

**Blending and Movement Automation
BMA R430.4
Software Change Notice**

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1 Introduction

1.1 About this Document

This Software Change Notice describes the BMA R430.4 point release. This document is intended for users who are responsible for the installation and maintenance of the Blending and Movement Automation system. The latest version of this SCN is available on the Honeywell Process Solutions website.

1.2 Customer Support

For support and other contact details, please go to the [Customer Support Contacts](#) page on the honeywellprocess.com site.

1.3 About this Point Release

This point release addresses problems and offers improvements requested since the release of BMA R430.1 General Release.

In addition to resolving the problems identified below, this point release distributes an updated version of the standalone PBM Security Configuration Tool which is intended to adjust the security settings of an existing BMA system to align with the Experion guidelines for local security. Specifically, the tool ensures that the mngr user is not a member of the Local Administrators group and also ensures that the various BMA services are run under appropriate accounts. (Before you proceed be sure to review Section [10.1](#) for additional background.)

1.3.1 Problems Resolved

This point release resolves the following issues.

Table 1-1 – Blend Performance Monitor (BPM) Problems Addressed

ID	Problem Description	Fix Description
RQUP 2015-002867	In addition to supporting the existing keyword file format, support the ability to process the XML file that can be processed by the BI application.	The BPM keyword file processor now supports both the existing keyword file format and the so-called BI XML format.

Table 1-2 – Experion Blend Controller Problems Addressed

ID	Problem Description	Fix Description
PAR 1-561FYAF	A task is holding out releasing a new order. Blend state toggling between 'Blend Stopped', 'Blend Closed', 'Master Clear' when a new blend is started (with TgtVol less than the previously closed blend) and the total flow exceeds the ZeroFlowTol.	Prevent Blend state from toggling between 'Blend Stopped', 'Blend Closed', 'Master Clear' when a new blend is started (with TgtVol less than the previously closed blend) and the total flow exceeds the ZeroFlowTol. [BmBS, BmBS_CM]
PAR 1-3Z2UJKR	Target Volume entry box (in header of blend monitoring display set) is not disabled when MA is enabled, or when Flyswitch is Armed (on EPKS R432.1 and R500.1).	Consolidate logic (in blend header shape) that enables/disables alpTargetVolume according to MAInstall or Flyswitch armed conditions into alpFSDSTgtVol_ondatachange() event handler. [Blend monitoring displays]

ID	Problem Description	Fix Description
PAR 1-4E166HR	Destination swing heel properties not transferred in EPKS R500.1.	Increased time delay before resetting 'ReqDestSwing'. [BmBld CM]
PAR 1-5V8BWT4	Need to be able to specify a different script engine for different blenders.	Allow user selection of script engine in Blender Build Tool.
PAR 1-5XF2MQ9	EBC Blender Build Tool enhancements (relax dependency for Quick Builder and master strategy files to be in the same folder as the EXE, ensure unique front-end PD pump names by appending with blender suffix, script engine selector)	Updated logic in EBC_Configure.exe, Output.xml.
PAR 1-7ERA0VA	GetBlendOrder fails when downloading a recipe containing a component with 0% RcpPct but non-zero RcpHi%.	ComponentSplit(): Fix divide-by-0 problem when called from EbcSetupSplit to download a BI recipe containing a component (RcpPct=0% but RcpHi% is non-zero). Also need to ensure that non-zero RcpHi% is downloaded as well even though recipe is 0%. [EbcSplit.dll, EbcMaterial.exe]
PAR 1-7ERA0WJ	Better Blend Management Interface handling when the [BM_CONFIG] table is empty.	Modify helper function in ADIOCommand.cpp to return NULL when attempting to get a field value from a query that return zero rows. [EbcBldMgrIF.exe]
PAR 1-7F1PJNL	Blend Report missing recipe revision and recipe description fields.	Fix to include missing 'Recipe Revision' and 'Recipe Description' in FFL report. Dependent on new 'GENRCPREV' and 'GENRCPDESC' parameters added to BLDRPT SCADA point. [EbcBldRpt.exe, BLDRPT SCADA Pt, BlendReport1.def]
PAR 1-7F2V9HK	Add ability to sort components on ebcOptimComponent display.	Add ability to sort components on ebcOptimComponent.htm display. Follows Sort configuration setting for FCVs. [ebcOptimComponent.htm, Ebc_Util.vbs, EbcMaterial.exe, MF_MAPPER SCADA Pt]
PAR 1-7F2V9P4	"Overlap" check on RcpFlowLimits and FCVFlowLimits ranges fails even though 'IgnoreRcpLmtChk' flag is enabled.	Bypass 'Overlap' check if 'IgnoreRcpLmtChk' is enabled. [EbcMaterial.exe]
PAR 1-7F3II96	'Load to Blender' failed on OBPC validation error when operator setup blend manually (BI installed/enabled and OBPC installed but not enabled) and recipe ID/revision doesn't exist in BI recipe library.	Enforce BI validation check only when OBPCInstalled. [OpenBpcBlenOrderDownload.exe]
PAR 1-7F5O8D9	Operator-reduced target flow is ignored during pacing.	Modify pacing logic to consider using the TgtFlow while pacing if it is less than the current Pace flowrate. [BmMfr CM for PBC, CAB EB_MonMfrSP_4_1_1_305 for PBC, BsMfr SCM for EBC]
PAR 1-7F5O8FN	Unable to clear existing Trim/Binary controller assignment to a property on the ebcPropertyTrim display.	Modify row_cboTrimController and row_cboBinaryController scripts to enable blanking out a selected FCV. [ebcPropertyTrim.htm]
PAR 1-7ZXW437	When there are no saved blends and if we click restore button, getting message repeatedly.	Better Form handling for when there are no saved blends to be found when the 'Restore Blend' button is clicked. [ebcRecipeSetup.dll/udRecipeSetup.vbd]
PAR 1-818FT46	Unable to change pump after initially calling up the ebcRecipeSetup display.	Change design time 'Enabled' setting to True for DataCombo control [ebcRecipeSetup.dll, ebcPropertySetup.dll, ebcCommentsSetup.dll]

ID	Problem Description	Fix Description
PAR 1-8197J6B	For a blender with no properties, Operator is unable to change destination tank in Recipe Setup display.	Allow 'Destination Tank' drop-down list to be Operator accessible in the case where the Tank Quality Setup display is not shown (i.e. no properties configured for the blender). [ebcRecipeSetup.dll, ebcCommentsSetup.dll]
STRQ45	Improvements driven by Human Factors principles: <ul style="list-style-type: none"> An FCV bullet chart has been added to the ebcFlowControl display. FCV display sorting is now supported on the ebcFlowControl, ecChangeRecipe and ebcBlendMonitorReport displays For additive-type FCVs, the "volume error" is shown on the ebcBlendMonitorReport display. "Zebra-stripes" have been added to all rows on all of the blend monitoring displays. 	

Table 1-3 – Experion Ratio Controller Problems Addressed

ID	Problem Description	Fix Description
PAR 1-3Z2UJKR	Target Volume entry box (in header of blend monitoring display set) is not disabled when MA is enabled, or when Flyswitch is Armed (on EPKS R432.1 and R500.1).	Consolidate logic (in blend header shape) that enables/disables alpTargetVolume according to MAInstall or Flyswitch armed conditions into alpFSDSTgtVol_ondatachange() event handler. [Blend monitoring displays]
PAR 1-5KA12HY	Miscellaneous PBC Blender Build Tool anomalies {Overflow error when using ERC-BulkEdit workbook to export all worksheets (and some worksheets do not have point name records), No provision in AdvancedSettings to set parameters for Positive-Displacement (PD) pumps}.	Modified logic in EBC_Configure.exe, Output.xml, ERC_BulkEdit.xlsm.
PAR 1-5V8BWT4	Need to be able to specify a different script engine for different blenders.	Allow user selection of script engine in Blender Build Tool.
PAR 1-61XIPLH	Unable to arm a new Flyswitch after encountering a Flyswitch FCV Initialize timeout error when executing an earlier Flyswitch. The FSCurBS value remained at 30 even after stopping and closing the blend.	Fix timing issues and add wait conditions to ensure that FS EoB report and SoB reports are generated before allowing the FSCurBS to advance. [CAB: EB_GENFSBS_4_1_1_402, EB_FC SBS_4_1_1_304, EB_MonMFRSP_4_1_1_304, EB_MONBLND_5_0_1_10. EbcBldRpt.exe, ProcessFSStrings.exe, EbcMaterial.exe, EbcFSSwitched.xml, ProcessFSSwitched.exe, BmBld CM, BmFCV CM, BmMfr CM]
PAR 1-7EQF6OB	PBC Blender Build Tool (handle more virtual pumps than front-end pumps).	- Modified EBC_Template.xml to use '%BfPmp0%' instead of '%BfPmp%' for BfPmp substitutions in BmPmp base module. - Miscellaneous fixes {better synchronized progress bar when generating point definition files, resolve @AnlCalc substitute block in BmAnl_Opr CM}

ID	Problem Description	Fix Description
PAR 1-7ERA0VA	Downloading a recipe (containing a component with 0% RcpPct but non-zero %RcpHi) fails.	ComponentSplit(): Fix divide-by-0 problem when called from EbcSetupSplit to download a BI recipe containing a component (RcpPct=0% but RcpHi% is non-zero). Also, need to ensure that non-zero RcpHi% is downloaded as well even though recipe is 0%. [EbcSplit.dll, EbcMaterial.exe]
Par 1-7ERA0WJ	Better Blend Management Interface handling when the [BM_CONFIG] table is empty.	Modify helper function in ADIOCommand.cpp to return NULL when attempting to get a field value from a query that return zero rows. [EbcBldMgrIF.exe]
PAR 1-7F1PJNL	Sample FFL Blend Report missing recipe 'Revision' and 'Description' fields.	Fix to include missing 'Recipe Revision' and 'Recipe Description' in FFL report. Dependent on new 'GENRCPREV' and 'GENRCPDESC' parameters added to BLDRPT SCADA point. [EbcBldRpt.exe, BLDRPT SCADA Pt, BlendReport1.def]
PAR 1-7F2V9HK	Add ability to sort components shown on ebcOptimComponent.htm display.	Add ability to sort components on ebcOptimComponent.htm display. Follows Sort configuration setting for FCVs. [ebcOptimComponent.htm, Ebc_Util.vbs, EbcMaterial.exe, MF_MAPPER SCADA Pt]
PAR 1-7F2V9P4	Overlap check on Rcp flow limits and FCV flow limits fails even though 'IgnoreRcpLmtChk' flag is ON.	Bypass 'Overlap' check if 'IgnoreRcpLmtChk' is enabled. [EbcMaterial.exe]
PAR 1-7F3IIX	Remnant EBC analyzer point references still exist in PBC BlendConfig.xml file.	Eliminate 'AnlTrimPt', 'AnlValidPt' and 'AnlFrontEndPt' when outputting analyzers. There are holdovers from EBC and not used in PBC. 'AnlFrontEndPt' is redundant with 'FEPT'. [WriteBlenderConfig.exe]
PAR 1-7F3II96	'Load to Blender' fails w/ OBPC validation error for operator-setup recipe that doesn't exist in BI.	Enforce BI validation check only when OBPCInstalled. [OpenBpcBlenOrderDownload.exe]
PAR 1-7F3II EK	Misc Parameter Reference Tool enhancements to show version info.	Added missing version fields. [ParamRefTool.exe]
PAR 1-7F3IIJC	User-resizing of grid columns in blend setup displays are not restored on subsequent call-ups.	Save/restore the user's column widths to/from Registry. [ebcRecipeSetup.dll, ebcPropertySetup.dll, ebcTrimSetup.dll]
PAR 1-7F3IIK9	Blend setup displays unexpectedly updated with selected BI recipe following a 'Check' request.	Don't prompt user to confirm download operation if only doing a validation check. [ebcRecipeSetup.dll]
PAR 1-7F3IILZ	Inconsistent 'MasterClear' blend state behaviour if 'StopBlend'/'ImmedStop' is requested.	'StopBlend' or 'ImmediateStop' commands are processed after 'Master Clear' blend state operations have completed (or when 'Master Clear' timer "ExitBS0Timer" has expired). [BmBld CM, CAB EB_GENBS_4_1_1_306]
PAR 1-7F5E0J9	Pump not starting when 'EB_FcvVar.WaitForPump' interlock is changed from OFF to ON.	The logic in CAB EB_CMDFCV was modified to mimic the blocked behaviour in EBC while waiting for the interlock to be set ON such that all FCVs are processed first before advancing to the next "pump size". [BmBldFCV CM, CAB EB_CMDFCV_4_1_1_102]
PAR 1-7F5O8D9	Operator-reduced target flow is ignored during pacing.	Modify pacing logic to consider using the TgtFlow while pacing if it is less than the current Pace flowrate. [BmMfr CM for PBC, CAB EB_MonMfrSP_4_1_1_305 for PBC, BsMfr SCM for EBC]

ID	Problem Description	Fix Description
PAR 1-7F5O8FN	Unable to clear existing trim/binary FCV assignments to a property on the ebcPropertyTrim display.	Modify row_cboTrimController and row_cboBinaryController scripts to enable blanking out a selected FCV. [ebcPropertyTrim.htm]
PAR 1-7F5O8EP	Missing connector to PV input pin on "_CalcIN" block (for secondary properties).	Add substitute block @AnlCalc.PV as param connector to "PV" input pin on "_CalcIN" block. The substitute block is resolved when generating the blender instances using the Blender Build Tool. [BmANL_OPR CM, EBC_Template.xml]
PAR 1-7ZXW437	When there are no saved blends and if we click restore button, getting message repeatedly.	Better Form handling for when there are no saved blends to be found when the 'Restore Blend' button is clicked. [ebcRecipeSetup.dll/udRecipeSetup.vbd]
PAR 1-818FT46	Unable to change pump after initially calling up the ebcRecipeSetup display.	Change design time 'Enabled' setting to True for DataCombo control [ebcRecipeSetup.dll, ebcPropertySetup.dll, ebcCommentsSetup.dll]
PAR 1-8197J6B	For a blender with no properties, Operator is unable to change destination tank in Recipe Setup display.	Allow 'Destination Tank' drop-down list to be Operator accessible in the case where the Tank Quality Setup display is not shown (i.e. no properties configured for the blender). [ebcRecipeSetup.dll, ebcCommentsSetup.dll]
PAR 1-7Y1R7O1	Heel volume is not correctly transferred to OpenBPC with destination swing in ERC-OBPC.	Incorrect data source used for the New Heel Volume field on the ebcChangeTank popup. Changed data source to use BldOpr.EB_BldOpr.NewHeelVol parameter. [ebcChangeTank.htm]
PAR 1-7YLN9H5	Observed error message "Data entry not allowed" while changing an FCV's source tank from the ebcFlowControl.htm display.	EB_FcvOprS.Source and EB_FcvOprS.SourceID parameters on the Script tab for the ebcFCVRow-DDR.sha shape were set to Read-only. [ebcFlowControl.htm]
PAR 1-8197J4L	Blend Mode comboBox sometimes appears as disabled on blend setup displays.	Change design time 'Enabled' setting to True for DataCombo control. [ebcRecipeSetup.dll, ebcPropertySetup.dll, ebcCommentsSetup.dll]
PAR 1-8197J1A	Task ID missing from some displays. Clicking on it sometimes calls up SysDtlCDA instead of TskDtl.	Modified header section of blend monitoring displays. [ebcFlowControl.htm, ebcChangeRecipe.htm, ebcPropertyOverview.htm, ebcPropertyTrim.htm, ebcOptimProperty.htm, ebcOptimComponent.htm]

ID	Problem Description	Fix Description
STRQ45	<p>Improvements driven by Human Factors principles:</p> <ul style="list-style-type: none"> • An FCV bullet chart has been added to the ebcFlowControl display • FCV display sorting is now supported on the ebcDtlBlender4, ebcFlowControl, ebcChangeRecipe and ebcBlendMonitorReport displays. • For additive-type FCVs, the “volume error” is shown on the ebcBlendMonitorReport display and BmFCV CM. • “Zebra-stripes” have been added to all rows on all of the blend monitoring displays. • Property spark lines have been added to ebcPropertyOverview display <p>Improvements to facilitate troubleshooting:</p> <ul style="list-style-type: none"> • The PRD Tool has been updated to provide the ability to view the CAB source if the selected CAB type is found in the WithSrc folder. The CAB source is not distributed with the PBC installation but is available to Honeywell Project and Support personnel upon request. • A Runtime Monitor tool has been added. Among others, the tool allows the user to monitor the current state of a PBC blender (Active or Inactive CMs/SCMs, CMs with failed CABs and the ability to restart the failed CAB). 	
STRQ58	<p>Added the following EBC functional gap items to PBC:</p> <ul style="list-style-type: none"> • Option to use a delayed set of analyzer readings for calculating the average properties in the destination tank. • Support for an alternate ‘user-defined’ minimum flow after Initial Hold Flow is established. 	

Table 1-4 - Experion Tank Monitor Problems Addressed

ID	Problem Description	Fix Description
1-7FK7NZJ	Eliminate the error: "Stop gauge volume is not a writeable PREF".	Need to address the issue of the CAB block exceeding a processing limit when the paranoid level is set too high. Changes have been made to the TK_CLC CAB to reduce use of the short-term heap.
RQUP 2016-003822	Add support for up to 10 tanks with a 300-entry lookup table.	Provide alternate TK_VLGX1_0_1 CAB type to support 300-entry strapping table. Alternative tank template ETM_TANK1_0_2X supports 300-entry strapping table. See the “ETM-Support-For-300-Straps” white paper (available on demand from the PBM development team) for additional background.

Table 1-5 – Infrastructure (PB Client Server / PBM Client Server) Problems Addressed

ID	Problem Description	Fix Description
PAR 1-5GENVX6 PAR 1-3OQ906Q SR 1-11875906362	OMAS Utility Server manual failover did not complete.	Changed the logic in the Honeywell.HPI.OMA.Redundancy.ClientControl.dll and Honeywell.HPI.OMA.Redundancy.ClientControl1.dll to show the proper message after the failover is completed.
PAR 1-5W8E7EV	Deleting any Role-Function mapping under Browser Configuration in PB is throwing error.	Resolved by changing the SQL query in the TrueDB data connection.

Table 1-6 – Movement Automation Problems Addressed

ID	Problem Description	Fix Description	IM ¹
PAR 1-50L7HVG	After localization while performing “Right click” operation on BMAOrderList Task tab throws an error	Resolved the error exception in bmaOrderList after language translation.	
PAR 1-52NOI63	EPR crash observed if Windows Time Sync and EPKS time sync try to set the machine time.	Add try-catch to prevent crashing if unable to rename the temporary recovery file.	Y
PAR 1-59NYHAB	While loading the trigger file using “Load triggers” button, it fails to load the trigger files.	Updated PBM Config Studio to support new version of the BF_GENERATE_AUDIT_TRIGGERS stored procedure which places the file in %BMADATABASE% for the UI to copy. The old version would prompt for a client-side path but store the output file in that path on the server.	Y
PAR 1-5ATI7JX	Order Detail display does not handle PathPref1 selection and inference PathPref1 from canned path for recirculation order	The Honeywell.HPI.OMA.OrderDetail_Ext.js is modified to correctly populate the PathPref1 combobox for recirculation activities in the Order Detail UI. The AECheckDomain.vjs script is also modified to correctly infer the includes and excludes that are configured in the Canned Path table for recirculation activities.	
PAR 1-5VRMQ87	Not able to sort the columns 'Gross Volume' and 'Gross Capacity' in Inventory Snapshot Reports in PB	Same issue also applies to the GrossCapacity column. Typos in the XSL style file lead to the problem.	Y
PAR 1-5WCV9KK	BMAOrderlist unnecessary scrolling issue in BMA R430.1	Changed to not set the.FirstRow property in RestoreGridSettings() if there is enough space to put all the rows. This used to mislead people when there was a scrollbar but lots of free space.	
PAR 1-5Z5VH8F	Gravitation observed at end of lineup of pre-flush + blend tasks.	Problem was found to be the result of a bug in the analysis of the so-called “need to maintain isolation” in the OptVent logic of the Honeywell.HPI.OMA.BLL.KeySelection.dll component.	

¹ If “Y”, indicates that the fix also applies to a standard implementation of the Inventory Monitor (IM) application.

ID	Problem Description	Fix Description	IM ¹
PAR 1-62JK2CH	Activity report is missing Work Item attributes ActualActStartTime and ActualActEndTime	<p>Configuration issue. To configure the ActualActStartTime and ActualActEndTime attributes, the following tables must be updated:</p> <p>IP_APPL_ENTITY_ATTR: add records for ATTR 'ActualStartTime' and 'ActualEndTime' for all required work item APPL_ENTITY_TYP (e.g. Shipment_Item_Typ)</p> <p>IP_ACTVTY_ATTR: add records for ATTR 'ActualStartTime' and 'ActualEndTime' for all ACTVTY_NAME with the APPL_ENTITY_TYP added in step 1 (e.g. Shipment_Item_01, Shipment_Item_02, ...)</p> <p>GT_ACTVTY_ATTR: add records for ATTR 'ActualStartTime' and 'ActualEndTime' for all ACTVTY_NAME with the APPL_ENTITY_TYP added in step 1 (e.g. Shipment_Item_01, Shipment_Item_02, ...)</p> <p>IP_EVNT_CNLSL: add records for the APPL_ENTITY_TYP added in step 1 (e.g. Shipment_Item_Typ). Copy the other columns from the Srce_Comp_Typ/Dest_Comp_Typ entries.</p> <p>These values are populated by the Event Consolidation on a per-activity basis, so it will work for all work-items whether they are single or one of many in an order. The ActivityEngine and Event Consolidation background processes must be restarted to pick up the configuration changes.</p>	
PAR 1-68XWGF1	Component close event logged after the Task close event causing NAN data in movement xml for L4	Changed task1.dll to set elem status to STOPPED for blend tasks, regardless of flow, if blend status is STOPPED and path status is STOPPED. This will prevent task Close snapshots happening before component Close snapshots.	
PAR 1-6MG3M9N	Isolfailure reset not working under some circumstances	Modified the logic for 'Allowed Endpoints' to include those endpoints that correspond to paths that are in the process of stopping, and also to include all boundary points and manifolds that are included in such paths to handle the case where the flotation analysis is unconditionally bounded by encountering a manifold. Also added logging to indicate which endpoints are preventing the isolation reset from occurring.	
PAR 1-6SRM02L	Missing tasks on recovery of PMM (MA) system.	<p>The following components...</p> <ul style="list-style-type: none"> • Honeywell.HPI.OMA.FileRepService.exe • Honeywell.HPI.OMA.FileRepApp.exe • Honeywell.HPI.OMA.FileRepFunctions.dll <p>...have been updated such that the File Replication service is forced to replicate the last set of update files before the File Replication service exits. Also, a configurable "maximum wait time for Robocopy to finish" has been implemented. The default value of the MaxWaitTime is set to 120 seconds and can be configured in FileRep.xml.</p>	
PAR 1-6NOMQJQ	Allow Operations to select the command buttons on RSMO configured elements to allow cmd confirm.	All element detail displays with RSMO support have been updated to allow operator to select the command buttons.	Y

ID	Problem Description	Fix Description	IM ¹
PAR 1-7G1FM5Z	Large tank strapping table (15K+) is slowing down the background process SynchronRTDRFromRTDR	<p>[1] If an ADODB.Command object is used within a loop while the .ActiveConnection is being used (looping through a recordset), a new connection is opened/closed. Added two more SQL Server connections to avoid repeated opening/closing of new connections.</p> <p>[2] Added ADODB.Command option adExecuteNoRecords for UPDATE statements to improve performance.</p> <p>[3] Updated building of array string from RTDR to read entire array at once (for long/short/double fields) instead of one element at a time. Improves performance.</p> <p>[4] Updated building of array string from RTDR to join values from a dictionary instead of concatenating a string in every iteration of the loop. Improves performance.</p> <p>[5] Updated building of array string from RTDR to not use quotes if the existing AM_PERMANENT string does not use quotes. Improves backwards-compatibility for systems where array values did not support strings.</p>	Y
PAR 1-7G1AZXJ	Long string captured in snapshot causes exception in EvntCapEngine	<p>Found that for very long paths (>255 chars), this can cause an issue for the event capture engine to process this length, as the maximum field length for the ascii field only handles a maximum of 255 chars.</p> <p>Truncate Input string to 255 char before inserting to GT_EVNT_HIST_ATTR VALUE Column.</p>	
PAR 1-7G2ECXH	Allow Blend order to map Blend Instructions spare entries into activity attributes	Changes in AECheckDomain.vjs and AEGlobal.vjs to allow FlatFile download to populate BI entry with mapping of spare fields based on BI_BMA.cfg	
PAR 1-7G1IU81	Restore proper file permission on hostdr.dr file	In PBMSecurityConfiguration, granted Local Administrators group full control permission to HostDR.dr file.	Y
PAR 1-7G2ED13	Synchronize EPKS asset to handle out-of-order or duplicated entries returned from EPKS NET API call.	<p>In ConfigAssets.dll,</p> <ul style="list-style-type: none"> - Added debug flag to registry that dumps output of EM asset calls when turned on. - Changed to ignore duplicate entries into m_colExpAsset. The EM asset calls sometimes return the same asset multiple times. This could also happen if the asset appears as a child in more than one parent. - When adding assets to XML document where the parent didn't exist the first time, keep looping until all assets are added. Multiple loops may be necessary when the parents isn't yet added. 	Y
PAR 1-7G2ZJ7P	AppEnt_Migration utility is not able to handle SQL2012 enhanced detail error message during database upgrade.	Truncate the error message in the RESULT column if it is longer than the column allows. This is sometimes needed for very long error messages in SQL Server 2012 (key violation messages would include the list of values).	

