Honeywell Users Group 2011

Where Technology Shapes Solutions.

Jeff Spaulding

UIS Customer Co-Chair

Honeywell

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User Input Subcommittee (UIS)

The UIS is chartered by the Users Group Steering Committees to provide mechanisms for customers:

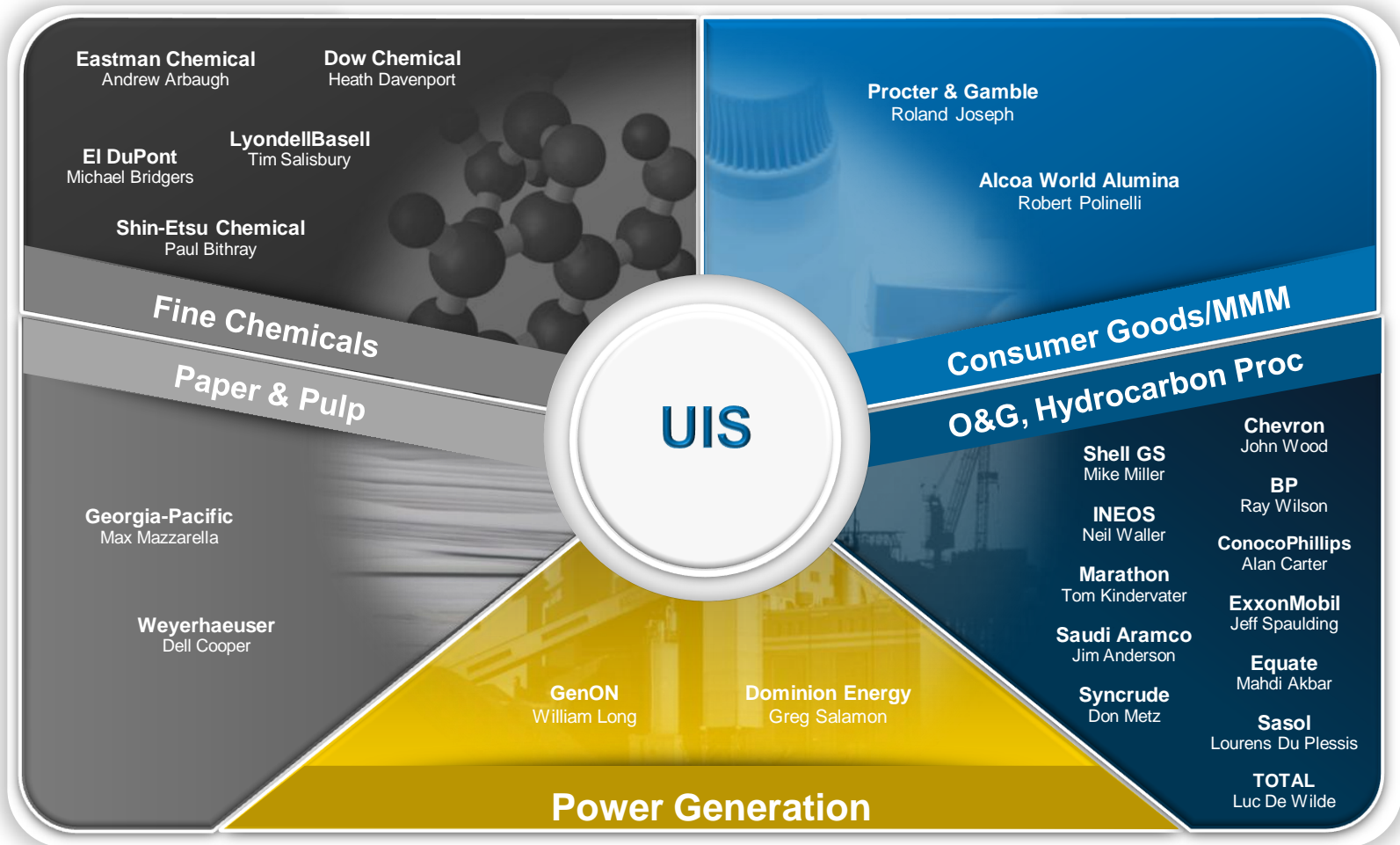To **submit enhancement requests** for Honeywell global installed systems

