LTS	F			F	T	<Unspecif	F	Default Rc	F	F	F	F	F	F	F	T	F	F		Local

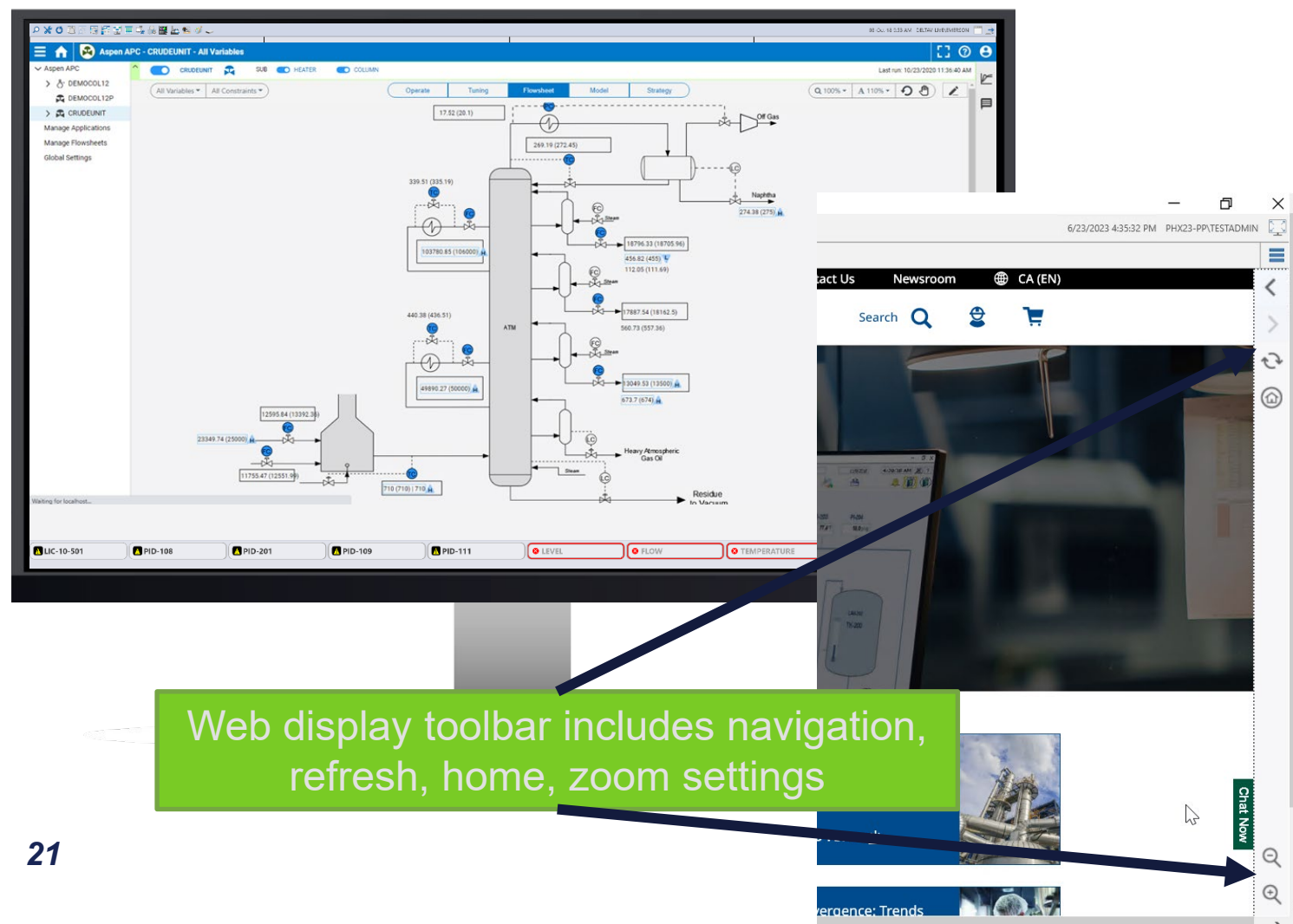
- Working txt file to then open in Excel
- Bulk export all users in an organized manner.

