



# APM Classic Release Notes



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# Chapter 1

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## GE Digital APM Release Notes

### Topics:

- [V4.3.1.0.0 Release Notes](#)
- [V4.3.1.0.X Patch Release Notes](#)

## V4.3.1.0.0 Release Notes




### Action Management

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

**Table 1: Enhancements and New Features**

The following enhancements and new features have been added.

Description	Tracking ID
You can now implement one or more strategy actions by creating a Proof Test Task or linking the actions to existing Proof Test Tasks.	US352739
In the <b>RBI Admin Preferences</b> page, if the <b>Implement Recommended Actions to Tasks in ASM</b> check box is cleared, the Apply Updates (  ) , Unlink Implementation (  ) , Send to ASI Package (  ) , and <b>Implement</b> buttons are now disabled in the <b>Strategy Actions</b> section of the <b>Action Management</b> page. This is applicable for actions sourced from the Risk Based Inspection or Compliance Management modules.	US352738
The performance of the Strategy Actions query has been improved.	US338510

**Table 2: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, in the General Recommendation datasheet, when the <b>Alert Assignee When Due</b> check box was selected for a record, alert email messages were not sent. This issue has been resolved.	DE116027
Previously, in the <b>Recommended Actions</b> section, when you entered the search criteria in a filter box, the row containing the filter boxes disappeared from the grid. This issue has been resolved.	DE115075
Previously, in the <b>Recommended Actions</b> pane, if you selected a Recommended Action and attempted to create an EAM Notification from a General Recommendation and it failed, an incorrect message appeared.	DE105557

Description	Tracking ID
<p>Previously, even though the Meridium Core license was activated, the following options appeared in the <b>Implement</b> drop-down list box of the <b>Strategy Actions</b> section:</p> <ul style="list-style-type: none"> <li>EAM Work Request</li> <li>EAM Maintenance Plan</li> </ul> <p>This issue has been resolved. Now, in this scenario, the options do not appear in the <b>Implement</b> drop-down list box.</p>	DE102170
<p>Previously, in the expanded view of the <b>Recommended Actions</b> pane, the search function worked only on the <b>RECOMMENDATION HEADLINE</b> column. This issue has been resolved. Now, the search function works on all the columns in the <b>Recommended Actions</b> section.</p>	DE79684

## Activate Licenses

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 3: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
<p>Previously, when you activated a license, you had to manually switch the data source to which you applied the license to offline, and then to online. Now, you do not have to perform this action. After activating the license, you must log off from GE Digital APM and log in again.</p>	DE109678

## AMS Analytics

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 4: Deferred Features

The following items are deferred from V4.3.1.0.0.

Description	Tracking ID
<p>The AMS Analytics feature is not available in GE Digital APM V4.3.1.0.0.</p>	F45351

## APM Connect

This topic provides a list of product changes released for this module on the dates listed below.

**Version: V4.3.1.0.0**

### Table 5: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
APM Connect now supports UDLP V2.7. The data loader framework in UDLP V2.6.1 is compatible with GE Digital APM V4.3.1.0.0.	US354669
The automatic data loaders are now supported in APM Now. Using these data loaders, you can automatically import data into GE Digital APM.	US354406
The SAP Equipment and Functional Location technical characteristics are now supported for multiple language data extraction.	US351143
To enhance the performance of data loading processes, the default severity level for logging events has been changed from DEBUG to ERROR.	F42056

**Table 6: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, for the Web API tests on the staging database, the Check connection failed as the staging database password was always passed as an empty value in payload. This issue has been resolved and the staging database password is now sent as an encrypted value in payload.	DE117063
Previously, when using Work Management Interface (WMI), all tasks were created in the EAM system that was marked as default, restricting the WMI to a single EAM system. This issue has been resolved. Now, WMI can be used with multiple EAM systems.	DE115487
Previously, when a connection failure occurred during data loading, the EAM job failed. This issue has been resolved.	DE115409
Previously, in a Work History record, the values from the Event Short Description field were not extracted when Object Lists were involved. This issue has been resolved.	DE114806
Previously, when using automatic data loaders, if multiple records were imported at the same time, sometimes, a few records were skipped. This issue has been resolved.	DE111514
Previously, Apache Karaf crashed in the cloud environment because of the way the APM Connect data loader job handled the conversion of the .xlsx file to a .csv file. This issue has been resolved. Now, the .xlsx file is converted to a .csv file before it is sent to Apache Karaf.	DE111512
Previously, when using automatic data loaders, an error message appeared although the records were imported successfully. This issue has been resolved.	DE111339
Previously, the Planned Work and Work Management Interface integration did not allow filtering by Maintenance Plant. This has been resolved. You can now use Maintenance Plant as a filter for Planned Work and Work Management Interface.	DE110851
Previously, if the connection between the PDI service and the OPC servers was lost for longer than the restart wait time (as configured in the ServiceRestartDelay parameter in the PDI configuration file), the connection was not restored. This issue has been resolved.	DE110733
Previously, when you saved a recommendation that was not associated with any asset and whose <b>EAM Notification</b> check box was selected, a notification was created in the EAM without an asset. This issue has been resolved. Now, when you save a recommendation that is not associated with any asset, an error occurs.	DE110716



Description	Tracking ID
Previously, in the configuration page for the Data Loaders staging (IR) database, the behavior of the Sub Object Number was defined incorrectly. As a result, cardinality errors occurred when importing data. This issue has been resolved.	DE110612
Previously, if you accessed GE Digital APM in Japanese culture, data loaders were not downloaded correctly. This issue has been resolved.	DE108822
Previously, in a Work History record, the value in the Equipment Class Description field was not extracted when Object Lists were included. This issue has been resolved.	DE107281
Previously, in a Work History record, the value in the Location Description field was not extracted when Object Lists were included. This issue has been resolved.	DE107277
Previously, when using the Unified Asset Ingestion Data Loader to load assets into GE Digital APM, the Predix Asset Model was populated with the value of Unique ID instead of the Equipment ID. Now, the Predix Asset Model correctly displays the Equipment ID of the asset.	DE103245
Previously, in an ABAP Extraction patch, if the data fields contained text with multiple spaces, the text was truncated to include only one space. Due to this, there was a mismatch in the data between SAP and APM. This issue has been resolved. Now, the text in the data fields is not condensed.	DE97438
Previously, if an SAP Equipment contained a Functional Location and Predecessor Equipment, the Asset Hierarchy was not built as expected after you imported the data loader workbook. This issue has been resolved.  <b>Note:</b> If an SAP Equipment contains a Functional Location and Predecessor Equipment, only a relationship to the equipment is created.	US351203

## APM Data Extraction

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 7: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, when you tried to fetch navigation (relationship) property data using a property request call, the service returned an HTTP 404 error. This issue has been resolved.	DE109958

## APM Mobile Application

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 8: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, when you attempted to sync a route, the readings were not loaded. In addition, the route was marked done, thus preventing you to unlock the route and load the readings again. This issue has been resolved.	US363216

## Asset Criticality Analysis

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

**Table 9: Enhancements and New Features**

The following enhancements and new features have been added.

Description	Tracking ID
If the SAP Criticality Assessment license is active, criticality values from an assessment are automatically updated in SAP after you move the associated analysis to the Approved state.	US364277
To improve performance, the SQL join clauses corresponding to the Asset Group families have been removed from the following catalog queries: <ul style="list-style-type: none"> <li>Public\Meridium\Modules\Asset Criticality Analysis\Queries\ACA Analysis Assets</li> <li>Public\Meridium\Modules\Asset Criticality Analysis\Queries\ACA Analysis Criticality</li> </ul>	US354330
To improve usability, the risk assessment window has been modified as follows: <ul style="list-style-type: none"> <li>The size and positioning of the <b>Basis of Assessment</b> box have been adjusted.</li> <li>The expand feature has been added to the <b>Basis of Assessment</b> box.</li> </ul>	US345815
In the <b>ACA Overview</b> page, the performance when loading the tile counts has been improved.	US342276
To improve usability, the Description column has been removed from the ACA Analyses query.	US322347
You can now access the reference documents for an ACA Analysis by selecting the <b>Reference Documents</b> tab from the <b>Asset Criticality Analysis</b> page.	US318203
To enhance usability in the <b>Assessment</b> workspace, functionality to export an analysis assessed using a Criticality Checklist has been added.	US316934
To enhance usability in the <b>Asset Criticality Overview</b> page, functionality to export analyses assessed using a Criticality Checklist has been added.	US316933

**Table 10: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, when you attempted to update SAP from the Analysis View, incorrect error logs were created. This issue has been resolved. Now, in this scenario, the correct error logs are created.	DE115040
Previously, when you attempted to access an assessment that contained double quotes in the Basis for Assessment field, an error occurred, and the assessment did not load. This issue has been resolved.	DE108039
Previously, in the <b>Risk</b> section of the <b>Analysis Summary</b> page, if you accessed an analysis whose associated Risk Matrix record had the <b>Use Aliases?</b> check box selected, the Total Risk value on the risk assessment appeared as a numeric value instead of an alias value.	DE105758
Previously, while using the ACA data loaders, the logs sometimes did not capture the data that was successfully loaded. This issue has been resolved.	DE104003
Previously, column headings and fields were not properly localized in the following locations: <ul style="list-style-type: none"> <li>The <b>ACA Overview</b> page</li> <li>The <b>Analyses</b> workspace</li> <li>The <b>Assets</b> workspace</li> <li>The <b>Assessment</b> workspace</li> </ul>	DE101533
Previously, regardless of your culture settings, the values in the <b>State</b> column were displayed in English. This issue has been resolved. Now, the values in the <b>State</b> column are displayed in the language that is based on your culture settings.	DE99458
Previously, if a field in a checklist was updated by a policy, the corresponding entity was not updated with the latest field value. This issue has been resolved.	US358409
Previously, in the <b>ACA Admin</b> page, if you locked the Probability, Consequence, or Protection Level fields for an ACA System Criticality Analysis, and then accessed the Risk Matrix for that analysis, the fields were not locked. This issue has been resolved.	US334389

**Table 11: Obsolete Features**

As of this release, the following items are no longer available.

