# Honeywell



Welcome to the new quarterly BG e-Newsletter.

Here you will find the latest product updates, new release information, industry news and Honeywell Forge for Industrial solution articles.

In this issue,

- UniSim Competency Suite Server R471 release highlights.
- UniSim Design Suite R480 release highlights.
- New features in Blend Performance Monitor.
- DynAMo<sup>®</sup> Alarm and Operations.
- Honeywell Forge APC R510 recommends Uniformance Process Studio R323 and KA Quarter
- Control Performance Monitor Knowledge Article Quarter

And don't forget to watch our latest video on the new Honeywell Forge for Industrial offering to see how it can transform your business today.

If you have any questions or comments, don't hesitate to contact us.

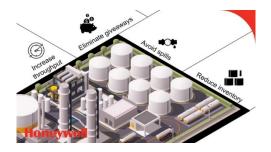
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## **UNISIM® COMPETENCY SUITE**

• UniSim Competency Suite R471

READ UNISIM COMPETENCY ARTICLES





## **UNISIM® DESIGN SUITE**

- UniSim Design R480 Release
- How Do I ... Video Series

## READ UNISIM DESIGN ARTICLES



## **PROFIT™ BLENDING AND MOVEMENT**

 Blend Performance Monitor Enhancements

## **DYNAMO® ALARM AND OPERATIONS**

 Analyzing Bad Actor Alarms using DynAMo Metrics & Reporting R210.1

## READ PBM ARTICLES

## READ DYNAMO ARTICLES



## HONEYWELL FORGE APC

- Uniformance Process Studio R323.1
- APC Knowledge Article Quarter
- Control Performance Monitor (CPM) Knowledge Article Quarter

## READ HONEYWELL FORGE APC ARTICLES



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## **UPCOMING PRODUCT RELEASES | CONTACT**

## **UniSim®** Competency Suite



## UniSim Competency Suite – Immersive Field Simulator Adaptor

This month's article introduces some of the new features and functionality available with recently released UniSim Competency suite R471.

To access other information about UniSim Competency Suite, customers are invited to register to use the Knowledge Base. Please follow <u>this</u> <u>link</u> for full details.

### Overview

The UniSim Competency Suite team is pleased to announce the next delivery of this set of solutions that accelerate the time it takes for new operators to gain the experience of a veteran, allowing all staff the opportunity to reach their full potential faster.

More specifically, we are adding new features to UniSim Competency Suite through its R471 release.

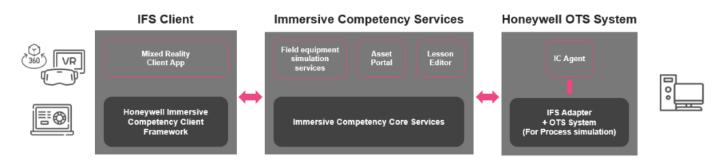
Immersive Field Simulator Adapter – Honeywell Operator Training Simulator can now be paired with Honeywell's Immersive Field Simulator to provide virtual replicas of the physical plant fully integrating digital twins of processes. This allows field and panel operators to practice different plant operations and scenarios through safe simulated environments. Honeywell Immersive Field Simulator is a valuable add-on to address the following scenarios:

- Familiarize with plant layout
- Line tracing and location of equipment
- Startup, shutdown, malfunctions and normal plant operations
- Troubleshooting
- Rounds and sampling procedures
- Lock-out and tag-out, and equipment isolation

High fidelity plant simulations allow for more effective training experiences for panel and field operators to collaboratively practice scenarios in a safe environment. This in turn, improves communication and teamwork skills making learning more engaging and challenging.



Fig 1. The Immersive Field Training Simulator adapter expands on the capabilities of Honeywell Operator Training Simulators to provide engaging, realistic environments to practice plant procedures collaboratively and safely.



#### Fig 2. Example of deployment architecture

Expanded Support for DCS Adapters and PLC Devices – In this new release we are expanding support for the following DCS frameworks:

- Foxboro CCS 9.5
- Rockwell RSLogix V32
- Triconex 5.x Emulation

Additionally, the portfolio of DCS interfaces has been expanded with the inclusion of the Supcon Direct Connect DCS adapter.

Scripted Data Center Deployments – The R471 release introduces additional functionality to facilitate scripted installation of Honeywell Operator Training Simulator instances across distributed data centers. This streamlines the enterprise deployment of the solution ensuring consistency and repeatability across all installed instances.

### **Interactive Process Training**

The library of simulation-based training content available through Honeywell's Interactive Process Training offering now includes content for the following units:

High-Fidelity UOP Process Models

- UOP Unicracking<sup>™</sup> Process for Hydrocracking
- UOP Platforming<sup>™</sup> and CycleMax<sup>™</sup> Continuous Catalyst Regeneration
- UOP Fluid Catalytic Cracking
- UOP Oleflex<sup>™</sup> Reactor and Product Recovery

#### Non-UOP Refining Models

- Advanced Distillation
- Crude/Vacuum Distillation Unit
- Delayed Coker Unit
- Naphtha Stabilizer and Splitter Unit
- Naphtha Hydrotreater Unit
- Diesel Hydrotreating Unit
- Sulphur Recovery & Tail Gas Treating
- Naphtha Isomerization
- Catalytic Reformer
- Amine Treatment
- LPG Merox Unit Recovery

#### **UniSim Competency Suite Training**

The UniSim courses provided at the Honeywell's Automation Colleges are:

#### **UniSim Design:**

- PDS-4526: Fundamentals Process Modeling Using UniSim Design
- PDS-4527: Advanced Process Modeling Using UniSim Design
- PDS-4528: Fundamentals Dynamic Modeling Using UniSim Design Suite

#### **UniSim Operations:**

- OTS-0001: Fundamentals UniSim Instructor Operation
- OTS-0002: Fundamentals UniSim Configuration Implementation
- OTS-0003: Fundamentals UniSim Run Time Graphics Using HMIWeb Implementation
- OTS-0004: Fundamentals UniSim System Manager Administration
- OTS-0006: Fundamentals UniSim Experion Implementation

#### **Console Operator Training:**

- OTS-0007-AT: Operator Training & Simulation: Fundamentals Distillation Operation
- OTS-0008-AT: Operator Training & Simulation: Fundamentals Hydrotreating Unit Operation
- OTS-0009-AT: Operator Training & Simulation: Fundamentals Fired Heater Operation
- OTS-0010-AT: Operator Training & Simulation: Fundamentals Centrifugal Compressor Operation
- To get the schedules and more details about these training courses on simulation or other Honeywell products, go to <a href="https://www.honeywellprocess.com/en-US/training/Pages/default.aspx">https://www.honeywellprocess.com/en-US/training/Pages/default.aspx</a>.

Under some conditions, those courses can also be provided at the customer's site as appropriate.

### **Operator Competency Software Updates available**

Operator Competency Software Updates are now available for currently supported versions of UniSim Competency Suite

### Unisim Competency Suite R470 has been released in October 2020

### Unisim Competency Suite R470 has been released in January 2020

The latest patch for UniSim<sup>®</sup> Competency Suite R470 is Patch 3 (released on July 17, 2020):

- USD snapshot not being created in some situations
- Fix to search feature in HMI web navigation pane
- Fixes to process upset GUI
- Fix to Engineering studio when translation SM points that are connected to block in CMs

### UniSim Competency Suite R461 patch releases...

The latest patch for UniSim® Competency Suite R461 is Patch 1 (released on January 13, 2020). The main corrections include:

- Support for customer logo in evaluation reports
- Bug fixing for Yokogawa emulation
- Bug fixing for Tristation structured text translation
- Bug fix to Safety Manager Translation toolkit.