- Reduce time by exporting user logs to copy, paste, and make change for all users
- Change user admins and re-import the changes in the User Manager
- Quicker audits with organized least privileged permissions.

Powerful And Secure Integration Of Web Applications In DeltaV Live

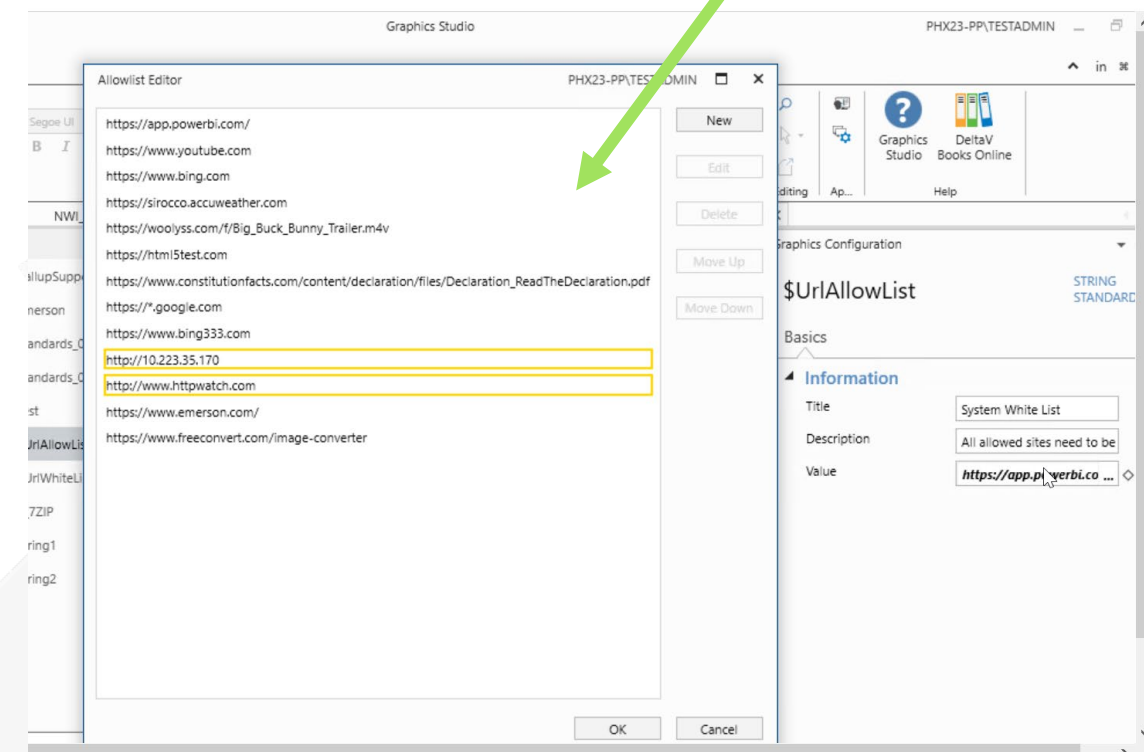
Creates a Cohesive Window For Operations – Web Display

- Easily and securely view web content in DeltaV Live with new Web Displays
- Removes the reliance on HTML5 iFrames – can now be used with DeltaV web-based applications!
- Behaves as any other independent display (i.e., participates in display sets, hierarchical navigation, etc.)