Description	Tracking ID
For the Asset Criticality Analysis and Asset Criticality Analysis System families, the following fields are no longer available: <ul style="list-style-type: none"> <li>Import Date</li> <li>Import Status</li> <li>Imported By</li> </ul>	US274720

## Asset Health Manager

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0


**Table 12: Enhancements and New Features**

The following enhancements and new features have been added.

Description	Tracking ID
Performance in the <b>Risks</b> section of the <b>Health Summary</b> page has been significantly improved.	US338922
To improve performance when determining whether health indicator records are up to date, the Out of Sync status has been removed from the <b>Health Summary</b> page, and a new section, <b>General Settings</b> , has been added to the <b>AHM Admin</b> page. In this section, you can select the <b>Check Last Health Indicator Update</b> button to view a window that displays the date and time of the last health indicator update.	<ul style="list-style-type: none"> <li>US338621</li> <li>US337870</li> </ul>
To prevent users from accidentally deleting mappings, the Health Indicator Has Mapping (MIR_HT_IN_HS_MP) relationship has now been converted to use a foreign key.	US272028
To improve usability, the default time range in the Health Indicator trend chart is now MAX (that is, maximum) instead of 1Y (that is, one year).	US265481

**Table 13: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, in the <b>Health Indicator Details</b> page, when you clicked the <b>Configuration Tab</b> , the <b>Configuration</b> workspace did not display the Health Indicator Source datasheet on the initial page load. This issue has been resolved.	DE117339
Previously, in the <b>Health Summary</b> page, when you attempted to view the data for the Home level of the Asset Hierarchy, an error message appeared, stating that the risks could not be loaded. This issue has been resolved.	DE114318
Previously, in the <b>&lt;Asset Name&gt;</b> workspace, links for Asset Health Manager did not appear. Additionally, when you accessed the <b>Health Summary</b> page, the page loaded slowly, and error messages appeared. This issue has been resolved.	DE108371
Previously, because time stamp values for health indicator readings were truncated, health indicator readings were sometimes duplicated, and sometimes health indicators erroneously appeared to be out of sync. This issue has been resolved.	DE106890
Previously, in the <b>Health Summary</b> page, sometimes a No Status icon (  ) erroneously appeared next to health indicators that had a valid status. This issue has been resolved.	DE106606
Previously, in the <b>Asset Health Overview</b> page, the results in the pie chart were incorrect. This issue has been resolved.	DE106562

## Asset Hierarchy

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

**Table 14: Enhancements and New Features**

The following enhancements and new features have been added.

Description	Tracking ID
You can now view the number of alerts created for an asset when you access the module-specific data for the asset. To facilitate this enhancement, a new row, <b>Predictive Analytics Life Cycle</b> , has been added in the <b>Reliability</b> section of the <Asset Name> workspace.	US361533

### Table 15: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, in the <b>Group</b> section of the <b>Asset Finder</b> window, when you attempted to add a group of assets, an error occurred. This issue has been resolved.	DE107347

## Asset Strategy Implementation

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

### Table 16: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
The performance of the <b>Manage Actions</b> section in the ASI Package page has been improved. To facilitate this enhancement, the <b>Manage Actions</b> section has been modified to use the following Catalog query:  Public\Meridium\Modules\Asset Strategy Management\Implementation\Queries\Get Actions For Package	US350918
To enhance usability, in the <b>ASI Package</b> workspace, importing a task list is now a background operation.	US337748
To enhance performance and scalability, the implement package operation has been converted to a job.	US337746
In the <b>ASI Overview</b> page, the <b>Create New Package</b> button has been renamed <b>New Package</b> .	US306105
To enhance usability, in the <b>ASI Overview</b> page, performance when loading large implementation packages has been improved.	DE105551

### Table 17: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, an Asset Strategy Implementation package with large number of plans, took a long time to load. This issue has been resolved.	US347269
Previously, when you attempted to create an Operation from a Task List, the value in the <b>Plant</b> box of the Task List was not inherited by the Operation. This issue has been resolved.	US318590

Description	Tracking ID
Previously, if you deleted an imported task list for a maintenance item, and then attempted to import any task list, an error occurred. This issue has been resolved.	DE109359
Previously, if you implemented a strategy maintenance plan in SAP, the unit for scheduling period appeared incorrectly. This issue has been resolved.	DE108948
Previously, if your Culture setting was not English and if you imported an action from Asset Strategy Management, in the <b>Cycle UOM</b> drop-down list box of the <b>Manage Cycles</b> window, the value Years was not translated into the language corresponding to your Culture setting. This issue has been resolved.	DE108368
Previously, when you attempted to link an action to a tasklist operation, an error occurred if the action interval unit was modified. This issue has been resolved.	DE108366
Previously, using the <b>Locate Task List</b> window, when you attempted to search for a task list by using a search term that consisted of * and a combination of other characters, search results were not returned. This issue has been resolved.	DE104921
Previously, if you had sent actions to an ASI Implementation Package in the Implemented state, the state of the package remained Implemented. This issue has been resolved. Now, in this scenario, the state of the package is changed to Partially Implemented to indicate that all the actions are not yet implemented.	DE100782
Previously, regardless of your culture settings, the values in the <b>State</b> column were displayed in English. This issue has been resolved. Now, the values in the <b>State</b> column are displayed in the language that is based on your culture settings.	DE99458
Previously, in certain conditions, when a task list with operations was sent to SAP, an error occurred. This issue has been resolved.	DE95210
Previously, if a Maintenance Plan contained a cycle, you could still access the Maintenance Strategy field in the <b>Maintenance Item</b> workspace.	DE95201
Previously, when you attempted to update linked Actions with the same action interval units, the Actions that were previously linked to the Work Management Item were no longer linked to the item. This issue has been resolved.	DE88859

## Asset Strategy Management

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

**Table 18: Enhancements and New Features**

The following enhancements and new features have been added.

Description	Tracking ID
You can now select the <b>Source</b> link in the <b>Action</b> section for an Action promoted from another module.	US352757
You can now implement one or more strategy actions by creating a Proof Test Task or linking the actions to existing Proof Test Tasks.	US352739

Description	Tracking ID
In the <b>RBI Admin Preferences</b> page, if the <b>Implement Recommended Actions to Tasks in ASM</b> check box is cleared, the Apply Updates (🔄), Unlink Implementation (🔗), Send to ASI Package (📦), and <b>Implement</b> buttons are now disabled in the <b>Implement Actions</b> section of the <b>Strategy Details</b> page. This is applicable for actions sourced from the Risk Based Inspection or Compliance Management modules.	US352738
You can now perform Risk Analysis functions for the Asset Strategies that are optimized in ASO.	US352463
To improve usability, the risk assessment window has been modified as follows: <ul style="list-style-type: none"> <li>The size and positioning of the <b>Basis of Assessment</b> box have been adjusted.</li> <li>The expand feature has been added to the <b>Basis of Assessment</b> box.</li> </ul>	US345815
To enhance usability, the performance when loading the <b>Risk Profile</b> chart has been improved.	US335378
You can now hide the Baseline activate operation from the <b>Strategy Details</b> workspace. To facilitate this enhancement, the <b>ASM Preferences</b> tab has been added to the <b>ASM Admin</b> page.	US333722
You can now create strategies and actions from existing Measurement Locations. To facilitate this enhancement, the <b>Import</b> button has been added to the <b>ASM Overview</b> page.	US311299

**Table 19: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, when you applied a template to an Asset Strategy, new Risk IDs and Action IDs were not generated. This issue has been resolved.	US337882
Previously, if you were assigned to the MI ASM Viewer Security Group, you could create or modify the records of some families. This issue has been resolved. Now, the MI ASM Viewer Security Group has been modified to remove the insert and update privileges for the applicable families.	US335762
Previously, in the Asset Strategy Approval report, the labels of axes in the graph were not generic. For example, by default, the labels for currency and risk axes were \$ and Risk Rank, respectively. This issue has been resolved.	US333482
Previously, you could modify the value in the Plan Length field of the Asset Strategy record that was in the Pending Review state. Consequently, you could also modify the record. This issue has been resolved. Now, the Plan Length field of the Asset Strategy record that is in the Pending Review state is disabled.	US305127
Previously, when you implemented an Action as an EAM Maintenance Plan, and then exported the record in a CSV format, the value in the <b>Description</b> field of the Action incorrectly appeared in the exported file. This issue has been resolved.	DE117099
Previously, if your culture setting was Japanese, when you accessed the <b>Review Strategy</b> workspace for a Unit Strategy, no values were populated in the <b>State</b> and <b>Operations</b> drop-down list boxes. This issue has been resolved.	DE114831
Previously, the Mitigated Financial Risk for an asset was incorrectly calculated. This issue has been resolved.	DE114245
Previously, actions generated by applying a template to a Strategy were not linked to the EAM Plan and EAM Plan Details records. This issue has been resolved.	DE113906

Description	Tracking ID
Previously, if your culture setting was not English, in the <b>Risk Matrix</b> section, the Financial Risk value was calculated incorrectly. This issue has been resolved.	DE113868
Previously, in the <b>Strategy Details</b> page, in the <b>Risk Analysis</b> section, the <b>COST PROJECTION</b> chart was plotted with incorrect values for users whose culture setting was not English. This issue has been resolved.	DE113740
Previously, for a Risk sourced from the Risk Based Inspection module, in the <b>Risks and Actions</b> section, you could modify the Unmitigated Risk values. This issue has been resolved.	DE112872
Previously, you could not activate the Asset Strategy template that had a custom state between the Pending Review and Active states and had controlled strategies. This issue has been resolved. Now, you can transition the template from a custom state to the Active state.	DE112836
Previously, if your culture setting had a culture other than English, and you accessed the <b>Review Strategy</b> workspace for a system or unit strategy, the following drop-down list box captions were not translated to the language based on your culture setting. <ul style="list-style-type: none"> <li>• State</li> <li>• Operations</li> </ul> This issue has been resolved.	DE108776
Previously, in the <b>Risks and Actions</b> page, if you attempted to consolidate RCM or FMEA actions, the process could time out. This issue has been resolved.	DE108037
Previously, if you used a localization setting other than English, and then attempted to modify the state of a System or Unit Strategy in the <b>Review Strategy</b> workspace, an error message appeared. This issue has been resolved.	DE108015
Previously, when you attempted to apply a template as a master strategy template to an Asset Strategy, an error occurred if the template was created using a strategy with risks or actions sourced from other modules. This issue has been resolved.	DE95408
Previously, in the <b>Risks</b> and <b>Actions</b> sections of the <b>ASM Overview</b> page, some of the column headings were not translated. This issue has been resolved.	DE93789
Previously, when using Internet Explorer, in the <b>Strategy Details</b> page, if you attempted to access the <b>Review Strategy</b> workspace, an error message appeared.	DE88696

