PI in a Modern Power Plant

More Uses Than Just a Troubleshooter

Presented by: Brian M. Wood, American National Power, Inc

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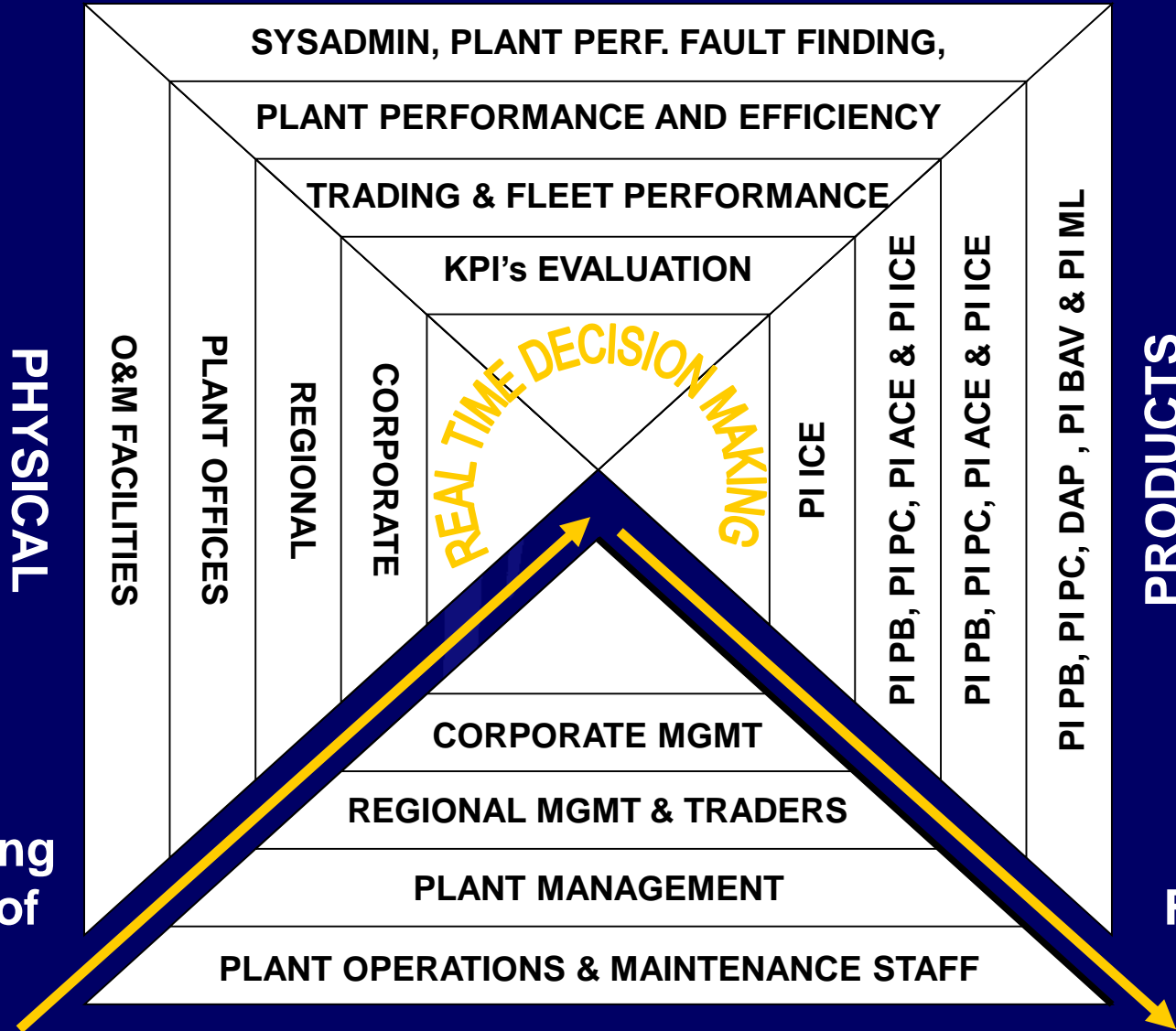
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Our PI Vision

- *Our PI Strategy is based on a vision of seamless plant knowledge management throughout the company realised through the provision of market leading software engineering tools at all IPR power plants, selected regional and corporate offices.*

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Overview

- Preparation
- Putting the Plan in Action
- Keeping things Running
- The Next Step

PI in a Modern Power Plant – American National Power, Inc. PI User Conference '03