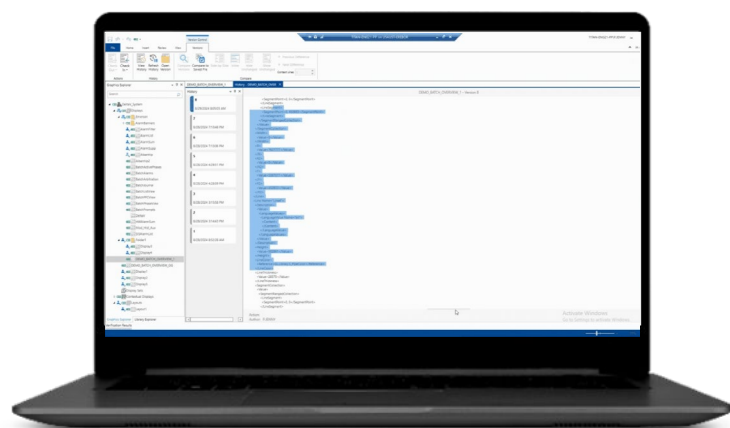
Web display toolbar includes navigation, refresh, home, zoom settings

Manage security in Graphics Studio by easily adding allowed listed websites to a standard



Version Control For DeltaV Live

- Check-in / Check-out of displays and other elements of Graphics Studio
- View and Compare version history in Graphics Studio
- Version Control & Audit Trail for Workstation Management & SQL Data Sources
- Easy Report configuration



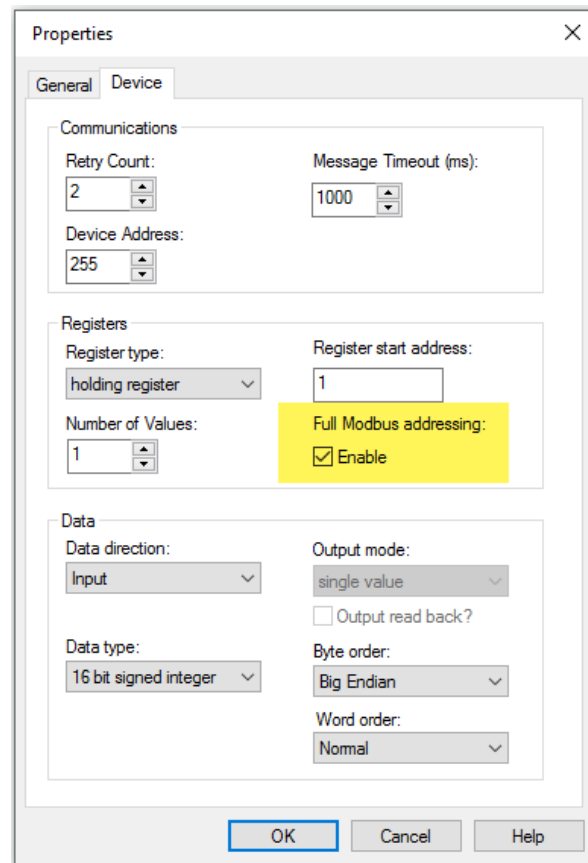
Help customers better
comply with regulatory
requirements