ID	Problem Description	Fix Description	IM ¹
PAR 1-7HPG49X	Off-path loop with no marker element is not being isolated.	<p>The open loop check implemented in the Honeywell.HPI.OMA.BLL.PathIsolation.dll component has been tweaked as outlined below.</p> <p>If one or more marker elements have been recorded in the complete search list, this indication is only valid if we have NOT encountered another isolation element prior to encountering the marker element. In other words, encountering another isolation element prior to encountering a marker element means that we are in the presence of a bypass sub-branch that loops back to the path without including a marker element and this sub-branch needs to be isolated.</p>	
PAR 1-7LM119D	ISOL alarm logic and path planning open loop check should be consistent.	<p>The DirectControlAnalysis component and the EPR are the components that have been updated to address this PAR.</p> <p>In a nutshell, assuming that the task is configured to stop on an ISOL error (e.g. task configuration "Isolation Failure Stop Action" is set to SHUTDOWN_SEQ), then...</p> <ul style="list-style-type: none"> • For a value of 0 for the "Isolate Open Loop (Always/Sometime/Never-0/1/2)" setting (Background Process Monitor display >> PathPlanning >> Process Configuration tab), an ISOL alarm is raised and the task is commanded to stop. • For values of 1 or 2 for the "Isolate Open Loop (Always/Sometime/Never-0/1/2)" setting, NO ISOL alarm is raised and the task is NOT commanded to stop. 	
PAR 1-PRV549 PRS 3121 SR 1-1549598977	Console Station does not function correctly after ACM installation	<p>The issue has been rectified in PBM to accommodate the ACM copy of the vsflex7.ocx. The problem with the ACM version (7.0.1.151) distributed by ComponentOne is that its grid default property of Row is -2, whereas the same from PBM version (7.0.0.144) distributed by VideoSoft is -1. Some PBM displays are not handling the -2 value gracefully, hence the error "Invalid property array index". The PBM team has rectified the issue and updated the following three displays which are affected:</p> <ul style="list-style-type: none"> • Task Detail display • Batch Blender Detail display • LV non-web base administration UI 	Y
PAR 1-82AA6KF	SG value occasionally not recovered following a failover / startup.	<p>Update the logic that is used to identify recovery files as shown below:</p> <p>Current: private const string SEARCHFILEBYNAME_PATTERN = "{0}_*. {1}";</p> <p>New: private const string SEARCHFILEBYNAME_PATTERN = "{0}_?????????????.{1}";</p>	Y

ID	Problem Description	Fix Description	IM ¹
PAR 1-82E5S27	PBM displays occasionally report loss of connectivity to BMA-PBM Redundancy Service.	<p>[1] The hash table that was previously implemented in the BMA Redundancy Service to store client connections has been replaced by a MS concurrent queue.</p> <p>[2] The BMA Redundancy Service now monitors the pool non-paged bytes on the server on which the service runs and "resets" the client connections if the pool non-paged bytes exceed a configurable threshold.</p>	Y
PAR 1-825R9JH	The alarm icon on the faceplate is the wrong colour for temp and press, when HH and LL are enabled.	Fixed Tank Detail display faceplate portion to display HH/LL alarm icon for temperature and pressure as in level case.	Y
PRS 3252	BMA fails to create external order frequently because "ExternalID is already in use".		
RQUP 2014-001971	PIM product enhancements: SafeOpLimits, TempProbeHeight, HiHiLoLo Alarms for Temp and Press, TankSummary alarm column in Alarm Priority color	Described in Section 10.7.5, 10.7.6 and 10.7.7 of the MA / PMM Configuration Guide for PBM R500.1. The document is available on demand from the PBM development team.	Y
RQUP 2016-001147	Alert operator whenever an order planning update is received from L4	Described in Section 12.2.6 of the MA / PMM Configuration Guide for PBM R500.1. The document is available on demand from the PBM development team.	
RQUP 2016-001670	Inventory Monitoring to support 1952 API Density Volume Correction Tables 54 for the inventory calculations.	<p>The ASTM T54 D1250-52 VCF lookup has been implemented in an updated version of the GTAPI.dll component.</p> <ul style="list-style-type: none"> • A SQL update adds a new API method called "D1250-52" to the APITable dropdown on the Material Detail display. • Using the Material Detail display, one can change the APITable for any material that will be assigned against the new code. • Reminder: the lookup is against Temp\Act (Ambient Temperature) and Tank Referenced Density. 	Y
RQUP 2016-003739	Allow material compatibility penalties to be shown on the Material Compatibility tab of the Task Detail for a displacement task and allow the operator to proceed with the displacement even though inhibit-level penalties may be reported.	See Table 1-7.	
SR 1-10602747118	A blank, white display appeared when the operator tried to invoke the Task Detail display.	Rather than referencing a registry key, the display logic now looks for the tfgDeferredDisplaySetup configurable value in to the tfgStylesheet.css file. If the style is not specified, the code will use a default value of 50 (ms).	

ID	Problem Description	Fix Description	IM ¹
SR 1-10671145301	BadPV on Totalizers after BMA failover	Addressed via the following enhancements to the BMA HciLink.Bma component: <ul style="list-style-type: none"> The component now makes its own determination of the health of the RDM <p>If the component determines that the RDM is not “healthy”, then the component disconnects and reconnects thereby ensuring that all invalid pointers, handles, etc. are flushed and new ones are correctly re-instantiated.</p> <ul style="list-style-type: none"> The component now provides a summary of data updates that return OPC qualities to 'good', instead of logging each individual item. This is to make logging data more efficient. 	
SR 1-10967103271	PPMSB: User Account being Locked Out after calling up Background Process Monitor display	Removed connection attempts to hsserv ODBC data source with guessed passwords. This could cause the domain account to get locked out.	Y
SR 1-12325907394	BMA interprets the input string coming from ATLAS subsystem.	Corrected Unicode conversion.	
SR 1-14113471161	MA tasks disappear when a system restart after hostdr.dr reload	Add bulletproofing to the various 'MarkAllAvailable()' loops to catch and log exceptions so that recovery can still proceed on the remaining items. Also check array sizes to skip the point if the arrays appear to be uninitialized.	

Table 1-7 – Background for RQUP 2016-003739

Settings	Behaviour	Comment
/seq[xxxx]/isdisplacement = 0 /tsk[xxxx]/calcmatcompfordispl <ul style="list-style-type: none"> Does not exist or... Exists and is set to 0 or... Exists and is set to 1 	<ul style="list-style-type: none"> Material compatibility penalties are calculated Warning and inhibit-level penalties cause path selection to show the Material Compatibility tab on the Task Detail Material Compatibility penalties are highlighted in the applicable colours on the applicable TFG(s) If only warning-level penalties are reported, the operator can accept or reject the path If one or more inhibit-level penalties is / are reported, the operator can only reject the path 	No change from current behaviour
/seq[xxxx]/isdisplacement = 1 /tsk[xxxx]/calcmatcompfordispl <ul style="list-style-type: none"> Does not exist or... Exists and is set to 0 	<ul style="list-style-type: none"> Material compatibility penalties are not calculated and are therefore not shown anywhere (Task Detail, TFGs, etc.) The operator can accept or reject the displacement path 	No change from current behaviour

Settings	Behaviour	Comment
/seq[xxxx]/isdisplacement = 1 /tsk[xxxx]/calcmatcompfordispl = 1	<ul style="list-style-type: none"> Material compatibility penalties are calculated Warning and inhibit-level penalties cause path selection to show the Material Compatibility tab on the Task Detail Material Compatibility penalties are highlighted in the applicable colours on the applicable TFG(s) The operator may accept or reject the displacement path Internally (/seq[xxxx]/pathseltabssel), the system encapsulates the material compatibility penalty level as "no worse than warning-level" to allow the task detail and sequence execution to proceed if the operator chooses to accept the path, lineup the path, etc. 	New behaviour

Table 1-8 – Open Blend Property Control Problems Addressed

ID	Problem Description	Fix Description
SR 1-15098373736	Heel Volume not reflecting in PBO upon destination tank swing initiated from PBC.	Problem: DTChange logic is not being executed when the destination tank is changed during a blend. Fix: Revise previously added logic that set 'DTChange = 1'.

1.3.2 Issues

There are no known medium priority issues.

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For a complete list of the outstanding BMA issues please see Siebel.

1.3.3 Limitations

1.3.3.1 Point Release Removal

<input checked="" type="checkbox"/> Automatic	<input type="checkbox"/> Can be done manually during next upgrade.	<input type="checkbox"/> Must be done manually before next upgrade.
---	--	---



ATTENTION:

If uninstalling a BMA point release that had been applied on top of a manually patched BMA system, the manually applied patches must be re-applied following the uninstallation of the BMA point release in order to revert the system to its original starting point prior to the installation of the BMA point release.

1.3.3.2 Point Release Distribution

<input checked="" type="checkbox"/> Not Limited	<input type="checkbox"/> Limited for:
---	---------------------------------------

1.3.3.3 Localization

<input type="checkbox"/> Not impacted	<input checked="" type="checkbox"/> Needs additional localization support.
---------------------------------------	--

1.3.3.4 Cumulative Point Release

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
---	-----------------------------

1.4 Contents of Release

This point release is delivered in the **BMA_R430.4_PointRel.zip** file which includes the following components:

Table 1-9 - BMA R430.4 Point Release Components

Component	Contents
setup.exe	<p>The setup.exe provided with this Point Release includes the updated software for the following BMA applications:</p> <ul style="list-style-type: none"> • Blending Instructions BMA R430.4 • Blend Performance Monitor Database BMA R430.4 • Blend Performance Monitor Server BMA R430.4 • Experion Blend Controller BMA R430.4 • Experion Ratio Controller BMA R430.4 • Experion Tank Monitor BMA R430.4 • MA Control Server BMA R430.4 • MA Utility Server BMA R430.4 • Offline Optimizer BMA R430.4 • OpenBPC BMA R430.4 • Production Browser Client BMA R430.4 • Production Browser Server BMA R430.4
BMACustomizableFileChangeLog.xls	<p>Lists all of the application script files supplied for use with the BMA applications, along with an indication of when they were updated. This file should be used to determine if changes have been made to the application scripts that have been customized for customer site.</p>
CustomizableFiles-BMAR430.4.zip	<p>Customizable application files needed to support migration of customs, including:</p> <ul style="list-style-type: none"> • Customizable Files • AmmDbUpgrade.exe • AmmTables_UpgradeSiteConstructs_BMAR430.4.xls <p>Note: No changes were made to the IM site constructs in BMA R430.3. As a result, an AmmTables_UpgradeSiteConstructs workbook for IM was <u>not</u> created for this point release.</p>
PBMSecurityConfigSetup.exe	<p>Self-extracting zip file containing the PBM Security Configuration Tool.</p>

Component	Contents
dotNetFx40_Full_x86_x64.exe	Microsoft .NET Framework 4.0 redistributable package
\Documents BMA R430.4 Documentation Updates.pdf	Describes the changes to the user documentation associated with this point release.
\Documents BMA430.2-WP-EBC Control Strategies.pdf BMA430.2-WP-EBC Control Strategies.pdf	Describes the instructions to upgrade existing EBC 4.3.1.10 and EBC 4.3.1.110 control strategies with modifications in support of the BMA R430.2 and BMA R430.4 point releases, respectively.
\Documents BMA430.2-WP-ERC Control Strategies.pdf BMA430.3-WP-ERC Control Strategies.pdf BMA430.4-WP-ERC Control Strategies.pdf	Describes the instructions to upgrade existing ERC 4.3.1.10, ERC 4.3.1.110, and ERC 4.3.1.210 control strategies with modifications in support of the BMA R430.2, BMA R430.3 and BMA R430.4 point releases, respectively.

1.5 Before You Begin



ATTENTION:

Do not install this point release without first confirming that it is applicable to and compatible with your BMA system. Installation without appropriate preparation may lead to unforeseen problems. Contact [BMA Support](#) before proceeding.



ATTENTION:

For systems running Windows 7 or Windows 2008 Server all executables must be run as administrator. In Windows Explorer, right-click the executable file name and select "**Run as administrator**" to launch the application.



ATTENTION:

Canceling a point release installation once it is in progress is not recommended. If this happens, the point release modules that had been installed prior to canceling the installation process, must be manually uninstalled. See the associated "How to Roll-Back the Point Release" instructions for details.



ATTENTION:

Installers are strongly encouraged to make a backup disk image of each BMA node prior to installing the point release software. These images can be used to reinstate the original systems if problems occur during point release software installation or roll-back.

**ATTENTION:**

If you run into problems uninstalling a particular point release, uninstall back to the base release for this stream (i.e. BMA R430.1) and re-install the base and point release software to suit.

1.5.1 Prerequisites

The BMA R430.1 software must be installed on the applicable computers before you begin (as a minimum).

If you have not already done so, download the **BMA_R430.4_PointRel.zip** file from the honeywellprocess.com Support site. Next unzip the file (zip password = BMA) to a known location. Finally copy the installation file (setup.exe) to the target computers as needed.

The same installation file can be used to update computers that have patches or point releases for this release stream installed. The patches and point releases do not need to be uninstalled prior to installing the new point release software. No special installation procedures are required in this case.

Table 1-10 - BMA R430.4 Point Release Prerequisites

Component	Comment
BMA R430.1	As a minimum, the BMA R430.1 software must be installed on the applicable computers before you begin.
Backups	A backup disk image must be made for BPM Database, BPM Server and ETM nodes prior to installing the point release software. These images are required to support rolling-back the point release. They can also be used to reinstate the original systems if problems occur during the point release software installation.
.NET Framework	<p>For systems that include EBC / ERC / MAC / MAU, Microsoft .NET Framework 4.5.2 must be installed on all BMA / PBM nodes prior to deploying this point release.</p> <p>First, check to see if Microsoft .NET Framework 4.5.2 is installed by calling up Control Panel > All Control Panel Items > Programs and Features on the target machine. In the listing of installed programs and features, look for any Microsoft .NET Framework 4.5.2 program.</p> <p>If Microsoft .NET Framework 4.5.2 is not found, the necessary redistributable is provided as part of the BMA / PBM point release kit.</p> <p>To install Microsoft .NET Framework 4.5.2, unzip the BMA_R430.4_PointRel.zip file and locate the file named NDP452-KB2901907-x86-x64-AllOS-ENU.exe. This is the redistributable package that installs the .NET Framework runtime and associated files that are required to run applications for the .NET Framework 4.5.2</p> <p>Note: Microsoft .NET Framework 4.5.2 requires that Microsoft .NET Framework 4.0 be installed. File named dotNetFx452_Full_x86_x64.exe is also provided to install that redistributable package.</p>

Component	Comment
Alarm Configuration Manager	If the PBM software is going to be installed with Alarm Configuration Manager (ACM) and ACM enforcement will be enabled, ACM R321.5 (or later) must be installed.
EBC / ERC Blender Build Tool	Microsoft Office 2007 Service Pack 3 must be installed to support the PBC Blender Build Tool.

1.5.2 Experion Release Support

This point release has been tested against Experion PKS R430.6.

If installing the BMA R430.4 point release on top of a different version of Experion, please make sure that the Experion software is upgraded to the patch levels listed in Table 1-11.

Table 1-11 - BMA R430.4 Point Release Experion Prerequisites

Experion Version	Mandatory Minimum Patch Level
R400.8	Experion PKS R400.8 Server Patch 822
R410.9	Experion PKS R410.9 Server Patch 2
R430.6	Experion PKS R430.6 Server Patch 1
R431.3	Experion PKS R431.3 Server Patch 3
R432.1	Experion PKS R432.1 Server Patch 2

Additional compatibility testing against other Experion releases may occur in the future. Please see the latest PBM/BMA Compatibility Matrix for the set of Experion releases that are currently supported by this point release.

Note: If you require support for an Experion release that is not explicitly identified here or in the PBM/BMA Compatibility Matrix, please contact [BMA Support](#).

1.5.3 Base Path Identification

Environment Variables Used by BMA

The following Experion and BMA system environment variable names apply to this point release:

Table 1-12 - Experion and BMA System Environment Variables

System Environment Variable Name	Windows 7 (32-bit) and Windows 2008 Server (32-bit) (Experion R40x)	Windows 7 (64-bit) and Windows 2008 Server (64-bit) (Experion R41x)
%AllUsersProfile% (Windows XP/2003) %ProgramData% (Windows 7/2008)	C:\ProgramData	C:\ProgramData
%ProgramFiles%	C:\Program Files	C:\Program Files (x86)

System Environment Variable Name	Windows 7 (32-bit) and Windows 2008 Server (32-bit) (Experion R40x)	Windows 7 (64-bit) and Windows 2008 Server (64-bit) (Experion R41x)
%HwInstallPath%	%ProgramFiles% \Honeywell	<Any Drive Letter and Path>
%HwProgramData%	%ProgramData% \Honeywell	<Any Drive Letter and Path>
%BMADatabase%	%HwProgramData%\BMA \Database	%HwProgramData%\BMA \Database
%EBCConfig%	%HwProgramData%\BMA	%HwProgramData%\BMA
%MXRTDB%	%HwProgramData% \Experion Mx\Database	%HwProgramData% \Experion Mx\Database

BMA Registry Key Path Mapping

The following table shows the BMA registry key that is used in much the same way as the system environment variables described above.

Table 1-13 - BMA Registry Key Contents

Registry Key Name	Folder
{AMMROOT}	%HwInstallPath%\AMM

2 Point Release Installation on Non-Redundant Servers

2.1 Applicable Nodes

The instructions in this section apply to the following non-redundant BMA servers:

- Blending Instructions Server
- Experion Blend Controller – Display Server
- Experion Ratio Controller – Display Server
- MA Control Server
- MA Utility Server
- OpenBPC Server

The instructions in the section assume that the system can be taken offline for the duration of the upgrade. Otherwise, see [Appendix C](#) for the on process migration steps for the OpenBPC Server.

2.2 How to Install the Point Release

1. Be sure to backup all customized site specific files (both blending and movement) before proceeding with the Point Release installation. See [Appendix B](#) for a list of the customized components.
2. Call up the Windows Services applet and stop the following services (if applicable):
 - Point Execution Scheduler
 - IS Execution Scheduler
3. Ensure that the Experion Station and the Production Browser are closed.
4. Run the BMA R430.4 Point Release setup.exe and accept the default settings when prompted. Note that the BMA R430.4 Point Release setup.exe only needs to be run once per machine. (The installation for multiple products is done simultaneously.)
5. Perform the following step(s) if this is a Production Browser Server node:

- a) Copy the customizable files to the following associated working folders from folder PB_4.3.1.310.

- %BMADatabase%\Business.FLEX\Station\Bin

Note: If any customization has been added to file(s) in this folder, be sure to copy the customized version with the site modifications imported into the new files.

- b) Update the AmmDB schema by running the **AmmDbUpgrade.exe** located in the {AMMROOT}\Production Browser\Database\AmmDb Scripts folder on the Browser Server. Use the **DbUpgrade.sql** file located at {AMMROOT}\Production Browser\Database\AmmDb Scripts.
- c) Double-click the **GrantDbPermissions.vbs** script file that is stored in the {AMMROOT}\Production Browser\Database\AmmDb Scripts folder on the Browser Server. Indicate whether or not to use Windows Authentication to log onto SQL

Server as the current local user. (**Note:** If Windows Authentication is selected, the current user must have sa role access in SQL Server.)

6. Perform the following step(s) if this is an Experion Blend Controller - Display Server node:
 - a) Update the AmmDb SQL data for EBC by running the **AmmDbUpgrade.exe** located in the {AMMROOT}\Production Browser\Database\AmmDb Scripts folder on the EBC Display Server. Use the **UpdateDB.sql** file located at %HwInstallPath%\Business.FLEX\EBC\Database\AmmDb Scripts.
7. Perform the following step(s) if this is an Experion Ratio Controller - Display Server node:
 - a) Update the AmmDb SQL data for ERC by running the **AmmDbUpgrade.exe** located in the {AMMROOT}\Production Browser\Database\AmmDb Scripts folder on the EBC Display Server. Use the **UpdateDB.sql** file located at %HwInstallPath%\Business.FLEX\EBC\Database\AmmDb Scripts.
8. Perform the following step(s) if this is an MA Control Server node:
 - a) Copy the customizable files to the following associated working folders from folder MA_4.3.1.310.

- {AMMROOT}\Production Tracker\Database\AmmDB Scripts\Script
- {AMMROOT}\RTEEXEC\Bin **
- {AMMROOT}\RTEEXEC\Bin\Apps
- %BMADatabase%\AMM\Production Tracker\Data
- %BMADatabase%\AMM\Redundancy
- %BMADatabase%
- %BMADatabase%\Build
- %BMADatabase%\Business.FLEX\Station\Abstract\bfScripts
- %BMADatabase%\Business.FLEX\Station\Bin\Views.NET\Config **
- %HwInstallPath%\Business.FLEX\Redundancy\Data

** Applies to MA only. (Does not apply to IM installations.)

Note: If any customization has been added to file(s) in these folders, be sure to copy the customized version with the site modifications imported into the new files.

- b) Update the AmmDb SQL data for the MA Control Server by running the **AmmDbUpgrade.exe** located in the {AMMROOT}\Production Browser\Database\AmmDb Scripts folder on the MA Control Server. Use the **Upgrade-DB-OMA.sql** file located at {AMMROOT}\Production Tracker\Database\AmmDb Scripts.

Note: Be sure to update application scripts when prompted.

- c) For MA installations only, edit the **AmmTables_UpgradeSiteConstructs_BMAR430.4.xls** file (or **AmmTables_UpgradeSiteConstructs_IM_BMAR430.4.xls** for an IM installation), stored in the %BMADatabase%\AMM\Production Tracker\StagingWorkBooks folder, to reflect the site-specific activity model. Navigate to the {AMMROOT}\Production Tracker\Database\AmmDB Scripts folder and run the **AppEnt_Migration.exe** program. Select the migration file **AmmTables_UpgradeSiteConstructs_BMAR430.4.xls** (or **AmmTables_UpgradeSiteConstructs_IM_BMAR430.4.xls** for an IM installation).

Use the preselected **BMA430.3** and **BMA430.4** options to upgrade the Plant Reference Model (PRM) changes.