To **coordinate and prioritize customer input** into Honeywell product releases
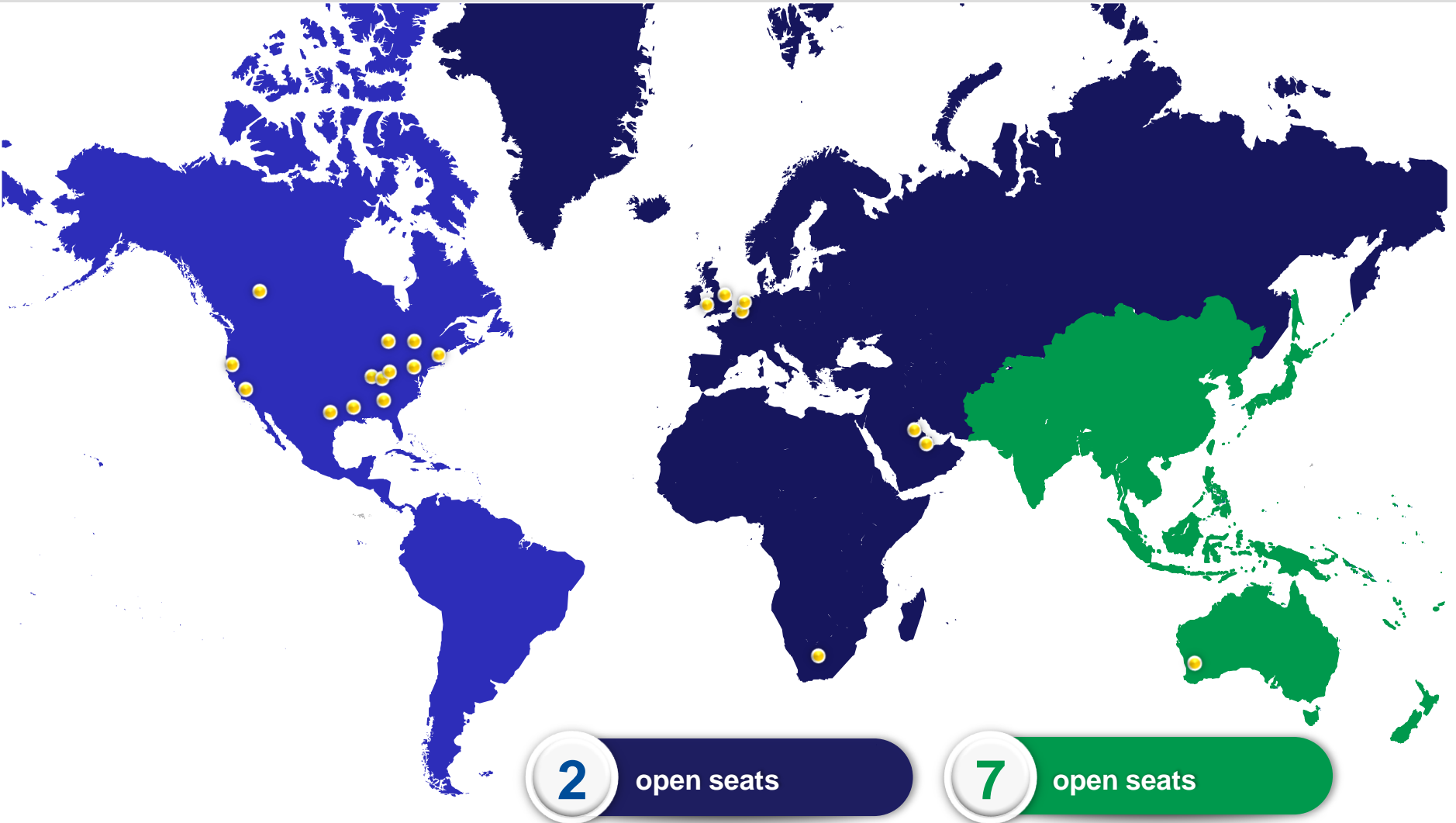
To **comment on effectiveness** of current maintenance activities, support activities, and new product migration planning

Eighteen Years of Service to the Honeywell User Community

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Industry Market Representation