## Asset Strategy Optimization

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

**Table 20: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.



Description	Tracking ID
Previously, in the <b>Simulation Results</b> workspace, in the <b>Elements</b> section, the value in the <b>Element</b> column was truncated if the strategy ID was long. Now, if the strategy ID is long, the value in the <b>Element</b> column contains the partial strategy ID.	US301529
Previously, if a value in the <b>Element</b> column of a Simulation Result exceeded the width of the column, you could not view the complete description of the element. This issue has been resolved. Now, in this scenario, you can hover over the value to view the complete description of the element in a screen tip.	DE118150
Previously, when you created a Scenario, the names of the Actions and Risks associated with other Scenarios were changed to the name of the new Scenario. This issue has been resolved.	DE116536

## Calibration Management

This topic provides a list of product changes released for this module on the dates listed below.

### Version: V4.3.1.0.0

#### Table 21: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
<p>Calibration Management module now supports all the Unit of Measurements that are supported by Fluke 74x -75x calibrators.</p> <p>To facilitate this enhancement, the following changes have been made:</p> <ul style="list-style-type: none"> <li>Added support for additional Unit of Measurements in APM.</li> <li>Added support for Unit of Measurement conversions for Pressure, Temperature, Current, Voltage, Frequency, and Resistance categories.</li> </ul>	F45470

#### Table 22: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, a user with APM Viewer role could not access the Calibration module. This issue has been resolved.	DE119038
Previously, while receiving the Calibration results from a Control Valve, Magnetic Flow, or pH Calibration template with Custom Input or Custom Output values, the AF error or AL error were calculated incorrectly. This issue has been resolved.	DE117646
Previously, after you upgraded the GE Digital APM database from V3 to V4, certain Calibration Events did not appear in the <b>Calibration Events</b> section. This issue has been resolved.	DE116610
Previously, after you upgraded the GE Digital APM database from V3 to V4, in the <b>Calibration Queue</b> section, the records that existed in the database before the upgrade did not appear because the existing Calibration Templates were not directly linked to the Calibration Tasks. This issue has been resolved.	DE116609

Description	Tracking ID
Previously, after you upgraded the GE Digital APM database from V3 to V4, when you created a Calibration (Event) manually from a Calibration Task, saved the record, and entered values for As Found or As Left in the <b>Calibration</b> section, the error percentages were not calculated. This issue has been resolved.	DE116608
Previously, after you upgraded the GE Digital APM database from V3 to V4, when you attempted to create a Calibration (Event) manually from a Calibration Task, an error message appeared. This issue has been resolved.	DE116606
Previously, when you added assets to a Calibration Profile, the applied profile that was created was in the Development state; the Template State value was not copied from the Profile Template to the applied profile. This issue has been resolved.	DE116365
Previously, for a newly created Calibration Event received from an automated calibrator, the mapping type value appeared in the Instrument Manufacturer field and Instrument Model Number field, instead of the linked asset manufacturer and model number. This issue has been resolved.	DE110348
Previously, when CalibDeviceMappingsUpgradeUtility was run to upgrade to 4.3.0.0.0 or later for replacing the old Device Mapping IDs with the new Device Mapping IDs on all the existing templates, an error occurred. Due to this, you could not perform calibration on the old templates using a Fluke calibrator. This issue has been resolved.  <b>Note:</b> The upgrade was required only if you wanted to use the Fluke documenting process calibrator.	DE110216
Previously, when you sent a record to a Fluke calibrator to perform a square-root calibration, the calibration results were sent to GE Digital APM with the following issue in the RMS error calculation: The Input Measure AF and Input Measure AL values were not square-rooted although they were square-rooted in the Fluke device. This issue have been resolved.	DE109414
Previously, in the Calibration Event family, when you configured the Test Equipment ID field as a required field, and then attempted to save a Calibration Event record, an error occurred because the <b>Test Equipment</b> section of the record that contained the Test Equipment ID field was disabled. This issue has been resolved.	DE109327
Previously, if you sent data to a Fluke calibrator, and performed a calibration using a Calibration Template, Analog or Calibration Template, Discrete record with the input UOM set to Degrees Celsius (DEG C), an error occurred. This issue has been resolved.	DE108264
Previously, when you accessed a localized version of the Calibration Management module, and then attempted to link a task with a calibration profile, the values in the <b>Look in</b> drop-down list box in the <b>Search</b> window loaded after a long time. This issue occurred because all the families and records were loaded, instead of only the Calibration Task family. This issue has been resolved.	DE108051
Previously, after uploading a reference document for a standard gas cylinder or component, if you attempted to modify a field value in a standard gas cylinder, an error occurred. This issue has been resolved.	DE107367
Previously, after receiving multiple records from a calibrator, if you did not save all the records that were received, the values for the saved records were always picked from the first record in the list. This issue has been resolved.	DE106591

Description	Tracking ID
Previously, when you simultaneously sent multiple records with the same number of test points and different custom test point percentages to a calibrator, the test point percentages of the last record were copied to the remaining records. Due to this, only the last record displayed the correct result. This issue has been resolved.	DE106004
Previously, in a calibrator, if you entered the name of a user who was not a member of the MI Calibration Administrator or MI Calibration User Security Group, and tried to receive data from a calibrator, although you received the data, instead of an error message, a blank screen appeared. This issue has been resolved.	DE105634

## Catalog

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 23: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
<p>If you log in to GE Digital APM as a Super User, you can now perform the following operations in the <b>Catalog</b> page:</p> <ul style="list-style-type: none"> <li>• Copy or move a Catalog folder or Catalog item between Personal folders.</li> <li>• Copy or move a Catalog folder or Catalog item between Public folders.</li> <li>• Copy or move a Catalog item between Personal and Public folders. However, you cannot copy or move a Catalog folder between Personal and Public folders.</li> </ul>	US201765

### Table 24: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, after you renamed a folder within the Public folder using the <b>Catalog Folder Properties</b> window, if you attempted to rename the folder consecutively, an error message appeared. This issue has been resolved.	DE50686

## Compliance Management

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 25: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
<p>Inspection Plan is now integrated with Risk Based Inspection in addition to Compliance Management. To facilitate this enhancement:</p> <ul style="list-style-type: none"> <li>• Compliance Recommendation Revision family is renamed Recommendation Revision.</li> <li>• Relationship family Has Compliance Recommendation is renamed Inspection Plan Has Recommendations.</li> </ul>	US367968
<p>Previously, the <b>Assets with Inspection Plan</b> section of the <b>Compliance Management Overview</b> page displayed the assets that were associated with an Inspection Plan. Now, this section displays the assets that are associated with an Inspection Plan and linked to a Compliance Strategy Template.</p> <p>Additionally, the <b>Update Inspection Plans</b> button in this section has been renamed <b>Update Compliance Recommendations</b>.</p>	US367595
<p>When you update Compliance Recommendations on the Inspection Plan that is in the Modified state, the existing Compliance Recommendations are now deleted, and new Compliance Recommendations are generated based on the mapped policy in the Compliance Strategy Template.</p>	US360461
<p>You can now implement Compliance recommendations that belong to an Inspection Plan in:</p> <ul style="list-style-type: none"> <li>• Asset Strategy Management.</li> <li>• Inspection Plan as Inspection Task.</li> </ul> <p>To facilitate this enhancement, a new option, <b>Implement Recommended Actions to Tasks in ASM</b>, has been added to the <b>Global Preferences</b> section of the <b>IM Admin Preferences</b> page.</p>	US335134

### Table 26: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
<p>Previously, after creation or update of multiple Inspection Plan records, one or more of the inspection plans might not have been able to be transitioned to the Approved state. An error message appeared during approval indicating that the inspection plan was currently being updated. This issue has been resolved.</p>	DE116073

## Data Loaders

This topic provides a list of product changes released for this module on the dates listed below.

### Version: V4.3.1.0.0

### Table 27: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, when you imported a data loader workbook that contained a date, the corresponding date field in GE Digital APM was not updated according to the GE Digital APM time zone (that is, Coordinated Universal Time (UTC)). This issue has been resolved.	DE116147
Previously, when you attempted to import large analyses using the following data loaders, the operation exceeded the timeout period, causing the import process to fail. <ul style="list-style-type: none"> <li>Reliability Centered Maintenance (RCM)</li> <li>Failure Modes and Effects Analysis (FMEA)</li> </ul> This issue has been resolved.	DE113578
Previously, in a cloud environment, when you tried to load a .zip file containing .csv files using the Data Loader interface, the load intermittently failed with the message <code>access denied</code> . Now, the files load without errors.	DE109151

## Datasets

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 28: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, if your culture setting was not English, and if you accessed the <b>Dataset</b> page, the following elements were not translated into the language based on your culture setting: <ul style="list-style-type: none"> <li>The <b>Manual</b> option of the <b>Create New</b> button.</li> <li>The word Manual in the <b>New Dataset</b> page.</li> </ul> This issue has been resolved.	DE105420
Previously, in a dataset that contained multiple rows with same values, the following issues existed: <ul style="list-style-type: none"> <li>If multiple rows with same values were marked for deletion, you could select <b>Undelete</b> only for one row.</li> <li>When you attempted to delete multiple rows with same values, only one row was deleted.</li> </ul> These issues have been resolved.	DE105172

## eLog

This topic provides a list of product changes released for this module on the dates listed below.

