Procedure Automation – A User's Perspective

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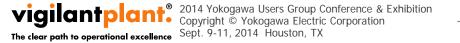
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Why Procedure Automation?

- What's in it for you and your process

Benefits of Procedure Automation

- Improved safety, operability, and reliability

Implementing Procedure Automation

- Tips and recommendations
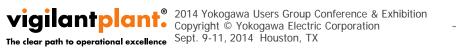
Resources

- Where can you get more help?

Introduction

About me and my history with procedure automation

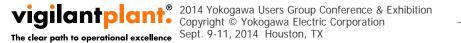# Why Procedure Automation?

What's in it for you and your process

- Procedure automation is not a theoretical concept ; it's well-proven
- Sequential operations exist in all processes
- Procedures exist for all processes
- Adherence to the correct procedures maximizes the benefit of the procedures
- Procedure automation enforces adherence to the procedures.

Benefits of Procedure Automation
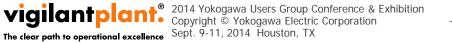
Improved safety, reliability, and operability

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Enforces consistent, correct procedures, reducing opportunity for operator error

- Minimizes delays, maximizes utilization
- Consistent quality; minimizes off-spec production
- Improves reliability; reduces premature equipment failure and fouling

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- Contributes to improved process safety
  - Minimizes errors leading to unsafe operation
  - Provides procedures for managing abnormal conditions
    - Controlled shutdowns
    - Managed restart
  - Management of alarms
  - Management of BPCS/SIS interaction
- Knowledge retention
  - Capture the experience of your operators before they all retire!

Implementing Procedure Automation

Tips and recommendations

Planning/Scoping

- Operations involvement/commitment is a critical success factor
- Verify and update existing procedures
- Operator training
- Identify your target procedures
  - High frequency, moderate complexity
  - Reusable procedures
- Degree of automation
  - Operator access to automated devices

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Design

- – Operator awareness
- – Modularity
- – Reusable code
- – Exception management

Startup

- – Allow time and resources for debugging
- – Synchronization of systems in real time
- – Plan for additional training

Procedure Automation Resources

Where can you get more help?

Major Controls Vendors
- Active contributors to the ISA 106 Committee

Yokogawa
- Major driver for launching ISA 106
- Strong presence on committee
- Knowledge and experience

ISA 106
- TR-106.00.01
  - https://www.isa.org/store/products/product-detail/?productId=118120
- TR-106.00.02 (under development)
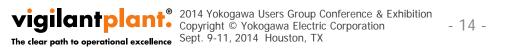- Join ISA106 Committee
  - https://www.isa.org/isa106/

Conclusion

Thank-You

Questions?

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