### UniSim Competency Suite R460 patch release...

The latest patch for UniSim® Competency Suite R460 is Patch 9 (released on June 19, 2020). The main corrections include:

- Fix for RSLogix operator event capture
- Fix for replay of DeltaV events
- Fix to Status\_scan GCB for consecutive bits
- ULM usage log filling with failed Tutor and Curriculum license requests resolved
- Fix to Safety Manager counter emulation
- Fix to CS3000 toolkit MCALL CCS block functionality

### UniSim Competency Suite R452 is now in Phased Out Status. Patch Releases...

The latest patch for UniSim<sup>®</sup> Competency Suite R452 is Patch 5 (released on March 27, 2019).

#### UniSim Competency Suite R451 is now in Phased Out Status. Patch Releases...

The latest patch for UniSim<sup>®</sup> Competency Suite R451 is Patch 2 (released on April 11, 2018).

#### UniSim Competency Suite R450 is now in Phased Out Status. Patch Releases...

The latest patch for UniSim<sup>®</sup> Competency Suite R450 is Patch 8 (released on April 12, 2019).

## Article submitted by – Martin Ross for UniSim Competency Suite Global Support Team

## **UniSim®** Design Suite



### UniSim Design R480 release

This article introduces the latest UniSim Design R480 release.

All customers, who have not yet done so, will need to register and then login to use the Knowledge Base links in this article (unless noted otherwise). Please follow <u>this link</u> for full registration instructions. Having registered please visit <u>https://www.honeywellprocess.com/support</u> and login before following the links in this article.

An archive of all the UniSim Design Newsletter articles can be found here.

How do I ... video series



The UniSim Design technical support team have started a new series of videos covering common usage questions and useful features. Follow the links below to see some of the videos. (No login required)

UniSim Design - How do I - Commute a license? video

- UniSim Design How do I Search for a named object? video
- UniSim Design How do I Rename multiple objects at once? video
- UniSim Design How do I Make a stream copy using a virtual stream? video

UniSim Design - How do I - Create a Property Table Utility? video

For a full list of videos visit: UniSim Design - How do I - Index of videos KB: 108681

New videos are being created frequently so keep an eye on the index! If you have a suggestion for a 'How do I' video topic then please <u>Contact</u> <u>us</u>, we value your input! (No login required).

## UniSim Design Suite R480 released

Honeywell's UniSim Design Suite R480 was released in October 2020. UniSim Design Suite R480 includes enhancements in several areas. These are outlined below.

Full details of UniSim Design R480 may be found in the Knowledge Base. Visit <u>https://www.honeywellprocess.com/support</u>Login and then follow:

- UniSim Design Suite R480 Information
- UniSim Design R480 Software Change Notice (SCN)
- UniSim Flare R480 Software Change Notice (SCN)

## Thermodynamics

Glycol Package Enhancements	The Glycol Package Binary Interaction Parameters (BIPs) were improved based on wider experimental and engineering data. This improves the calculation of dehydration unit performance including water content of saturated natural gas. For new cases the new improved BIPs are used by default in R480.
Span-Wagner and EOS-CG Property Packages for CCS	UniSim Design now includes the Span-Wagner and EOS-CG property packages, targeted at CO2 capture and storage application (CCS). Span-Wagner is for pure CO2 systems, and EOS-CG is for rich-CO2 mixtures.
Identify and flag conditions for the formation of solid CO2 in the stream and inside pipe segments	Users can add a new stream property to calculate and display the amount of CO2 freeze-out in material streams. Furthermore, CO2 freeze-out is reported in the profile results of the pipe segment. These values are updated in both Steady State and Dynamic simulations.
General Flash for Solid Phase Equilibrium	There is now a new flash solver in UniSim Thermo that can handle vapor-liquid-liquid-solid phase equilibrium. With this flash solver, all the common components can be formed as solids, if they have the necessary solid properties.
Enhancement of Henry's Constant handling for Activity Models	With the Prausnitz-Shair calculation option for the Henry coefficients, users now have the possibility to use the Legacy method for a given component's Henry's coefficients, thus providing greater flexibility.
PR-Twu Enhancements	The following enhancements are included:
	• Updated and Expanded PR-Twu L,M,N parameter database parameter values based on Jaubert (2018) and Bell(2018) tables.
	• Updated internal generalized method for calculating L,M, and N from Tc and acentric factor.
	• Alternative Tc, Pc, and Acentricity for components for use in the PR-Twu FP are included.

• PR-Twu Tc and Pc now defaults to the Component values.

PR-Twu specific package variables introduced to separate the package parameters Twu Tc, Pc from the standard component Tc, Pc. All Twu parameters now accessible via OLE. Sour PR-Twu package A new model option was implemented in the PR-Twu property package to enable use of Wilson's API-Sour method. **Electrolyte Model Improvements** The NRTL Electrolyte model was enhanced with the following features: Optimized algorithm to improve the flash speed and stability. Improved parameter tuning for the Melamine Process. **Unit Operations** Sulfur Recovery Unit (SRU) Several significant improvements have been made to the SRU: The SRU has been extended to handle both Acid Gas and Sour Water Stripping Gas. The single Burner operation in the SRU is expanded into a two-stage furnace operation. Users can introduce Sweep Air feed/product to the Sulfur-Pit operation, enabling the

purity of the sulfur product to be studied.

of the SRU for sulfur recovery and residual H2S and SO2 amounts in the tail gas.
In the Furnace calculation a constrained GFEM method has been developed based on

An enforced Tail Gas H2S / COS fixed ratio calculation has been added. This allows the SRU to calculate the optimum amount of air supply for the best performance

- In the Furnace calculation a constrained GFEM method has been developed based on the original correlation method. It is a combination of Gibbs Free Energy equilibrium calculation for those compounds which will thermally reach equilibrium conversion and other compounds like CS2 and COS which depend on the furnace residence time.
- A more accurate version of the Claus Reactor calculation is included. With the new reaction model, the performance of the SRU sulfur recovery and the amounts of H2S and SO2 in the tail gas are predicted in a more realistic range.
- Due to the change of reaction model for the Claus Reactor, a new model for predicting
  performance due to catalyst aging has been developed. The percentage of catalyst
  activity is now better related to the amount of sulfur recovery.
- A new Carry Over feature has been added to the Condenser allowing better prediction of product streams.

The Weighted model now supports co-current exchanger geometries.

The UniSim EO Non-Equilibrium vessel model (NEQ Vessel) was implemented in UniSim Design Dynamics.

#### Heat Exchanger

EO Non-Equilibrium Vessel in standard UniSim Design Dynamics

## Refining

All new Refining features work with the existing Refinery case type. They add on to the existing Refining features (Refinery Properties, Refinery Reactors, Assay Synthesis, LP Vector generation, Fired Heater modelling, Crude Compatibility Utility) to support refinery-wide modelling.