**Version: V4.3.1.0.0**

### Table 29: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
You can now access the assignments that have been approved. To facilitate this enhancement, a new section, <b>Completed Assignments</b> , has been added to the <b>My Assignments</b> workspace of the <b>Shift Summary</b> page.	US363803
You can now generate a report for one or more Shifts for a given period. To facilitate this new feature, the <b>Shift Reports</b> section has been added to the <b>eLog Overview</b> page.	US359960

**Table 30: Resolved Issues**

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, when creating a Shift, if you navigated away from the <b>Add New Shift</b> page without saving your changes, a warning message did not appear. This issue has been resolved. Now, in this scenario, a warning message appears, asking if you want to save your changes.	DE103893

## Failure Modes and Effects Analysis

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

**Table 31: Enhancements and New Features**

The following enhancements and new features have been added.

Description	Tracking ID
To improve usability, the risk assessment window has been modified as follows: <ul style="list-style-type: none"> <li>The size and positioning of the <b>Basis of Assessment</b> box have been adjusted.</li> <li>The expand feature has been added to the <b>Basis of Assessment</b> box.</li> </ul>	US345815
You can now restrict modifying an FMEA Analysis and its child record to team members only. To facilitate this enhancement, the <b>RCM FMEA Preferences</b> tab has been added to the <b>RCM FMEA Admin</b> page.	US340645
You can now modify the Recommendation at all the levels in the analysis hierarchy.	US313842
In the <b>FMEA Overview</b> page, the <b>Create New Analysis</b> and <b>Create New Template</b> buttons have been renamed <b>New Analysis</b> and <b>New Template</b> , respectively.	US306105
Previously, in the FMEA Recommendation report, the <b>Interval</b> and <b>Resource</b> columns were not translated. This issue has been resolved. Now, the values selected for <b>Interval Units</b> will always be translated. The values of <b>Recommended Resource</b> will be translated only if they are selected from the drop-down list box. If you enter a value that is not in the drop-down list box of <b>Recommended Resource</b> , it will not be translated.	US301684
To enhance performance and scalability, the apply template operation has been converted to a job.	US293368

**Table 32: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, when you attempted to promote a Recommendation that was created using the Failure Modes and Effects Analysis (FMEA) data loader, an error occurred. This issue has been resolved.	DE116212
Previously, you could not consolidate the Recommendations that were created using the Failure Modes and Effects Analysis (FMEA) data loader. This issue has been resolved.	DE116023
Previously, the Driving Risk Category for Mitigated Risk Assessments was determined by the Unmitigated Risk Assessment. This issue has been resolved.	DE115096
Previously, in Internet Explorer, if the Equipment or Functional Location datasheets took a long time to load, the risk summary did not appear in the <b>Recommendation</b> window. This issue has been resolved.	DE110148
Previously, when you added a failure mode for an equipment or functional location, the <b>Related Asset Type</b> field was not populated with the correct Taxonomy Type. This issue has been resolved.	DE109409
Previously, the count of Recommended Actions that appeared in the <b>Recommended Actions</b> pane was incorrect. This issue has been resolved.	DE108791
Previously, in the <b>FMEA Overview</b> page, if you selected the Help button when you attempted to create a template, the Help documentation did not appear. This issue has been resolved. Now, the Help button does not appear when you attempt to create a template.	DE108018
Previously, you encountered database errors when using FMEA data loaders under certain conditions. This issue has been resolved. Now, the incremental save feature has been added to these data loaders.	DE105997
Previously, you could delete Recommendations that were not at the Failure Effect level. This issue has been resolved. Now, you can delete only the Recommendations that are at the Failure Effect level.	DE104267
Previously, while using the FMEA data loaders, the logs sometimes did not capture the data that was successfully loaded. This issue has been resolved.	DE104003
Previously, regardless of your culture settings, the values in the <b>State</b> column were displayed in English. This issue has been resolved. Now, the values in the <b>State</b> column are displayed in the language that is based on your culture settings.	DE99458
Previously, the FMEA Recommendations report contained ambiguous text for undefined values. This issue has been resolved. Now, undefined values in the report are represented by zeros.	DE93935
Previously, you could promote a non-global FMEA asset template to an ASM template. This issue has been resolved. Now, only global FMEA asset templates can be promoted to ASM templates.	DE88303
Previously, when you created an Analysis from a template, the template builder did not retain the selected assets. This issue has been resolved.	DE88189
Previously, in the <b>Recommended Actions</b> pane, you could select the <b>Linked Recommended Actions</b> tab before saving a new recommended action. This issue has been resolved.	DE85488
Previously, if you searched for the FMEA template record in the hierarchy, an error occurred. This issue has been resolved. Now, you can search for a child node of the selected parent record from the hierarchy.	DE79677

## Family Management

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

**Table 33: Enhancements and New Features**

The following enhancements and new features have been added.

Description	Tracking ID
<p>The following enhancements have been made to the <b>Behavior</b> section of the &lt;Field Name&gt; workspace:</p> <ul style="list-style-type: none"> <li>• You can now use the yyyy-MM-dd date format in a datasheet. To facilitate this enhancement, in the Format behavior, the <b>Custom</b> option has been added to the <b>Format Value</b> drop-down list box.</li> <li>• You can now validate if the current user is assigned to a Security Group. In addition, you can compare a field value or the current user ID with a query result for complex field-level security for the Disabled and Required behavior types. To facilitate these enhancements, the <b>Security Group</b> and <b>Security Group Query</b> options have been added to the <b>Condition</b> drop-down list box.</li> <li>• You can now add and combine multiple behavior statements for a field behavior using the If then Else conditional logic. To facilitate this enhancement, the <b>Add</b> button has been added in the <b>If</b> and <b>Else</b> sections.</li> <li>• You can now validate if an entity is new or not for the Disabled, Required, and Hidden behavior types. To facilitate this enhancement, <b>Is New</b> and <b>Is Not New</b> options have been added to the <b>Condition</b> drop-down list box.</li> <li>• You can now create a dynamic picklist using a catalog query. To facilitate this enhancement, in the Picklist behavior, the <b>QueryList</b> option has been added to the <b>Operator</b> drop-down list box.</li> <li>• You can now use the current time stamp in a date field. To facilitate this enhancement, the default behavior of the date fields has been changed.</li> <li>• The following enhancements have been made to the Picklist behavior: <ul style="list-style-type: none"> <li>◦ You can now select a system code dynamically from a value in a field.</li> <li>◦ You can now select a query from the catalog and then use the query to populate the picklist.</li> <li>◦ You can now select a query with prompts set from one or more field values and then use the query to populate the picklist.</li> </ul> </li> </ul>	F44331
<p>In an offline form, if you enter a value in a field, the values in the subsequent fields are now populated based on the value you entered. To facilitate this enhancement, the drop-down list boxes are now dynamically populated with values from the system code table that references values from the related family field.</p>	US343642

**Table 34: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.



Description	Tracking ID
Previously, when creating a family field, if you selected the <b>Always Required</b> option, the <b>Spread to SubFamily</b> check box was automatically selected. This issue has been resolved.	DE106515
Previously, when you changed the field length for a character field using Family Management, the change did not reflect in the physical table of the data source. This issue has been resolved.	DE102614
Previously, you could create a family that contained invalid data (Microsoft SQL Server reserved keywords) as the family caption even though an error message appeared. This issue has been resolved.	DE97431
Previously, while executing a query in the State Configuration field in the RBI Recommendation family, the field value returned by the query was not formatted correctly, although the <b>Formatted</b> check box had been selected. This issue has been resolved.	DE77356




## Family Policies




This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

#### Table 35: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
You can now use a reserved parsing keyword, such as the name of a function or a mathematical constant, as an input variable name in a Math node.	US359538
When you update the execution schedule of a policy other than in the <b>Details</b> workspace, the Policy Trigger Job is now configured according to the updated schedule.	US339892
You can now validate and execute a policy that contains a Collection Filter node with an empty collection. However, a warning message appears in the <b>Node Execution Details</b> window for the node, indicating that the collection is empty.	US334152
<p>To enhance the usability of the model canvas in the <b>Design</b> workspace, the following enhancements have been made:</p> <ul style="list-style-type: none"> <li>You can now use a grid to accurately align the nodes with the other nodes in the model canvas. To facilitate this enhancement, the Enable Grid button () has been added to the canvas.</li> <li>You no longer need to select specific connection points on nodes. To facilitate this enhancement, the  button now appears when you select a node.</li> <li>You can now bend a connector between nodes.</li> <li>The  button now appears when you point to a connector. This button enables you to define the logic path of the connector.</li> <li>You can now select a point on the model canvas and then drag the pointer to select all nodes and connectors within a rectangular region.</li> </ul>	<ul style="list-style-type: none"> <li>US330552</li> <li>US284834</li> <li>US237250</li> </ul>