Eastman Chemical
Andrew Arbaugh

Dow Chemical
Heath Davenport

El DuPont
Michael Bridgers

LyondellBasell
Tim Salisbury

Shin-Etsu Chemical
Paul Bithray

Fine Chemicals

Paper & Pulp

Georgia-Pacific
Max Mazzarella

Weyerhaeuser
Dell Cooper

UIS

Procter & Gamble
Roland Joseph

Alcoa World Alumina
Robert Polinelli

Consumer Goods/MMM

O&G, Hydrocarbon Proc

Shell GS
Mike Miller

INEOS
Neil Waller

Marathon
Tom Kindervater

Saudi Aramco
Jim Anderson

Syncrude
Don Metz

Chevron
John Wood

BP
Ray Wilson

ConocoPhillips
Alan Carter

ExxonMobil
Jeff Spaulding

Equate
Mahdi Akbar

Sasol
Lourens Du Plessis

TOTAL
Luc De Wilde

GenON
William Long

Dominion Energy
Greg Salamon

Power Generation

![Honeywell]

Global Representation

2	open seats

7	open seats

Contact Jeff Spaulding if Your Company Has a Representative from These Regions That Can Serve on UIS

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Engineering Efficiency

- Increase DSA Server Limit
- Increase HPM Calc Block characters
- Additional AUXCALC Function Block Constraints
- Counter Function Block
- Control Builder Search Enhancements
- HMI Web File Clean Compress Utility
- HMI Web Builder Test Mode
- Maintain Reg Control alarm priority in EB files
- Deviation Alarm for HiLoAvg and MidOf3 algorithms
- System Alarms Documentation: Causes, Consequences, Actions
- Technical manual usability improvements

Investment Protection

- Auto Priming of TPS Points
- LCN Cable Diagnostic Tool
- View Only Accounts with Sign On Mgr

User Effectiveness

- Add Message Clear
- Enhance PIDA Loop Tune
- Create Message Pop-up
- Add Indicators to EPKS Faceplates
- Modify Mode Behavior After IOL/IOP Comm Error
- Rolling Average Function Block
- Active Alarm Line Addition

Reliability

- APP Node failure alarm
- Enhanced Alarm Metrics

UIS Enhancements – 240 and Counting!

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UIS Enhancements – Experion R410 and TPN 684

Engineering Efficiency

- Enhance Configuration Studio Search
- Enhance Control Builder Import
- Automatic Daylight Savings Time
  for controllers
- Technical manual usability improvements
- System Alarms Documentation: Causes, Consequences, Actions

Reliability

- Enhance TPNServer OPC client information
- Disabling of USB ports on PKS stations and servers
- Increase OPC Connectivity capability

User Effectiveness

- Bio-Metric SignOn Method
- ACK key with faceplate
- Separate message alarm from low priority alarm
- Individually assignable system alarm assets

Investment Protection

- Alarm Suppression
- TPS System alarms on EPKS System Alarm Summary
- TPS Audible functionality in EPKS
- Consistency in Experion-TPS Point Detail and Native Window Point Detail displays.
- Consistency of ACK button in Experion displays with US and GUS displays
- C300 OnLine Parameter Changes while active

User Effectiveness

- Control room operator is a major customer of the control system
  - User effectiveness enhancements are actively promoted in UIS process

- Consistency enables safety, reliability and efficiency
  - Makes Users more productive
  - Fewer operator errors, safer operations
  - Reduced operator retraining required
  - Increased reliability

Investment Protection

- Retain intellectual property while taking advantage of new technology and capability
  - 30+ year old technology and infrastructure can be used with and enhanced by new capabilities
- Stepwise HMI migration while retaining existing control configuration and wiring
- Take advantage of new capabilities such as procedural operations over TPN

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UIS Enhancements – Experion R400 and TPN 683

Engineering Efficiency

- Increase DSA Server Limit
- Increase HPM Calc Block characters
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- HMI Web Builder Test Mode
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Investment Protection

- Auto Priming of TPS Points
- LCN Cable Diagnostic Tool
- View Only Accounts with Sign On Mgr