FCC Improvements	The following improvements have been made to the EO FCC Model:
	• Two risers with midpoint injection in the second riser configuration option are added to the list of Riser types.
	• C3 olefin sensitivity to temperature is improved.
	• A Torch oil feed port is made available and a Torch oil feed to the Regenerator can be modelled.
	• Schematic representation of supported FCC Riser configurations was added in the documentation to help identify which Riser option to use.
Residue Hydrotreater Model	A new template to simulate a Residue Hydrotreater was added. This template implements feed characterization with added metals and their distributions. In addition, changes include the newly added subcomponents and the implementation of HDM (HDNi and HDV) reactions.
Support for Larger Number of Componer	nts Up to 135 components, within Refinery case flowsheets. can be created with EO Distillation column and reactor models such as the Naphtha Hydrotreater, Catalytic Naphtha Reformer and Isomerization.
Crude Feeder	The Crude Feeder is a special unit operation designed to create a feed stream in the simulation environment by importing pre-characterized crude data or synthesizing raw crude data from a lab report. This unit operation combines all the functionalities of the Assay Synthesis/Assay/Blend and Crude options previously only available in the Oil environment.
	Since the Crude Feeder is a unit operation on the flowsheet, all its variables and functions are easily accessible by optimizers when needed.
Tools & Utilities	
EO Blowdown Utility - Functionality & Robustness improvements	Several improvements were made to the EO Blowdown Utility:
	Ability to predefine strip chart configurations
	Sonic Velocity calculations may be enabled or disabled
	Enhancements in supercritical simultaneous flash calculations
CO2 Freeze Out Utility	Support for UniSim Thermo PR, GERG, Span-Wagner and EOS-CG property packages was added. This utility can also work with the new General flash for CO2 solid formation.
Global Atmospheric Pressure Parameter	The atmospheric pressure used for the conversion to gauge pressures may now be specified in the preferences. This setting is saved with the case.

Case Scenario Manager (CSM) enhanced control and monitoring	The CSM has been improved to maximize the number of cases which can execute in parallel when propagating changes. The CSM manages the number of instances running up to the limit of available memory or available processors.
	Display of propagation status and Trace window messages during the run is improved and when any case is completed, its results will be updated immediately in the corresponding CSM windows.
WebAPI programmability interface	Honeywell is moving in a staged manner to enable a web-based API (Application Programming Interface). In this release the new API is available, but only for targeting local simulations. The API is moniker-based and should be familiar to users that have used backdoor methods in the existing COM/OLE interfaces. The WebAPI has limited interfaces available compared to the existing implementation but, because the API supports backdoor-type actions (i.e. get/set variables via monikers and messaging), anything that can be scripted can be done with the WebAPI.
VM Deployment with Online Licensing	The Unified License Manager (ULM) has been extended with capabilities to enable online licensing using web-based standards. The initial target for this capability is VM-based network license servers to provide better security and flexibility for both customers and Honeywell. Existing deployments can continue as-is with traditional installed license files, but new deployments will consider the convenience and cost-saving of web-based licensing.

## **Equation Oriented (EO) Environment**

Specification Management	The specification set manager allows users to define different sets of variable specifications and associate each set with a particular solver type or solution mode. For example, different sets might be considered for sequential, simultaneous or optimization flowsheet solution modes.
Relief Valve method	In UniSim EO, the HDE method was implemented for Relief Valves which uses a complementarity technique to avoid non-convergence issues and for better solution performance in both Steady State and Dynamics.
Lean Tee and Valve Implementation	Lean versions of these models provide higher reliability and computational efficiency in optimization applications.
Fired Heater Enhancements	The initialization method in sequential mode has been improved. Users can toggle back and forth between sequential and simultaneous mode with minimal changes to the flowsheet.
Fractionation Tray efficiencies	Tray efficiencies for a specific set of trays in a section of a fractionation column can now be defined. Users can define the start and end point of a tray section and can exclude feed trays and draw trays.
Column Specification Manager	A means to manage column specifications, similar to the main flowsheet environment, has been implemented in UniSim EO.
Data Reconciliation – Measurement Model	A new Measurement Model has been implemented that allows measured variables to be defined and accept plant input as a single source for the flowsheet model. This model automatically generates equations relating measurements to model predicted values with a gain and offset. This will allow easier objective function setup for data reconciliation problems.

### **UniSim Flare**

Enhancements were made to improve usability, performance and workflow.

## **Newsletter Articles**

We aim to provide articles of interest to the UniSim Design user community. If you have any feedback or have suggestions for topics to cover here please feel free to <u>contact us</u>; we value your input.

Article submitted by – James Martin, Team Lead, UniSim Design Global Support Team.

## **Profit® Blending and Movement Suite**

## **Blend Performance Monitor Enhancements**

**Did you know** ... that Blend Performance Monitor (BPM) has undergone a comprehensive overhaul for the PBM R510.1 release. A number of new features have been introduced.

Blend Performance Monitor (BPM) is part of the Profit Blending and Movement (PBM) family of applications. Working in conjunction with the Profit Blend Controller (PBC), Profit Blend Optimizer (PBO), Profit Movement Management (PMM) and other related products, BPM and BPMPlus form part of a total solution for blending and movement automation.

BPM provides an integrated information environment that supports the collection, storage and analysis of finished products blending information. This integrated information environment is used to improve the blend planning, stock utilization, performance monitoring and finished product release functions.

In the PBM R510.1 release, a number of BPM enhancement have been introduced, including the following:

## a) Support for enterprise-wide deployment (in addition to single site) for lower cost of ownership

BPM software may be installed locally for one site, or in the corporate WAN for many/all sites in the Enterprise. The BPM software supports a maximum of 40 sites within an Enterprise implementation. Client components of BPM (i.e. the User Interface and BPM Explorer) access BPM data via the BPM Data and Security web services. This ensures that only the data that has been configured to be made available to a specific end user is shown to that end user.

## b) Enhanced Configuration Abilities

BPM now has the ability to auto-configure equipment, products and property information based on the contents of the keyword files that are processed by the system.

Re-blend rules are used to control the logic of the background processes to correctly identify correction blends. Tuning of these rules to better reflect site practices and tank capacities can improve the outcome of the automatic processing.

Names of items in the Blend files may be changed when stored in BPM by configuring cross reference values (e.g. LCN could be expanded to Lt Cat Naphtha).

Configuration displays are provided to manually maintain product specification, product prices and property giveaway costs. BPM can support richer reporting and analysis with these types of data.

## c) Extensive set of forms to edit blend information (e.g. update blend data, merge blends, etc.)

The Edit Blend display may be used to correct, or provide data about, a blend file. It may be used for any type of blend file: Plan, Target or Actual.

An Engineer may have reasons to combine multiple Actual blend files into a single blend. Say a partial tank was blended and later a second blend was added to the tank to complete the blend. Both Actual blends were grouped but since this was deliberate action, and not an off-spec result requiring a re-blend, the Engineer may prefer to combine the two blends.

Note that cycle data is not combined and merging two blends will cause cycle data for one to be removed from the database.

## d) Extensive suite of reports hosted in SQL Server Reporting Services

The Blend Reports form allows the user to look at the aggregate of the aligned actual blends and select the desired blend to run a report.

## Blend Analysis Report:

The intent of the Blend Analysis report is to provide an overview of the Plan, Target & Actual data including re-blends or split blends that are associated together as a single complete blend.

#### Blend Giveaway Report:

The Blend Giveaway report provides the giveaway cost of properties relative to specifications for a blend.

All giveaway is based on the laboratory data and requires that the specification be configured using the Product Specifications / Details page. Giveaway is only shown for properties in the specification.

### **Giveaway Summary Report:**

The Giveaway Summary Reports page enables a user to run aggregate reports for a time period by selecting a date range, rather than a specific blend.

### Cycle Data Report:

Cycle data files from PBO may now be captured in BPM. A summary report is provided to survey the health of the optimization.

### e) Excel add-in to extract blend data for in-depth analysis

BPM Explorer is an Excel Add-in that uses web services to connect to the BPM database. It enables a user to filter blends and select the desired information about those blends. The request is called a Dataset and running it produces a spreadsheet with blends as rows and the data in columns. The request is configured as a Dataset on a hidden worksheet and will be saved as part of the workbook. Saving the workbook saves the Dataset and it can be rerun later. Datasets are normally refreshed each time a saved workbook is re-opened although this feature may be disabled. Once data is extracted, it can be referenced in Excel Charts & Reports or used in other analysis.