Description	Tracking ID
<p>To improve the performance of policy execution, a node whose output is not used by any node of the policy model is no longer executed during the execution of the policy. This enhancement has been made to the following nodes:</p> <ul style="list-style-type: none"> <li>• Math</li> <li>• Query</li> <li>• R Script</li> </ul>	US327421
<p>In the <b>Properties</b> window for a node, when you specify a family ID, the name of the family associated with the family ID is now added to the default name of the node. However, if you modify the default name of the node before specifying the family ID, the modified name of the node is not updated with the name of the family. This enhancement has been made to ensure consistent behavior of the following nodes:</p> <ul style="list-style-type: none"> <li>• Create Entity</li> <li>• Create Relationship</li> <li>• Delete Relationship</li> <li>• Edit Entity</li> </ul>	US325425
<p>You can now download the image of a policy model to your local drive. To facilitate this enhancement, the Download button () has been added to the model canvas in the <b>Design</b> workspace.</p>	US325413
<p>To enhance the usability of the <b>Design</b> workspace, the following enhancements have been made:</p> <ul style="list-style-type: none"> <li>• The <b>Policy</b> section has been removed from the toolbar.</li> <li>• The Save button now contains the text Save instead of the  icon.</li> </ul>	US321474
<p>You can now refresh the metadata used by a policy and its nodes without refreshing the policy. To facilitate this enhancement, the Refresh Policy Metadata button () has been added to the following elements of the <b>Design</b> workspace:</p> <ul style="list-style-type: none"> <li>• The <b>Edit</b> section of the toolbar.</li> <li>• The <b>Properties</b> window for the nodes that use external metadata.</li> </ul>	US315588
<p>You can now revert the transaction that triggers a family policy. To facilitate this enhancement, the Cancel Transaction node has been added to the <b>Actions</b> section of the toolbar in the <b>Design</b> workspace.</p>	US236247
<p>The messages written in the server logs by the Policy Execution Service and Policy Trigger Service are now more specific to the logging levels.</p>	US184916

**Table 36: Resolved Issues**

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, in the <b>Validation</b> section, if you copied the null value of an instance to use it as an ad hoc test value for validation, the validation results of the policy were incorrect. This issue has been resolved.	US306739
Previously, if you configured the Policy input of a Sub Policy node, then copied and pasted the node, the copy of the Sub Policy node did not display the input fields for the specified Policy. This issue has been resolved.	DE116740
Previously, if you attempted to access a policy containing an Entity, Create Entity, or Edit Entity node referencing an entity family that did not exist in GE Digital APM, the policy failed to load. This issue has been resolved.	DE113400
Previously, if you entered a value in the <b>Value</b> section of a Text node that could be interpreted as a date or time span (for example, Sunday or 30d), the value was converted to the standard display format for a date or time span prior to being inserted into the Text Pattern. This issue has been resolved. Now, the Text node treats these values as strings.  <b>Note:</b> This change may affect the behavior of the pre-existing policies. Before you upgrade, you must review the policy designs to ensure that the Text node is configured so that the date and time and the time span values are mapped from the Constant node.	DE113062
Previously, if a sub policy contained multiple Return Value nodes with the same name, when you mapped the results from the sub policy to a successor node, the successor node input value list displayed the Return Value name multiple times, even though a single value was returned from the sub policy. This issue has been resolved. Now, the Return Value name is displayed only once in the input value list.	DE113041
Previously, if you specified an input value in a Constant node that could be interpreted as a date or a time span (for example, today or 700D) and specified string as the data type for the node, the input value was converted to a date or time span. This issue has been resolved.  <b>Note:</b> This change may affect the behavior of the pre-existing policies. Before you upgrade, you must review the policy designs to ensure that the correct data type is specified in all the Constant nodes.	DE112424
Previously, in the <b>Properties</b> window for a Create Entity node, if you specified values for more than two fields of the new entity, and then saved the policy, when you reloaded the policy, sometimes the values of only the first two fields were retained. This issue has been resolved.	DE111238
Previously, when you attempted to modify a record that triggered an After Update family policy containing a Baseline Rule node, and if the baseline rule configured for the Baseline Rule node updated the same record that triggered the policy, a time-out error occurred and the record was not modified. This issue has been resolved.	DE110458
Previously, when a vector output of an R Script returned only one value during the execution or validation of a policy, an error occurred. This issue has been resolved.	DE110279
Previously, in the <b>Properties</b> window for an Edit Entity node, in the <b>Auto-map field values</b> section, if you selected <b>Yes</b> , the <b>Entity Key Column</b> box was enabled as a required field. This issue has been resolved. Now, in this scenario, the <b>Entity Key Column</b> box is enabled as an optional field, and a warning message appears in the notification bar, indicating that you have not specified any value in the <b>Entity Key Column</b> box.	DE107430

Description	Tracking ID
<p>Previously, in the <b>Properties</b> window for a Math node, when you specified the variable names, an error message appeared in the notification bar, indicating a conflict between the variable names, even when there was no conflict in the names. This issue occurred when two variable names contained the same string and one of them contained an underscore or numeric value after the string. This issue has been resolved. Now, in these scenarios, the following events occur:</p> <ul style="list-style-type: none"> <li>• If one of the variable names contains an underscore after the string, no notification appears in the notification bar.</li> <li>• If one of the variable names contains a numeric value after the string and if there is a possibility of conflict between the variable names during the execution of the policy, a warning message appears in the notification bar.</li> </ul>	DE107317
<p>Previously, when the job configured to delete the execution history logs ran, the following issues intermittently occurred:</p> <ul style="list-style-type: none"> <li>• The old Execution History records were not deleted.</li> <li>• The policy execution transactions were reverted because the Execution History table of the database was locked by the job. This resulted in the execution failure of policies while the job was in progress.</li> </ul> <p>These issues have been resolved.</p>	<ul style="list-style-type: none"> <li>• DE106869</li> <li>• DE101822</li> </ul>
<p>Previously, in the <b>Properties</b> window for a Create Entity node, in the <b>Value</b> box, if you specified a value that matched the default value for the corresponding field, the execution of the policy failed. This issue has been resolved.</p>	DE106599

### Table 37: Known Issues

The following issues are unresolved in this release.

Description	Tracking ID
<p>When you export a policy from GE Digital APM V4.3.1.0.0, and then access the exported policy in an older version of GE Digital APM, the connectors in the policy model do not appear even though you can successfully validate and execute the policy. The workaround for this is to manually redraw the connectors between the nodes before making any modifications to the policy.</p>	DE116734

### Table 38: Obsolete Features

As of this release, the following items are no longer available.

Description	Tracking ID
<p>The Close Event node has been removed from Family Policies.</p> <p><b>Note:</b> The functionality of the Close Event node depends on the Policy Events associated with a policy instance. As family policies do not contain any policy instances, the Close Event node did not function as expected.</p>	DE114843

## Foundation

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 39: Enhancements and New Features

The following enhancements and new features have been added.

## GE Analytics

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 40: Deferred Features

The following items are deferred from V4.3.1.0.0.

Description	Tracking ID
The GE Analytics feature is not available in GE Digital APM V4.3.1.0.0.	F45351

## General Dashboards

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 41: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, if the catalog path for a query or a graph is used in a dashboard and if it contained an ampersand (&), the widget failed to load. This issue has been resolved.	DE118708
Previously, in the edit mode of the <b>Dashboard</b> page, you could not drag a Graph widget that did not contain a name to another location in the canvas. This issue has been resolved.	DE105211

## Graphs

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 42: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
In the <b>Settings</b> pane, in the <b>Series</b> section, in the <b>Color</b> column, the colors have been updated. <b>Note:</b> The colors in the existing graphs remain unchanged.	US313324

### Table 43: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, on a Stock Chart Graph with multiple lines, the tooltip labels were incorrect. This issue has been resolved.	DE113773
Previously, the results displayed in a graph were incorrect if the associated query included the same family as both a predecessor and a successor to a JOIN clause, and if the query result contained the same field from each instance of the family. This issue has been resolved.	DE106005
Previously, hyperlinks in a heat map did not work correctly. This issue has been resolved.	DE105558
Previously, if you accessed a graph from the Catalog folder for which you had the permission to view, but if you did not have the permission to view the Catalog folder where the data source query of the graph was stored, an incorrect error message appeared. This issue has been resolved. Now, a correct error message appears, indicating that you do not have the permission to view the query result used by the graph.	DE101164

## Inspection Management

This topic provides a list of product changes released for this module on the dates listed below.