If BMA R430.2 was previously installed on the target node, deselect the **BMA430.2** option and only proceed with the **BMA430.3** and **BMA430.4** upgrade.

If BMA R430.3 was previously installed on the target node, deselect the **BMA430.3** option and only proceed with the **BMA430.4** upgrade.

- d) Perform an RTDR database dr load. (Run the Load DR command on the hostdr data repository in the RAE Browser.)

9. Perform the following step(s) if this is an MA Utility Server node:

- a) Copy the customizable files to the following associated working folders from folder MAU_4.3.1.310.

- %BMADatabase%\AMM\Redundancy
- %HwInstallPath%\Business.FLEX\Redundancy\Data

Note: If any customization has been added to file(s) in these folders, be sure to copy the customized version with the site modifications imported into the new files.

10. If you have decided to use the PBM Security Configuration Tool to update your local security settings, run the tool as described in Section [0](#).

11. Call up the Windows Services applet and start the following services (if applicable):

- Point Execution Scheduler
- IS Execution Scheduler

12. Run SyncApp and synchronize all of the files in all of the available categories.

13. If this is an OpenBPC Server node restart the computer.



ATTENTION:

For sites running LIMS Viewer, be sure that the LDR database recovery model has been set to "simple" as described below:

1. In SQL Server Management Studio, right-click the LDR database instance and select **New Query**.

2. Execute the following query:

```
SELECT name, recovery_model_desc
FROM sys.databases
WHERE name = 'LDR' ;
```

GO

3. If the query output is "SIMPLE" then no further action is required.

If the query output is not "SIMPLE" then execute the following query:

```
ALTER DATABASE LDR SET RECOVERY SIMPLE
GO
```

2.3 How to Roll-Back the Point Release

1. BMA system services and DCOM configuration must be saved prior to point release rollback. Navigate to the {AMMROOT} folder and run the **BmaSystemSettings.exe** program. Click the **Backup** button and confirm that a **BMA_ComputerName.txt** file is created.

IMPORTANT: Ensure that this file does contain your system settings before proceeding to the next step. Failure to do so may lead to system malfunction after the rollback.

2. Verify that User Account Control (UAC) has been disabled as follows:

Windows 2008 Server

- i. In the Control Panel, open the User Accounts applet.
- ii. In the User Accounts window, click **User Accounts**.
- iii. In the User Accounts tasks window, click **Turn User Account Control on or off**.
- iv. If UAC is currently configured in Admin Approval Mode, the User Account Control message appears. Click **Continue**.
- v. Clear the **Use User Account Control (UAC) to help protect your computer** check box to disable UAC if needed, and then click **OK**.
- vi. Click **Restart Now** to apply the change right away, or click **Restart Later**, and then close the User Accounts tasks window.

Windows 2008 Server R2

- i. In the Control Panel, open the User Accounts applet.
 - ii. In the User Accounts window, click **Change User Account Control Settings**.
 - iii. In the User Account Control Settings window, change the notification setting to **Never Notify** and click **OK**.
 - iv. Restart the computer to apply the turn off User Account Control.
3. Call up the Windows Services applet and stop the following services (if applicable):
 - Point Execution Scheduler
 - IS Execution Scheduler
 4. Perform the following step(s) if this is an MA Control Server node:
 - a) Navigate to the %MXRoot%\RAE\Bin folder and run **ShutDownRTDR.exe**. This will shut down the current RTDR instance if it is running.
 5. Roll back the customizable files to the following associated working folders:
 - a) Production Browser Server node use
 - PB_4.3.1.10 to roll back to BMA R430.1
 - PB_4.3.1.110 to roll back to BMA R430.2
 - PB_4.3.1.210 to roll back to BMA R430.3
 - %BMADatabase%\Business.FLEX\Station\Bin

b) MA Control Server node use

MA_4.3.1.10 to roll back to BMA R430.1
MA_4.3.1.110 to roll back to BMA R430.2
MA_4.3.1.210 to roll back to BMA R430.3

- {AMMROOT}\Production Tracker\Database\AmmDB Scripts\Script
- {AMMROOT}\RTEEXEC\Bin **
- {AMMROOT}\RTEEXEC\Bin\Apps
- %BMADatabase%\AMM\Production Tracker\Data
- %BMADatabase%\AMM\Redundancy
- %BMADatabase%
- %BMADatabase%\Build
- %BMADatabase%\Business.FLEX\Station\Abstract\bfScripts
- %BMADatabase%\Business.FLEX\Station\Bin\Views.NET\Config **
- %HwInstallPath%\Business.FLEX\Redundancy\Data

** Applies to MA only. (Does not apply to IM installations.)

c) MA Utility Server node use

MAU_4.3.1.10 to roll back to BMA R430.1
MAU_4.3.1.110 to roll back to BMA R430.2
MAU_4.3.1.210 to roll back to BMA R430.3

- %BMADatabase%\AMM\Redundancy
- %HwInstallPath%\Business.FLEX\Redundancy\Data

6. Use the utility AmmDbUpgrade.exe and import the original customizable scripts into the AmmDB saved in the backup folder.
7. Ensure that the Experion Station and the Production Browser are closed.
8. In the "Add or Remove Programs"/"Program and Features" applet, remove all of the BMA R430.4 updates (if applicable) in the following order:

- Honeywell Offline Optimization Application - BMA R430.4
- Honeywell OpenBPC - BMA R430.4
- Honeywell Blending Instructions - BMA R430.4
- Honeywell Experion Blend Controller - BMA R430.4
- Honeywell Experion Ratio Controller - BMA R430.4
- Honeywell MA Control Server - BMA R430.4
- Honeywell MA Utility Server - BMA R430.4
- Honeywell Production Browser Server - BMA R430.4
- Honeywell Production Browser Client - BMA R430.4

Note: Be sure to select "Show Updates"/"View Installed Updates" to display the BMA R430.4 updates in the applet.

9. Navigate to the {AMMROOT} folder and run the **BmaSystemSettings.exe** program. Click the **Restore** button and record the user ids that require a password to be re-entered. Run the **svrpass.bat** program and select the user ids identified earlier. Re-enter the password for each user id to ensure proper Windows services and DCOM credentials.
10. Call up the Windows Services applet and start the following services (if applicable):
 - Point Execution Scheduler
 - IS Execution Scheduler

11. Run SyncApp and synchronize all of the files in all of the available categories. Be sure to select all files by clicking the topmost checkbox in each category before synchronizing the files.
12. If UAC was disabled in Step 2, re-enable it if needed.
13. If this is an OpenBPC Server node, restart the computer.

Note: The changes in the AmmDb and RTDR databases can be left behind and do not need to be removed. The updates to the local language database can remain on the system. They do not have to be backed out. If changes were made to the local security settings, they should be left as is. If the LDR database recovery model was updated, it should be left as "simple".

3 Point Release Installation on Redundant Servers

3.1 Applicable Nodes

The instructions in this section apply to the following redundant BMA servers:

- Blending Instructions Server
- Experion Blend Controller – Display Server
- Experion Ratio Controller – Display Server
- MA Control Server
- MA Utility Server

The instructions in the section assume that the system can be taken offline for the duration of the upgrade. Otherwise, see [Appendix C](#) for the on-process migration steps for redundant Blending Instructions, EBC Display Servers, MA Control Servers and MA Utility Servers.

3.2 How to Install the Point Release

For a Redundant Server installation, both servers will be offline simultaneously.

1. Ensure that the AmmDB database replication is disabled.
2. Be sure to backup all customized site specific files (both blending and movement) before proceeding with the Point Release installation. See [Appendix B](#) for a list of the customized components.
3. Call up the Windows Services applet and stop the “BMA Redundancy Service” on both the “X” and “Y” servers.

Start the installation process on the “X” server.

4. Ensure that the Experion Station and the Production Browser are closed.
5. Run the BMA R430.4 Point Release setup.exe and accept the default settings when prompted.
Note that the BMA R430.4 Point Release setup.exe only needs to be run once per machine. (The installation for multiple products is done simultaneously.)
6. Perform the following step(s) if this is a Production Browser Server node:

- a) Copy the customizable files to the following associated working folders from folder PB_4.3.1.310.

- %BMADatabase%\Business.FLEX\Station\Bin

Note: If any customization has been added to file(s) in this folder, be sure to copy the customized version with the site modifications imported into the new files.

- b) Update the AmmDB schema by running the **AmmDbUpgrade.exe** located in the {AMMROOT}\Production Browser\Database\AmmDb Scripts folder on the Browser Server. Use the **DbUpgrade.sql** file located at {AMMROOT}\Production Browser\Database\AmmDb Scripts.

- c) Double-click the **GrantDbPermissions.vbs** script file that is stored in the {AMMROOT}\Production Browser\Database\AmmDb Scripts folder on the Browser Server. Indicate whether or not to use Windows Authentication to log onto SQL Server as the current local user. (**Note:** If Windows Authentication is selected, the current user must have sa role access in SQL Server.)
7. Perform the following step(s) if this is an Experion Blend Controller - Display Server node:
- a) Update the AmmDb SQL data for EBC by running the **AmmDbUpgrade.exe** located in the {AMMROOT}\Production Browser\Database\AmmDb Scripts folder on the EBC Display Server. Use the **UpdateDB.sql** file located at %HwInstallPath%\Business.FLEX\EBC\Database\AmmDb Scripts.
8. Perform the following step(s) if this is an Experion Ratio Controller - Display Server node:
- a) Update the AmmDb SQL data for ERC by running the **AmmDbUpgrade.exe** located in the {AMMROOT}\Production Browser\Database\AmmDb Scripts folder on the EBC Display Server. Use the **UpdateDB.sql** file located at %HwInstallPath%\Business.FLEX\EBC\Database\AmmDb Scripts.
9. Perform the following step(s) if this is an MA Control Server node:
- a) Copy the customizable files to the following associated working folders from folder MA_4.3.1.310.
- {AMMROOT}\Production Tracker\Database\AmmDB Scripts\Script
 - {AMMROOT}\RTEEXEC\Bin **
 - {AMMROOT}\RTEEXEC\Bin\Apps
 - %BMADatabase%\AMM\Production Tracker\Data
 - %BMADatabase%\AMM\Redundancy
 - %BMADatabase%
 - %BMADatabase%\Build
 - %BMADatabase%\Business.FLEX\Station\Abstract\bfScripts
 - %BMADatabase%\Business.FLEX\Station\Bin\Views.NET\Config **
 - %HwInstallPath%\Business.FLEX\Redundancy\Data
- ** Applies to MA only. (Does not apply to IM installations.)
- Note:** If any customization has been added to file(s) in these folders, be sure to copy the customized version with the site modifications imported into the new files. (For example, be sure to update the Primary and Secondary Node Names, as well as the Experion Server name, in the **RedundantStatus.xml** file after it has been updated.)
- b) Update the AmmDb SQL data for the MA Control Server by running the **AmmDbUpgrade.exe** located in the {AMMROOT}\Production Browser\Database\AmmDb Scripts folder on the MA Control Server. Use the **Upgrade-DB-OMA.sql** file located at {AMMROOT}\Production Tracker\Database\AmmDb Scripts.
- Note:** Be sure to update application scripts when prompted.
- c) For MA installations only, edit the **AmmTables_UpgradeSiteConstructs_BMAR430.4.xls** file (or **AmmTables_UpgradeSiteConstructs_IM_BMAR430.4.xls** for an IM installation), stored in the %BMADatabase%\AMM\Production Tracker\StagingWorkBooks

folder, to reflect the site-specific activity model. Navigate to the {AMMROOT}\Production Tracker\Database\AmmDB Scripts folder and run the **AppEnt_Migration.exe** program. Select the migration file **AmmTables_UpgradeSiteConstructs_BMAR430.4.xls** (or **AmmTables_UpgradeSiteConstructs_IM_BMAR430.4.xls** for an IM installation). Use the preselected **BMA430.3** and **BMA430.4** options to upgrade the Plant Reference Model (PRM) changes.
If BMA R430.2 was previously installed on the target node, deselect the **BMA430.2** option and only proceed with the **BMA430.3** and **BMA430.4** upgrade.
If BMA R430.3 was previously installed on the target node, deselect the **BMA430.3** option and only proceed with the **BMA430.4** upgrade.

- d) Perform an RTDR database dr load. (Run the Load DR command on the hostdr data repository in the RAE Browser.)

10. Perform the following step(s) if this is an MA Utility Server node:

- a) Copy the customizable files to the following associated working folders from folder MAU_4.3.1.310.

- %BMADatabase%\AMM\Redundancy
- %HwInstallPath%\Business.FLEX\Redundancy\Data

Note: If any customization has been added to file(s) in these folders, be sure to copy the customized version with the site modifications imported into the new files.

11. If you have decided to use the PBM Security Configuration Tool to update your local security settings, run the tool as described in Section [0](#) on the “X” Server.
12. On the “X” Server, call up the Windows Services applet and start the “BMA Redundancy Service”. This should make the “X” server the Active server.
13. Execute Steps 4 and 5 on “Y”.
14. On the MA Control Server “Y” copy the customizable files to the associated working folders as directed in Steps 6 a) and 9 a).
15. On the MA Utility Server “Y” copy the customizable files to the associated working folders as directed in Step 10 a).
16. If you have decided to use the PBM Security Configuration Tool to update your local security settings, run the tool as described in Section [0](#) on the “Y” Server.
17. On the “Y” Server, call up the Windows Services applet and start the “BMA Redundancy Service”.
18. Ensure that the AmmDB database replication is re-enabled.
19. Run SyncApp and synchronize all of the files in all of the available categories on both the “X” and “Y” servers.

**ATTENTION:**

For sites running LIMS Viewer, be sure that the LDR database recovery model has been set to "simple" as described below:

1. In SQL Server Management Studio, right-click the LDR database instance and select **New Query**.

2. Execute the following query:

```
SELECT name, recovery_model_desc
FROM sys.databases
WHERE name = 'LDR' ;

GO
```

3. If the query output is "SIMPLE" then no further action is required.

If the query output is not "SIMPLE" then execute the following query:

```
ALTER DATABASE LDR SET RECOVERY SIMPLE

GO
```

3.3 How to Roll-Back the Point Release

For a Redundant Server installation, both servers will be offline simultaneously. Start the roll-back process on the "X" server.

1. BMA system services and DCOM configuration must be saved prior to point release rollback. Navigate to the {AMMROOT} folder and run the **BmaSystemSettings.exe** program. Click the **Backup** button and confirm that a *BMA_ComputerName.txt* file is created.

IMPORTANT: Ensure that this file does contain your system settings before proceeding to the next step. Failure to do so may lead to system malfunction after the rollback.

2. Verify that User Account Control (UAC) has been disabled as follows:

Windows 2008 Server

- i. In the Control Panel, open the User Accounts applet.
- ii. In the User Accounts window, click **User Accounts**.
- iii. In the User Accounts tasks window, click **Turn User Account Control on or off**.
- iv. If UAC is currently configured in Admin Approval Mode, the User Account Control message appears. Click **Continue**.
- v. Clear the **Use User Account Control (UAC) to help protect your computer** check box to disable UAC if needed, and then click **OK**.
- vi. Click **Restart Now** to apply the change right away, or click **Restart Later**, and then close the User Accounts tasks window.

Windows 2008 Server R2

- i. In the Control Panel, open the User Accounts applet.
- ii. In the User Accounts window, click **Change User Account Control Settings**.
- iii. In the User Account Control Settings window, change the notification setting to **Never Notify** and click **OK**.
- iv. Restart the computer to apply the turn off User Account Control.

3. Roll back the customizable files to the following associated working folders:

a) Production Browser Server node use

PB_4.3.1.10 to roll back to BMA R430.1
PB_4.3.1.110 to roll back to BMA R430.2
PB_4.3.1.210 to roll back to BMA R430.3

- %BMADatabase%\Business.FLEX\Station\Bin

b) MA Control Server node use

MA_4.3.1.10 to roll back to BMA R430.1
MA_4.3.1.110 to roll back to BMA R430.2
MA_4.3.1.210 to roll back to BMA R430.3

- {AMMROOT}\Production Tracker\Database\AmmDB Scripts\Script
- {AMMROOT}\RTEEXEC\Bin **
- {AMMROOT}\RTEEXEC\Bin\Apps
- %BMADatabase%\AMM\Production Tracker\Data
- %BMADatabase%\AMM\Redundancy
- %BMADatabase%
- %BMADatabase%\Build
- %BMADatabase%\Business.FLEX\Station\Abstract\bfScripts
- %BMADatabase%\Business.FLEX\Station\Bin\Views.NET\Config **
- %HwInstallPath%\Business.FLEX\Redundancy\Data

** Applies to MA only. (Does not apply to IM installations.)

c) MA Utility Server node use

MAU_4.3.1.10 to roll back to BMA R430.1
MAU_4.3.1.110 to roll back to BMA R430.2
MAU_4.3.1.210 to roll back to BMA R430.3

- %BMADatabase%\AMM\Redundancy
- %HwInstallPath%\Business.FLEX\Redundancy\Data

4. Use the utility AmmDbUpgrade.exe and import the original customizable scripts into the AmmDB saved in the backup folder.
5. Call up the Windows Services applet and stop the "BMA Redundancy Service" on both the "X" and "Y" servers.
6. Perform the following step(s) if this is an MA Control Server node:
 - a) Navigate to the %MXRoot%\RAE\Bin folder and run **ShutDownRTDR.exe**. This will shut down the current RTDR instance if it is running.
7. Ensure that the Experion Station and the Production Browser are closed.

8. In the "Add or Remove Programs"/"Program and Features" applet, remove all of the BMA R430.4 updates (if applicable) in the following order:

- Honeywell Offline Optimization Application - BMA R430.4
- Honeywell OpenBPC - BMA R430.4
- Honeywell Blending Instructions - BMA R430.4
- Honeywell Experion Blend Controller - BMA R430.4
- Honeywell Experion Ratio Controller - BMA R430.4
- Honeywell MA Control Server - BMA R430.4
- Honeywell MA Utility Server - BMA R430.4
- Honeywell Production Browser Server - BMA R430.4
- Honeywell Production Browser Client - BMA R430.4

Note: Be sure to select "Show Updates"/"View Installed Updates" to display the BMA R430.4 updates in the applet.

9. Navigate to the {AMMROOT} folder and run the **BmaSystemSettings.exe** program. Click the **Restore** button and record the user ids that require a password to be re-entered. Run the **svrpass.bat** program and select the user ids identified earlier. Re-enter the password for each user id to ensure proper Windows services and DCOM credentials.
10. On the "X" Server, call up the Windows Services applet and start the "BMA Redundancy Service". This should make the "X" server the Active server.
11. Perform Steps 1, 2, 3, 6, 7, 8 and 9 on "Y".
12. On the "Y" Server, call up the Windows Services applet and start the "BMA Redundancy Service".
13. Run SyncApp and synchronize all of the files in all of the available categories on both the "X" and "Y" servers. Be sure to select all files by clicking the topmost checkbox in each category before synchronizing the files.
14. If UAC was disabled in Step 2, re-enable it if needed on both the "X" and "Y" servers.

Note: The changes in the AmmDb and RTDR databases can be left behind and do not need to be removed. The updates to the local language database can remain on the system. They do not have to be backed out. If changes were made to the local security settings, they should be left as is. If the LDR database recovery model was updated, it should be left as "simple".

4 Point Release Installation on EBC Process Servers

4.1 Applicable Nodes

The instructions in this section apply to EBC Process Servers. The procedures are carried out on the Experion Server where the EBC Process Server is installed.

The instructions in the section assume that the system can be taken offline for the duration of the upgrade. Otherwise, see [Appendix C](#) for the on process migration steps for the EBC Process Servers.

4.2 How to Install the Point Release

1. Backup the installed versions of the EBC control strategies at a customer site, by using Control Builder to export the instances corresponding to the master EBC control strategies identified in the **BMA430.4-WP-EBC Control Strategies.pdf** whitepaper.
2. On the Experion Server (Primary Experion Server if redundant, and be sure that the Experion Servers are Synchronized), open a command prompt window and stop the running EbcMaterial scan task using the following command:

```
remtsk 149
```

3. Ensure that the Experion Station and the Production Browser are closed.
4. Run the BMA R430.4 Point Release setup.exe and accept the default settings when prompted.
Note that the BMA R430.4 Point Release setup.exe only needs to be run once per machine. (The installation for multiple products is done simultaneously.)
5. Copy the customizable files to the following associated working folders from folder EBC_4.3.1.310.

```
- %BMADatabase%\AMM\Redundancy  
- %BMADatabase%\Business.FLEX\Station\Abstract\bfScripts  
- %HwInstallPath%\Business.FLEX\Redundancy\Data
```

Note: If any customization has been added to file(s) in these folders, be sure to copy the customized version with the site modifications imported into the new files.

6. For redundant Experion Servers, repeat Steps 3 to 5 on the Backup Experion Server.
7. New EBC enumerations were added to the EBC Configuration – UI Enum display. Click on the 'Update Acronym Table' button on the display to update user table 100 (file number 350) with the modifications. Alternatively, the Experion PKS **FILDMP** utility can be used to update the user table by restoring the data from the `utb350.txt` file updated by the installation.
8. Using the instructions provided in the **BMA430.4-WP-EBC Control Strategies.pdf** whitepaper, follow the procedures to upgrade the EBC control strategies.
9. Before loading the new and upgraded EBC CM/SCM and Status Points, be sure that the blender is stopped and closed.
10. If applicable, synchronize the Experion Servers.
11. From a command prompt window, restart the EbcMaterial scan task by issuing the following command on the Primary Experion Server:

```
addtsk EbcMaterial 149 0
```

12. New text keys were added to the EBC language resource file, `BC_Resource.xml` to support the updated EBC displays provided in the patch. Using the `LocalLangUtil.exe` application installed by Production Browser Server, connect to the `LocalLang.mdb` file. Import the `%EBCConfig%EBC\Data\LocalLang\BC_Resource.xml` file to update the LocalLang database with the modified keys.

4.3 How to Roll-Back the Point Release

1. BMA system services and DCOM configuration must be saved prior to point release rollback. Navigate to the `{AMMROOT}` folder and run the **BmaSystemSettings.exe** program. Click the **Backup** button and confirm that a `BMA_ComputerName.txt` file is created.

IMPORTANT: Ensure that this file does contain your system settings before proceeding to the next step. Failure to do so may lead to system malfunction after the rollback.

2. On the Experion Server (Primary Experion Server if redundant, and be sure that the Experion Servers are Synchronized), open a command prompt window and stop the running `EbcMaterial` scan tasks using the following command:

```
remtsk 149
```

3. Ensure that the Experion Station and the Production Browser are closed.
4. Roll back the customizable files to the following associated working folders, use
 - `EBC_4.3.1.10` to roll back to BMA R430.1
 - `EBC_4.3.1.110` to roll back to BMA R430.2
 - `EBC_4.3.1.210` to roll back to BMA R430.3

- `%BMADatabase%\AMM\Redundancy`
- `%BMADatabase%\Business.FLEX\Station\Abstract\bfScripts`
- `%HwInstallPath%\Business.FLEX\Redundancy\Data`

5. In the "Add or Remove Programs"/"Program and Features" applet, remove all of the BMA R430.4 updates (if applicable) in the following order:

- Honeywell Offline Optimization Application - BMA R430.4
- Honeywell OpenBPC - BMA R430.4
- Honeywell Blending Instructions - BMA R430.4
- Honeywell Experion Blend Controller - BMA R430.4
- Honeywell Experion Ratio Controller - BMA R430.4
- Honeywell MA Control Server - BMA R430.4
- Honeywell MA Utility Server - BMA R430.4
- Honeywell Production Browser Server - BMA R430.4
- Honeywell Production Browser Client - BMA R430.4

Note: Be sure to select "Show Updates"/"View Installed Updates" to display the BMA R430.4 updates in the applet.