For more information about BPM, or any of the Profit Blending and Movement (PBM) applications, please contact your Honeywell Account Manager or your local Application Support office.

### Application Support Contact Information:

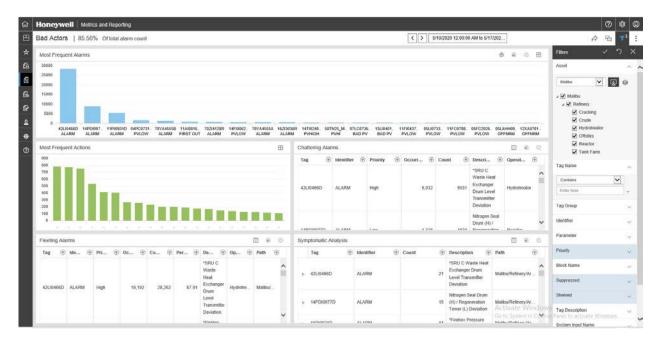
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## **DynAMo Alarm Management**

## Analysing Bad Actor Alarms using DynAMo Metrics & Reporting R210.1

It is no secret that Bad Actor Alarms are a significant problem for many plants. It is not uncommon for the top 10-20 Bad actor alarms to account for 40%-80% of all alarms received. These bad actors add clutter and noise to the control room making it more difficult for operators to clearly identify the causes of abnormal situations and take appropriate and timely corrective actions plus, they lead to unnecessary downtime, safety concerns, environmental excursions, quality issues, and lost production.

DynAMo M&R reports help identify bad actor alarms and can be used as a basis for action plans to correct the causes of nuisance alarms.

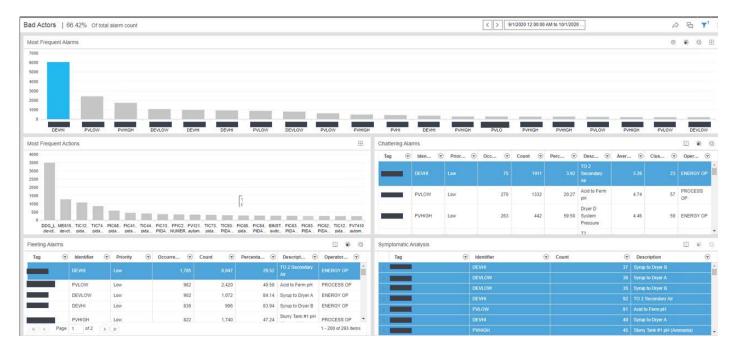


Starting with the DynAMo Bad Actors Report you can quickly see which alarms are the Bad Actors for your plant or a specific operator position within the plant, and further analyze which issues may contribute to the Bad Actor status by analyzing the Chattering, Fleeting, and Symptomatic alarms.

To better understand this report it is necessary to verify how DynAMo is configured for your site. DynAMo allows you to configure how Chattering, Fleeting and Symptomatic alarms are defined.

ណ៍	Honeywell   Metrics and Rep	porting				0
E	Configuration					
☆	General Sites Plants Oper	rator Positions				
Êâ	Sites 🕀 🕞 🛛 🕅	Metric Definition				Site Information
£	∡ Enterprise					Metric Definition
6	My Plant	Stale Alarms	Duration	>	24 🗘 Hours 🗸	Metric Configuration
Ð		Chattering Alarms	Alarm Count	>=	3 🗘 for 60 🗘 Seconds	Metric Thresholds
2		Fleeting Alarms	Duration	<	10 🗘 Seconds	Interlocks

As you can see from these definitions, Chattering and Fleeting alarms are Nuisance alarms often alarming and clearing before the operator can take any action. Starting with the Most Frequent alarms you want to check to see if one of the reasons they are so frequent is because they are either Chattering or Fleeting. You can compare the list of Most Frequent alarms against the Chattering and Fleeting alarms to how these two issues contribute to the most frequent alarm status. From the DynAMo screen you can click on the worst bad actor and DynAMo will highlight where that alarm shows up in the Chattering, Fleeting, and Symptomatic Analysis.



However, if you want to do a deeper dive to complete your analysis, you may want to run additional reports to help identify issues and make recommendations on ways to reduce the alarm count. First, export this file as an Excel file, then run the "Trending with Events" report for the same period as the Bad Actor report using the filters to select only one specific Bad Actor alarm. You get a file that contains all the events recorded for that alarm. Export this report in Excel format and then open the spreadsheet for analysis (Note, you may need to change the number of rows that are exported to excel if there are more than 10,000 events - you do that in DynAMo Metric Configuration). The resulting file contains the Time the event was recorded and the Type of Event, along with other information.

1	А	В	с	D	E	F	G	н	1	J
1	Time 🔽	Tag 💌	Identifier 💌	Priority 🔽	Description 💌	Parameter 🗾 💌	Event Type 🛛 🔽	Event Sub Type 💌	Shelved 💌	Suppressed 💌
2	10 May 2020 10:42:23.000 AM	14PDI0977D	ALARM	Low	Nitrogen Seal Dr		Alarm	Alarms	False	False
3	10 May 2020 10:45:50.000 AM	14PDI0977D	ALARM	Low	Nitrogen Seal Dr		ReturnToNormal	Others	False	False
4	10 May 2020 10:46:10.000 AM	14PDI0977D	ALARM	Low	Nitrogen Seal Dr		Alarm	Alarms	False	False
5	10 May 2020 10:47:02.000 AM	14PDI0977D	ALARM	Low	Nitrogen Seal Dr		ReturnToNormal	Others	False	False
6	10 May 2020 10:47:27.000 AM	14PDI0977D	ALARM	Low	Nitrogen Seal Dr		Alarm	Alarms	False	False
7	10 May 2020 10:47:48.000 AM	14PDI0977D	ALARM	Low	Nitrogen Seal Dr		ReturnToNormal	Others	False	False
8	10 May 2020 10:48:01.000 AM	14PDI0977D	ALARM	Low	Nitrogen Seal Dr		Alarm	Alarms	False	False
9	10 May 2020 10:49:03.000 AM	14PDI0977D	ALARM	Low	Nitrogen Seal Dr		ReturnToNormal	Others	False	False
10	10 May 2020 10:49:32.000 AM	14PDI0977D	ALARM	Low	Nitrogen Seal Dr		Alarm	Alarms	False	False
11	10 May 2020 10:55:46.000 AM	14PDI0977D	ALARM	Low	Nitrogen Seal Dr		ReturnToNormal	Others	False	False
12	10 May 2020 10:56:08.000 AM	14PDI0977D	ALARM	Low	Nitrogen Seal Dr		Alarm	Alarms	False	False
13	10 May 2020 10:57:14.000 AM	14PDI0977D	ALARM	Low	Nitrogen Seal Dr		ReturnToNormal	Others	False	False
14	10 May 2020 10:57:46 000 AM	1/100100770		Low	Nitrogen Seal Dr		Alarm	Alarme	Falca	Falca

Next do the following things;

- Make a copy of the Trending with Events tab in the spreadsheet
- In the copy, delete all Event Types except Alarm and ReturnToNormal
- Insert three new columns after Column B and four (4) new rows above row 1
- Name the new Column C "Time Diff". It will hold the time difference between each Alarm and ReturnToNormal event
- Name the new Column D "Delay\_1". it tells us if that time difference is less than Delay\_1.
- Name the new Column E "Delay\_2". It tells us if that time difference is less than Delay\_2.