### Version: V4.3.1.0.0

#### Table 44: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID																		
<p>To enhance usability, when the Inspection Management (IM) Assets and Inspection Management (IM) Functional Location data loaders are run, the following values are now updated in the Interface Log record.</p> <table border="1" data-bbox="264 386 1122 795"> <thead> <tr> <th data-bbox="264 386 695 434">Field</th> <th data-bbox="695 386 1122 434">Note</th> </tr> </thead> <tbody> <tr> <td data-bbox="264 434 695 520">Number of Records Processed</td> <td data-bbox="695 434 1122 520">Increased by one for each asset or functional location displayed in the workbook.</td> </tr> <tr> <td data-bbox="264 520 695 634">Number of Records Rejected</td> <td data-bbox="695 520 1122 634">Increased by one for each Inspection record that encounters an error when the record is created or updated.</td> </tr> <tr> <td data-bbox="264 634 695 720">Number of Records Created</td> <td data-bbox="695 634 1122 720">Increased by one for each new Inspection record that is successfully created.</td> </tr> <tr> <td data-bbox="264 720 695 795">Number of Records Updated</td> <td data-bbox="695 720 1122 795">Increased by one for each existing Inspection record that is successfully updated.</td> </tr> </tbody> </table>	Field	Note	Number of Records Processed	Increased by one for each asset or functional location displayed in the workbook.	Number of Records Rejected	Increased by one for each Inspection record that encounters an error when the record is created or updated.	Number of Records Created	Increased by one for each new Inspection record that is successfully created.	Number of Records Updated	Increased by one for each existing Inspection record that is successfully updated.	US366047								
Field	Note																		
Number of Records Processed	Increased by one for each asset or functional location displayed in the workbook.																		
Number of Records Rejected	Increased by one for each Inspection record that encounters an error when the record is created or updated.																		
Number of Records Created	Increased by one for each new Inspection record that is successfully created.																		
Number of Records Updated	Increased by one for each existing Inspection record that is successfully updated.																		
<p>To enhance usability when using a UOM conversion set, the values in the numeric fields are rounded off according to the type of the numeric field as described in the following table.</p> <table border="1" data-bbox="264 921 1122 1375"> <thead> <tr> <th data-bbox="264 921 695 970">Numeric Field Type</th> <th data-bbox="695 921 1122 970">Number of Decimal Places</th> </tr> </thead> <tbody> <tr> <td data-bbox="264 970 695 1024">SRV Set Pressure (Shell)</td> <td data-bbox="695 970 1122 1024">2</td> </tr> <tr> <td data-bbox="264 1024 695 1079">SRV Set Pressure (Tube)</td> <td data-bbox="695 1024 1122 1079">2</td> </tr> <tr> <td data-bbox="264 1079 695 1134">Test Pressure (Shell)</td> <td data-bbox="695 1079 1122 1134">2</td> </tr> <tr> <td data-bbox="264 1134 695 1188">Test Pressure (Tube)</td> <td data-bbox="695 1134 1122 1188">2</td> </tr> <tr> <td data-bbox="264 1188 695 1243">SRV Set Pressure (Shell)</td> <td data-bbox="695 1188 1122 1243">2</td> </tr> <tr> <td data-bbox="264 1243 695 1297">SRV Set Pressure (Tube)</td> <td data-bbox="695 1243 1122 1297">2</td> </tr> <tr> <td data-bbox="264 1297 695 1352">Test Pressure (Shell)</td> <td data-bbox="695 1297 1122 1352">2</td> </tr> <tr> <td data-bbox="264 1352 695 1375">Test Pressure (Tube)</td> <td data-bbox="695 1352 1122 1375">2</td> </tr> </tbody> </table> <p>This enhancement is applicable to the fields in the following families:</p> <ul data-bbox="264 1436 565 1497" style="list-style-type: none"> <li>• Pressure Test Inspection</li> <li>• Pressure Test Sub-Inspection</li> </ul>	Numeric Field Type	Number of Decimal Places	SRV Set Pressure (Shell)	2	SRV Set Pressure (Tube)	2	Test Pressure (Shell)	2	Test Pressure (Tube)	2	SRV Set Pressure (Shell)	2	SRV Set Pressure (Tube)	2	Test Pressure (Shell)	2	Test Pressure (Tube)	2	US358876
Numeric Field Type	Number of Decimal Places																		
SRV Set Pressure (Shell)	2																		
SRV Set Pressure (Tube)	2																		
Test Pressure (Shell)	2																		
Test Pressure (Tube)	2																		
SRV Set Pressure (Shell)	2																		
SRV Set Pressure (Tube)	2																		
Test Pressure (Shell)	2																		
Test Pressure (Tube)	2																		
<p>A new Human Resource role, Contract Inspector, is now available. A Contract Inspector can update the Status field in Inspection records to Pending Approval without being the user defined in the Inspection Report Owner field if they are a Team Member in the associated Inspection record.</p>	US344314																		
<p>Using the Equipment and Functional Location data loaders, a Contract Inspector who is a Team Member in the associated Inspection record can now change the value in the Status field to Pending Approval without being the user defined in the Inspection Report Owner field.</p>	US344314																		

Description	Tracking ID
If you are using Status to manage your Inspection Recommendation records and you are a Team Member in the associated Inspection record, you can now transition the Inspection Recommendation to the Pending Review status without being the user defined in the Author field.	US344314
You can now implement Recommended Actions that belong to an Inspection Plan in: <ul style="list-style-type: none"> <li>Asset Strategy Management.</li> <li>Inspection Plan as Inspection Task.</li> </ul> To facilitate this enhancement, a new option, <b>Implement Recommended Actions to Tasks in ASM</b> , has been added to the <b>Inspection Configuration</b> section of the <b>IM Admin Preferences</b> page.	US335134

### Table 45: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, the Inspection Lock field was disabled unless you were the Inspection Report Owner. This field is now enabled if you are a Team Member in the associated Inspection record.	US344314
Previously, if your culture setting was not English, when you accessed the checklist inspections for pre-defined API checklists or configured checklist templates, the values in the Name and Category fields of the Checklist Finding records were not translated to the language based on your culture setting. This issue has been resolved.	DE116950
Previously, you could not print Inspection Reports in bulk if the Inspection ID contained special characters that were not supported by the Windows operating system in a file name. This issue has been resolved.	DE115279
Previously, if the Inspection ID field of an Inspection Event contained special characters, which were not supported by Windows operating system for a file name, you could not bulk-print the Inspection Event from the <b>Inspection Management Overview</b> page. This issue has been resolved.	DE114406
Previously, for the Inspection Task record that did not contain an Inspection Document Type, when you selected a link in the <b>CREATE INSPECTION</b> column in the <b>Results</b> section of the query associated with the <b>Underlying Inspection Tasks</b> section, an error message appeared. This issue has been resolved. Now, in this scenario, a window appears to prompt you to select the Inspection Document Type for the record.	DE113031
Previously, when you switched from the <b>Bulk Review Inspections</b> workspace to a different tab or page, and then returned to the <b>Bulk Review Inspections</b> workspace, you could not approve the Inspection records. This issue has been resolved.	DE111741
Previously, even if the <b>Keep History</b> check box was selected for a field in the Inspection Task family, you could not access the history of the field in an Inspection Task. This issue has been resolved.	DE110746
Previously, in the <b>Inspection Data</b> section of the <b>Full Inspection: &lt;Inspection ID&gt;</b> workspace for an inspection, if you updated a master/detail datasheet that was created for the Full Inspection family, and then attempted to save the datasheet, two spinners appeared, indicating that the data was being updated for the inspection. This issue has been resolved. Now, in this scenario, only one spinner appears.	DE104168



Description	Tracking ID
Previously, when adding items to a Checklist Configuration template, when you searched for and added an item to the template, the item was successfully added. However, when you searched for a second item, it did not appear in the search results, even if it was available in the list of items. This issue has been resolved.	DE101414
Previously, you could modify the site assigned to the Resource Role records because the Resource Role family was enabled for site filtering. When the site assigned to a Resource Role for a given user was modified, the name of that user did not appear in the drop-down list boxes in the respective datasheets. This issue has been resolved. Now, the Resource Role family is no longer enabled for site filtering and the user names appear correctly.  <b>Note:</b> The fields containing the user names will continue to be filtered based on the site to which the respective record is assigned.	DE91540
Previously, for an Inspection Profile, in the <b>Inspection Profile Details</b> section, if the <b>Item ID</b> box contained a special character, GE Digital APM could not automatically generate the General Finding report that was based on the associated Inspection Scope. This issue has been resolved.	DE83319
Previously, when an inspection event was created for an asset for which the Inspection Profile records were defined and sequenced, and when the auto-generate findings feature for the selected inspection event family was enabled, the automatically created General Finding records were not arranged in the order of the values in the assigned Sequence field. This issue also existed in Inspection Field Data Collection when the inspection event was downloaded. This issue has been resolved. Now, when viewing an inspection event in Inspection Management or in Inspection Field Data Collection, the General Finding records are arranged in the order of the values in the assigned Sequence field.  <b>Note:</b> If the Inspection Profile records do not contain a value in the Sequence field, or if the General Finding records have been manually created, the General Finding records are arranged in alphabetical order of the values in the Inspection Profile Item field.	DE82618
Previously, when you used the IM Functional Location Data Loader to load Inspection Methods, if the Inspection Methods did not have a Method Category defined in the data loader, subsequent Inspection Methods that shared an Inspection Profile did not load. This issue has been resolved.	DE82379

## Installation

This topic provides a list of product changes released for this module on the dates listed below.

**Version: <number>**

### Table 46: Obsolete Features

As of this release, the following items are no longer available.

Description	Tracking ID
Elasticsearch is no longer included in the GE Digital APM distribution package.	US343529

## Life Cycle Cost Analysis

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 47: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, in an LCC Fleet Management analysis, the amount of life that remained for an element was incorrectly calculated. This issue has been resolved.	DE112731

## Manage Translations

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 48: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, if your culture was set to Russian, if you accessed a datasheet that had fields with Units of Measure (UOM) available as the field values, the UOM, Meters, was incorrectly translated. This issue has been resolved.	DE102506


## Maps

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 49: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
<p>Previously, if your GE Digital APM system used an Oracle schema, the Baseline Map Query did not return any results, and no points were displayed on the Map. In addition, regardless of the database type, points were not displayed on the Map if the Description field of the Functional Location was empty. These issues have been resolved.</p> <p><b>Note:</b> If you have previously modified the Baseline Map query in the Public folders, you must copy the updated Baseline Map Query found in the <code>Baseline\Meridium\Modules\Core\Queries\Map Queries</code> folder to the Public folders in order for this change to be applied.</p>	DE116158
<p>Previously, when you accessed a map, and then selected the <b>Edit Filters</b> button (  ), the <b>Enter Parameter Values</b> window did not appear. This issue has been resolved.</p>	DE81563

**Table 50: Obsolete Features**

As of this release, the following items are no longer available.

Description	Tracking ID
Bing Maps is no longer supported in the Maps tool.	DE118148


## Policy Designer





This topic provides a list of product changes released for this module on the dates listed below.



### Version: 4.3.1.0.0

**Table 51: Enhancements and New Features**

The following enhancements and new features have been added.