User Effectiveness

- Add Message Clear
- Enhance PIDA Loop Tune
- Create Message Pop-up
- Add Indicators to EPKS Faceplates
- Modify Mode Behavior After IOL/IOP Comm Error
- Rolling Average Function Block
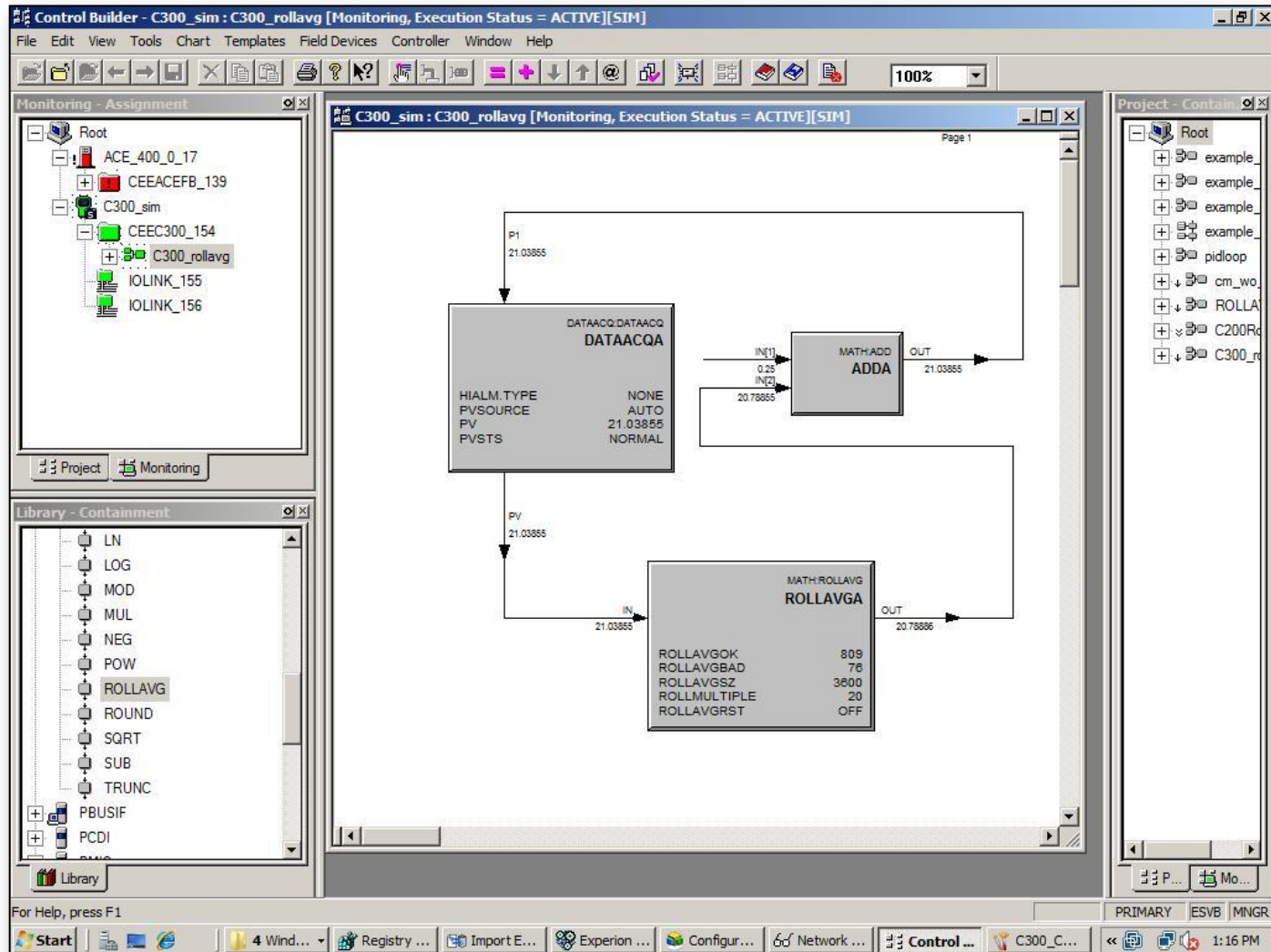- Active Alarm Line Addition

Reliability

- APP Node failure alarm
- Enhanced Alarm Metrics

UIS Enhancements – 240 and Counting!