First you want to subtract the time in the current row (A6), which is the time the first event was recorded, from row A7, which is the time the second event was recorded. So, in Column B6 enter the formula: =A7-A6. This will give a date string that you format as "h:mm:ss" and then copy this to every cell in Column B.

C4		fx 12:03:27 AM								
4		Jx 12:03:27 AM								
1	Α	В	С	D	Е	F	J	к	L	м
1										
2										
3										
4			0:03:27	0:03:27						
5	Time 💌	Time_Diff 🛛 👻	Delay_1 💌	Delay 2 👻	Yab 🗸	Identifier 💌	Event Type 🛛 🍸	Event Sub Type 💌	Shelved 🔽	Suppressed
6	10 May 2020 10:42:23.000 AM	0:03:27	-		14PDI0977D	ALARM	Alarm	Alarms	False	False
7	10 May 2020 10:45:50.000 AM	0:00:20			14PD10977D	ALARM	ReturnToNormal	Others	False	False
8	10 May 2020 10:46:10.000 AM	0:00:52		4 I D	Constants	ca	Dent Constalle		al a	False
9	10 May 2020 10:47:02.000 AM	0:00:25						wice, once to get	the	False
10	10 May 2020 10:47:27.000 AM	0:00:21	Values	and the se	econd time	to get the F	ormat			False
11	10 May 2020 10:47:48.000 AM	0:00:13			14PDI0977D	ALARM	ReturnToNormal	Others	False	False

Now in cells C6 and D6 add similar 'if' statements: =if(\$B6<C\$4,"T","F") where C4 contains Delay\_1, and then copy that to D6. Then copy C6 and D6 to the remainder of the cells in columns C and D. This results in a file that looks like the following. By editing C2 and D2 you can change the delay setting to see how different delay times will impact the alarms received.

			, ,			,			,	
T2	5 🔻 i 🗙 🗸	$f_{x}$								
	А	В	с	D	E	F	J	к	L	М
1										
2										
3										
4			0:00:20	0:00:30						
5	Time 🗾	Time_Diff 🛛 💌	Delay_1 💌	Delay_2 💌	Tag 💌	Identifier 💌	Event Type 🛛 💌	Event Sub Type 💌	Shelved 💌	Suppressed
6	10 May 2020 10:42:23.000 AM	0:03:27	F	F	14PDI0977D	ALARM	Alarm	Alarms	False	False
7	10 May 2020 10:45:50.000 AM	0:00:20	F	Т	14PDI0977D	ALARM	ReturnToNormal	Others	False	False
8	10 May 2020 10:46:10.000 AM	0:00:52	F	F	14PDI0977D	ALARM	Alarm	Alarms	False	False
9	10 May 2020 10:47:02.000 AM	0:00:25	F	т	14PDI0977D	ALARM	ReturnToNormal	Others	False	False
10	10 May 2020 10:47:27.000 AM	0:00:21	F	Т	14PDI0977D	ALARM	Alarm	Alarms	False	False
11	10 May 2020 10:47:48.000 AM	0:00:13	Т	Т	14PDI0977D	ALARM	ReturnToNormal	Others	False	False

So far, you've calculated the time difference between and alarm and the return and determined if the difference is less than Delay\_1 and Delay\_2. Now you want to give this context to make it easier to see the impact of adding an on or off delay varying lengths. To do that add some labels and calculate some statistics. In Cell C2 enter: =COUNTIFS(C\$6:C\$50000,"T",\$j\$6:\$j\$50000,"Alarm") and copy to D2. In Cell C3 enter =COUNTIFS(C\$6:C\$50000,"T",\$j\$6:\$j\$50000,"T",\$j\$6:\$j\$50000,"Alarm") and copy to D2. In Cell C3 enter =COUNTIFS(C\$6:C\$50000,"T",\$j\$6:\$j\$50000,"Alarm") and copy to D2. In Cell C3 enter =COUNTIFS(C\$6:C\$50000,"T",\$j\$6:Sj\$50000,"Alarm") and copy to D3. (NOTE: 50000 is an arbitrary number beyond the last row of data to ensure all cells are counted.) In Cell J2 enter =COUNTIF(J\$6:J\$50000,"Alarm") and copy to J3 changing "Alarm" to "ReturnToNormal". This gives us the total count of Alarms and Returns. Next, In Cell E2 enter =C2/\$J12 and then copy to E2, F2 and F3. This calculates the % reduction in the number of alarms generated by the respective delays. Finally, add labels to make it easier to understand.

02	26 🔻 i 🗙 🗸	$f_{x}$									
	А		в	с	D	E	F	L	к	L	м
1				Alarms	Received	Percent F	eduction				
2			On-Delay Impact	5893	6601	67%	75%	8780	Total Alarms		
3			Off-Delay Impact	5388	6861	61%	78%	8779	Total ReturnToNor	mal	
4				0:00:20	0:00:30						
5	Time 🗾	Time_Diff	<b>*</b>	Delay_1 💌	Delay_2 🔻	Tag 🔽	Identifier 💌	Event Type 🛛 💌	Event Sub Type 💌	Shelved 💌	Suppressed
6	10 May 2020 10:42:23.000 AM		0:03:27	F	F	14PDI0977D	ALARM	Alarm	Alarms	False	False
7	10 May 2020 10:45:50.000 AM		0:00:20	F	т	14PDI0977D	ALARM	ReturnToNormal	Others	False	False
8	10 May 2020 10:46:10.000 AM		0:00:52	F	F	14PDI0977D	ALARM	Alarm	Alarms	False	False
9	10 May 2020 10:47:02.000 AM		0:00:25	F	Т	14PDI0977D	ALARM	ReturnToNormal	Others	False	False
10	10 May 2020 10:47:27.000 AM		0:00:21	F	Т	14PDI0977D	ALARM	Alarm	Alarms	False	False
11	10 May 2020 10:47:48 000 ΔM		0.00.13	т	т	14PDI0977D	ALARM.	ReturnToNormal	Others	False	False

At this point you can experiment with different on/off delay times and determine if there is an appropriate delay that can be applied to reduce the number of alarms. After you have done this once for the worst Bad Actor you can generate Trending With Events reports for others, insert the new Rows and Columns, and then copy and paste the formulas from this sheet into the next.

Because Fleeting Alarms are often part of a Chattering Alarm Cluster, correcting the fleeting alarm issue first may dramatically reduce or eliminate the number of Chattering instances. In addition to this you can also analyze at what PV Value the alarm comes in and returns to normal. The Value column in the Trending with Events file contains the PV Value at the time of the event (make sure to include the Value field in the report). If you make a copy of the Trending with Events (2) tab to a new sheet named Alarms and then do the same thing for another tab names Returns you can further analyze what's happening with this alarm. Delete all ReturnToNormal events from the Alarms tab and all

Alarms from the Returns tab. Now you can highlight the Value column and insert a trend. Also add a formula to find the minimum value in that column. This tells you at what point the alarm is being tripped and at what point it returns to normal.