Protocols Update

EtherNet/IP and Modbus/TCP

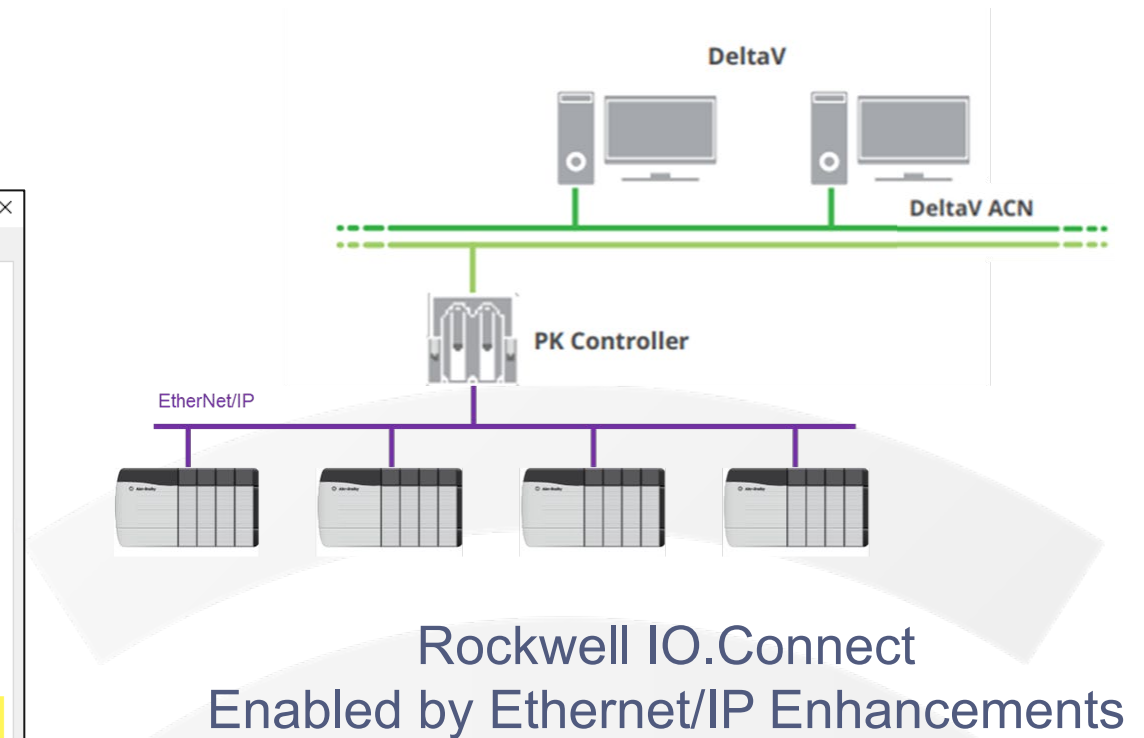
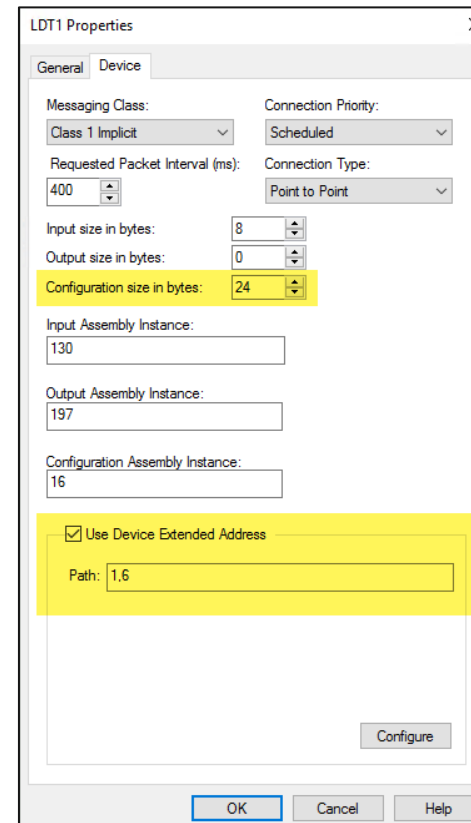
- Modbus/TCP

- Extended/Full addressing support
- EIOC and PK



- EtherNet/IP

- Configure Buffer Support
- Extended Path
- EIOC and PK



Rockwell IO.Connect
Enabled by Ethernet/IP Enhancements

Summary

- 'Status Quo' invites risks, more expenses, lost opportunities
- Upgrade is an investment and not the expense
- Emerson has standard and proven execution process
- Utilize technology features
- Plan your DeltaV upgrade today!