Our Infrastructure

- Corporate PI Manager

- Area Representatives

- Site Stewards
  - Administrator
  - Application Developer

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Defined Immediate Needs

- Administration
- Management
- Operations
- Commercial
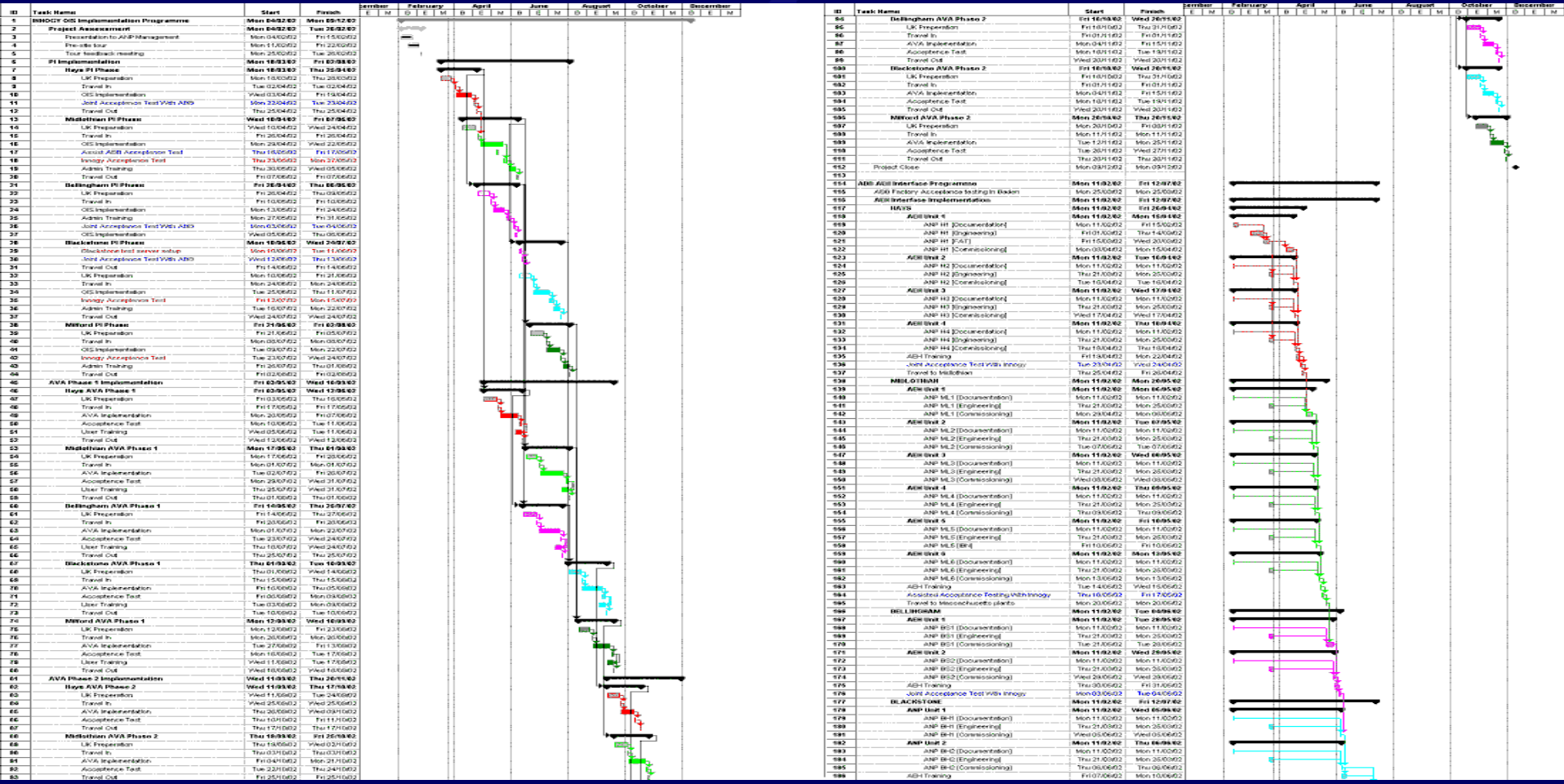- Environmental
- Use Third Party Developer if Needed