/alue	Unit of Mea															Va	lue	Unit of N	/lea															
3340.57	SCFM																2867.9	SCFM																
3319.3	SCFM						Α	larr	ns								2740.43	SCFM							Ret	urn	ToN	orm	nal					
3412.28	SCFM	6000															2758.58	SCFM	3	500														
3459.86	SCFM																2651.97	SCFM		500														
3050.98		5000															2714.69	SCFM	3	000														
3034.79																	2815.06	SCFM											العا م		L	يد وله		
3441.08		4000	-1-	, <sup>te</sup> lento	<b>.</b> .	<b>b</b>				ш.		.1					2853.86	SCFM	2	500		lle P	· 1		1. 4.	14	lana.	r		p.	-	1.1	1.11	-4
3242.75			J.L.	y sterio	۳.,۳	1.1	11	T 7	a da la li	1.1	1011	10	ירידייי	1	all at		2695.57	SCFM	,	.000														
3285.25		3000		يى	<b>1</b> 44						والطعي		استريب				2769.38	SCFM	- 4	.000														
3378.83																	2898.09	SCFM	1	500 -									_					_
3107.26		2000															2890.77	SCFM	_															
3392.65 3166.18																	2869.92	SCFM	1	.000									-					-
3205.48		1000															2817.34	SCEM		500														
3424.93		1000															2894.2			500														
3435.96		0															2898.43			0														
3158.67			- 13	309 463 617	5 7	33 33	546	64 8	15 11	19 61	773	81	235 389 543	66	6 1		2860.22			-	97	445 593 741	68	37	81	29	925	221	517	665 813	109	2 2 2	701	67
3042.08			-	m 4 0 1	- 6	12 1	110	18	21	24	27	305	33 33	38.0	40		2892.01				- 6 -	4 10 10	- 00	91	13 13	16	19 2	22 52	52	28 28	31	34 32	37	39.5
3001.79																	2802.72																	
3246.64						3000	.28	Mir	nimu	m A	larn	ηV	'alue				2830.57				28	<u>99.9</u>	99	Ma	ximi	ım	Reti	ırnT	[ON	orm	al V	alue	+	

In the example you can see that the alarm is annunciating when the PV passes 3000 and returning to normal when it drops below 2900. You can obviously do this on the DCS Console by trending the tag or with data from the historian but if you don't have access to these you can use this data to tell you if your setpoints are set properly and if a deadband Is being used.

Symptomatic alarms are also an important metric to analyze. Symptomatic alarms are identified as alarms that have a "Parent/Child" relationship where the Parent alarm comes in and is followed by the Child alarm within a specified time period. The symptomatic alarms are going to point you toward duplicate alarms and give you an indication if the alarm is a candidate for dynamic suppression. If your site has a significant fleeting alarm problem, you may want to filter out the top 10 worst fleeting alarms from your analysis to eliminate coincidental occurrences that are categorized as symptomatic. You also want to make sure you understand how your site has defined symptomatic alarms. For example, one site uses the following definition:

Symptomatic	Occurrence Count	3	$\hat{}$	
Analysis	Duration	5	0	Seconds

This means that DynAMo must find three occurrences of a Parent/Child relationship where the Parent alarm is followed by the Child alarm within 5 seconds before It is identified as a symptomatic relationship. The number of Occurrences and/or Duration can be changed to better reflect your process dynamics based on your process reaction time.

A	В	c	D	E	G	1.1	K	U
1 Parent Tag	7 Parent Identifier	<ul> <li>Parent Description</li> </ul>	- Child Tag	T Child Identifier	- Child Description	- Occu - P	redial S	ignifi -
7 27ZAO3009PURGEFO	ALARM	*Zurn Boiler FD Fan Inlet Damper Not at Purge Position First Out	27FCA219FTC	ALARM	*Zurn Boiler FD Fan Discharge Damper Failed to Close	17 1	100.00	77.27
8 27PI3023LLFO	ALARM	*Zurn Boiler Combustion Air Low Press Trip First Out	27FCA219FTC	ALARM	*Zurn Boiler FD Fan Discharge Damper Failed to Close	11 1	100.00	50.00
9 19FC0084.PIDA	DEVLOW	KHT Strp Net Overhead Liquid	19FC0084.PIDA	DEVHI	KHT Strp Net Overhead Liquid	24	96.00	46.15
0 27P13023LLFO	ALARM	*Zurn Boiler Combustion Air Low Press Trip First Out	27PI3023	PVLO	*Zurn Boiler Combustion Air Duct Pressure	10	90.91	12.82
1 27ZAO3009PURGEFO	ALARM	*Zurn Boiler FD Fan Inlet Damper Not at Purge Position First Out	27PI3023	PVLO	*Zurn Boiler Combustion Air Duct Pressure	13	76.47	16.67
2 21PC02048.DACA	PVHIGH	Fuel Gas KO Drum H2 to Flare	16FI0671_LIMIT.DAC	A BAD PV	NHT H4 Heater Firing Rate Limit Alarm	24	72.73	16.33
3 27FCA219FTC	ALARM	*Zurn Boiler FD Fan Discharge Damper Failed to Close	27ZAO3009PURGEFO	ALARM	*Zurn Boiler FD Fan Inlet Damper Not at Purge Position First Out	14	63.64	82.35
7 27FCA219FTC	ALARM	*Zurn Boiler FD Fan Discharge Damper Failed to Close	27PI3023	PVLO	*Zurn Boiler Combustion Air Duct Pressure	13	59.09	16.67
8 27ZAO3009PURGEFO	ALARM	*Zurn Boiler FD Fan Inlet Damper Not at Purge Position First Out	27PI3023LLFO	ALARM	*Zurn Boiler Combustion Air Low Press Trip First Out	10	58.82	90.91
9 19FC0084.PIDA	DEVHI	KHT Strp Net Overhead Liquid	19FC0084.PIDA	DEVLOW	KHT Strp Net Overhead Liquid	23	44.23	92.00

In the previous example, you can see the parent and child alarm information along with the "Occurrence" (Col J) which tell you how many times this relationship was identified, the "Predictability" (Col K) tells you what percentage of the time the parent alarm was followed by the child and the "Significance" (Col L) tells you what percentage of the time the child alarm came in that it had been preceded by the parent alarm. If the Predictability is 50% or more the child alarm is a candidate for dynamic suppression.

Using these tips to analyze your Bad Actor Alarms can help you identify issues with equipment, your process, alarm setpoints, deadbands, and more and result in a dramatic reduction in the number of alarms received in the control room.

## Honeywell Forge Advanced Process Control (Profit Suite™)

## Uniformance Process Studio R323.1 installation on Honeywell Forge Advanced Process Control R510.1

**Background** - Starting with Honeywell Forge APC R510 the embedded PHD trending tool was intended to be Uniformance Insight (UI) R210.1, which replaced Uniformance Process Studio (UPS) the original trending tool for previous Profit Suite R502 and earlier releases. However, since R510 release some conflicts have arisen with UI on Experion systems and with APC Web Viewer (PWV) as detailed below:

Uniformance Insight (UI) R210.1 – the following issues have arisen since R510.1 release:

- 1. Compatibility conflicts on Experion Systems leading to problems with installation and configuration of UI causing issues with HMI Web graphics in particular;
- 2. The Intuition Core Components (ICC) on which UI is based is incompatible with ICC R292 on which APC Web Viewer R510.1 is based, which means both cannot co-exist on the same server;

**Conclusion** – For the above two reasons it is not advisable to install UI R210.1 in order to trend embedded PHD data for Honeywell Forge APC R510.1.