6. Navigate to the {AMMROOT} folder and run the **BmaSystemSettings.exe** program. Click the **Restore** button and record the user ids that require a password to be re-entered. Run the **svrpass.bat** program and select the user ids identified earlier. Re-enter the password for each user id to ensure proper Windows services and DCOM credentials.
7. For redundant Experion Servers, repeat Steps 1 and 3 to 6 on the Backup Experion Server.
8. Revert the EBC control strategy changes described in the **BMA430.4-WP-EBC Control Strategies.pdf** whitepaper.
9. Using Control Builder, import and reload the Process points backed up in Step 1 of the installation instructions earlier. If applicable, use QuickBuilder to reload the backed up Status points.
10. Using a command prompt window, restart the EbcMaterial scan task by issuing the following command:

```
addtsk EbcMaterial 149 0
```

5 Point Release Installation on ERC Process Servers

5.1 Applicable Nodes

The instructions in this section apply to ERC Process Servers. The procedures are carried out on the Experion Server where the ERC Process Server is installed.

The instructions in the section assume that the system can be taken offline for the duration of the upgrade. Otherwise, see [Appendix C](#) for the on process migration steps for the ERC Process Servers.

5.2 How to Install the Point Release

1. Backup the installed versions of the ERC control strategies at a customer site, by using Control Builder to export the instances corresponding to the master ERC control strategies identified in the **BMA430.4-WP-ERC Control Strategies.pdf** whitepaper.
2. On the Experion Server (Primary Experion Server if redundant, and be sure that the Experion Servers are Synchronized), open a command prompt window and stop the running EbcMaterial scan task using the following command:

```
remtsk 149
```

3. Ensure that the Experion Station and the Production Browser are closed.
4. Run the BMA R430.4 Point Release setup.exe and accept the default settings when prompted.
Note that the BMA R430.4 Point Release setup.exe only needs to be run once per machine. (The installation for multiple products is done simultaneously.)
5. Copy the customizable files to the following associated working folders from folder EBC_4.3.1.310.

```
- %BMADatabase%\AMM\Redundancy  
- %BMADatabase%\Business.FLEX\Station\Abstract\bfScripts  
- %HwInstallPath%\Business.FLEX\Redundancy\Data  
- %HwInstallPath%\Business.FLEX\EBC\bin
```

Note: If any customization has been added to file(s) in these folders, be sure to copy the customized version with the site modifications imported into the new files.

6. For redundant Experion Servers, repeat Steps 3 to 5 on the Backup Experion Server.
7. New ERC enumerations were added to the ERC Configuration – UI Enum display. Click on the ‘Update Acronym Table’ to update user table 100 (file number 350) with the modifications. Alternatively, the Experion PKS **FILDMP** utility can be used to update the user table by restoring the data from the `utb350.txt` file updated by the installation.
8. Using the instructions provided in the **BMA430.4-WP-ERC Control Strategies.pdf** whitepaper, follow the procedures to upgrade the ERC control strategies.
9. Before loading the new and upgraded ERC CM and Status Points, be sure that the blender is stopped and closed.
10. If applicable, synchronize the Experion Servers.

11. From a command prompt window, restart the EbcMaterial scan task by issuing the following command on the Primary Experion Server:

```
addtsk EbcMaterial 149 0
```

12. New text keys were added to the ERC language resource file, `BC_Resource.xml` to support the updated ERC displays provided in the patch. Using the `LocalLangUtil.exe` application installed by Production Browser Server, connect to the `LocalLang.mdb` file. Import the `%EBConfig%EBC\Data\LocalLang\BC_Resource.xml` file to update the LocalLang database with the modified keys.

5.3 How to Roll-Back the Point Release

1. BMA system services and DCOM configuration must be saved prior to point release rollback. Navigate to the `{AMMROOT}` folder and run the **BmaSystemSettings.exe** program. Click the **Backup** button and confirm that a `BMA_ComputerName.txt` file is created.

IMPORTANT: Ensure that this file does contain your system settings before proceeding to the next step. Failure to do so may lead to system malfunction after the rollback.

2. On the Experion Server (Primary Experion Server if redundant, and be sure that the Experion Servers are Synchronized), open a command prompt window and stop the running EbcMaterial scan task using the following command:

```
remtsk 149
```

3. Ensure that the Experion Station and the Production Browser are closed.
4. Roll back the customizable files to the following associated working folders, use

EBC_4.3.1.10	to roll back to BMA R430.1
EBC_4.3.1.110	to roll back to BMA R430.2
EBC_4.3.1.210	to roll back to BMA R430.3

- `%BMADatabase%\AMM\Redundancy`
- `%BMADatabase%\Business.FLEX\Station\Abstract\bfScripts`
- `%HwInstallPath%\Business.FLEX\Redundancy\Data`

5. In the "Add or Remove Programs"/"Program and Features" applet, remove all of the BMA R430.4 updates (if applicable) in the following order:

- Honeywell Offline Optimization Application - BMA R430.4
- Honeywell OpenBPC - BMA R430.4
- Honeywell Blending Instructions - BMA R430.4
- Honeywell Experion Blend Controller - BMA R430.4
- Honeywell Experion Ratio Controller - BMA R430.4
- Honeywell MA Control Server - BMA R430.4
- Honeywell MA Utility Server - BMA R430.4
- Honeywell Production Browser Server - BMA R430.4
- Honeywell Production Browser Client - BMA R430.4

Note: Be sure to select "Show Updates"/"View Installed Updates" to display the BMA R430.4 updates in the applet.

6. Navigate to the {AMMROOT} folder and run the **BmaSystemSettings.exe** program. Click the **Restore** button and record the user ids that require a password to be re-entered. Run the **svrpass.bat** program and select the user ids identified earlier. Re-enter the password for each user id to ensure proper Windows services and DCOM credentials.
7. For redundant Experion Servers, repeat Step 1 and Steps 3 to 6 on the Backup Experion Server.
8. Revert the ERC control strategy changes described in the **BMA430.4-WP-ERC Control Strategies.pdf** whitepaper.
9. Using Control Builder, import and reload the Process points backed up earlier in Step 1 of the installation instructions. If applicable, use QuickBuilder to reload the backed up Status points.
10. Using a command prompt window, restart the EbcMaterial scan task by issuing the following command:

```
addtsk EbcMaterial 149 0
```


6 Point Release Installation for OpenBPC Offline Optimization

6.1 Applicable Nodes

The instructions in this section apply to computers that have the OpenBPC Offline Optimization application software installed.

6.2 How to Install the Point Release

1. Ensure that the Experion Station (if installed) and the Production Browser are closed.
2. Run the BMA R430.4 Point Release setup.exe and accept the default settings when prompted.
Note that the BMA R430.4 Point Release setup.exe only needs to be run once per machine. (The installation for multiple products is done simultaneously.)
3. Restart the computer.

6.3 How to Roll-Back the Point Release

1. Ensure that the Experion Station (if installed) and the Production Browser are closed.
2. In the "Add or Remove Programs"/"Program and Features" applet, remove all of the BMA R430.4 updates (if applicable) in the following order:
 - Honeywell Offline Optimization Application - BMA R430.4
 - Honeywell OpenBPC - BMA R430.4
 - Honeywell Blending Instructions - BMA R430.4
 - Honeywell Experion Blend Controller - BMA R430.4
 - Honeywell Experion Ratio Controller - BMA R430.4
 - Honeywell MA Control Server - BMA R430.4
 - Honeywell MA Utility Server - BMA R430.4
 - Honeywell Production Browser Server - BMA R430.4
 - Honeywell Production Browser Client - BMA R430.4

Note: Be sure to select "Show Updates"/"View Installed Updates" to display the BMA R430.4 updates in the applet.

3. Restart the computer.

7 Point Release Installation for the Production Browser Client

7.1 Applicable Nodes

The instructions in this section apply to computers that have the Production Browser Client software installed.

The instructions in the section assume that the system can be taken offline for the duration of the upgrade. Otherwise, see [Appendix C](#) for the on process migration steps for the Production Browser Clients.

7.2 How to Install the Point Release

1. Ensure that the Experion Station and the Production Browser are closed.
2. Run the BMA R430.4 Point Release setup.exe and accept the default settings when prompted.
Note that the BMA R430.4 Point Release setup.exe only needs to be run once per machine. (The installation for multiple products is done simultaneously.)
3. If you have decided to use the PBM Security Configuration Tool to update your local security settings, run the tool as described in [Section 0](#).
4. Run SyncApp and synchronize all of the files in all of the available categories.

7.3 How to Roll-Back the Point Release

1. BMA system services and DCOM configuration must be saved prior to point release rollback. Navigate to the {AMMROOT} folder and run the **BmaSystemSettings.exe** program. Click the **Backup** button and confirm that a BMA_ComputerName.txt file is created.

IMPORTANT: Ensure that this file does contain your system settings before proceeding to the next step. Failure to do so may lead to system malfunction after the rollback.

2. Verify that User Account Control (UAC) has been disabled as follows:

Windows 2008 Server

- i. In the Control Panel, open the User Accounts applet.
- ii. In the User Accounts window, click **User Accounts**.
- iii. In the User Accounts tasks window, click **Turn User Account Control on or off**.
- iv. If UAC is currently configured in Admin Approval Mode, the User Account Control message appears. Click **Continue**.
- v. Clear the **Use User Account Control (UAC) to help protect your computer** check box to disable UAC if needed, and then click **OK**.
- vi. Click **Restart Now** to apply the change right away, or click **Restart Later**, and then close the User Accounts tasks window.

Windows 2008 Server R2/Windows 7

- i. In the Control Panel, open the User Accounts applet.
 - ii. In the User Accounts window, click **Change User Account Control Settings**.
 - iii. In the User Account Control Settings window, change the notification setting to **Never Notify** and click **OK**.
 - iv. Restart the computer to apply the turn off User Account Control.
3. Ensure that the Experion Station and the Production Browser are closed.
 4. In the "Add or Remove Programs"/"Program and Features" applet, remove all of the BMA R430.4 updates (if applicable) in the following order:
 - Honeywell Offline Optimization Application - BMA R430.4
 - Honeywell OpenBPC - BMA R430.4
 - Honeywell Blending Instructions - BMA R430.4
 - Honeywell Experion Blend Controller - BMA R430.4
 - Honeywell Experion Ratio Controller - BMA R430.4
 - Honeywell MA Control Server - BMA R430.4
 - Honeywell MA Utility Server - BMA R430.4
 - Honeywell Production Browser Server - BMA R430.4
 - Honeywell Production Browser Client - BMA R430.4

Note: Be sure to select "Show Updates"/"View Installed Updates" to display the BMA R430.4 updates in the applet.

5. Navigate to the {`AMMROOT`} folder and run the **BmaSystemSettings.exe** program. Click the **Restore** button and record the user ids that require a password to be re-entered. Run the **svrpass.bat** program and select the user ids identified earlier. Re-enter the password for each user id to ensure proper Windows services and DCOM credentials.
6. Run SyncApp and synchronize all of the files in all of the available categories. Be sure to select all files by clicking the topmost checkbox in each category before synchronizing the files.
7. If UAC was disabled in Step 2, re-enable it if needed.

Note: If changes were made to the local security settings, they should be left as is.

8 Point Release Installation for the Blend Performance Monitor Application

8.1 Applicable Nodes

The instructions in this section apply to computers that have the Blend Performance Monitor application software installed.

Reminder: Make sure that you have created a backup disk image of the Blend Performance Monitor node before you begin.

8.2 How to Install the Point Release

1. Ensure that the Experion Station and the Production Browser are closed (if installed).
2. Stop the BPM services that are being used at the site:
 - Lab Services (HW.BM.LabService and BMLabSvc)
3. If previously configured, disable the optional scheduled task that stops and restarts the HW.BM.ConsoleApp.
4. If previously configured, disable the optional scheduled task that stops and restarts the Honeywell BPM Lab Service (HW.BM.LabService).
5. Run the BMA R430.4 Point Release setup.exe and accept the default settings when prompted.
Note that the BMA R430.4 Point Release setup.exe only needs to be run once per machine. (The installation for multiple products is done simultaneously.)
6. Restart the computer.

8.3 How to Roll-Back the Point Release

To roll-back the BMA software, reinstate the backup disk image that was created prior to installing the point release software.

9 Point Release Installation for Experion Tank Monitor

9.1 Applicable Nodes

The instructions in this section apply to ETM Process Servers and ETM Display Clients. The procedures are carried out on the Experion Server where the ETM software is installed.

Reminder: This ETM point release can only be removed by uninstalling back to the base release for this stream (i.e. BMA R430.1) and re-install the base and point release software to suit.

9.2 How to Install the Point Release

1. On the Experion Server (Primary Experion Server if redundant, and be sure that the Experion Servers are Synchronized), open a command prompt window and stop the running EtmSynchronize scan task. Assuming the default LRN (Logical Resource Number) of 144 was used for EtmSynchronize, the following command will stop the task:

```
remtsk 144
```

2. For redundant Experion Servers, repeat Step 1 on the Backup Experion Server.
3. Run the BMA R430.4 Point Release setup.exe and accept the default settings when prompted. Note that the BMA R430.4 Point Release setup.exe only needs to be run once per machine. (The installation for multiple products is done simultaneously.)
4. Make backup copies of any ETM existing CMs involved in the upgrade to ETM R430.4. Use the export feature of Control Builder to make backups of all the tanks CMs as well as the area CMs.
5. Using the instructions provided in the **ETM_R430.4_Upgrade.pdf** whitepaper, follow the procedures to upgrade from ETM R430.3
6. Reload all tanks from Project to Monitor. Choose to not overwrite any parameters if you want to retain the current running state of the tanks.
7. If the EtmSynchronize scan task has not already been restarted, from a command prompt window on the Primary Experion Server, issue the following commands:

```
cd \Program Files (x86)\Honeywell\Experion PKS\Server\Run  
addtsk EtmSynchronize 144
```

9.3 How to Roll-Back the Point Release

1. On the Experion Server, ensure the EtmSynchronize scan task is stopped by running the following command from a command prompt:

```
remtsk 144
```

2. Uninstall back to the base release for this stream (i.e. BMA R430.1) and re-install the base and point release software to suit.
3. If changes were made to the tank CMs, either directly or as a result of changes to the tank template, delete the tanks completely and then import from backup. Similarly for any area CMs, which even if not modified, need to be imported from backup if any tanks were imported.
4. Restart the EtmSynchronize scan task as described in the previous section.

10 PBM Security Configuration Tool

10.1 Introduction

The PBM Security Configuration Tool is used to set up the security settings needed to support the BMA applications. This tool is provided as a standalone utility that can be run manually any time after one or more of the BMA applications has been installed on a given computer.

The screenshot shows the PBM Security Configuration Tool interface. The window title is "PBM Security Configuration Tool". On the left is a sidebar with "General Security" selected. The main area is divided into sections: "Configure Security" with fields for User (mnggr), Password, and Confirm Password, and a checked "Apply Database Security" checkbox; "Configure Site-Specific Users and/or Groups" with fields for Product Administrators (NT AUTHORITY\LOCAL SERVICE;HPSInstall;mnggr;TORTECH\AMMADMIN), Local Operators (TORTECH\AMMOPER), and Local Servers (LocalComServer;mnggr); and "Diagnostics" with a "Log file path" field containing "C:\ProgramData\Honeywell\BMA\Diagnostics\PBM Security Configuration Tool". At the bottom right are "Apply" and "Close" buttons and a timer showing "00:00:00".

Note: At this time the PBM Security Configuration Tool does not support the Experion Tank Monitor (ETM) application.

Background

When implementing local security, the expedient historical practice has been to assign the local mnggr user that is created when installing Experion to be a member of the Local Administrators group on all PBM nodes.

In general, assigning users to be members of the Local Administrators group is not a good security practice. As such, as part of security hardening, all Experion point releases (R4xx and later) automatically remove the mnggr user from the Local Administrators group when that user is found to be a member of that group on the node that the Experion point release is being installed on.

Impact on Operation of a Legacy BMA System

Depending on how security was originally implemented for a legacy Blending and Movement Automation (BMA) system, removal of the mnggr user from the Local Administrators group may cause the BMA system to stop working.

Temporary Workaround

If the removal of the mngr user from the Local Administrators group causes a legacy BMA system to stop working, the temporary workaround is to add the mngr user back to the Local Administrators group. (In this case, this step must be repeated whenever an Experion point release is installed.)

Definitive Path Forward

The temporary workaround is only intended to keep the system running until one of the two options outlined below can be executed when convenient on the site:

- [1] Upgrade to the BMA R430.4 point release.
- [2] If not planning to upgrade, interactively execute the PBM Security Configuration Tool on each BMA/PBM node on the system.

For option [1], the PBM Security Configuration Tool is run as an "end of installation" step by each PBM application. The security verification / adjustments are performed "transparently" in this case. For option [2], the PBM Security Configuration Tool is run interactively on each BMA/PBM node. (**Note:** In this case, the tool must be launched as a user who is a member of the Local Administrators group on each BMA/PBM node.)

What Does the PBM Security Configuration Tool Do?

When it runs, the PBM Security Configuration Tool executes the actions listed under [A] through [E] below. (**Note:** The list is not exhaustive; it is provided here to give an indication of the verification / adjustments performed by the tool.)

[A] On all BMA/PBM nodes:

[a] Look for the existence of the following security objects:

- Local Operators local group
- Local Servers local group
- Product Administrators local group
- Local mngr account

[b] Create the security objects listed in [a] if they are not found.

[c] Ensure that the mngr account is a member of the Product Administrators local group.

[d] Ensure that the mngr account is a member of the Local Servers local group.

[e] Ensure the mngr account is NOT a member of the Local Administrators group.

[f] Ensure that the Local Operators, Local Servers and Product Administrators groups are allowed access to the BMA folder and HiSpecOms Windows registry.

[B] On each PBM Server and Production Browser Server node:

[a] Ensure that the Local Operators, Local Servers and Product Administrators groups, as well as PBMAAppPool are allowed read / write access to the DATABASE share.

[C] On all BMA/PBM Server nodes that have SQL Server installed:

[a] Ensure that the Local Servers and Product Administrators local groups are a member of the SYSADMIN SQL Server role.

This provides the mngr account with the privileges necessary to administer the SQL Server databases (including replication).

- [b] Ensure that the Local Servers local group is assigned to the SQL Server program directory (typically C:\Program Files\Microsoft SQL Server).
 - [c] Ensure that the Local Servers, Product Administrators and Local Operators local groups, as well as PBMAAppPool are assigned to the proper permission to the BMA/PBM databases.
- [D] On all PIM/PMM (or legacy Inventory Monitor/Movement Automation) server nodes:
- [a] Ensure that the Local Operators group are allowed read/write access to the XMLForActivityEngine and XMLForReportGeneration folders.
 - [b] Ensure that the Local Servers group are allowed read/write access to the PMD_LOG folder.
 - [c] Ensure that the Local Servers, Product Administrators, Local Administrators local groups, as well as PBMAAppPool are allowed full control of the HostDr.dr file.
- [E] On all BMA/PBM server nodes:
- [a] For redundant server nodes, ensure that the BMA Redundancy Service is configured to run under the mngr account.
 - [b] For all server nodes, ensure that the Local Servers group is assigned to the '**Log on as a service**' and '**Debug Program**' user rights.
 - [c] For all server nodes, ensure that the mngr account is assigned the permissions to launch each one of the services that is launched by the BMA Redundancy Service.
 - [d] For all server nodes, ensure that the mngr account is assigned to the '**Take ownership of files or other objects**' user right.
 - [e] For all server nodes , ensure that the Local Servers, Product Administrators and Local Operators are allowed to access the DCOM.
 - [f] For all server nodes, ensure all BMA/PBM Windows services are configured to run under the mngr account.
 - [g] For all server nodes, ensure that all BMA/PBM DCOM processes, TCP/IP processes and Web services communication processes are configured as exceptions in the Windows fire wall.

10.2 Using the PBM Security Configuration Tool

Access

As previously stated, the PBM Security Configuration Tool can be run manually any time after one or more of the PBM applications has been installed on a given computer. To access the tool, log onto the computer of interest as a user who is a member of the Local Administrators group on that node, then select **All Programs > Honeywell BMA or PBM > Engineering Tools > PBM Security Configuration** in the Windows Start menu.

The tool is also available as a self-extracting zip file on the PBM release media at: `\Software\Profit Blending and Movement\Supplementary Files\Tools`. Copy the **PBMSecurityConfigSetup.exe** file to the target computer and double-click the file to extract the zip file contents to the desired location. Right-click on the extracted **PBMSecurityConfiguration.exe** file and select **Run as administrator** to start the tool.

Options

If you only want to configure the general security settings of the PBM node (i.e. without affecting SQL Server security) then **uncheck the Apply Database Security** check box and proceed to the **Securing a PBM Node** subsection.

If, on the other hand, you want to configure all security settings for the PBM node (i.e. including SQL Server security) then **check the Apply Database Security** check box and proceed to the **Securing a PBM Node** subsection.

Finally, if you only want to configure security for a specific PBM database then proceed to the **Securing an Individual Database** subsection at the end of this section.

Securing a PBM Node

1. In the General Security screen, enter the mngr user account password. (If Experion is present, be sure to enter the password for the mngr user created by Experion.)

The screenshot shows the 'PBM Security Configuration Tool' window. The 'General Security' tab is selected in the left-hand navigation pane. The main area is divided into several sections:

- Configure Security:** Includes fields for 'User' (set to 'mngr'), 'Password', and 'Confirm Password'. A checkbox for 'Apply Database Security' is checked.
- Configure Site-Specific Users and/or Groups:** Includes three text boxes for 'Product Administrators', 'Local Operators', and 'Local Servers'.
 - Product Administrators: NT AUTHORITY\LOCAL SERVICE;HPSInstall;mngr;TORTECH\AMMADMIN
 - Local Operators: TORTECH\AMMOPER
 - Local Servers: LocalComServer;mngr
- Diagnostics:** Includes a 'Log file path' field with the value 'C:\ProgramData\Honeywell\BMA\Diagnostics\PBM Security Configuration Tool'.

At the bottom right, there is a timer showing '00:00:00', and 'Apply' and 'Close' buttons.

2. If site-specific domain or local users and/or domain or local groups have been configured for your site and are to be used with the PBM applications, add them to the appropriate local group in the **Site-Specific Users and/or Groups** section of the screen. Only do this if the site-specific domain or local users and/or domain or local groups **do not appear in the list below each entry port**.

Note: Be sure to identify the same site-specific users and/or groups on every PBM node in the system.



ATTENTION

It is critical that the above instruction be followed to the letter. Unless site-specific domain or local users and groups are members of the local groups that PBM security is based upon, such users are not recognized by the PBM system. **The PBM Security Configuration tool only secures users and groups that are assigned to the Local Operators, Local Servers and Product Administrators local groups.**

3. Click **Apply** to run the tool.



ATTENTION

[1] For security reasons, the PBM Security Configuration Tool log file is stored in the "C:\Users\<<UserName>\AppData\Local\Temp" folder. This location can only be accessed by either the logged-in user or the local administrator.

[2] Depending on how many PBM applications are present on the target computer, running the tool may take some time to complete, so be sure to wait for the tool to finish before closing the application. An error message will be displayed if the PBM Security Configuration Tool fails to complete the required security setting changes. Review the log file created by the tool if such an error message appears.

[3] A node on which the PBM Security Configuration Tool has been run **should be rebooted** prior to re-enabling PBM functions on the node.