Experion Rolling Average Function Block

Overview:

- UIS created a Rolling Average feature in AM several years ago

- For consistency, a User suggested that we add the same functionality to Experion

- UIS selected the Rolling Average Function Block as an enhancement for R400

  - Configurable number of samples

  - Configurable sample rate (a multiple of control module frequency)

  - Quality of value is determined by the number of good samples vs. bad samples

- Runs in C300, C200E, ACE, ACE-T and the simulation variants of these CEEs

Experion Rolling Average Function Block

Rolling Averages

Challenge

- Emission regulations require 3 hr, 12 hr, 24 hr rolling averages on emission limits
- Manual/script-based storage of values in numeric arrays or customer CAB blocks needed to meet requirements

Solution

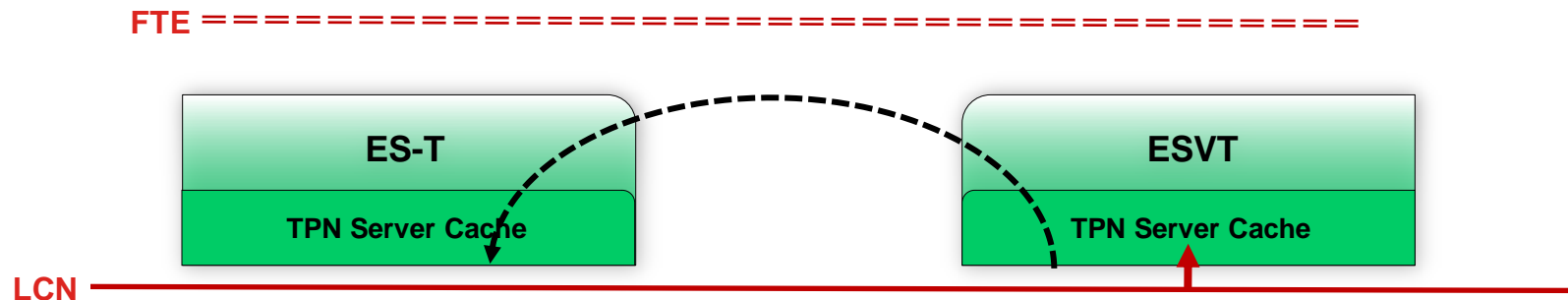- Automatic capture of measurement values

Benefit

- Saves engineering time
  - Does not require writing CAB in ACE to perform rolling average calculations
- Reliable tracking for regulatory audits
- Reduced risk of not meeting regulatory requirements

Auto Priming in Experion R400

- Reduces engineering maintenance of a TPS-connected Experion system
  - Automatically resolves external to internal ID conversion when system is started
    - ESVT "sees" point builds on LCN and resolves new points as well
  - Robust, reorganized TPN server cache
    - Reduces the size of the cache
  - Infrastructure versus manual activity
    - Users no longer need to run DSPPrime to preload all points
  - Creates value in more than one way

Auto Priming in Experion R400

- ESVT TPN server auto-primes all points and parameters on the LCN
  - Every time TPN server on the ESVT node starts up
  - Sensitive to point builder events (e.g., new point added)
  - TPN server cache compacted
- Other nodes in the cluster (ES-T, ACE-T) lookup results of the conversion from the ESVT
  - Imported into local TPN server cache on first ever lookup

FTE ======================================

ES-T		ESVT
TPN Server Cache		TPN Server Cache

LCN

Auto Priming of TPS Points

Challenge

- Slow initial graphics performance on ES-T for TPN points
- Time consuming manual priming and cache duplication procedure
- Significant computer memory for cache

Solution

- Automatic initial discovery of all TPN points
- Automatic cache synchronization between all nodes
- Optimized cache stores largest TPN supported with minimal computer resources

Benefit

- Fast graphics performance even on initial use
- Zero engineering to manage cache
- Minimal computer memory for cache

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Solving Your Problems with Product Enhancements

- **Enhancement suggestions can be submitted** by any Honeywell customer

- The UIS process **transforms your requests** into product functionality

- **Your ideas** – turned into UIS enhancements – **have improved plant operations for the past 18 years**

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User Input Subcommittee

- View the UIS Demonstration Area
- Participate in the UIS Update Session, Monday at 12:45 pm
- Enter enhancement ideas via the web
  www.uis.honeywell.com
- Become a member – there are UIS membership opportunities

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