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The Initial Archive Setup

- Network Security
- Equipment Stability
- Extra Interfaces
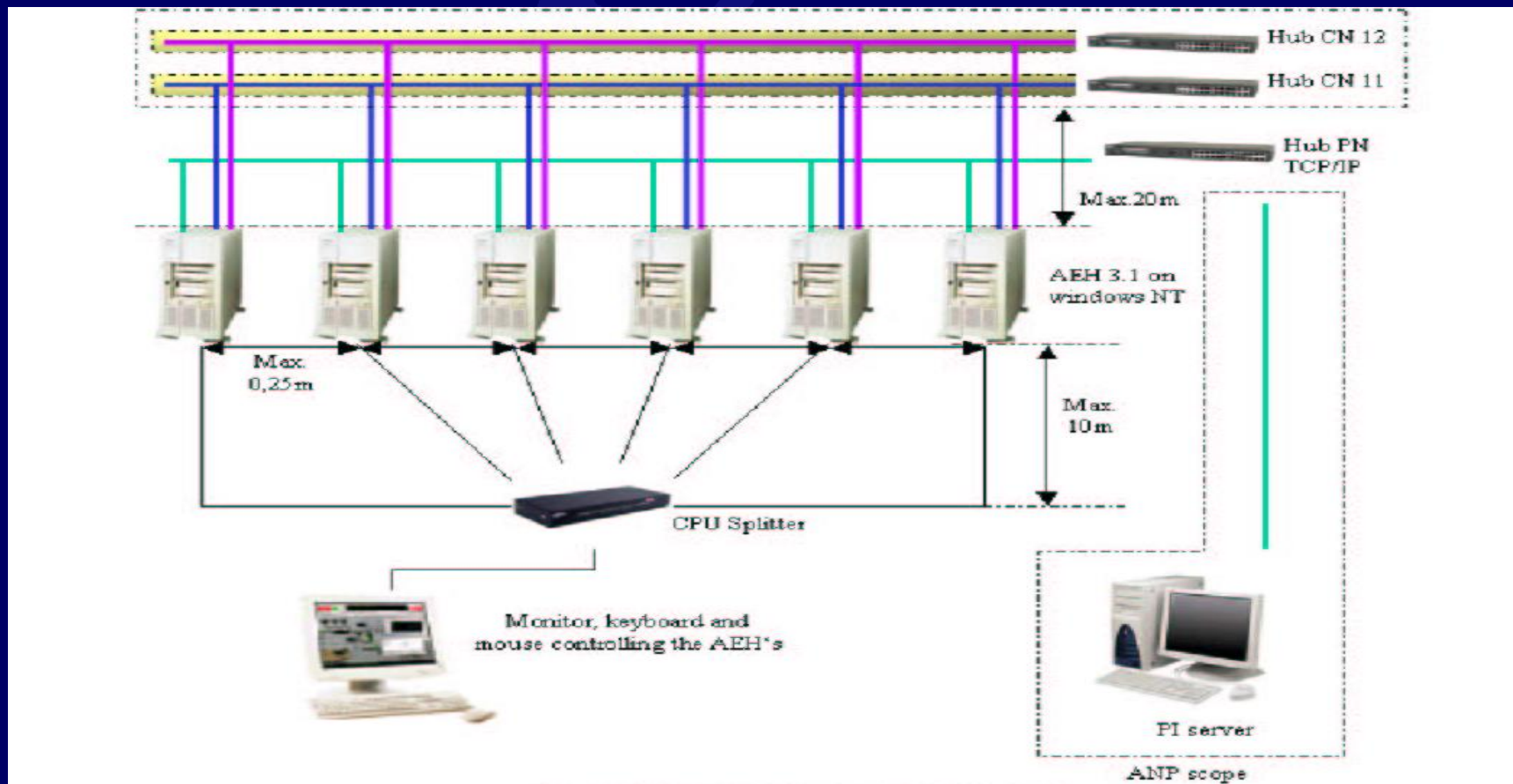
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Putting the Plan in Action

- Established PI Server
- Set Up Interfaces to DCS
- Set up other Interfaces
- Installed Client Software
- Developed Applications
- Start Training