**Recommendation** – Uniformance Process Studio R323.1 is the recommended trending tool for embedded PHD R400 in Honeywell Forge APC R510.1 and is available, with SCN, at the following links:

https://www.honeywellprocess.com/library/support/Public/Documents/UPS-R323.1-SCN.pdf https://www.honeywellprocess.com/library/support/Public/Downloads/Software-Download-Datasheet-UPS-R323.pdf

Please refer to Knowledge Article APC:510:0501/20 Installing Uniformance Process Studio (UPS) R323.1 on Honeywell Forge APC R510 Systems for detailed installation/configuration instructions for UPS R323.1, including Excel AddIn. All new R510.1 orders will receive a UPS ULM License and existing R510.1 customers can obtain one from ACT using their existing SW\*.hostid copying HPS-TS below:

For more information on Honeywell Forge APC (Profit Suite<sup>™</sup>) or to place a software order, please contact your account manager or email:

## HPS Technical Support Contact Information:

- <u>apc.apptech@honeywell.com</u> for North and South America regions;
- <u>apc.support.emea@honeywell.com</u> for Europe, Middle East, Africa and Asia Pacific regions;

## APC Knowledge Article Quarter: Summary of Articles – 3Q20 (including October)

Please refer to the August 2018 BG Newsletter for all the details regarding this APC Knowledge Article Quarter series and this quarter we publish the Summary of Articles for 3Q20 on the portal below and welcome the first Control Performance Analytics (CPA) articles:

A	utoSav	re 💽	₩ E	19~	· C ·	÷	Know	ledge Article	s - Profit Suit	te.xlsx -	Excel	Wilson,	Stuart G	3	五 ·			/×/
File	2	Hom	e Ins	ert	Page La	ayout	Formula	s Data	Review	View	Help	Solver Fo	undation	Q	Search	n	Ê	$\bigtriangledown$
APC	500	475	Profit Su	ite: Ho	w to de	eal with	the miss	ing contro	ller node ir	n a PSES	project?							-
APC	500	476	How To I	Remov	e IIS Lo	gs and s	stop IIS Lo	ogging on F	rofit Web	Viewer	Server							
APC	500	477	How to r	egister	r Profit	Suite c	ustom too	olkit DLLs a	fter migrat	ion								
APC	510	478	Honeyw	ell For	ge APC	R510.1	ResetPH	DB.cmd W	/orkaround									
APC	500	479	How to r	nigrate	Profit	Sensor	Pro Toolk	its from R4	10 to R500									
APC	500	480	Profit Op	otimize	er Onlin	e Integ	rator Gai	n Calculati	ons									
APC	510	481	Honeyw	ell For	ge APC	R510 A	PCOS Slov	v Call-up T	ïmes									
APC	500	482	Connect	ion bet	tween	APC Ser	rver Profi	t Suite and	EAS is not	establis	hed							
APC	510	483	Honeyw	ell For	ge APC	R510 A	PCOS CV S	Summary r	ot Displayi	ng								
APC	500	484	Profit Su	ite Op	erator S	Station	(PSOS) ca	II back issu	ie (Values i	refresh i	ssue) due	to windov	vs firewall	setting	s			
APC	500	485	Vector c	alculati	ion is c	ausing a	a VVarcor	nb to be re	created ea	ch activ	ation of the	e Profit Su	ite URT pla	tform				
APC	502	486	Profit Su	ite Op	erator S	Station	(PSOS) Ca	all-up Time	s R44x and	R50x								
APC	500	487	Gain Ana	lysis ta	ab in Pr	ofit Sui	ite Opera	tor Station	(PSOS) Op	eration	Guidance v	view doesr	n't work					
APC	510	489	KSM2020	-APCO	489 - H	oneywe	ell Forge /	APC (Profit	Suite) - Kn	owledg	e Article Q	uarter 2Q2	20					
APC	500	490	How to d	heck u	ser loca	alisatio	n in regis	try and mo	dify registr	y if nee	ded for Pro	ofit Suite						
APC	440	493	How to i	ncreas	e Embe	dded P	HD Histo	ry time len	gth for Pro	fit Suite								
APC	502	494	Profit Su	ite App	olicatio	ns Rep	orting "To	talPlant In	formation	Server i	s not Active	e"						
APC	510	495	Honeyw	ell For	ge APC:	How to	o install P	ython usin	g Anacond	a Distrib	ution?							
APC	510	496	Honeyw	ell For	ge APC:	How to	o resolve	the Pytho	n Socket im	port err	or when us	sing NumP	y library?					
СРА	110	498	Control I	Perform	mance /	Analytic	cs (CPA): I	How to inc	rease num	ber of at	tempts to	fetch data	from Clou	d Histo	rian?			
APC	510	499	Honeyw	ell For	ge APC	R510 In	stallation	Error										
APC	510	500	KSM2020	-APCO	500 - Ui	niforma	ance Proc	ess Studio	R323.1 inst	allation	on Honeyv	vell Forge	Advanced	Proces	s Contro	ol R510	.1	
APC	510	501	Installin	g Unifo	rmance	e Proce	ss Studio	(UPS) R323	.1 on Hone	ywell F	orge APC R	510 Syster	ns					
APC	510	502	Honeyw	ell For	ge APC	Using a	Domain	Account										
APC	500	503	Profit Ex	pert A	dding T	ags to H	listory Co	llection										
APC	510	504	Honeyw	ell For	ge APC	Viewin	g the Pro	cess Chang	ge Log									
APC	510	505	How to e	nter n	egative	values	for Int B	alance Fact	or in Profit	Control	ler							
APC	510	506	Can only	'Contr	ol All' k	outton i	in APC/PS	OS My Vie	w be remo	ved and	retain 'Dro	op All'?						
APC	510	507	How to f	ind the	e highe	st contr	ibutor to	the urtEla	spsedTime	in a URT	Scheduler	?						
APC	510	509	KSM2020	-APCO	509 - H	oneywe	ell Forge /	APC (Profit	Suite) - Kn	owledg	e Article Q	uarter 3Q2	20					
APC	441	510	Profit Co	ntrolle	er MV N	/inimu	m Mover	ent										-
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										교 Dis	play Settings	s 🌐	E P	]	-		- + 1	00%

Final note on KAs is the above table shows only the public published articles, however on rare occasions there is a need to share internal/confidential KAs within Honeywell and these are not published publicly, although they also have Article ID numbers, which might account for gaps and apparent missing article numbers.

For more information on Profit<sup>®</sup> Suite please contact your Honeywell account manager or email:

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- <u>apc.apptech@honeywell.com</u> for North and South America regions;
- apc.support.emea@honeywell.com for Europe, Middle East, Africa and Asia Pacific regions;

## **Control Performance Monitor**

## Control Performance Monitor (CPM) Knowledge Article Quarter: Summary of Articles – 3Q20

Please refer to the September 2018 BG Newsletter for all the details regarding this CPM Knowledge Article Quarter series and this quarter we publish the Summary of Articles for 3Q20 on the portal below:

Auto	Save 💽 Off		9·C··	Knowledge /	Articles -	CPM.xlsx - E	xcel	Wilson,	Stuart G		T			/x/
File	Home	Insert	Page Layout	Formulas	Data	Review	View	Help	∕⊃ Se	arch		ය s	hare	P
Prod -	Relea -	Article	Title											<b>T</b>
CPM	602	280	CPM KPIs related	d to Standard	Deviatio	n of data								
CPM	602	281	CPM tagnames a	re shown with	GUID, I	no duplicate	tags four	nd						
CPM	602	282	ProcOpt Tools: P	ython based t	ool to co	nvert ODH	configura	tion to P	HD confi	guratior	n for CP	М		
CPM	602	283	CPM Web Repor	t Bucketing R	ules									
CPM	602	284	How to rename th	e existing cor	ntroller w	ithout losing	KPI hist	ory data	in CPM I	R602.2				
CPM	602	285	Control Performa	nce Monitor (	CPM) E	xpert Guida	nce page	won't loa	ad					
CPM	602	286	"Access Denied"	error comes	up when	opening Co	ontrol Per	formanc	e Monito	r (CPM)	) Config	urator		
CPM	602	287	Can the IMAN co	lor be modifie	d in Cor	ntrol Perforn	nance Mo	nitor (Cl	PM) and	how to	do it			
CPM	602	288	Control Performa	nce Monitor (	CPM) in	stallation er	ror: "Faile	ed to inst	all Windo	ws pate	ch Upda	te 2919	442"	
CPM	602	290	KSM2020-CPM0	290 - CPM - k	Knowledg	ge Article Q	uarter: 20	220						
CPM	602	291	Control Performa	nce Monitor (	CPM) St	tring Value i	n OP sele	ection ex	pression					
CPM	602		Problems with Co											
CPM	602	293	MPC Controllers	will not import	to a pro	duction unit	in Contro	ol Perfor	mance M	lonitor (	CPM)			
TAIJI	310	26	How to define OF	Scale Low/H	igh man	ually instead	d OPC co	nnectior	in Taiji F	PID?				
CPM	602	294	Control Perfoman	nce Monitor (C	CPM) Dis	sposition pro	oblems in	R602.2						
CPM	602	295	CPM : How to ch	ange the inter	polation	method for	the requi	red tags	?					
CPM	602	296	How to change for	lder path for <i>l</i>	Analysis	input folder	in CPM?							
CPM	602	297	Installation of CP	M with Windo	ws Serve	er 2016 Dat	acenter							
CPM	602	298	Heat Map and Cr	oss-correlatio	n not ap	pearing in (	CPM Web	Report						
CPM	570	299	Mode Backgroun	d color not ap	pearing	in the CPM	detail Re	port						
CPM	603	300	KSM2020-CPM0	300 - Control	Perform	ance Monito	or (CPM)	R603.1	s now av	ailable t	for dowr	lload		
CPM	602	301	How to adjust the	Compression	FactorT	olerance at	once for	all the C	PM loops					
CPM	602	302	How to adjust the	Compression	Factor	Threshold a	t once for	all the (	CPM loop	S				-
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						-3	Display Se	ttings			-	_	+	100%

Final note on KAs is the above tables show only the public published articles, however on rare occasions there is a need to share internal/confidential KAs within Honeywell and these are not published publicly, although they also have Article ID numbers, which might account for gaps and apparent missing article numbers.

For more information on CPM<sup>™</sup> or to place a software order, please contact your Honeywell account manager or email:

## **HPS Technical Support Contact Information:**

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## **Current Product Releases**

## **Advanced Applications:**

#### DynAMo Alarm Suite

- Metrics & Reporting R210.1
- Documentation & Enforcement (ACM R321.12)
- Alerts & Notifications (UA R321.2)
- Process Safety Analyzer R201.1

#### **DynAMo Operations Suite R230**

- Operations Management
- Operations Logbook
- Limit Repository

#### UniSim

- UniSim Design R461.1
- UniSim Competency R461

#### Business FLEX R242

 Ongoing support for Uniformance PHD 215, PHD 300, PHD 310 and PHD 320 as well as PI and other OPC HDA-compliant historians

#### Profit Blending and Movement (PBM) Suite

Profit Blending and Movement (PBM) R510.3

- Blend Performance Monitor (BPM)
- Experion Blend Controller (EBC)
- Experion Tank Monitor (ETM)
- Profit Inventory Monitor (PIM)
- Profit Blend Controller (PBC)
- Profit Blend Optimizer (PBO)
- LIMS Viewer (LV)
- Profit Movement Management:
  - > Movement Monitor (MM)
  - > Movement Control (MC)

#### Energy Dashboard R241

 Integrated suite to calculate and monitor actual and target energy use. May include Operations Monitoring, Profit Sensor Pro, UniSim Design, and Workcenter.

#### Workcenter

- Web-Based Visualization Analysis Solutions
  - Workcenter Release 242

#### Matrikon OPC

- Matrikon FLEX OPC UA SDK R400.2
- Matrikon OPC UA Tunneller

#### Honeywell Forge APC (Profit Suite)

Release R510

#### Uniformance

- Uniformance PHD 400
- Uniformance Process Studio R322
- Uniformance Asset Sentinel R511
- Uniformance Insight R110
- Uniformance Cloud Historian R100
- Uniformance Executive R310
- Uniformance KPI R121

#### Symphonite Supply Chain and Production Management

- Production Manager Release 9.0
- Production Accounting and Reconciliation R210
- OptiVision R541

#### Digital Suites for Oil and Gas

- DSOG R100 including Process Safety Suite, Production Surveillance Suite, Equipment Effectiveness Suite
- Production Surveillance Well Test R110

#### **Control Performance Monitor**

- CPM Standard R603
- TaiJi PID R310

#### Honeywell Pulse

Release R110

## **Contact Information**

All GTAC support should be directed through <u>https://www.honeywellprocess.com/en-US/contact-us/customer-support-contacts/Pages/default.aspx</u> Portal.

Americas Support Centre Contact Information

Advanced Planning and Scheduling (APS)	support@honeywell.com	1-403-216-2870
Profit Blending & Movement (PBM/BMA/OM&S) Support	rac.support@honeywell.com	1-289-333-1500
OptiVision Help Desk	optihelpgroup@honeywell.com	1-513-595-8944
Honeywell Forge APC (Profit Suite) Support	apc.apptech@honeywell.com	1-800-822-7673
Technical Assistance Centre (TAC) – Americas		1-800-822-7673
Uniformance Help Desk	support@honeywell.com	1-403-216-2870
UniSim Design Suite Support	UniSim.Support@honeywell.com	1-800-822-7673
UniSim Competency Suite Support	hpscustomersupport@honeywell.com	1-800-822-7673

#### Asia Pacific (AP) Technical Assistance Centre (TAC) for Advanced Solutions contacts

Honeywell Forge APC (Profit Suite) Support	apc.support.emea@honeywell.com	
Manufacturing Execution Solutions (Includes APS, BMA, MES, OMPro and Uniformance PHD)	bflex.support.ap@honeywell.com	
OptiVision Help Desk	p3its_oncall@honeywell.com	+ 358 20752 2300
Profit Blending and Movement (PBM) Solutions Support	bma.support.ap@honeywell.com	
UniSim Support	unisim.support@honeywell.com	
UniSim Competency Suite Support	hpscustomersupport@honeywell.com	

#### Honeywell Asia Pacific regional GCCC hotlines:

Australia	GCCC.Pacific.HPS@Honeywell.com	1 300 301 135
China:	400-820-0386	800-820-0237
India:		1-800 2335051
Indonesia:		0018-03-440-212
Malaysia:		1 800-812-674
New Zealand:		0800 855 663
Pacific (outside Australia and New Zealand):		+65 6787 1788
Philippines:		1-800-1441-0223
Singapore:		6823-2215
Taiwan:		0800-666-051
Thailand:		0018-004-415-283

#### Europe and Middle East and Africa, (EMEA) Technical Assistance Centre (TAC) for Advanced Solutions contacts

Control Performance Monitor (CPM)	CPM.support.emea@honeywell.com	All global queries
OptiVision Help Desk	p3its_oncall@honeywell.com	+ 358 17 57 89 300
EMEA Advanced Solutions Helpline		+32 (0)2 728 2200
Honeywell Forge APC (Profit Suite)	apc.support.emea@honeywell.com	
MES BusinessFlex	mes.support.emea@honeywell.com	
Production Control Centre	kunde@honeywell.com	+47 6676 2180
Profit Blending and Movement (PBM)	bma.support.emea@honeywell.com	
UniSim Competency Suite Support	hpscustomersupport@honeywell.com	
UniSim Support	unisim.support@honeywell.com	
Automation College	www.automationcollege.com	

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