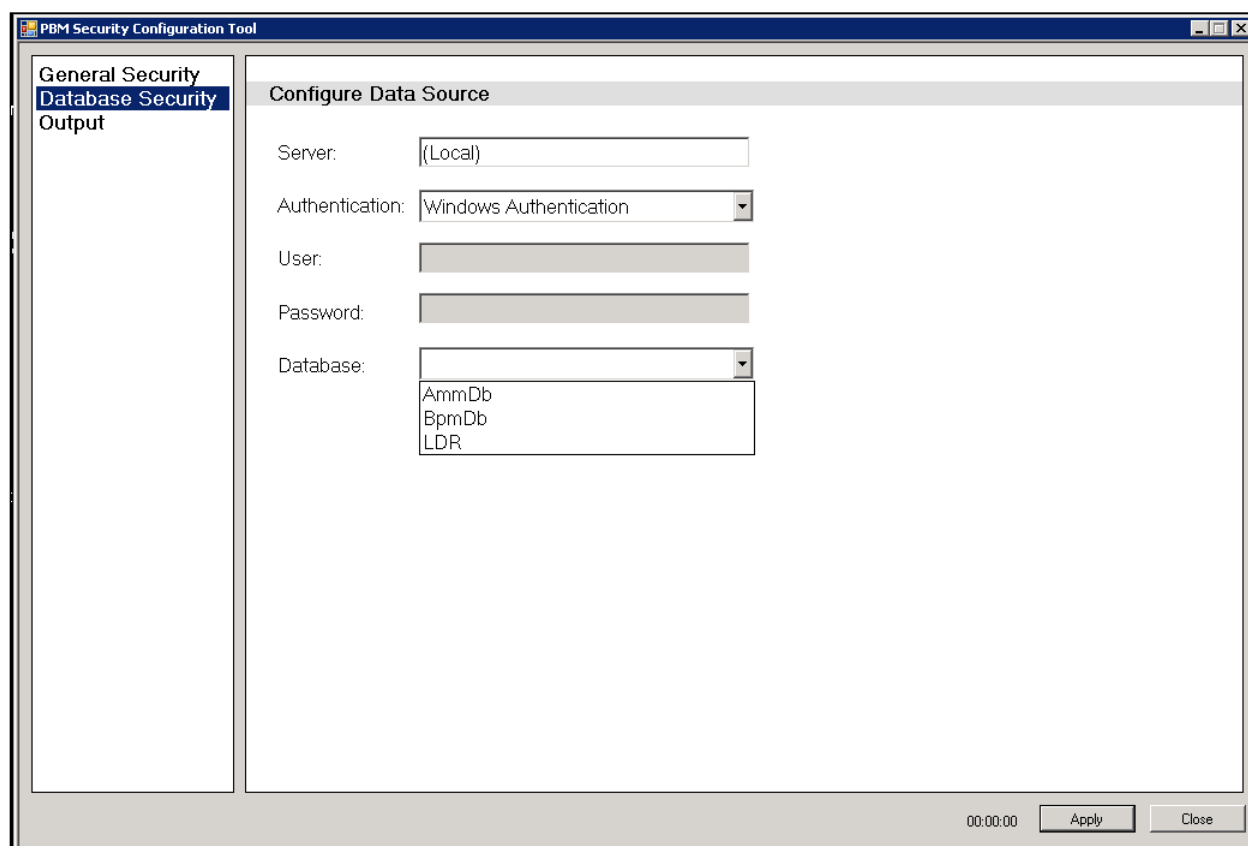
Note: When the PBM Security Configuration Tool is run as an "end of installation" step by a given PBM application, the PBM Security Configuration Tool errors do not impact on the application installation. If needed the tool can be re-run any time after the PBM software has been installed to correct any security related errors.



ATTENTION

A node on which the PBM Security Configuration Tool has been run should be rebooted prior to re-enabling PBM functions on the node.

Securing an Individual Database



1. Select the Database Security screen, select the desired database from the Database drop down list and enter the applicable credentials for securing the database.
2. Click **Apply** to run the tool.

Review the log file created by the tool as described in Step 3 of the *Securing a PBM Node* subsection.

10.3 Granting Access Permissions to LIMS Viewer Background Process Instances

By default, only one instance of each LIMS Viewer background process is created by the LIMS Viewer software installation (one for the LIMS Viewer Instance process and one for the LIMS Viewer Purge process). If required new LIMS Viewer background processes can be manually created as described in the *LIMS Viewer Installation Guide*.

Once the new LIMS Viewer background process instances have been created, users must manually run the **GrantWinServicePerm** batch file to assign the required access permissions to each new instance. This batch file is included in the **PBMSecurityConfigSetup.exe** file delivered with this Point Release.

Procedure

1. On the LIMS Viewer Server, open a command prompt at the folder where the PBM Security Configuration tool was installed (in Section [9](#)).
2. Run the **GrantWinServicePerm** batch file for each new LIMS Viewer background process instance.

```
GrantWinServicePerm.bat <ServiceName> <Windows Group or User Name>
```

The <Windows Group or User Name> will depend on the type of security that is set up on the system:

- If Local security mode is used, enter "Local Servers" for the local group name or "mnggr" as the user name.
 - If Domain security mode is used, enter the BMA Administrators group name (e.g. AMMADMIN) or "AMMAdministrator" as the user name.
3. If the log file path identified during the creation of the new instance is not the %HwProgramData%\BMA\LIMS Viewer\Logfiles path, you will need to provide user access to the new log file folder. For each log file folder, grant Full Control permissions to the user (or users) that have been assigned to run the background processes.

11 Documentation Updates

Please see the document called "*BMA R430.4 Documentation Updates*" included with this point release for the associated user documentation changes.

Appendix A Problems Addressed in Previous Patches

This appendix itemizes the problems addressed in the patches and point releases to the BMA R430.1 release stream that have been included in this point release.

A.1 BMA R430.2 Point Release

EBC Application Problems Addressed in BMA R430.2 Point Release

ID	Problem Description	Fix Description
PAR 1-1L5L7JL	BsFCV SCM failure during blend start.	<p>(a) Modify OUT#2 logic in BS1_SetOP and BStart_SetOP to use current OP% if the 'crack FCV open' function is not enabled instead of forcing the OP to 0%.</p> <p>(b) Modify OUT#1 logic in BS1_SetOP to avoid store failure that occurred in OUT #2 step under the following conditions:</p> <ul style="list-style-type: none"> • 'crack FCV' is not enabled, and • FCV operator mode change is 'Not Permitted', and • the associated front-end FCV is in OPERATOR-AUTO before the blend is started <p>At blend state 1, the front-end FCV's PIDA.MODEATTR is correctly forced to PROGRAM but the PIDA.MODE is left unchanged in AUTO.</p>
PAR 1-2KVUS6U PAR 1-2O3M88L	Unable to pace below established initial hold flow after using a high initial step flow rate.	Provide a user-configured minimum blend flow alternative to be used after the EBC initial hold flow is established. Add MFR SP ramping direction indicator.
PAR 1-3O64A5W	Recipe validation status error when running in EPKS R430.	EPKS R430 incompatibility: Replace use of DT_CHAR with DT_ENUM_ORD when storing to flag parameters (e.g. SetupRcpValFig) using NetAPI.
PAR 1-3O64A7Q	Initial integration of the first good analyzer reading with the restored property average doesn't take into account the restored blend volume.	For restored blends, take into account the restored blend volume when integrating the restored property average with the first good analyzer PV detected after the warmup volume has expired.
PAR 1-3O64A83	Destination Swing volume for a restored blend is being reset during Master Clear.	In the BmBld CM, add new block 'AND_NotRestore' to prevent restored blend's swing volume from being reset during Master Clear.
PAR 1-3O64A8I	SendBIRequest.exe is triggered when BmBld CM is reloaded. Consequently, the BI recipe's 'OnBlendClose' action is performed even though the blend was not started and closed.	In the BmBld CM, modify OnChange() event handler logic to check state of a new StartSignal block.
PAR 1-3O64A8Y	When a component recipe is changed from 0% to a non-zero value, the "Pumps failed to start within allotted time" message is raised even though the pump was started within the configured pump Start TOG.	Reset the blender's pump start timer to resolve blend shutdown problem (as a result of the pump fail-to-start TOG expiration) when an unused FCV (RcpPct = 0%) is introduced into a running blend by changing its recipe percentage to a non-zero value. [Added OUT #13, #14, #15 output steps to FCV_CMD step block.]
PAR 1-3O6C7YV	Blend flyswitch current blend state stuck at 31 causing blend to stop when running in EPKS R430.	Fix invalid equality check on Real constant in 'EntryCondition.C[1..2]' and 'TransitionA_8.C[2..3]' transition blocks.
PAR 1-3O6C7Z8	Intermittent problem with: MFR SPTV being reset to 0 after being set to the Initial Step. Also, 'Established Initial Hold flow' increasing in value after stopping and restarting the same blend several times (with no change to the recipe).	Added new condition #5 to 'FlowOK' transition block to BsMfr SCM.

EBC Application Problems Addressed in BMA R430.2 Point Release

ID	Problem Description	Fix Description
PAR 1-3O6FVAW	After changing the heel data for one property and then clicking the 'Save Changes' button on the ERC Tank Quality Setup display, it was observed in the associated BI recipe that the heel data for the property of interest was updated correctly. However, the same change was unexpectedly observed in other properties in the associated BI recipe.	Add blenderID to query used in sp_EB_GetSetupQualityRow stored procedure otherwise more properties are returned than configured for the blender.
PAR 1-QYOW90 PRS 3136	Starting up Redundancy Service on Backup server causes loss of view/control	Changed the source code of the BMA Redundancy Server Socket to implement the Message Queue using the MS queue instead of Hash Table.
RQUP 2014-002541	Add ability for Operator to set OBPC 'component use' and 'property use' flags from EBC/ERC optimizer displays.	
SR 1-7041557573	Pump trip shuts down the blend even though the FCV recipe was subsequently changed to 0% within the shutdown delay time.	Prevent blend shutdown in the event of a pump trip if the FCV recipe is changed to 0% before the blend shutdown delay time has expired.

ERC Application Problems Addressed in BMA R430.2 Point Release

ID	Problem Description	Fix Description
PAR 1-3DXGUBP PAR 1-3E22H5X	ERC Blender Build Tool enhancements	Better handling of shared front-end pump assignment + other ERC Blender Build Tool enhancements.
PAR 1-3O6C815	'Load to Blender' errors when loading a restored blend. Reset totalizers logic failed.	Eliminate use of the BlenderConfig class that reads the BlenderConfig.xml file. There are issues with using MSXML when MS Office is also installed.
PAR 1-3O6C87Y	BI recipes are not deleted after blend is closed.	Correction to CDB block names used to hold recipe ID/revision data.
PAR 1-3O6C88V	Sample pump icon missing from Property Overview display.	Problem with FEPT attribute for Sample Pump not appearing in BlenderConfig.xml file if no Booster Pump has been configured for the system.
PAR 1-3O6C8CL	BI recipe download failed due to incorrect FCV limits used for validation.	Modified FCV query and returns values in FCV sequence order. This addresses Motiva convent hi/lo limit mismatch
PAR 1-3O6C8D8	BI recipe download "Check" operation timed-out.	Problem with CheckComponentSources() failing if a component in the recipe is unused (RcpPct = RcpLo = RcpHi = 0%) and no Source tank has been assigned to it. Seems to pass the check if no Material is assigned to the FCV in the FCV-Material Mapping dialog. Also affected (in case where UseTankAssignment is configured) is the UpdateMaterialMapper() logic when processing NULL source tank.
PAR 1-3O6C8DW	'Validate' button on ERC Recipe Setup display is not disabled when FlySwitch is Armed.	Modify ebcFSDSRecipeSetup_alpha001_ondatachange() logic in order to disable the 'Validate' button on the ERC Recipe Setup display when the FlySwitch ReqBS is anything other 0 (DisArmed). This is to mimic the same behaviour as in EBC.
PAR 1-3O6C8E9	'Type mismatch' error when calling up the ebcDtlHdrPumps.htm display for the first time from the navigation menu on Ebclnit.htm.	Revise Boolean arguments used in GetBlenderInfo() call to be all FALSE.

ERC Application Problems Addressed in BMA R430.2 Point Release

ID	Problem Description	Fix Description
PAR 1-3O6C8EM	Unable to call up an equipment (e.g. FCV) detail display from the EBC_Init navigation tree directly after launching Station. The ebcFlowControl display has to have been called up once before the equipment detail display can be called from the navigation tree.	DDB variables not being initialized correctly for non-blender items.
PAR 1-3O6C8EY	Flyswitch switch volume field on ERC Recipe Setup display still allows write access.	Disable data entry for Flyswitch volume.
PAR 1-3O6C8F9	FCV FE alarms being disabled on blend stopped as expected but the alarms are not re-enabled again when the blend is restarted.	Added missing logic to re-enable ALMENBSTATE on front-end FCV CM when the ERC FCV requested blend state is ≥ 2 and < 8 . Modified logic to prevent IDEALVOLUME totalizer from being reset to 0 for a restored blend.
PAR 1-3O6C8FW	Intermittent problem starting/closing a blend if an FCV has a PVLO condition and the FCV's Low Flow Error Action is set to 'Shutdown' even though the blend is currently closed/stopped.	Modified ShutdownConfig() sub to initialize RAWPVLO value to FALSE.
PAR 1-3O6C8G9	Restored blend not detected by ERC in the scenario where multiple blends are saved and then restored without running a new blend to completion.	Refactor Chk_Restore logic check to use SR latch suggestion to handle the case where multiple blends are restored in sequence without running a new blend to completion. Reset latch when (LstBlendNum = BlendNumber). Also added new 'RSTBLNDNUMV' PREF and use this value instead of the hardcoded values when RSTBLENDNUM is On.
PAR 1-3O6C8KS	If 'Use Measured Flow' is enabled, the blended volume from the header meter is restored correctly from a saved blend. After starting the blend however, the header meter volume is reset to zero at 'Master Clear'.	Added PREF for BLD_CHKRESTORE and only reset the header meter totalizer if not a Restored blend. Also add PREF for STARTFL, STATE on totalizer. Add logic to stop totalizer. Add explicit logic to start totalizer instead of piggy-backing on reset command. Re-order logic so that the ResetVal is established first before the Reset command is issued. Changed conditions used to reset Header totalizer during flyswitch to be similar to that of when the FCV totalizers are reset on transition to FSCurBS = 31.
PAR 1-3O6C8M9	'Pump Trip detected' messages are being raised every execution interval if the Booster or Sample pump is in OPER mode.	Add PREFs to be used by ISSUEMSG() function instead of CDP writes. (Files: EB_HDRPMP_4_1_1_303 CAB, BmPmp CM)
PAR 1-3O6C8MM	When ramping down the blend, the ability to bypass the 'Established Initial Hold' check and use the configured 'Final Hold Flow' is requested.	Add local CAB config setting "IGNORE_FHF" to respect Final Hold flow or the established initial hold flow(default).
PAR 1-3O6C8MZ	Blend does not automatically 'Ramp Down' unless the Flyswitch blender option is enabled.	Modified logic to pass-thru Slowdown Volume and Shutdown volume if flyswitch option is not enabled for the blender.
PAR 1-3O6FVAW	After changing the heel data for one property and then clicking the 'Save Changes' button on the ERC Tank Quality Setup display, it was observed in the associated BI recipe that the heel data for the property of interest was updated correctly. However, the same change was unexpectedly observed in other properties in the associated BI recipe.	Add blenderID to query used in sp_EB_GetSetupQualityRow stored procedure otherwise more properties are returned than configured for the blender.
PAR 1-3O6FVB9	FlySwitch execution problem. Script error in OnChange() event handler for BmBld.EB_BldVarFS.FSCurBS and BmBld_Opr.EB_BldOpr.CurBS.	Replace references to non-existent 'srLoc' variable. Also, replaced 'IsNothing()' check on variable PrmBIK with 'IsEmpty()'.

ERC Application Problems Addressed in BMA R430.2 Point Release

ID	Problem Description	Fix Description
PAR 1-3O92F7L	While waiting for the 'Initial Hold' blend state to be reached, the MFRSP is incremented at each execution interval without waiting for the configured 'Incremental Step Time' to elapse.	Modified criteria used to determine when Timer has expired before increasing the MFRSP.
PAR 1-3TW6ZXF	Incorrect number of FCV (or ANLZ) rows on PBC operating displays after changing blender focus.	'Top' property of row shape was set to -1 for hidden FCV/ANLZ rows so that they are excluded from the vertical scrollbar size calculations. To enable the hidden rows to be visible again, the 'Top' property of the visible rows were reset to their values cached during initial callup.
PAR 1-3TWB246	Incorrect Trim/Binary FCV drop down list shown in ebcPropertyTrim.htm display when changing blender.	Modified ebcPTBlendHeader shape to fetch list of FCVs when the blender focus is changed. Removed redundant HideRows() call from EBC_Util.vbs.
PAR 1-3TWB24X	Header property average is reset on destination tank swing even though RSTHAVGONSWG is OFF.	Updated EB_ANLAVG_4_1_1_403 CAB type to respect the RSTHAVGONSWG setting. If set to OFF, the blend swing volume is excluded from the calculation of the new header average property. Changed the default value for EB_ANLAVG.RSTHAVGONSWG from ON to OFF.
PAR 1-3TWB2QG	New blend is not detected after loading a new blend (when preceded by a restored blend that is not run).	Logic in ResetTotal.exe was updated to better communicate the new blend request to the EB_GENBS CAB type so that it can reset the SR_ChkRestore.Q parameter to OFF. Relies upon updated EB_BLDVAR_4_1_1_304 CDB type and updated EB_GENBS_4_1_1_304 CAB type. The ResetTotal logic was also modified to update the EB_BldOpr.BlendNumber value with the current EB_BldOpr.BlendCounter value in the ERC-only case when a new blend is detected.
PAR 1-4VMFUK	Add ability to automatically generate keyword file for BPM.	ERC blenders can be configured to generate Blend Management keyword files on blend start and blend close. Content of the keyword is configurable using the new SQL table EB_BM_CONFIG. See the <i>BMA R430.3 Documentation Updates</i> for the BM keyword file generation configuration instructions.
PAR 1-QYIF7S	Binary trim value not calculated.	FCV RcpPct pin connections in CDB block 'EB_AnllFRcp' need to be configured in FCV sequence not with Blender build tool created sequence. To address a problem with the Trim timer not starting automatically, implemented 2-phase stores to the BcAnl_KFTimer block in case it is located in a different CEE than the BcAnllF CM.
PAR 1-QYOW90 PRS 3136	Starting up Redundancy Service on Backup server causes loss of view/control	Changed the source code of the BMA Redundancy Server Socket to implement the Message Queue using the MS queue instead of Hash Table.

ERC Application Problems Addressed in BMA R430.2 Point Release

ID	Problem Description	Fix Description
RQUP 2014-001580	EBC functionality missing in ERC	Add the following EBC functional gap items to ERC R410 as part of BMA R410.4 point release: <ul style="list-style-type: none"> • Optimization component and property displays • Highlighting and alarming of off-specification properties • Alarming for lost OBPC communication, failure of ERC recipe split logic to implement the optimized recipe • Option to substitute the OBPC-calculated header and tank property averages in place of the ERC integrated values • Show up/down triangle indicator when MFR SP ramping is active.
RQUP 2014-002541	Add ability for Operator to set OBPC 'component use' and 'property use' flags from EBC/ERC optimizer displays.	

MA Application Problems Addressed in BMA R430.2 Point Release

ID	Problem Description	Fix Description	IM ²
PAR 1-136C7D9 SR 1-2359756382 PRS 2668	Occasionally, the Element CZ does not recognize a context change if it is already up. This occurs when Station is closed and reinvoked within a short period of time.	Cause: It takes quite some time for Station.exe to actually terminate once it is shutdown. If a new instance of Station is started in the mean time, it will not create an instance of the DFEM Director because the OmsSS02.SSOCore class checks whether it is already running. Solution: To overcome this timing issue, unconditionally instantiate the DFEM Director on start up; specifically, in the InitialCoreComponents() SSOCore class function.	Y
PAR 1-35V5VDX	Material incompatibility reported for N-1 when CheckSrcDestComp = 3.	When dealing with an N-1 task, the material in a line is irrelevant. This is because, the material in such lines will be mixed prior to reaching the destination of the N-1 to become either a precursor to or the actual task material. Therefore, for a line involved in a multi-source scenario (N-1), set the material compatibility penalty of the line to a value of 0.	
PAR 1-36KGJKR	Enhance EPR to support pulsed rather than latched signals.	The code has been updated to let it ignore the current output while deciding if the command is completed. A system-wide configuration parameter ('AllowMomentaryRsRoOPs') is implemented in the Honeywell.HPI.OMA.EPR.ElementProcessor.exe.config component to enable or disable this behavior.	Y
PAR 1-3DXDPJ5	Error while creating source swing for swing component.	In the Order Detail Main.cs file, do not consider InReconciliation components when building swing chain to build swing-out end points dialog.	

² If "Y", indicates that the fix also applies to a standard implementation of the Inventory Monitor (IM) application.

MA Application Problems Addressed in BMA R430.2 Point Release

ID	Problem Description	Fix Description	IM ²
PAR 1-3EFS6EL	New destination component can be added to an order having 2 sources and 1 destination	In the bmaOrderDetail display Main.cs, do not consider InReconciliation components when determining whether n-to-1/1-to-n for addition of new components dialog.	
PAR 1-3G0V001	BMM not always isolating stacked open loops that are open to a pressure-relief sink.	Corrected an issue with the isolation's open loop check which caused the check to occasionally fail to recognize that a stacked open loop system is ultimately floated to a pressure sink.	
PAR 1-3F6POPY	Need to generate separate PL_MOVE records for "Parallel Components"	Existing PL_MOVE records are now identified by source and destination activity UID instead of equipment names. Note that this assumes that PL_MOVE ATTR1 and ATTR2 contain the source and destination component activity UIDs respectively (i.e. set by AEPLInterface.js).	
PAR 1-3EAEK9V	Missing volume between when the blend is commanded to stop and when the flows actually stop	Adjusted the task1.dll code such that it will take the component close log when blend is stopped. When a mid-blend, non-zero to zero recipe change is made, MA will not wait for the blend stop status. Instead it will archive the component close log when the controller involved has a value of BcFCVxxx.Status == 6. MA uses the EBC flow controller projected parameter .Status to determine whether the EBC flow controller has stopped, i.e. BcFcvxxx.Status == 6 (STOPPED). Prior to this change, task1.dll was not looking at this field when determining feed sequence is stopped.	
PAR 1-3ESS3O1	SQL Server backup files older than 14 days are not being removed from the system.	The previous version of the BMA Backup stored procedures used to remove files older than 14 days in SQL Server 2000, but in SQL Server 2005 and 2008 the files are no longer removed which necessitated this modification. Two stored procedures (BmaBackupDatabase and BmaBackupTransLog) were modified such that when these procedures run they will delete the relevant backup files that are older than 14 days. The SQL Server command used to delete the old files is named XP_DELETE_FILE and does not work in SQL Server 2000. This command is only called when the SQL Server version is > 2000.	Y
PAR 1-3G2B4EV	Operators can't scroll down on the Tank Summary display using the mouse wheel.	The PB Client (all BMA versions) will now install version 7.0.0.144 1/10/2002 of the VSFlex7.ocx control (instead of the 2000 version) under the C:\WINDOWS\system32 folder.	Y
PAR 1-3GMWBAT	Purgeable Orders: Pending state child activities need to be deleted when Work Item is set to InReconciliation	The two Activity Engine scripts (AECustomizeProcessedRequest.vjs and AEGlobal.vjs) have been updated to address this issue. In a nutshell, when a work item is completed, delete any unreleased component activities. Otherwise, they prevent the order from being purged.	