Description	Tracking ID
<p>You can now execute any one or all the active instances associated with a Policy on demand without modifying the existing execution settings configured for the policy. To facilitate this enhancement:</p> <ul style="list-style-type: none"> <li>A new button, <b>Execute Now</b>, has been added to the <b>Details</b> workspace.</li> <li>A new button, , has been added to the <b>Instances</b> section of the <b>Design</b> workspace.</li> </ul>	US359689
You can now use a reserved parsing keyword, such as the name of a function or a mathematical constant, as an input variable name in a Math node.	US359538
You can now configure a policy to create an execution history log record for all the executions or only the executions that result in an error.	US345229
You can now set a time limit for executing a policy instance. To facilitate this enhancement, a setting has been added to the Policy Execution Service configuration file.	US344236
When you update the execution schedule of a policy other than in the <b>Details</b> workspace, the Policy Trigger Job is now configured according to the updated schedule.	US339892

Description	Tracking ID
<p>You can now validate and execute a policy that contains a Collection Filter node with a blank collection. However, a warning message appears in the <b>Node Execution Details</b> window for the node, indicating that the collection is blank.</p>	<p>US334152</p>
<p>To enhance the usability of the model canvas in the <b>Design</b> workspace, the following enhancements have been made:</p> <ul style="list-style-type: none"> <li>• You can now use a grid to accurately align the nodes with the other nodes in the model canvas. To facilitate this enhancement, the Enable Grid button () has been added to the canvas.</li> <li>• You no longer need to select specific connection points on nodes. To facilitate this enhancement, the  button now appears when you select a node.</li> <li>• You can now bend a connector between nodes.</li> <li>• The  button now appears when you point to a connector. This button enables you to define the logic path of the connector.</li> <li>• You can now select a point on the model canvas and then drag the pointer to select all nodes and connectors within a rectangular region.</li> </ul>	<ul style="list-style-type: none"> <li>• US330552</li> <li>• US284834</li> <li>• US237250</li> </ul>
<p>To improve the performance of policy execution, a node whose output is not used by any node of the policy model is no longer executed during the execution of the policy. This enhancement has been made to the following nodes:</p> <ul style="list-style-type: none"> <li>• AMS Asset</li> <li>• Entity</li> <li>• GE Tag</li> <li>• Health Indicator</li> <li>• Math</li> <li>• Measurement Location</li> <li>• OPC Tag</li> <li>• Query</li> <li>• R Script</li> </ul>	<p>US327421</p>
<p>In the <b>Properties</b> window for a node, when you specify a family ID, the name of the family associated with the family ID is now added to the default name of the node. However, if you modify the default name of the node before specifying the family ID, the modified name of the node is not updated with the name of the family. This enhancement has been made to ensure consistent behavior of the following nodes:</p> <ul style="list-style-type: none"> <li>• Entity</li> <li>• Create Entity</li> <li>• Create Relationship</li> <li>• Delete Relationship</li> <li>• Edit Entity</li> </ul>	<p>US325425</p>
<p>You can now download the image of a policy model to your local drive. To facilitate this enhancement, the Download button () has been added to the model canvas in the <b>Design</b> workspace.</p>	<p>US325413</p>

Description	Tracking ID
<p>To enhance the usability of the <b>Design</b> workspace, the following enhancements have been made:</p> <ul style="list-style-type: none"> <li>The <b>Policy</b> section has been removed from the toolbar.</li> <li>The Save button now contains the text Save instead of the  icon.</li> </ul>	US321474
<p>If the execution of the Math node takes a very long time for some mathematical expressions, the execution now times out after a pre-defined duration. To facilitate this enhancement, the <code>MATH_NODE_EXECUTION_TIMEOUT</code> key, which defines the duration after which the execution must time out, has been added to the <code>Meridium.Policies.ExecutionService.exe.config</code> and <code>web.config</code> files, and the default value of the key has been set to 60000 milliseconds.</p>	US320254
<p>You can now refresh the metadata used by a policy and its nodes without refreshing the policy.</p> <p>To facilitate this enhancement, the Refresh Policy Metadata button () has been added to the following elements of the <b>Design</b> workspace:</p> <ul style="list-style-type: none"> <li>The <b>Edit</b> section of the toolbar.</li> <li>The <b>Properties</b> window for the nodes that use external metadata.</li> </ul>	US315588
<p>When you define the execution settings for a policy that does not contain an active instance, a warning message now appears in the notification bar, indicating that the policy does not contain any active instance to execute.</p>	US311955
<p>The messages written in the server logs by the Policy Execution Service and Policy Trigger Service are now more specific to the logging levels.</p>	US184916

**Table 52: Resolved Issues**

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
<p>Previously, when you started the Policy Execution Service or Policy Trigger Service, if the Microsoft Message Queuing (MSMQ) stopped responding or could not be accessed, the service failed to start. This issue has been resolved.</p>	US335128
<p>Previously, if an entity that was specified as a trigger for automatic policy execution was modified more than once within a short time span (that is, less than one second), only one policy execution was triggered. This feature, which was implemented to prevent unintended duplicate policy executions, resulted in some intended policy executions being skipped. This issue has been resolved. Now, policy execution is triggered each time an entity is modified, except for policies that are triggered by new Readings added to a Measurement Location.</p> <p><b>Note:</b> For policies that are triggered by new Readings added to a Measurement Location, duplicate policy executions are still prevented because the insertion of new Readings using the Rounds Data Collection module results in multiple entity updates.</p>	US324385
<p>Previously, in the <b>Validation</b> section, if you copied the null value of an instance to use it as an ad hoc test value for validation, the validation results of the policy were incorrect. This issue has been resolved.</p>	US306739
<p>Previously, while accessing GE Digital APM using Internet Explorer 11, when you accessed a policy that contained a Health Indicator node, the policy did not load or took a long time to load. This issue has been resolved.</p>	DE117337

Description	Tracking ID
Previously, a policy that was configured to be triggered when an Entity was created or modified was intermittently not triggered when the trigger event occurred. This issue has been resolved.	<ul style="list-style-type: none"> <li>• DE116926</li> <li>• DE114823</li> </ul>
Previously, if you configured the Policy input of a Sub Policy node, then copied and pasted the node, the copy of the Sub Policy node did not display the input fields for the specified Policy. This issue has been resolved.	DE116740
Previously, if the Microsoft Message Queuing (MSMQ) service had insufficient resources, the Policy Trigger Service failed to send messages to the policy execution queue, and this action was attempted several times until the messages were sent. Due to this, a large log file was generated by the Policy Trigger Service. This issue has been resolved. Now, a delay has been introduced between consecutive attempts so that the number of error messages added to the log file is reduced.	DE113750
Previously, if you attempted to access a policy containing an Entity, Create Entity, or Edit Entity node referencing an entity family that did not exist in GE Digital APM, the policy failed to load. This issue has been resolved.	DE113400
<p>Previously, if you entered a value in the <b>Value</b> section of a Text node that could be interpreted as a date or time span (for example, Sunday or 30d), the value was converted to the standard display format for a date or time span prior to being inserted into the Text Pattern. This issue has been resolved. Now, the Text node treats these values as strings.</p> <p><b>Note:</b> This change may affect the behavior of the pre-existing policies. Before you upgrade, you must review the policy designs to ensure that the Text node is configured so that the date and time and the time span values are mapped from the Constant node.</p>	DE113062
Previously, if a sub policy contained multiple Return Value nodes with the same name, when you mapped the results from the sub policy to a successor node, the successor node input value list displayed the Return Value name multiple times, even though a single value was returned from the sub policy. This issue has been resolved. Now, the Return Value name is displayed only once in the input value list.	DE113041
<p>Previously, if you specified an input value in a policy instance for a Point Value node or specified a value in a Constant node that could be interpreted as a date or a time span (for example, today or 700D), and if you specified string as the data type for the node, the input value was converted to a date or time span. This issue has been resolved.</p> <p><b>Note:</b> This change may affect the behavior of the pre-existing policies. Before you upgrade, you must review the policy designs to ensure that the correct data type is specified in all the Constant and Point Value nodes.</p>	DE112424
Previously, in the <b>Properties</b> window for a Create Entity node, if you specified values for more than two fields of the new entity, and then saved the policy, when you reloaded the policy, sometimes the values of only the first two fields were retained. This issue has been resolved.	DE111238
Previously, when a vector output of an R Script returned only one value during the execution or validation of a policy, an error occurred. This issue has been resolved.	DE110279
<p>Previously, when you accessed a policy, the following issues may have occurred:</p> <ul style="list-style-type: none"> <li>• The mappings between the output fields of the predecessor nodes and the input fields of the successor nodes were not retained.</li> <li>• Incorrect error messages appeared in the notification bar.</li> </ul> <p>These issues have been resolved.</p>	DE110027

Description	Tracking ID
<p>Previously, if you copied and renamed an Input node of the policy model, and then saved the policy, the following issues occurred until you reloaded the policy:</p> <ul style="list-style-type: none"> <li>• The renamed node did not appear in the instances associated with the policy.</li> <li>• All instances associated with the policy were deactivated due to which the policy was not executed.</li> <li>• The validation of the policy failed with an error message, indicating that you had not specified any record for the new Input node.</li> </ul> <p>These issues have been resolved.</p>	DE109329
<p>Previously, in the <b>Properties</b> window for an Edit Entity node, in the <b>Auto-map field values</b> section, if you selected <b>Yes</b>, the <b>Entity Key Column</b> box was enabled as a required field. This issue has been resolved. Now, in this scenario, the <b>Entity Key Column</b> box is enabled as an optional field, and a warning message appears in the notification bar, indicating that you have not specified any value in the <b>Entity Key Column</b> box.</p>	DE107430
<p>Previously, in the <b>Properties</b> window for a Math node, when you specified the variable names, an error message appeared in the notification bar, indicating a conflict between the variable names, even when there was no conflict in the names. This issue occurred when two variable names contained the same string and one of them contained an underscore or numeric value after the string. This issue has been resolved. Now, in these scenarios, the following events occur:</p> <ul style="list-style-type: none"> <li>• If one of the variable names contains an underscore after the string, no notification appears in the notification bar.</li> <li>• If one of the variable names contains a numeric value after the string and if there is a possibility of conflict between the variable names during the execution of the policy, a warning message appears in the notification bar.</li> </ul>	DE107317
<p>Previously, when the job configured to delete the execution history logs ran, the following issues intermittently occurred:</p> <ul style="list-style-type: none"> <li>• The old Execution History records were not deleted.</li> <li>• The policy execution transactions were reverted because the Execution History table of the database was locked by the job. This resulted in the execution failure of policies while the job was in progress.</li> </ul> <p>These issues have been resolved.</p>	<ul style="list-style-type: none"> <li>• DE106869</li> <li>• DE101822</li> </ul>
<p>Previously, in the <b>Properties</b> window for a Create Entity node, in the <b>Value</b> box, if you specified a value that matched the default value for the corresponding field, the execution of the policy failed. This issue has been resolved.</p>	DE106599
<p>Previously, if the GE Digital APM database contained an active policy configured for automatic execution, and if you added the database as a new data source on the GE Digital APM server, the policy was not executed as per the execution schedule until you updated the policy. This issue has been resolved.</p>	DE53608

**Table 53: Known Issues**

The following issues are unresolved in this release.