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The Plan

Interfaces to DCS system

Other Interfaces

- Weather Station
- Web Interface
- Weather Forecast
- To Maintenance System

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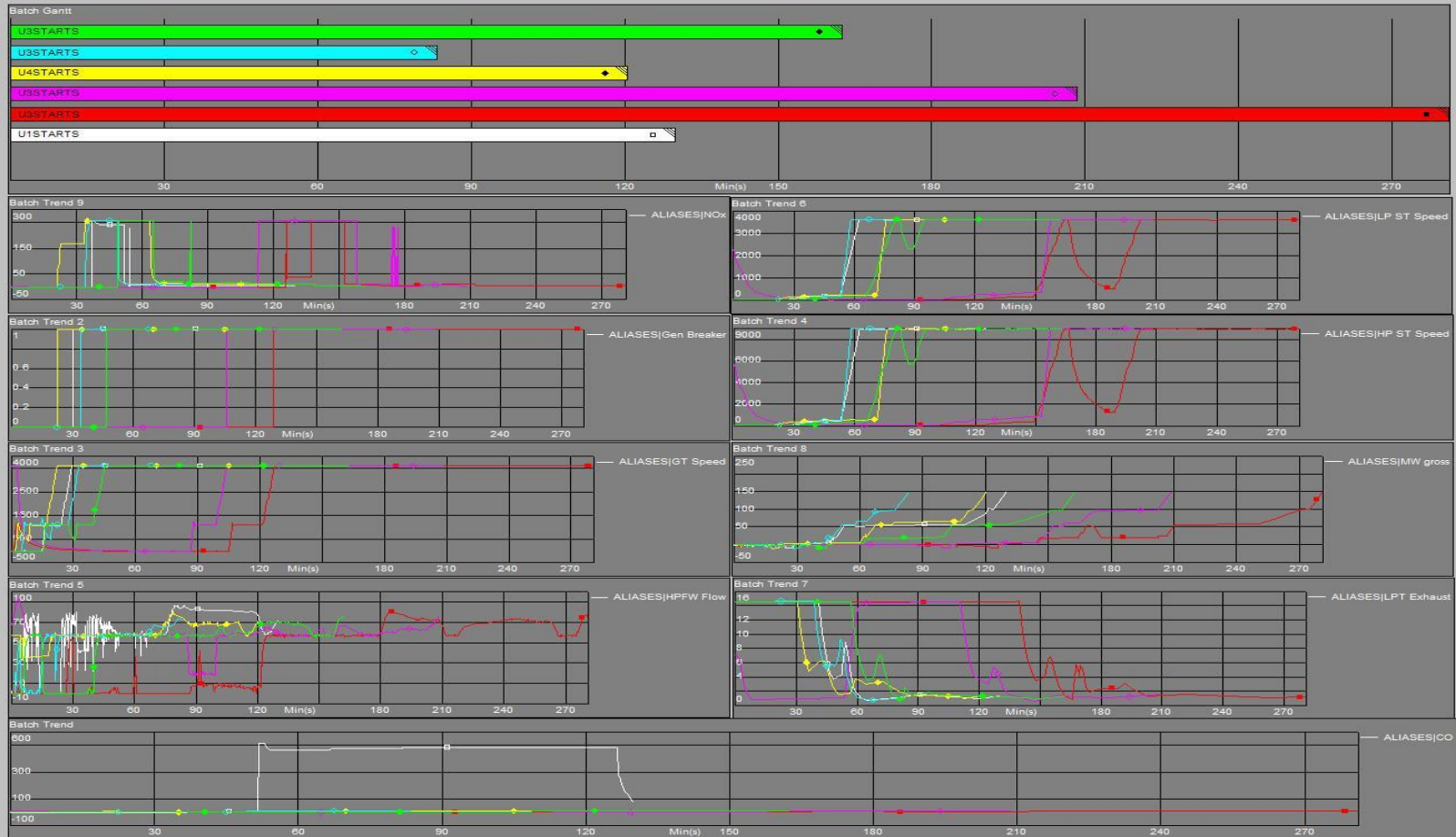
Developed Applications for Sites

- Mimicked DCS Screens
- Administrative Spreadsheets
- Plant Overview ProcessBook & Excel Screens
- Reports Automatically Generated
- All calculations put in as Performance points
- Unit Efficiency Calculations & PB Screens
- Electronic Log for Operators
- Batch for Startup Analysis
- Troubleshooting, etc…

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Site Specific Applications

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Developed Applications for Sites

Developed Other Applications

- Overview of All Plants
- MAPPI applications for information to commercial division
- SMS to inform management of Unit statuses/problems
- Intranet Pages for Plant Overviews and Plant Status Reports
- Can compare Unit Statuses And Capabilities throughout Fleet

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Commercial Division

- Installed PI Server
- Using PI to PI Interface
- Using Real-time data to see unit statuses
- Can see multiple sites with virtually no update or connection delays
- Calculating Unit forecasts
- Decreases dependency on network connections

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Keeping things Running

- Infrastructure Vital Key
- Data Integrity
- Performance Monitors
- DevNet Tools
- Distribution Lists & Public folders

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The Next Step

- Company Users Conference
- Documenting PI Successes
- Change Control
- Communication Between Sites for Problems and Ideas
- Intranet site for PI Users Group
- Training always available

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Summary

- Company Wide Implementation

- Immediate Usable Applications

- Keep it running
  - Site Stewards

  - Company Users Conference

  - Distribution lists and Public Folders

  - Users Group Intranet Site

  - Keeping up: OSISoft.com, DevNet

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