MA Application Problems Addressed in BMA R430.2 Point Release

ID	Problem Description	Fix Description	IM ²
PAR 1-3GFS1IZ	Some TFG shapes cannot be opened in the EPKS R430.1 HMIWeb Display Builder	The aforementioned shapes were created using an EPKS R301.1 version of the HMIWeb Display Builder. It appears that this old version of the Display Builder injected a problematic XML node into the shape; specifically, "<versionheader name="WPKS" value="200"/>". When a new display is created using an EPKS R301.3 HMIWeb Display Builder this node does not exist. Removing this XML node resolves the issue and the shapes can be opened by newer versions of the HDB (e.g. EPKS R430.1)	Y
PAR 1-3JUX3NR	BMA tank trend: point server V11 is causing a crash of GDAMNGR	The point server has been bullet-proofed to handle null responses received from the Central when executing history calls.	Y
PAR 1-3JUX3KX PRS 3153	IsolationMethod = 2 does not yield the expected behaviour.	Corrected the Isolation Method = 2 handling. Includes the removal of the hard-coded reference to BMS561 in the SamplePFMScript.cs component.	
PAR 1-3IRO4VJ	Gravitation in a complex open loop scenario.	<p>Corrected a bug in the way that the open loop check logic evaluates partner elements in an open loop system.</p> <p>In a nutshell, optimal isolation valves that are open to one or more tanks cannot be deleted from the optimal isolation set. This is correctly identified at the beginning of the open loop check logic but was subsequently "forgotten" when evaluating partner elements later in the logic.</p> <p>The fix consists of the addition of a compound check when evaluating partner elements (effectively blocking the removal of partner elements whose search termination is a tank).</p> <p>Some additional comments:</p> <p>The result of the optimal isolation check varies depending on whether a valve is an RSRO or a MANUAL element. This is because the optimal isolation search stops as soon as an RSRO is encountered while the search will continue past a MANUAL element in the hope of finding one or more RSROs "beyond" the MANUAL element.</p>	
PAR 1-3IRO4W2	Isolation open loop check does not isolate some loops under a setting of 1	<p>The open loop check analyzes each member of the optimal isolation set to establish whether or not the isolation element isolates a valid off-path open loop. In complex open loop instances, several isolation elements act as a set to isolate the complex open loop. In open loop terminology, such an isolation set consists of an isolation element and its partner isolation elements.</p> <p>While investigating the problem behaviour reported under this PAR, it was found that the analysis and management of partner elements at the end of the open loop check logic was flawed. Partner elements were being removed from the optimal isolation set without being properly assessed.</p>	

MA Application Problems Addressed in BMA R430.2 Point Release

ID	Problem Description	Fix Description	IM ²
PAR 1-3MRVLJ3	PG recycle that is part of the network triggers ISOL error on start flow.	The path planning components have been updated to evaluate the applicability of a pump group context when constructing a recycle path that is associated with a base path: For a detailed description of the changes made to the path selection process for this fix, see the " <i>In-Path Recycle Notes</i> " in Section 7.4.4 of the updated <i>Movement Automation Engineering Guide</i> (MA-ENG-430.A) supplied with this point release.	
PAR 1-3K3HFRV	BmaNetApiWrapper memory leak when an invalid server name was supplied when reading or writing parameters.	The memory leak caused by BmaNetApiWrapper has been corrected.	Y
PAR 1-3JKC2MH	Time to Gauge value is sensitive to actual flow	Changed tank2.dll to record the actual time when stop gauge is passed into ".\TkOpr\EstmSGAbsolute" and calculated ".\TkOpr\EstmSG" between this timestamp and current time.	Y
PAR 1-3MKRZF9	Tank certification logic to use case insensitive compare when dealing with innage tank	The tkcert.cpp has been updated to perform a case-insensitive check of the tkopr\leveltype parameter (e.g. innage and INNAGE are equivalent).	
PAR 1-3ML9WXL	Path reject button not working for monitor movements if selected tank is out of service.	Updated task1.dll to not use AUTOPATHSELSTS_PENDING_REJECT if pathsts is not greater than PATHSTS_READY. The original intent was to prevent the path closeout from being skipped, but this caused problems for monitor tasks that get the lineup command on release but cannot be path selected and need to be rejected.	
PAR 1-3NAENYJ	Require the FlatFileIF process to create a copy of the processed file in a configured folder in L3.	Updated the PTFlatFile component to execute as follows: <ul style="list-style-type: none"> If the value of the "/schedulers/flatfileif/string4" parameter is blank, do nothing. (This is the logic that is aimed at backward compatibility.) If the value of the "/schedulers/flatfileif/string4" parameter is non-blank, make a copy of the file that is currently stored in the XMLProcessed folder on the MA Control Server into the location identified by the "/schedulers/flatfileif/string4" parameter. 	
PAR 1-3OPJPVT	When the faceplate is called up for a tank the <time> is not entered	The <time> field has been added to the list of fields that are substituted when handling the alarm messages in the EPR (as part of the AlarmHelper.cs module).	
PAR 1-3PJQG6L	Pop up message as "Conflicting Sequence Start condition exists" even though there is none	In Order Detail display script, skip conflicting sequence condition check for swing components and components that are InReconciliation.	
PAR 1-3O4089Y	STOPPING Tasks do not get restarted automatically	Changed task1.dll to allow FLOW start condition be considered "Active" while sequence is STOPPING.	

MA Application Problems Addressed in BMA R430.2 Point Release

ID	Problem Description	Fix Description	IM ²
PAR 1-E0JRH2	Add out of service check in Boundary Point Detail - Open button	Most Element Detail displays were using last OPCRead data to determine whether the element's service is ON/OFF. This could be misleading because this same element has just been set to out-of-service but the cache OPCRead still says ON. In function CanOperate, perform one more OPCRead before checking if the element is in service.	
PAR 1-HFSODC PRS 2893	Config Studio sync RTDR behaves differently from Production Browser sync RTDR	Clarified compgrp "Add" error message to say RTTemplate not configured (instead of using same message as mtlspec which says AreaCfg or RTTemplate not configured). Added separate "Modify" error message that separates elements with bad state and those with no RTTemplate. Fixed GT_HOTBUILD_LOAD to copy AM_SENSOR DirectInput field from template record to point record.	Y
PAR 1-M26NLW	BMA to BM Interface Start Time does not work	The BM Keyword configuration was set to only capture START Time for the Actual File, not the Target File. Updated SQL seed data to capture such for both Target and Actual files. UPDATE GT_BM_CONFIG SET Keyword_Type = 'B' WHERE (Keyword = 'START_DATE_TIME') AND (Keyword_Type = 'A')	
PAR 1-QYOW90 PRS 3136	Starting up Redundancy Service on Backup server causes loss of view/control	Changed the source code of the BMA Redundancy Server Socket to implement the Message Queue using the MS queue instead of Hash Table.	Y
RQUP BMA0521 (Partial)	LCT-TCT-TQI updates		
RQUP 2014-000391	Need support for WaterLevel sensor	Added support for WaterLevel sensors	
RQUP 2014-000738	Allow Order List to support color configuration	Added new color settings to the Order List configuration file (BmaOrderList_Config.xml).	
RQUP 2014-000738	Differentiate bad and manual values from "normal" good values on the tank detail and summary views	Added two new entries to the TFGStandard stylesheet: tfgBadSensorBackColor: LightCoral; tfgBadSensorBackColor_Description: Bad sensor indicator tfgManualValueBackColor: SkyBlue; tfgManualValueBackColor_Description: Manual value indicator To use these styles uncomment them in the stylesheet.	Y
RQUP 2014-000738	When stop gauge condition is used as work item stop condition, copy the volume to gauge to the scheduled volume.	Added a new site option called TransferSGVolDeltaToScheduledVolume to the Order Detail configuration file. With this option set on, when a tank stop gauge condition is used for work item stop condition, copy the tank's "volume to gauge" to the work item's scheduled volume. Occurs on order update and release.	Y

MA Application Problems Addressed in BMA R430.2 Point Release

ID	Problem Description	Fix Description	IM ²
RQUP 2014-000738	Set order list default to the "auto-refresh" option	Added the new RefreshAlwaysOn setting to the Order List configuration file (BmaOrderList_Config.xml). Change this setting to Yes to enable the auto-refresh option.	
RQUP 2014-000949 GAP 949-G1	Implement source-destination pair-based recording of quantity transferred (in addition to existing component-based)	When sequences start, stop or terminate, take a snapshot of them.	
RQUP 2014-000949 GAP 943-G1	Allow equipment that is configured as "No Access" for an operator to be selected as part of the path that is controlled by the operator with no access to the equipment.	If the current user has the UI functions: AllowNAEQAsEndPoint and AllowNAEQAsInPath, that user can accept a path that includes elements that he/she has no access to.	
RQUP 2014-000949 GAP 842-G1	Allow order level propagation of path SelectAll and Lineup command	<p>Created two, order-level, system wide, configuration parameters: OrderAutoSelectAll and OrderAutoLineup. (Default is 0 for both parameters.) (RTDR path attributes under gmconfig.)</p> <p>When OrderAutoSelectAll is set to 1, when the user requests Select All for a given task, the command is automatically propagated to every task assigned to the corresponding order (including displacement tasks).</p> <p>When OrderAutoSelectAll is set to 1, when the Select All command is selected for a task, the acceptance of the last path for that task causes the Select All command to be automatically propagated to the next task associated with the same order. This automatic triggering of the Select All command is repeated until all tasks associated with the same order have been processed in this manner. Note: Any path with Must Reject path status will disrupt the automatic path SelectAll functionality.</p> <p>When OrderAutoLineup is set to 1, a task-level request to lineup a task causes the lineup command to be automatically propagated to all of the tasks associated with the same order.</p>	
RQUP 2014-000949 GAP 858-G4	Re-work of Main-Displacement tasks' lockout mechanism.	<p>[1] If any stop condition is defined for a post-displacement's primary/main task, then the start of the post-displacement is disabled / inhibited as long as the stop condition is not met.</p> <p>[2] If no stop condition is defined for the main task, then the start of the post-displacement is always enabled. (Note: The target volume is still checked.)</p> <p>Note: Any stop condition met is checked at the task level (task stop condition) and at the last sequence in the swing chain (sequence stop condition), since it is possible to have a stop condition defined on the last sequence of the main task and no stop condition defined at the task level.</p>	
RQUP 2014-000949 GAP-974-G4 GAP-974-G5	Provide an option in the existing VR algorithm to use total mass (liquid + vapor) instead of only liquid volume		

MA Application Problems Addressed in BMA R430.2 Point Release

ID	Problem Description	Fix Description	IM ²
RQUP 2014-000949 GAP 911	Unexpected tank volume increase-for-destination tank/decrease-for-source tank	Added detection of unexpected increase/decrease of a tank's volume. When an unexpected volume increase or decrease occurs, Quality Tracking marks the total volume is "In Error".	
RQUP 2014-000949 GAP 889-G1	Support the correct processing of canned path specifications consisting of mixed pump groups and individual pumps	Updated the order processing logic to correctly handle N-to-1 tasks where a combination of pumps and pump groups are used in the associated sequences.	
RQUP 2014-000949 GAP 925-G1	Post Displacement Work Item not updated when Destination Tank is changed	Corrected issue with the Order Detail where destination tank changes were not being picked up correctly by post displacement work items.	
	OrderHistory TaskCloseLog change propagates incorrectly to ComponentCompleteLog	When changing the Work Item TaskCloseLog LogTime, the subsequent ComponentCloseLog LogTime has to be updated accordingly, but the logic was mistakenly updating the ComponentCompleteLog instead, causing the ComponentCompleteLog to be displayed ahead of the ComponentCloseLog.	
RQUP 2014-000949 GAP 831-G3	Based on configuration, provide the ability to auto-complete movements that have reached their target condition.	Automatically close-out task if target met = task target met or last sequence target met. (AutoComplete = 1) Do not automatically close-out task if external condition to block close-out is met. (InhCompleteElements = list of elements - If any of them have a PV <> 0, then block auto-complete) New ATTRs AutoComplete and InhCompleteElements added to all activity templates. New RTDR fields AutoComplete and InhCompleteElements added to task table. To enable AutoComplete, ATTR value must be set to 1. InhCompleteElements contains a BMA element used to block close-out command of the associated task if this BMA element PV <> 0.	
RQUP 2014-000949 GAP 911-G1	Detection of unexpected increase/decrease of a tank's volume	QualityTracking.txt, TankOperation.txt and tank2.dll components updated to correct this issue.	Y
RQUP 2014-000949 GAP 946-G4	Maintain MA's pump group capability throughout the duration of an operator stop request	Honeywell.HPI.OMA.DAL.ElemDb.dll and ScriptEngine.dll updated to support this functionality.	
RQUP 2014-000949 GAP 965-G6	Do not show blocked options in the popup menu if "show all menu options" is disabled.	BmaOrderList_Config.xml, GTR_ActivityList.vjs, GTR_PanelBoard.vjs, TaskDetailPopupMenu.vjs and Honeywell.HPI.OMA.OrderList.dll updated to support this change.	
RQUP 2014-000949 GAP 967-G2	Methods PeekLong, PeekDouble, PokeLong, PokeDouble and DoSleep should be added to RTDRConfig	RTDRConfig.dll updated to support this change.	
RQUP 2014-000949	Incorrect variable is being used in PathsOpen() function.	Updated SamplePFMScript.cs to correct this issue.	
RQUP 2014-000949	Randomly pps'ing the tank point in TkSim causes large variations in flow.	Updated tank2.dll to correct this issue.	Y

MA Application Problems Addressed in BMA R430.2 Point Release

ID	Problem Description	Fix Description	IM ²
RQUP 2014-000949	The initial behavior of the Create Copy checkbox that appears in the Blend Order Detail's Select Blending Instructions dialog box needs to be configurable.	Added the SelectBlendCopyOption setting to the BmaOrderDetail_Config.xml. This setting specifies the initial behavior of the Create Copy checkbox. The following settings are supported: 0: Box is unchecked and enabled. 1: Box is checked and enabled. 2: Box is unchecked and disabled. 3: Box is checked and disabled.	
RQUP 2014-001208	Active Tank Display enhancement - disable filtering capability when in OPER mode	Added a new UI function called TankSumDisableFilter. If this UI function is mapped to a user's role, that user cannot filter the Tank Summary and Active Tank displays.	Y
RQUP 2014-001208	Tank Summary enhancement - support alternating colored rows.	Added a new Tank Summary display format configuration parameter called BackColorAlternate, to the GT_TANK_SUM_FORMAT table. This parameter is used to configure the color of the alternating row. (The other row is always white.)	Y
RQUP 2014-001586	Propagate Complete LogTime to last Close LogTime	When the metadata entry called GET_SYNC_CLOSE_COMPLETE_LOGS - is set to 1, the complete log time and the last close log time will always be moved together in the Order History display.	
RQUP 2014-001717 (Partial)	Boundary Point and Line Detail display updates to support LCT-TCT-TQI updates	First phase delivery of the required updates.	
SR 1-1061247661 PRS 2919	Modify the tank certification warning message such that it provides more information and is not misleading	Tank certification warning message string updated.	Y
SR 1-7041429552 PRS 3217	Volume Reconciliation application improvements	Group name is shown on the VR Overview display. The VR Detail display shows if the High Wind Tolerance is enabled or not. Both the STE and LTE have their own HighWindMultiplier. VRVol-, STEFlow-, LTEFlow-, STETol- and LETol values can be viewed in the associated trend displays.	
SR 1-7374580004	EPKS Server log is flooded with "illegal lrn number 0" errors when BMAReports.htm is called up		Y
SR 1-7531555230	View only user - Trend access	Corrected issue with Trend display access for users with View Only access.	Y
SR 1-7644107721 PRS 3229	Nuisance UNIX movement alarms following a restart of the BMA system.	Tanks and boundary points were found to not initialize correctly on a restart of the BMA system.	Y
SR 1-7763757600	Tank detail trend display not working in view only mode	Corrected issue with Tank Detail access for users with View Only access.	Y
	Allow configurability of OBPC BQ Heel update during LinkBlender on per tank basis		

OpenBPC Application Problems Addressed in BMA R430.2 Point Release

ID	Problem Description	Fix Description
PAR 1-3L480O3	OBPC junction flow summation issue for 10 wild streams.	Fix DSSTankAverage.cpp to include the 10th input stream flow for junction equipment.
PAR 1-3M6AM8T	BM or BQ instances will occasionally freeze resulting in no updates to the OpenBPC datapool.	<p>The update detects a frozen application when it happens and captures as much potentially useful information about the state of the application and the system for analysis.</p> <p>The fix supports one of two configurable options once an instance is frozen:</p> <p>[1] Automatically terminate the frozen application in order to:</p> <p>[a] Make use of the existing, built-in application restart logic that saves off a copy of checkpoint, log, etc. files., in order to record the state of the application as close as possible to the occurrence of the 'freezing'.</p> <p>[b] Minimize the impact of a frozen application (restart it as quickly as possible).</p> <p>[2] Leave the frozen application alone causing the end user's system to alarm the problem and thereby allowing the end user to terminate/restart the application manually.</p>
PAR 1-3SR6V9H	Unable to put OpenBPC on control after starting a restore blend.	Move the restore blended volume in the blend save restore toolkit from the dssanalyzerhealth server in BM.

A.2 BMA R430.3 Point Release

BPM Application Problems Addressed in BMA R430.3 Point Release

ID	Problem Description	Fix Description
PAR 1-11TQZUJ	When BPM attempts to write to a nonexistent event log, an exception is thrown.	<p>Changed BM_ErrorLog event source name to BPM in the BMErrrorHandler.cs file to be consistent with the event source name create by the BPM server installation.</p> <p>Changed from MessageBox to ShowMsg in the Mainline.vb file of the ConsoleApp.</p>
PAR 1-3Q958NR	Unable to export Blend Values report to Excel or PDF.	<p>- Export to xlsx format has been implemented and allows one to get around the constraints of the xls format</p> <p>- Export to PDF remains constrained; however, the export to PDF capability has been identified as NOT essential. To that end, the export to PDF capability as a whole will be reviewed in the context of the ongoing MDF 1407 program which aims to define a number of enhancements to the BPM application.</p>
PAR 1-4GHUZHR	User needs to be able to configure website name instead of using default localhost name	Added application settings element to allow the user to configure the website name instead of use the default localhost name.
PAR 1-4GI4JUK	Heel components are being inserted into additives table	Changed the source code to insert the HEEL component to Components table not the Additives table.

EBC Application Problems Addressed in BMA R430.3 Point Release

ID	Problem Description	Fix Description
PAR 1-4HSX171	EBC Blender Build Tool enhancements (add ability to generate BulkEdit workbook, better exception handling when generating points and the master CM file cannot be found).	Add new logic to generate BulkEdit workbook. Show user-friendly error message when master CM file cannot be found. Add capability to read Process Point data from BulkEdit workbook. [EBC_Configure.exe, EBC_BulkEdit.xlsm, EBC_BulkEdit_R3xx.xlsm]
PAR 1-4HSX1LJ	Recipe split operation: When the recipe% for a component is split across multiple FCVs, the resulting FCV Rcp% violated the FCV RcpHi% on some FCVs.	Revised calculation for the 'FCVPercentLow' and 'FCVPercentHigh' values. [EbcSplit.dll, EbcMaterial.exe]
PAR 1-4HSX1PT	Fixed problem with EbcBldRpt.exe reading flow and volume data from the FCV SCADA point instead of the FCV CM point.	Corrected indexing logic used to determine whether to use the FCV CM or FCV SCADA point for a given FCV parameter variable. [EbcBldRpt.exe]
PAR 1-4HSX1T7	Fixed problem with GetBlendOrder.exe hanging (with exception code 0x80000007) while calling EbcMsg::XmlStatusFile::Report() from EbcSplit:ReadFcvLimit().	Replace LogMessageFmt() calls with LogMessage(). Commented out 'm_bCmdLnVersion = True' statement. [EbcSplit.dll]
PAR 1-4HSX1WC	Blend stopped unexpectedly after blend Target Volume was changed while the FlySwitch was in Armed state.	Disable 'Target Volume' entry box on EBC blend monitoring displays while the Flyswitch is armed or active. [blend header shapes, BC_Resource.xml]
PAR 1-4E166HR	EPKS R440.1 compatibility issue. Fix timing problem with the new heel values (entered in the ebcChangeTank.htm popup display) not appearing in the ebcPropertyOverview.htm display when the destination tank change is completed.	Removed display logic that pushed user-entered new heel properties from BmAnl.NewHeel to BmAnl.Setup.Heel parameters. User-entered new heel properties are now stored directly to the BmAnl.Setupheel parameter. Revise OpenBPCTankQuality logic (triggered from the corresponding buttons on the ebcChangeTank display) to substitute 'NewHeel' parameter references with 'SetupHeel' instead. [ebcChangeTank.htm, OpenBPCTankQuality.exe]
PAR 1-4HTACDI	EbcBldRpt.exe crashing while processing a blend report request (exception code 0xc0000417).	Revised format string used in diagnostic messages to handle '%' in property names. [EbcBldRpt.exe]
PAR 1-4MIDWDT	MA Redundancy appears to have become partially disabled following multiple hot builds	This problem is not pertained only to MA system but all redundant capable systems (EBC/ERC/MAC/MAU)
RQUP 2015-000577	Interface to generate BPM keyword files.	EBC blenders can be configured to generate Blend Management keyword files on blend start and blend close. Content of the keyword is configurable using the new SQL tabled EB_BM_CONFIG. See the BMA R430.3 Documentation Updates for the BM keyword file generation configuration instructions.
SR 1-8235173132	Windows Event Viewer shows repeated events for EbcMaterial.exe. [Application: EBC Display: ebcmaterial.exe Source: Main and also unknown Summary: Getreq error -err=16]	Replace 'errno' check in EbcMaterial scan task with c_geterrno() call. [EbcMaterial.exe]
SR 1-9386401621	R410.8 compatibility issue with FCV-Source Mapping form. 'Source' drop-down list no longer appears. Applies to both Safeview and non-Safeview environments.	Replace TDBDropDown with VB ListBox in frmFCVSourceMapping.frm. [ebcRecipeSetup.dll, udRecipeSetup.vbd]

ERC Application Problems Addressed in BMA R430.3 Point Release

ID	Problem Description	Fix Description
PAR 1-3TWB2QG	FCV Totalizers reset to 0 for a restored blend in the following scenario: Blend 'A' is stopped and saved. New Blend 'B' is setup by Operator and completes the 'Load To Blender' activity. However, Blend 'B' is not started. Instead, Blend 'A' is restored. After completing the 'Load to Blender' activity, the restored blend is started. In this case, the FCV totalizers are incorrectly reset to 0.	<p>ResetTotal:</p> <p>Add logic to restore BmAnl_Opr.EB_ANLOPR.LSTAVGBV to BmAnl_OPR.EB_ANLOPR.RSTRLLSTAVGBV EB_GENBS_4_1_1_305:</p> <p>Added Input PREF 'BLD_CHKRESTORE' <== BmBld.EB_BldVar.ChkRestore.</p> <p>Revised logic that reset EB_BldOpr.RestoredBV to only do so if Blend Save-Restore is not configured or if EB_BldVar.ChkRestore is OFF.</p> <p>[ResetTotal.exe, CAB Type EB_GENBS_4_1_1_305]</p>
PAR 1-3Z2UJKR	'Target Flow' entry box on ebcFlowControl.htm display remains enabled even though MA is installed for the blender.	<p>Filled in missing custom property on shaOMA.sha file with the BLDCFG DDR variable. Corrected mismatch in parameter name used in shaOMA_alp001_ondatachange() logic versus the parameter name defined for the alp001 shape.</p> <p>[ebcFlowControl.htm]</p>
PAR 1-3Z6QQT1	Property Cost entry box on ebcOptimProp.htm display is not editable by Operator even though BmBldCfg.EB_BldCfg.PropCostEdit is enabled.	<p>Add missing parameter connector to BmAnl_Cfg CM point.</p> <p>[BmAnl_CFG CM]</p>
PAR 1-45SW2Q9	Invalid analyzer PV from ERC is not propagated as bad value to OBPC BQ::ANLZ.InputPV datapool parameter.	<p>Populate BmAnl_Opr.EB_AnIopr.OBPCAnlzPV parameter with the validated PV from ERC. When the ERC analyzer PVStatus is 'Fail' or the ERC Analyzer Mode is set to 'Offline', the .EB_AnIopr.OBPCAnlzPV parameter is set to NaN.</p> <p>[CAB Type EB_ANLVALID_4_1_1_403]</p> <p>In OpenBPC, the DssOpcLinks for BQ ANLZ.InputPV records in the BQ Config file needs to be manually modified to replace references to '.EB_AnIopr.ValidPV' with '.EB_AnIopr.OBPCAnlzPV'.</p>
PAR 1-4E166HR	EPKS R440.1 compatibility issue. Fix timing problem with the new heel values (entered in the ebcChangeTank.htm popup display) not appearing in the ebcPropertyOverview.htm display when the destination tank change is completed.	<p>Removed display logic that pushed user-entered new heel properties from BmAnl.NewHeel to BmAnl.Setup.Heel parameters. User-entered new heel properties are now stored directly to the BmAnl.Setupheel parameter. Revise OpenBPCTankQuality logic (triggerred from the corresponding buttons on the ebcChangeTank display) to substitute 'NewHeel' parameter references with 'SetupHeel' instead.</p> <p>[ebcChangeTank.htm, OpenBPCTankQuality.exe]</p>
PAR 1-4HSX1LJ	Recipe split operation: When the recipe% for a component is split across multiple FCVs, the resulting FCV Rcp% violated the FCV RcpHi% on some FCVs.	<p>Revised calculation for the 'FCVPercentLow' and 'FCVPercentHigh' values.</p> <p>[EbcSplit.dll, EbcMaterial.exe]</p>
PAR 1-4HSX1T7	Fixed problem with GetBlendOrder.exe hanging (with exception code 0x80000007) while calling EbcMsg::XmlStatusFile::Report() from EbcSplit:ReadFcvLimit().	<p>Replace LogMessageFmt() calls with LogMessage(). Commented out 'm_bCmdLnVersion = True' statement.</p> <p>[EbcSplit.dll]</p>
PAR 1-4HSX1WC	Blend stopped unexpectedly after blend Target Volume was changed while the FlySwitch was in Armed state.	<p>Disable 'Target Volume' entry box on EBC blend monitoring displays while the Flyswitch is armed or active.</p> <p>[blend header shapes, BC_Resource.xml]</p>