Visit us in the Exhibit hall # 229

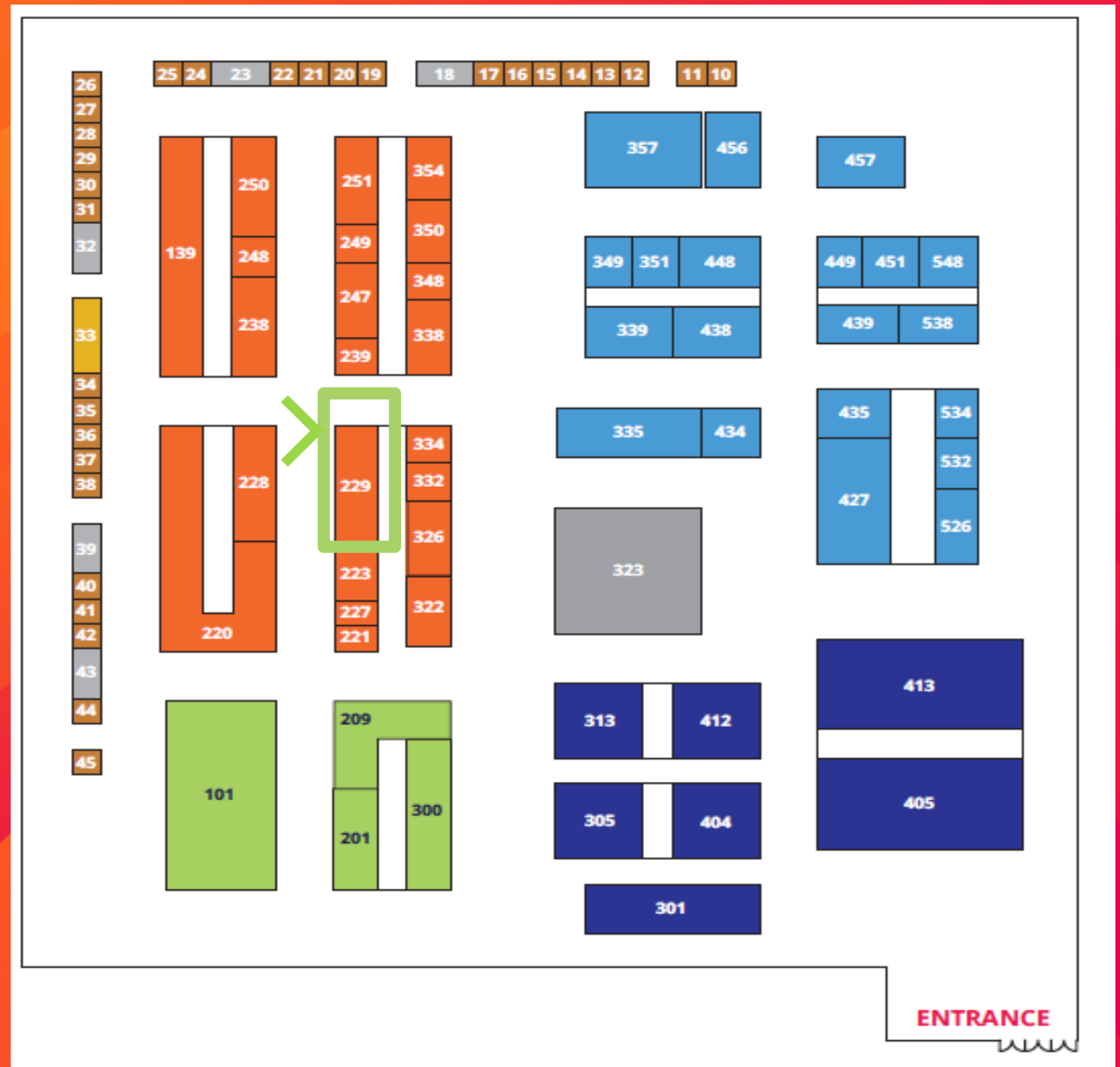
Find More Information

Check Emerson Website for further information about Emerson Upgrade Service:

<https://www.emerson.com/en-us/catalog/deltav-upgradeservice>

Contacts

nilesh.kandharkar@emerson.com



MTE – 1895 May 21st 1:15 PM and May 22nd 3:15 PM

Questions?





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Thank You