ERC Application Problems Addressed in BMA R430.3 Point Release

ID	Problem Description	Fix Description
PAR 1-4HTACCC	ERC Blender Build Tool enhancements (add ability to generate BulkEdit workbook, migration of EBC BulkEdit parameter values to ERC BulkEdit workbook, add capability to read Process Point data from BulkEdit workbook.)	
PAR 1-4HTACD6	EbcMaterial.exe crashing while processing an optimization cycle.	Replaced '%f' format string with '%7.2f' in a sprintf_s() calls. Also fixed incorrect format string in "Optimization Cycle:" trace message call. [EbcMaterial.exe]
PAR 1-4HTACDI	EbcBldRpt.exe crashing while processing a blend report request (exception code 0xc0000417).	Revised format string used in diagnostic messages to handle '%' in property names. [EbcBldRpt.exe]
PAR 1-4HTACGD	Recipe split failure reported on an Optimization Cycle if the Target Flow was manually changed prior.	Revert to passing 'MfrSP' (instead of 'TargetFlow') to the componentsplit() function call. [EbcMaterial.exe]
PAR 1-4HTACH9	EPKS R430 compatibility issue: Missing record (for component #1) from MA blending tab display. The MA display is driven by the ERC MF_Mapper.CompTank* parameters. On examination with an OPC Test Client, the MF_Mapper.CompTank1 parameter was showing uncertain '???' values.	Replaced 'dynamic arrays' passed as arguments ("values", "statuses") to EPKS R430 hsc_param_value_puts() ServerAPI calls with 'static arrays' instead. [EbcMaterial.exe]
PAR 1-4HTACIF	After a FlySwitch, the associated 'Start of Blend' report shows the blend number for the previous blend.	Avoid timing issue in EPKS R410 systems by moving logic that resets 'BmBld.EB_BldVarFS.FSBSCompletd[6]', until after OpenBPCBlendOrderDownload.exe completes. [EbcFSSwitched.xml, ProcessFSSwitched.exe]
PAR 1-4HTACJV	Re-Equip recipe comparison failure due to restrictive (0.005) tolerance.	Although the logic rounds the recipe values to 2 decimal places before comparing the difference between the saved recipe and the setup blend recipe, it may be possible for the difference to be greater than the hardcoded 0.005 tolerance in CheckBlendRestore.exe. Increased tolerance to 0.01 and added support for optional arguments (/NumDecimals, /RcpTol) to override the default hardcoded values. [CheckBlendRestore.exe]
PAR 1-4HTACL2	After a FlySwitch, the 'End of Blend' report for the previous blend is missing blend string data (e.g. grade, recipe ID, Destination Tank, Component Tank). The problem with the missing string data in the Flyswitch closed blend report is due to timing issues that could advance the FSCurBS value from 30 before it can be read by the ProcessFSStrings.exe logic (since the logic didn't read the expected FSCurBS=30 value, the general string data corresponding to the closed blend were not written to the FSRpt* parameters).	Timing issue: The BmFCV.EB_FCVBS CAB logic completes setting its FSBSDone flags to ON and consequently BmBld.EB_BldVarFS.FSBSCompletd[4] is set to ON which advances the FSCurBS to 31 before the ProcessFSStrings.exe process completes running and it sees that FSCurBS = 31 which skips the logic to populate the cached values. - Update SetKickOff(4) logic in CAB type EB_GENFSBS_4_1_1_401 to default FSBSSuccess[4] to OFF. - Modify ProcessFSStrings.exe logic to set FSBSSuccess[4] to ON when it has completed processing FSCurBS = 30. [ProcessFSStrings.exe, CAB Type EB_GENFSBS_4_1_1_401]

ERC Application Problems Addressed in BMA R430.3 Point Release

ID	Problem Description	Fix Description
PAR 1-4HTACMT	Saved Header/Tank property averages not restored correctly. In addition, when the restored blend is started, the averages do not account for the warmup and saved blend volumes when the first good analyzer reading is received.	Moved logic that resets BmBld_OPR.EB_BldOpr.RestoredBlnd to end of ResetTotal logic (instead of after FCV processing) -- used as a permissive by the updated EB_ANLAVG_4_1_1_404 CAB type. Add logic to restore BmAnl_OPR.EB_AnIopr.RSTRlStAvgBV to .EB_AnIopr.LstAvgBV -- requires new '.EB_ANLOPR.LstAvgBV' record in [EB_SAVE_ANALYZER_CONFIG] table in AmmDB. Add ERC new record to [EB_SAVE_ANALYZER_CONFIG] table {[SOURCE_BASE]='ANALYZEROPRID', [SOURCE_DETAIL]='.EB_AnIopr.LstAvgBV', [ORIGIN]='ERC'}. [ResetTotal.exe, CAB Type EB_ANLAVG_4_1_1_404, EB_GENBS_4_1_1_305]
PAR 1-4HTACNF	'Invalid Pointer' script error when calling up ERC Property Overview display on EPKS R431.	Modify ondatachange() logic in blend header shapes to set the indicator.LevelFillColor to "vbBlack" constant instead of "black". [All ERC blend monitoring displays]
PAR 1-4HTACPP	Recipe sum on ERC Change Recipe display does not refresh when the OBPC application mode changes.	Modify ebcChangeRecipeRow.sha shape logic to recalculate recipe sum. [ebcChangeRecipe.htm]
PAR 1-4HTACQB	'Invalid reference' script error when calling up the ebcDtI PDPump.htm display.	Replace references to non-existent .EB_PmpCfgS.FrontEnd[0] parameter with .EB_PmpCfgS.FrontEnd[1] for PD pumps -- only one front-end is support for PD pumps. [ebcDtI PDPump.htm]
PAR 1-4HTQTQ5	List of available pumps is duplicated each time the pump comboBox (in the ebcDtI PDPump.htm display) is clicked.	Remove logic that populated the comboBox from shaPMPNamesDtI.sha and cboPoint.onmouseenter() event handler. Revert to using older version of ebcPmpNamesDtI.sha. [ebcDtI PDPump.htm, ebcDtI PDPump.htm]
PAR 1-4HTQTV2	Problems calling up ebcTankQualitySetup.htm display after opening and saving it in HMIWeb Display Builder.	Refresh display with older version of ebcBlenderNamesSetup.sha, ebcEBC.sha, ebcFSDSPropertySetup.sha, ebdDSTankQualitySetup.sha, ebcSetupReadOBPCStatus.sha, ebcSetupTab1.sha. [ebcTankQualitySetup.htm]
PAR 1-4HTQTVE	'Data Entry error" popup appears when calling up the ebcDtI PDPump.htm display for a PD pump.	Removed redundant 'cboStrategy.selectedIndex = 0' statement. [ebcDtI PDPump.htm]
PAR 1-4HTQTX4	While pacing in SteadyState, the operator clicked the 'Stop Blend' button. During the RampDown state, the MFRSP was ramping down according to the Pace rate configured in the Blend Profile instead of the configured RampDown rate.	Add check for (ReqBS < 6) before declaring that an FCV is pacing. [CAB Type EB_FCVPSPMON_4_1_1_305]
PAR 1-4HTQTYU	New CAB types to support EHPM interface by synchronization of ERC C300 front-end resident blocks (e.g. DevCtlA, PIDA) with HPM resident points (e.g. DigComp, RegCtl).	[New: CAB Types EB_MAP_DEVCTL_4_3_2, EB_MAP_REGCTL_4_3_2]
PAR 1-4HTQTZR	Flyswitch automatically switches after arming is completed.	Modify MonFSBS() logic to update FSSwitchVol with TgtVol when FSReqBS is set to 2. [CAB Type EB_MONBLND_4_1_1_304/305]

ERC Application Problems Addressed in BMA R430.3 Point Release

ID	Problem Description	Fix Description
PAR 1-4HTQU03	Front-end pump DevCtl block OP command remains ON after pump has tripped and PV shows OFF.	Synchronize FE_Pmp OP stop command with Stop state of pump if either of the following is true: (a) Pump tripped and the operator changes the FCV RcpPct to 0% (e.g. Trip action configured for REPORT ONLY), (b) Pump tripped and blend shuts down. [CAB Type: EB_MONPMP_4_1_1_404]
PAR 1-4HTQU1P	"Start Blend" button on blend monitoring displays is not disabled after a blend is closed even though the 'Interlock Start Blend Button' configuration is enabled. There were no custom interlocks used.	Problem caused by the SetupLoadStatus value remains at 2 at 'Blend Closed'. Modify BmBld.CurBS onchange() script handler so that the SetupLoadStatus is reset to 0 on CurBS transition to 10. [BmBld CM]
PAR 1-4HTQU6R	"Load to Blender" button still appears on recipe setup display after re-starting a Re-Equipped blend and then stopping the blend. Normally the button remains disabled until the blend is closed, or after a successful Re-Equip operation.	Revise BmBld_Opr.EB_BldOpr.CurBS onchange() script to reset .EB_BldOpr.ReEquipSts to 0 when the CurBS transitions to 2. [BmBld_Opr CM]
PAR 1-4MIDWDT	MA Redundancy appears to have become partially disabled following multiple hot builds	This problem is not pertained only to MA system but all redundant capable systems (EBC/ERC/MAC/MAU)
PAR 1-MLI6DN	"Failed to retrieve Blend Order List" message appears as expected when the 'Show Blend Orders' button is clicked when no blend instructions have been defined. However after acknowledging the message, it then reappears again. The cycle repeats continuously when the message is acknowledged again.	Change the method by which the Blend Order List monitors for completion (of failure) of the attempt to get the list of blend orders. Also reduced the maximum timeout from approx 80 seconds to 1 minute.
PAR 1-QYGA2X	The CAB Diagnostic utility shall be enhanced	The following enhancements have been made to the CAB Diagnostics Tool: Added the ability to disconnect from the process data source. The grid where CAB blocks are entered and enabled has been widened to eliminate the need for a horizontal scroll bar. Also, the ability select/deselect all the CAB blocks entered, has been added.
SR 1-8235173132	Duplicate 'errno' replacement implemented in EBC scan tasks.	Replace 'errno' check in EbcMaterial scan task with c_geterrno() call. [EbcExec.exe]
SR 1-8308467589	MA-supplied temperature VCF values are not being propagated by ERC to the associated parameter on the front-end FCV points.	Revise Temp_Comp() logic to store the current VCF value calculated by MA (instead of the ERC-calculated VCF value) to the front-end FCV point. [CAB Type EB_FCVSPMON_4_1_1_303]
SR 1-9386401621	R410.8 compatibility issue with FCV-Source Mapping form. 'Source' drop-down list no longer appears. Applies to both Safeview and non-Safeview environments.	Replace TDBDropDown with VB ListBox in frmFCVSourceMapping.frm. [ebcRecipeSetup.dll, udRecipeSetup.vbd]

ETM Application Problems Addressed in BMA R430.3 Point Release

ID	Problem Description	Fix Description
PAR 1-43QBQVF	The pressure value is being used as the reference density instead of the auto tag value.	Created a new version of the TK_SUB CAB to properly copy the auto density value to the tank reference density (to allow correct calculation of the tank density. Also, a new version of the ETM tank template, with the TK_SUB block replaced) has been created.
PAR 1-3Z73RPN	ETM does not run on flex stations with only the display client installed.	Don't display diagnostic messages to the user regardless whether the BMA diagnostics logging component is installed or not. Note that the typical use case for an ETM system is to not have any of the other BMA applications installed.
PAR 1-4GIPTCR	TK_VLG to correct 'Level outside strapping table' error when SG was set via a volume	See problem description.
PAR 1-4GKM5VU	Active tanks display showing SG level in decimal format, even when chosen level format is ft/in/16	In the active tanks display, upgraded the etmTankOverviewRow shape (which was previously modified to show SG level in the chosen level format - decimal, ft/in/16 or ft/in/8).
PAR 1-4GKLKZF	Operator unable to change HiHi level alarm limit even when configured to allow operator changes	Allow operator changes to HiHi level alarm limit, by allowing operator access to TKOPR.LEVEL(8) on script data tab of that field (was Engineer).

MA Application Problems Addressed in BMA R430.3 Point Release

ID	Problem Description	Fix Description	IM ³
PAR 1-3RS7N0X	Guard (and report) any possible duplicated key	Added bulletproofing for all uses of the path contents as a key in the FindNextElement() function in Honeywell.HPI.OMA.BLL.PathIsolation.dll, and output any potential duplicates as a warning message.	
PAR 1-3RXKD3H	Fixed inconsistencies in functions VerifyMaterialCompatibility() and CalculateMaterialCompatibilityPenalty() observed on PPMSB staging system. Specifically, the SrcToLine calculation of material compatibility for lines of use type TaskLine was not in synch with that implemented in function CalculateWeight() in the PathSelectionCore.cs component. That calculation is based on the premise that what needs to be evaluated is the compatibility of mixing the task material (instead of the path/sequence) material into the line material.	See problem description.	
PAR 1-3T1QMVW	Incorrect event capture of TankDeltaWeightWAT and TankNetVolumeWAT for mass based movements	ArcItem and ArcData misalignment - changed functions RequestSnapshot() and RequestSnapshotSeq() to use ArcAppendDataValueToString() instead of AppendItemToString() because we need to be able to add blank items to the ArcData value string, so that the names and values arrays line up correctly.	

³ If "Y", indicates that the fix also applies to a standard implementation of the Inventory Monitor (IM) application.

MA Application Problems Addressed in BMA R430.3 Point Release

ID	Problem Description	Fix Description	IM ³
PAR 1-3VJO0HH	Recovery process crashes on IM-standalone system.	Updated Honeywell.HPI.OMA.DAL.Recovery.exe to prevent ClearInactiveTasks routine from crashing if the search for active tasks returns a null list instead of an empty list.	Y
PAR 1-3XC1RLJ	V11 of the OMAPointServer does not correctly update the timestamp of the return to normal state.	The V11 pointserver was modified to correctly record the time that the alarm returned to normal.	Y
PAR 1-3Y3J1KK	Volume on a boundary point loses barrels whenever we reboot/stop services.	Add recovery save of BP /TkOpr/TotalSensorVolume and /TkOpr/TotalSensorMass parameters to preserve the barrels moved.	
PAR 1-3Y2VGLJ	Point Server notification service not able to connect when RPC set to Enabled & Authenticated.	Point Server recompiled with the new toolkit to correct the connection issues.	Y
PAR 1-3V0PING	Handle leak reported from OMA point server.	Point Server updated to prevent creating list entries with period -1 in order to suppress a possible resource leak.	Y
PAR 1-3X0WWZ1	Closed / Purgeable orders are occasionally re-instated InReconciliation.	Updated function MarkAllAvailable() in RTDRSaveRestore.cs of Honeywell.HPI.OMA.DAL.Recovery.exe to set TskCmd[0]=INIT and TskSts[0]=AVAIL. Also clear additional sequence parameters.	
PAR 1-3UUWOST	Isolation failure when selecting parallel paths superimposed on existing paths.	Updated Honeywell.HPI.OMA.BLL.PathIsolation.dll to fix initialization of task references for members of the optimal isolation at the beginning of function EvaluateOpenLoops(). Should use olsolationList[j].Element instead of slsolationElement as the latter has not yet been initialized.	
PAR 1-3NXEFY7	XML file with multiple order on process gives alert for only 1 order in alert summary	Rework timing evaluation to do timing from checking time of last write to time of last changed read.	
PAR 1-3RWLWD3	Order state changes to "Active" upon deleting work item and component items in master order	In AECustomizeProcessedRequest.vjs, prevent order state going to Active when last work item is deleted.	
PAR 1-3XL43YE	Swinging multiple blend component tanks causes problems	In Order Detail display, block selection of multiple swing out endpoints for blend orders. Selecting a new endpoint will de-select previous selection.	
PAR 1-3TABX1J	The PreferMeter field was not added to the GT_TaskType table. NOTE: Default should be 1.	Added a new column (PreferMeter int NOT NULL DEFAULT 1) to the GT_TASKTYPES table after the FlowVolAccum column.	
PAR 1-3YP1C21	Swinging blend component tanks with different materials causes issues.	<p>This issue is addressed through an update of the Honeywell.HPI.OMA.BLL.PathRequestServer.dll component (specifically, PathRequestServer.cs and Resource.resx).</p> <p>In a nutshell, a flow controller can be associated with a path as a result of one or more of the following:</p> <p>[1] Selected during the actual path selection if the flow controller is part of the piping network</p> <p>[2] Added to the path if configured in [elemxxxx]/assocelm where [elemxxxx] has</p>	

MA Application Problems Addressed in BMA R430.3 Point Release

ID	Problem Description	Fix Description	IM ³
		<p>been selected as part of the path selection process</p> <p>[3] Added to the path if configured in [seqxxxx]/assocelm where [seqxxxx] is the sequence for which the path is being selected</p> <p>[4] Added to the path if configured in [seqxxxx]/controllernames where [seqxxxx] is the sequence for which the path is being selected</p> <p>For a blend path, and more specifically for a blend path that is constructed in the context of an integrated EBC, ERC or PBC implementation (i.e where [tskxxxx] is a blend task, [tskxxxx]/blendername = [blenderxxx] (<"") and [blenderxxx]/nonebc = 0), the flow controller that ends up being associated with the path must pass the following validation checks:</p> <p>[a] Only one flow controller can be added to the path. In other words, if more than one flow controller is identified via mechanisms [1] through [4] then we have an error condition and the path selection process fails with a Must Reject result.</p> <p>[b] If the single flow controller identified via mechanisms [1] through [4] is out of service (OOS) or red-tagged then we have an error condition and the path selection process fails with a Must Reject result.</p> <p>[c] If the single flow controller identified via mechanisms [1] through [4] is not configured in the [blenderxxx]/allctrlidkeyword parameter then we have an error condition and the path selection process fails with a Must Reject result.</p> <p>The error conditions identified in [a] through [c] are flagged to the end user via a Must Reject result for the path selection request accompanied by the error message "Flow controller info for this blend path is incorrect (either no flow controllers, too many, OOS, red-tagged or not configured in the allctrlidkeyword parameter on the blender); the path cannot be accepted as is." shown on the All Path Elements tab of the Task Detail view.</p> <p>Validation checks [a] through [c] apply to both "normal" paths and "monitor" paths.</p>	
<p>PAR 1-3YPCJEK SR 1-8568320075</p>	<p>Non-EBC materials allowed in the blend.</p>	<p>Added support for site option CheckEquipMaterialsValidForBlend in BmaOrderDetail_Config.xml, which checks that the selected tank on the Blend Summary tab contains a valid material for the selected blender. (based on BI_LISTS MatlComp/MatlAduit)</p> <p>0 = No validation, any source with any material is allowed</p> <p>1 = Warning, any source with an invalid material will produce a message but the source entry will be allowed</p>	

MA Application Problems Addressed in BMA R430.3 Point Release

ID	Problem Description	Fix Description	IM ³
		2 = Inhibit, any source with an invalid material will produce a message and the source entry will be rejected	
PAR 1-40FUNLD	Problem with synchronizing assets in IM-MA from Experion.	Experion returns the asset model in xml format in a random order therefore we changed the source code from a single pass execution to a two-pass one where we [1] first save the assets that have a corresponding parent and then [2] for all the assets that did not have a parent at the time they were read from the xml file, now check to see if a parent indeed exists and, if so, save the corresponding asset.	Y
PAR 1-4EDKDEL	IM - STD2 Elem Alarms are not masked while tank is Out of Service	Changed to clear all alarms when tank is not in service. Updated files are RSTank1.dll, SSATank1.dll and tank2.dll.	Y
PAR 1-4MUB3MT	Cannot see Validation Errors when synchronizing products in Configuration Studio	Added "Validate" button to the product dialog. When update/synchronize button is clicked, validation is done even for products, so allow user to view error(s), if any.	
PAR 1-4MIDWDT	MA Redundancy appears to have become partially disabled following multiple hot builds	This problem is not pertained only to MA system but all redundant capable systems (EBC/ERC/MAC/MAU)	
PAR 1-512D7W1	PMM Table Purge utility maxes out the CPU following an upgrade to BMA R340.5	When deleting orphaned entries from the IP_ACTVTY_HIST table, break the deletions into batches. On older system where orphaned entries from this table were not purged, there may be too much to do before the query timeout expires.	
PAR 1-EZS1UP PRS 2766	Active Alarms with priority Alert are not shown on the task detail	Changed rtexec_util.dll function omGetHighestAlarm to include alerts and messages in highest alarm, but lower than actual alarms.	
PAR 1-PRWZXJ PRS 3124 SR 1-1564985531	BMA additive injection element does not function properly in parallel paths	Updated total flow calculation to use the task flow instead of the sum of sequence flows. Taking the sum of sequence flows would double-count flows when there is a parallel sequence.	
PRS 3247	Tank Calculator on tank detail display sometimes computes erroneous values when A2004, B2004, C2004, D2004 API tables are used	Fix CompressFactor unittype to be pressure if it is not defined in RTDataAcquisition1.dll. This is necessary because of the bug/feature where an OutputValue without a unittype would inherit the previous OutputValue's unittype.	Y
RQUP BMA0498	Enhanced Order History display to allow data to be edited with pre-defined time-based limitation	Added a new column, CREATE_DT_TM, in GT_EVNT_HIST table to record the timestamp of the original event entry date. This is the date time field that we will use as comparison against the edit window. The core logic in governing the edit window is inside the new bmaOrderDetail display scripts. This allows easy re-configuration in the future if needed.	
RQUP 2015-000945	Updated to not overwrite virtual pump parameters for MM system without pumps.	BlendInterface.exe is updated to not overwrite virtual pump parameters on the blend interface point for MM task without pumps.	

MA Application Problems Addressed in BMA R430.3 Point Release

ID	Problem Description	Fix Description	IM ³
RQUP 2014-000949 GAP 972-G1	Allow swing from pre-displacement tank to main tank with pump stop and blockage of the pre-displacement line; new SwingOutActions: IMEDSTOPWAIT/IMEDTERMWAIT	Added the following two Swing Out actions: - IMEDSTOPWAIT Command the swing-out sequence to stop immediately. (As soon as the command to swing in the new end point is given, command the swing-out end point sequence to stop and swing-in end point will pause until swing-out sequence has reached FlowStopped phase.) - IMEDTERMWAIT Command the swing-out sequence to terminate immediately. (As soon as the command to swing in the new end point is given, command the swing-out end point sequence to terminate and swing-in end point will pause until swing-out sequence has reached FlowStopped phase.)	
RQUP 2014-000949 GAP 834-G1	Infrastructure to support the issuance of an immediate stop command	See problem description.	
RQUP 2014-000949 GAP 858-G4	Removed target volume check for starting post-displacement task.	See problem description.	
RQUP 2014-000949 GAP 974-G3a	Take into account vapor liquid volume when calculating available capacity and pumpable volume.	See problem description.	Y
RQUP 2014-001717	Equipment detail displays update for line property tracking.	Updated Boundary Point, Line and Tank detail displays to include new property tracking fields.	
RQUP 2014-001717	Address the issue whereby the user was not automatically taken to the first tab of the order detail after performing a "Transfer Blend" on the Blend Summary tab. This observation was unique to the B2S Order for the PPMSB site which had multiple work-items: blend, transfer, recircs and shipments. In addition, the issue only occurred when following a particular set of steps: CopyOrder from the BMA Order List, Load Blend from the Blend Summary Tab, etc	See problem description.	
RQUP 2015-002888	Create a snapshot of movement data on the non-swing side of the movement whenever a swing occurs	A demand snapshot is now created for the non-swing side of the movement whenever a swing occurs.	
SR 1-10584684841 PAR 1-4V7JZOV	Issue with parallel path in 340.4	[1] Add tracing around the evaluation of open loops within an aggregate stacked set (function CheckForOpenLoopBetweenPaths()). [2] If isolation element Y is encountered as part of the search associated with isolation element X then the PathSet[x] reference associated with isolation element X should be updated with the identity of the requesting path. This is because the search stops as soon as isolation element Y is encountered but the requesting path (which is reachable from the encountered isolation element Y) was not recorded (until this update). The above is critical to support the analysis of open loops within an aggregate path set. That is because, for an Open Loop setting of 1 and an aggregate path set where NOT all paths in the aggregate path set are active, an open loop within the aggregate path set must loop back to the requesting path in order for the open loop to	

MA Application Problems Addressed in BMA R430.3 Point Release

ID	Problem Description	Fix Description	IM ³
		be considered valid. [3] Reworked the analysis of open loops between paths (replaced function AggregatePathSetActive() with OpenLoopOffOtherPath()) to not require that the entire shared path set be active but, rather, that the open loop be currently assessed to connect two active paths.	
SR 1-10682026471	Pump group in slave task starts pump when master task is stopped.	Fixed task1.dll to ignore pump group start command when the master task is stopped.	
SR 1-10831814238	Missing complete event on tank with Shipment Order - Master/Slave task	Fixed in task1.dll to support multiple delivery stream snapshot requests at once. Needed in order to have Close and Complete snapshots in the same execution cycle (used when completed while there is still flow).	
SR 1-10915127362	Incorrect logic in Trigger1.dll may lead to hanging of pointproc execution	When traversing through the task's sequences, be sure to skip sequence with no path selected. Previous logic was looping through an uninitialized variable inside the function CommandTrigger(), which led to infinite loop.	
SR 1-11344291661	Destination swing issue	Changes in task1.dll such that SwingIn sequences must wait till all lined up before swing occurs; this will ensure a uniform operation.	
SR 1-11343561811	Issue on Movement Monitor xml reports.	SRC requirement: don't change event time if no change to/from no flow 2 hours previous to original event time.	
SR 1-11365668367	GT_TO_DO_LIST_DATA table lost data in field [taskarea]	Increase SQL command object within PTablePurge.exe from 30 (default) to 600 seconds. Observations revealed that during system restart, the command object that executes the stored procedure GT_PREPAREDTABLE_TDL_SYNCHRONIZE to repopulate GT_TO_DO_LIST_DATA timed out mid-way through, thus leaving some entries in the table as <NULL> as a result. Re-organized the logic within the stored procedure GT_PREPAREDTABLE_TDL_SYNCHRONIZE such that we update each VALUEn column as one SQL update transaction rather than updating each ACTVTY_UID row at a time.	
SR 1-7573683532 PRS 3227	MA does not handle "~" and/or " " character during activity creation	See problem description. Added protection against "~" and " " in attribute values.	
SR 1-8010751492	Rundown Stopped updating in PT_INTFR_UTIL	Updated AmPTFuncs2.dll function ConvertXmlDateTime to include seconds.	
SR 1-8328726335	Event Capture Engine Failed	Properly cleanup global object g_oOpcHdaTimeout after use to ensure proper subsequent connection attempts.	
SR 1-8441462649	Error message "The Ext. Act. UID MA... is already used at index 3." when releasing shared task after certifying source swing tank.	Updated TaskDefinition.exe to process all Create/Modify tasks operations only if validation of all requests is successful.	
SR 1-8460565144	RDM from BMA to Experion appears to continually try to launch a new connection	Stop re-connecting to the backup Experion Server via RDM. Will still connect once though when EvntCapEngine.exe process is started but it won't be continuous on each event	

MA Application Problems Addressed in BMA R430.3 Point Release

ID	Problem Description	Fix Description	IM ³
		archive request as stated in the SR.	
SR 1-9628217011	Missing close and complete events	ActivityEngine.exe - Avoid PL_MOVE records get the wrong end-date, precisely, an end date that is before the start-date task1.dll - Changed to skip OpenLog snapshots (on task and elem) if the CloseLog never happened (status is still STOPPING/FAILSTOP). - Missing close and complete snapshots on some of the components.	

OpenBPC Application Problems Addressed in BMA R430.3 Point Release

ID	Problem Description	Fix Description
SR 1-10447081688	Wrong blend start dates being recorded for the BM keyword file	Change in DssBlendHist.dll - Use both blender id (Eq_No) and blend number (Occurrence_Id) when looking up blend activity records in BP_ACTVITY_HIST and not just the blend number. Different blenders with same blend number were using same activity record and ending up with wrong start time in ACT file.
SR 1-11750228581	Fixed the problem of the background process launching more than one BpcBldMgrlf.exe process at a time.	The background process checks if the last EXE it spawned is still running. However, previous to this update, it was not using this result correctly because of a logic error introduced by a fairly recent code change related to checking redundant server status. This has been corrected. The BpcBldMgrlf_Mgr.exe background process still runs every 60 seconds. This is the maximum interval supported by the VB6 timer directly. Every 60 seconds, the background process checks whether the last BpcBldMgrlf.exe process it spawned is still running. If the process is still running, the background process will not spawn another instance.

Appendix B Customizable Files

B.1 Location of Customizable Files


Table B-1 - Browser Server Customizable Files

Customizable File Types	Description	Browser Server Working Folder
Station Scripting Object Files	OmaSSO1.xml and OmaSSO1.xsd	%HwInstallPath%\Business.FLEX\Station\Bin

Table B-2 - Experion Blend Controller\Experion Ratio Controller Customizable Files

Customizable File Types	Description	EBC\ERC Server Working Folder
HMIWeb BMA Display Database File (OmaSSO1.xml)	File containing the DDB variables used by BMA displays. In a SafeView environment, the EBC displays rely upon the "SafeviewWinSpec_x" DDB variables (x = 1...4) to indicate the blender focus for each window specification. The file is customized to use the name of the window specifications defined in a customer's SafeView workspace. (See the <i>Experion Blend Controller Configuration Guide</i> for details.)	%BMADatabase%\Business.FLEX\Station\bin
HMIWeb BMA Script Files (Oma_Util.vbs, Ebc_Util.vbs, Ebc_Util.js)	File containing VBScript and JScript utility functions used by BMA HMIWeb displays. Can be modified to add additional custom display logic.	%BMADatabase%\Business.FLEX\Station\Abstract\bfScripts
Redundancy Configuration File (RedundantStatus.xml)	File containing configuration of BMA Redundant servers. Specific examples of configuration include the names and port numbers of the primary and secondary nodes.	%BMADatabase%\AMM\Redundancy
Experion Point Files used for Redundancy	The EBCPS.pnt file is a custom Experion point that is built on the Experion Server and is used for redundancy.	%HwInstallPath%\Business.FLEX\Redundancy\Data
For ERC only: RuntimeMonitor.xml	File containing the Process Point parameters that are to be shown by the ERC Runtime Monitor Tool – used to monitor the state of the ERC Control Strategies.	%HwInstallPath%\Business.FLEX\EBC\bin

Table B-3 - MA Control Server Customizable Files

Customizable File Types	Description	MA Control Server Working Folder
Visual Java Script (VJS) Files	Files used to extend the Movement Automation functionality. (See the <i>Movement Automation Engineering Guide</i> for details.)	{AMMROOT}\Production Tracker\Database\AmmDB Scripts\Script
HMIWeb Display Support Files	MA-specific support files that are used by the HMIWeb displays. These files are mostly used to customize the Tank Farm Graphics. (See the <i>Movement Automation Engineering Guide</i> for details.)	%BMADatabase%\Business.Flex\Station\Abstract\bfScripts
	 TIP: When copying an .htm display file from one location to another using Window Explorer, be sure to select <u>both</u> the .htm display file and the associated _files folder.	
Experion .NET DLL Configuration Files	MA-specific XML files used to configure the Station-based .NET displays (e.g. Order Detail).	%BMADatabase%\Business.FLEX\Station\Bin\Views.NET\Config
RTDR Script Files	RTDR script files, most notably OPC_Source.txt and GT_Points.txt, which are used to configure the RTDR environment. (See the <i>Movement Automation Configuration Guide</i> for details.)	%BMADatabase%\Build
Sequence Script Files	The SamplePfmScript.js file is the default sequence script provided with the Movement Automation software. In general, sites will not edit the default sequence script file directly but, rather, use the file as a template for deriving site-specific sequence scripts which are then stored in separate files in the folder shown. (See the <i>Movement Automation Engineering Guide</i> for details.)	{AMMROOT}\RTExec\Bin
Tank Calculator Configuration Files	Tank Calculator configuration xml files, which are used to customize the inventory calculations performed by the Tank Calculator. (See the <i>Movement Automation Configuration Guide</i> for details.)	{AMMROOT}\RTExec\Bin\apps

Customizable File Types	Description	MA Control Server Working Folder
Tank Calculator Engineering Units Edit File	Unit conversion xml files used to edit the set of engineering units used by the Tank Calculator. (See the <i>Movement Automation Configuration Studio Guide</i> for details.)	%BMADatabase%
Redundancy Configuration Files	The RedundantStatus.xml and FileRep.xml files used to configure MA Control Server redundancy. (See the <i>Movement Automation Engineering Guide</i> for details.)	%BMADatabase%\AMM \Redundancy
Experion Point Files used for Redundancy	The OMACS.pnt file is a custom Experion point that is built on the Experion Server and is used for redundancy.	%HwInstallPath% \Business.FLEX\Redundancy\Data
MA Piping Network Utility Files	The DMPParameters.txt, FlotationGridFilter.txt, Materials.txt and ValvePumpBP Status.txt files used by the MA Piping Network Utilities.	%BMADatabase%\AMM \Production Tracker\Data
Station Scripting Object Files	OmaSSO1.xml and OmaSSO1.xsd	%BMADatabase%\Business.FLEX \Station\Bin

Table B-4 - MA Utility Server Customizable Files

Customizable File Types	Description	MA Utility Server Working Folder
Redundancy Configuration Files	The RedundantStatus.xml and FileRep.xml files used to configure MA Control Server redundancy. (See the <i>Movement Automation Engineering Guide</i> for details.)	%BMADatabase%\AMM \Redundancy

Appendix C On Process Migration Steps

The following procedure can be used to perform an on process migration from BMA R430.1 to BMA R430.4.

System Configuration / Initial State

Node No.	Description	Notes
1 & 2	<p>Redundant MA Control Servers:</p> <ul style="list-style-type: none"> MACSX is the Primary Server and is Active MACSY is the Secondary Server <p>EBC/ERC Display Server software is installed on both servers</p> <p>PB Client and PB Server software is installed on both Servers</p> <p>BI Server software is installed on both Servers</p>	<p>AmmDB database replication is enabled.</p> <p>hostdr is being replicated.</p>
3 & 4	<p>Redundant Experion Servers</p> <ul style="list-style-type: none"> EPKSA is the Primary Server EPKSB is the Backup Server <p>EBC/ERC Process Server software is installed on both servers</p> <p>PB Client software is installed on both Servers</p>	<p>Experion Servers are synchronized.</p>
5 & 6	<p>Redundant MA Utility Servers:</p> <ul style="list-style-type: none"> MAUSX is the Primary Server and is Active MAUSY is the Secondary Server <p>PB Client software is installed on both Servers</p> <p>LIMS Viewer software is installed on both Servers (Optional)</p>	<p>LDR database replication is enabled.</p>
7	<p>OpenBPC Server</p> <p>PB Client software is installed</p>	<p>It is assumed that the AmmDb database exists on the MA Control Server only. As a result the PB Server software is <u>not</u> installed on the OpenBPC Server.</p> <p>It is assumed that EBC/ERC, MA and OpenBPC have been integrated.</p>
8+	<p>Experion Stations</p> <p>PB Client software is installed</p>	

Before You Begin

Item	Description
1	Familiarize yourself with the entire migration procedure and associated point release installation instructions.
2	Backup all customized site specific files (both blending and movement) before proceeding with the point release installation. Be sure to back up the existing EBC or ERC control strategies as well.

Item	Description
3	Merge all customs into the updated application scripts offline. See Appendix B and the supplied BMACustomizableFileChangeLog.xls for a list of the customized components.
4	For MA installations only, edit the supplied AmmTables_UpgradeSiteConstructs_BMAR430.4.xls file to reflect the site-specific activity model offline.
4	On the Project side in Control Builder upgrade the EBC or ERC control strategies as described in the corresponding control strategies whitepaper delivered with BMA R430.4. For EBC and ERC upgrades, this will take approximately 12 hours per blender to perform. Note: In general, the time needed to upgrade the ERC/EBC control strategies can be significantly reduced if the EBC/ERC Blender Build Tool is used to regenerate the blender instances against the updated master control strategies.

Expected Migration Time

Assuming that you have completed all of the steps described in **Before You Begin** (above), and that you are intimately familiar with the Experion and BMA installation, migrating a system from BMA R430.1 to BMA R430.4 should take approximately 22 hours.

Note: This estimate is based on using the preconfigured AmmDb database with one sample blender (approximately 1200 elements) and without any customization.

Legend:

	MA Control Server Step
	MA Utility Server Step
	OpenBPC Server Step
	Experion Station/PB Client Step
	Experion Server Step

On Process Migration Steps

Step	Description	Apps Offline	Notes
1	On the MACSY Server: [1] Disable database replication between the MA Control Servers. [2] Stop the BMA Redundancy service on MACSY.		MA configuration changes are not permitted from this point onward. Be sure that all BMA processes have been stopped on MACSY before you proceed with the installation.

On Process Migration Steps

Step	Description	Apps Offline	Notes
2	<p>On the MACSY Server:</p> <p>[1] Ensure that the Experion Station and the Production Browser are closed.</p> <p>[2] Run the BMA R430.4 Point Release setup.exe.</p> <p>[3] Copy the customizable files to the associated working folders for the PB Server and MA Control Server as directed in Section 3.2 Steps 6 a) and 9 a).</p>		<p>The setup.exe will install the updated PB Client, PB Server, MA Control Server, EBC/ERC Display Server and BI Server software.</p> <p>Do NOT migrate the AmmDB database at this stage.</p>
3	<p>On the MAUSY Server:</p> <p>[1] Disable LDR database replication between the MA Utility Servers.</p> <p>[2] Stop the BMA Redundancy service on MAUSY.</p>		<p>Be sure that all BMA and LV processes have been stopped on MAUSY before you proceed with the installation.</p>
4	<p>On the MAUSY Server:</p> <p>[1] Ensure that the Experion Station and the Production Browser are closed.</p> <p>[2] Run the BMA R430.4 Point Release setup.exe.</p> <p>[3] Copy the customizable files to the associated working folders for the MA Utility Server as directed in Section 3.2 Step 10 a).</p>		<p>The setup.exe will install the PB Client and MA Utility Server software.</p>
5	<p>On the OpenBPC Server:</p> <p>[1] Shutdown the BM and BQ instances.</p> <p>[2] Shutdown the IS Execution Scheduler process.</p>	OpenBPC	<p>Be sure that all BMA processes have been stopped on OpenBPC Server before you proceed with the installation.</p> <p>The Optimizer will not be available from this point onward until BMA is migrated to the latest release.</p>
6	<p>On the OpenBPC Server:</p> <p>[1] Ensure that the Experion Station and the Production Browser are closed.</p> <p>[2] Run the BMA R430.4 Point Release setup.exe.</p>	OpenBPC	<p>This will install the updated PB Client and OpenBPC Server software.</p>

On Process Migration Steps

Step	Description	Apps Offline	Notes
7	<p>On the MACSY Server:</p> <p>[1] Migrate the AmmDb database to BMA R430.4 for all of the BMA applications. (See Section 3.2 for the AmmDb database upgrade instructions for the PB Server, EBC/ERC Display Server and MA Control Server nodes.)</p> <p>[2] When the migration has been completed, run the grantDBPermission.vbs script. Note: The BMA R430.4 scripts will be located in the 'active' folders.</p> <p>[3] For MA installations only, run the AppEnt_Migration.exe program to perform the migration in the AmmTables_UpgradeSiteConstructs_BMAR430.4.xls file, as directed in Section 3.2 Step 9 c).</p>	OpenBPC	Be sure to update application scripts when prompted after have imported any customs into the customizable script files.
8	<p>On the MACSY Server:</p> <p>[1] Run pointproc -term-all from a command prompt at the %AMMROOT%\RTEEXEC\Bin folder. This will shutdown RTDR.</p> <p>[2] Delete the hostdr file from the %MXRTDB% folder on MACSY.</p> <p>[3] Perform an RTDR database dr load. Note: The BMA R430.4 .txt build files will be located in the 'active' 'Build' folder.</p> <p>[4] Run pointproc -term-all again from a command prompt at the %AMMROOT%\RTEEXEC\Bin folder.</p> <p>[5] If BMA's Restricted Database Access feature is enabled, run the BMA Impersonation Credentials application to re-establish the impersonation credentials.</p> <p>[6] If you have decided to use the PBM Security Configuration Tool to update your local security settings, run the tool as described in Section 0.</p>	OpenBPC	
9	<p>On the Experion Servers:</p> <p>[1] Ensure that blender is stopped and closed.</p> <p>[2] For EBC upgrades, install the EBC Process Server software as described in Section 4.2. Be sure to perform all of the steps in this section. or [2] For ERC upgrades, install the ERC Process Server software as described in Section 5.2. Be sure to perform all of the steps in this section.</p> <p>[3] Download the updated EBC/ERC points (instances) from the Project side to the Monitoring side in Control Builder.</p>	OpenBPC EBC/ERC	<p>For ERC upgrades, complete all blend tasks that are currently in progress before removing the EbcMaterial scan task. Be sure to remove the EbcMaterial scan task as directed before you update the ERC software. Running the Point Release setup.exe will also update the PB Client software.</p>

On Process Migration Steps

Step	Description	Apps Offline	Notes
10	On the MACSX Server: [1] Close all client applications running on MACSX. [2] Stop the BMA Redundancy service on MACSX.	OpenBPC EBC/ERC MA	Be sure that all BMA processes have been stopped on MACSX before you proceed with the installation.
11	On the MACSY Server: [1] Use the BMA Database Synchronization Tool to transfer the operating data from MACSX to MACSY.	OpenBPC EBC/ERC MA	Make sure that the operating data will be transferred <u>from</u> MACSX <u>to</u> MACSY before starting the synchronize process. Be sure that the database data transfer is completed successfully before you proceed to the next step.
12	On the MACSY Server: [1] Ensure that the DisableAllServices flag is set to 0 in the BMARedundancyStatus.xml file. [2] Start the BMA Redundancy service and ensure that the BMA services start successfully on MACSY. [3] Use the SyncApp utility to synchronize all possible file types.	OpenBPC	The MACSY server is now the primary MA Control Server MA configuration changes are permitted from this point onward.
13	On one of the Experion Flex or Console Stations: [1] Ensure that the Experion Station and the Production Browser are closed. [2] Run the BMA R430.4 Point Release setup.exe.	OpenBPC	This step can be performed on as many stations as needed to support operations. Blend tasks can now be created, but without OpenBPC.
14	On all of the BMA nodes updated so far: [1] If BMA's Restricted Database Access feature is enabled, run the BMA Impersonation Credentials application to re-establish the impersonation credentials. [2] Use the SyncApp utility to synchronize all possible file types. [3] If you have decided to use the PBM Security Configuration Tool to update your local security settings, run the tool as described in Section Q . [4] Verify that the Flex/Console Station can connect to the MACSY.	OpenBPC	This step applies to the EPKSA, EPKSB, MAUSY, Flex/Console Station and OBPC Server nodes. This step does not apply to the MACSY server, since it has already been performed on this server.
15	On the OpenBPC Server: [1] Restart the OpenBPC Server. [2] Verify that IS Execution Scheduler process is restarted.		Blend tasks can now be integrated with OpenBPC.

On Process Migration Steps

Step	Description	Apps Offline	Notes
16	<p>On the MA Utility Servers:</p> <p>[1] Replicate the LDR database from MAUSX to MAUSY using the OMAUS Point Detail display.</p> <p>[2] Stop the BMA Redundancy service on MAUSX.</p> <p>[3] Start the BMA Redundancy service on MAUSY.</p> <p>[4] Ensure that all of the services on MAUSY server are started successfully.</p>		The MAUSY server is now the primary MA Utility Server.
17	<p>On the MAUSX Server:</p> <p>[1] Ensure that the Experion Station and the Production Browser are closed.</p> <p>[2] Run the BMA R430.4 Point Release setup.exe.</p> <p>[3] Copy the customizable files to the associated working folders for the MA Utility Server as directed in Section 3.2 Step 10 a).</p> <p>[4] If BMA's Restricted Database Access feature is enabled, run the BMA Impersonation Credentials application to re-establish the impersonation credentials.</p> <p>[5] Use the SyncApp utility to synchronize all possible file types.</p> <p>[6] If you have decided to use the PBM Security Configuration Tool to update your local security settings, run the tool as described in Section 0.</p>		
18	<p>On the MAUSX Server:</p> <p>[1] Re-enable database replication between the MA Utility Servers.</p> <p>Note: Wait for this operation to complete successfully before you proceed.</p> <p>[2] Restart the BMA Redundancy service on MAUSX.</p>		Enabling database replication causes the LDR database to be copied from MAUSY to MAUSX.

On Process Migration Steps

Step	Description	Apps Offline	Notes
19	<p>On the MACSX Server:</p> <p>[1] Ensure that the Experion Station and the Production Browser are closed.</p> <p>[2] Run the BMA R430.4 Point Release setup.exe.</p> <p>[3] Copy the customizable files to the associated working folders for the PB Server and MA Control Server as directed in Section 3.2 Steps 6 a) and 9 a).</p> <p>[4] If BMA's Restricted Database Access feature is enabled, run the BMA Impersonation Credentials application to re-establish the impersonation credentials.</p> <p>[5] Use the SyncApp utility to synchronize all possible file types.</p> <p>[6] If you have decided to use the PBM Security Configuration Tool to update your local security settings, run the tool as described in Section 0.</p>		
20	<p>On the MACSX Server:</p> <p>[1] Re-enable database replication between the MA Control Servers.</p> <p>Note: Wait for this operation to complete successfully before you proceed.</p> <p>[2] Restart the BMA Redundancy service on MACSX.</p>		Enabling database replication causes the AmmDb database to be copied from MACSY to MACSX.
21	<p>On all of the remaining PB Clients:</p> <p>[1] Ensure that the Experion Station and the Production Browser are closed.</p> <p>[2] Run the BMA R430.4 Point Release setup.exe.</p> <p>[3] If BMA's Restricted Database Access feature is enabled, run the BMA Impersonation Credentials application to re-establish the impersonation credentials.</p> <p>[4] Use the SyncApp utility to synchronize all possible file types.</p> <p>[5] If you have decided to use the PBM Security Configuration Tool to update your local security settings, run the tool as described in Section 0.</p>		
22	Failover from MACSY to MACSX (if desired).		
23	Failover from MAUSY to MAUSX (if desired).		