Description	Tracking ID
When you export a policy from GE Digital APM V4.3.1.0.0, and then access the exported policy in an older version of GE Digital APM, the connectors in the policy model do not appear even though you can successfully validate and execute the policy. The workaround for this is to manually redraw the connectors between the nodes before making any modifications to the policy.	DE116734

## Process Data Integration (PDI)

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

#### Table 54: Deferred Features

The following items are deferred from V4.3.1.0.0.

Description	Tracking ID
The Process Data Integration (PDI) feature is not available in GE Digital APM V4.3.1.0.0.	F45351

#### Table 55: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, if you specified that you wanted to store zero readings in the GE Digital APM database, the PDI service stored a reading and then deleted it, which caused performance degradation. This issue has been resolved. Now, the PDI service no longer adds and deletes extraneous readings, and, as a result, database performance is significantly improved.	DE107755

## Production Loss Analysis (PLA)

This topic provides a list of product changes released for this module on the dates listed below.



### Version: 4.3.1.0.0

#### Table 56: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
You can no longer modify or delete the baseline Impact Codes and Production Event Codes.	US357670
When creating a concurrent time-based Production Plan from a plan template, if you modify the start date, the end date is now automatically updated based on the duration defined in the template.	US357386
In the <b>Units</b> workspace, in the Production Profile datasheet, you can no longer modify the values in the <b>Product</b> and <b>Product Alias</b> boxes if this Production Profile is associated with a Production Plan.	US351643



Description	Tracking ID
<p>You can now perform the following tasks if you enable the State Management functionality for the Production Event family:</p> <ul style="list-style-type: none"> <li>• Submit a Production Event for review.</li> <li>• Approve or reject a Production Event.</li> <li>• Resubmit a Production Event for review.</li> <li>• Reopen a Production Event.</li> </ul> <p><b>Note:</b> By default, the State Management functionality is disabled for the Production Event family.</p>	US347103
<p>You can now perform the following tasks if you enable the State Management functionality for the Production Plan family:</p> <ul style="list-style-type: none"> <li>• Submit a Production Plan for review.</li> <li>• Approve or reject a Production Plan.</li> <li>• Resubmit a Production Plan for review.</li> <li>• Reopen a Production Plan.</li> <li>• Close a Production Plan.</li> </ul> <p><b>Note:</b> By default, the State Management functionality is disabled for the Production Plan family.</p>	US338910
<p>To enhance usability, the values that appear in the <b>Product</b> drop-down list box in the Production Profile datasheet and the <b>Products</b> column in the <b>Production Plan Builder</b> window are now sorted primarily in numeric order and secondarily in alphabetical order.</p>	US322774
<p>You can now deactivate and activate Products. To facilitate this enhancement, the Status field has been added to the Product family. In addition, the Deactivate button (  ) and the Activate button (  ) have been added to the <b>Products</b> workspace in the <b>PLA Administrator</b> page.</p> <p><b>Note:</b> By default, all the Products are active.</p>	US295390
<p>You can now access a set of baseline Production Event Codes. To facilitate this enhancement, in the <b>Event Codes</b> section, the following parent Production Event Codes, along with their child codes, have been added:</p> <ul style="list-style-type: none"> <li>• External Losses</li> <li>• Operational Losses</li> <li>• Planned Losses</li> <li>• Quality Losses</li> <li>• Speed Losses</li> <li>• Unaccounted Losses</li> </ul>	US292952
<p>You can no longer modify or delete the baseline OEE Codes.</p>	US289763
<p>To enhance usability, in the <b>PLA Administrator</b> page, a warning message now appears when you navigate away from the <b>Codes</b> and <b>Units</b> workspaces without saving your changes.</p>	US281138
<p>When creating a Production Plan for a given Production Unit and start date, if another Production Plan already exists for the same Production Unit and start date, a warning message now appears to indicate the possibility of creating a duplicate Production Plan.</p>	US258520

**Table 57: Resolved Issues**

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, in the Production Event family, the Unit Key was stored in the Unit field. When you ran a query for Unit Name from Production Event family, the Unit Key was returned. This issue has been resolved.	DE118908
Previously, if you were assigned to the Production Loss Accounting Administrator Security Role and you attempted to remove the mapping between an Impact Code and an OEE Code, an error occurred if the mapping was used in a Production Loss record. This issue has been resolved.	DE117124
Previously, if the values in the Product Name and Product Alias fields of a Production Profile were different in GE Digital APM or in the Production Loss Analysis (PLA) 1-Admin Data Loader, when you attempted to import Production Plans for the Production Profile using the Production Loss Analysis (PLA) 3-Plan Data Loader, the import job failed. This issue has been resolved.	DE117122
Previously, when reconciling Production Losses, you could not modify the value in the Equivalent Downtime Hours field. This issue has been resolved.	DE116667
Previously, the Event ID was automatically generated in the format <Event ID> ~ <Unique Sequence Number>. The format has been changed to <Unit Name> ~ <Headline> ~ <Unique Sequence Number>, so that you can add information from the Headline field.	DE116525
Previously, the State Management functionality was not activated even if you had enabled the State Management functionality. This issue has been resolved.	DE115597
Previously, the list of active Products that appeared while creating or modifying Production Profiles, Plan Templates, and Production Plans were not sorted numerically. That issue has been resolved.	DE114902
Previously, when you attempted to create a Production Plan using a Plan Template, the Plan End Time was not automatically set based on the Plan Start Time. This issue has been resolved.	DE114901
Previously, all the monetary and quantity values did not appear according to the number of decimal places (that is, precision values) specified in the <b>Settings</b> window.	DE105830

## Queries

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

#### Table 58: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
<p>You can now use the general form of the CASE expression to create a Meta-SQL conditional query.</p> <p>Example: Use of the general form of the CASE expression in a query</p> <pre> CASE WHEN [MI_ACTION].[MI_ACTION_DESCRIPTION_T] LIKE '%lubricant%' THEN ' Lubrication Action ' ELSE 'Other' END </pre>	US311695
To make large queries easier to understand and maintain, you can now define multiple CTE query definitions in a single query.	US304986

### Table 59: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, the Number/Mathematical Functions MOD and % did not function and returned an error message. Due to this, you could not determine the remainder from a division operation. This issue has been resolved. Now, the Modulus Meta-SQL function has been introduced for determining the remainder from a division operation.	DE113169
<p>Previously, if you were assigned to the MI Power User Role Security Group, and if you accessed APM Now, you could not create the following types of queries:</p> <ul style="list-style-type: none"> <li>• Update query</li> <li>• Delete query</li> <li>• Append query</li> </ul> <p>This issue has been resolved.</p>	DE112398
Previously, if conditions were defined for a query, and if you attempted to add a condition in the <b>Or</b> row of the <b>Conditions</b> section, an error occurred. This issue has been resolved.	DE112501
Previously, if you selected a null date from the query parameter window, an error message appeared in an Oracle database. This issue has been resolved. Now, null dates are excluded from the query parameter values.	DE107985
Previously, when you ran an aggregate query that performed a calculation on the results column of a stored query that contained both TOP and ORDER BY clauses, the aggregate query returned an incorrect value. This issue has been resolved.	DE104815
Previously, in an Oracle database, when you ran a query that contained the TOP clause but no ORDER BY clause in formatted mode, the records that appeared in the <b>Results</b> workspace were different from the records that appeared when you ran the same query in unformatted mode. This issue has been resolved.	DE104520
Previously, when you ran a query with the Limit Results to Top condition, if the number of records that were returned was less than the value specified in the <b>Limit Results to Top</b> box, this value appeared as the record count in the <b>Results</b> workspace, instead of the actual record count. This issue has been resolved.	DE104519

Description	Tracking ID
Previously, for a query other than the SELECT query, in the <b>View Query</b> column of the <b>Query</b> page, when you selected a link to access the results-only view of the query, an incorrect error message appeared. This issue has been resolved.	DE103993
Previously, in the <b>Condition</b> section of the <b>Design</b> workspace, when you accessed a simple expression in the <b>Criteria</b> or <b>Or</b> cell, the expression appeared in the <b>Advanced</b> section instead of the <b>Simple</b> section of the <b>Expression Builder</b> window, and the <b>Simple</b> tab was disabled. This issue has been resolved.	DE103971
Previously, in an Oracle database, when you ran a query that contained the <b>ML_DatePart</b> function, incorrect values appeared in certain columns containing the parts of the date in the query results. This issue has been resolved.	DE102611
Previously, when you attempted to run a formatted query containing multivalued fields, an error message appeared, and no results were returned. This issue has been resolved.  <b>Note:</b> For limitations in running queries containing multivalued fields in an Oracle data source, refer to: Known Issue KBA V4 – Error message appears when you run a query with multivalued fields.	DE102144
Previously, in the <b>Design</b> workspace, when you saved a query for which the <b>Show Totals</b> check box was selected, in the <b>Conditions</b> section, the column that contained the value <b>Group By</b> in the <b>Total</b> row and a value in the <b>Criteria</b> row was duplicated. This issue has been resolved.	DE101176
Previously, you could access a query that contained the EXISTS condition for the SELECT subquery in the <b>Design</b> workspace.  <b>Note:</b> The Meta-SQL code cannot be represented in the <b>Design</b> workspace because the EXISTS condition does not have an associated column. Therefore, it should not be accessible from the <b>Design</b> workspace.  This issue has been resolved. Now, when you attempt to access the query from the <b>Design</b> workspace, a message appears, stating that the query cannot be displayed in the <b>Design</b> workspace.	DE100395
Previously, when you accessed a query in the <b>Design</b> workspace and cleared the <b>Include</b> check box for a column, the code related to the column was deleted from the <b>SQL</b> workspace when the query was saved. This issue has been resolved.	DE97437
Previously, in the <b>Design</b> workspace, in the <b>Conditions</b> section, when you selected the <b>Show Totals</b> check box, and then selected the value <b>Count</b> in the <b>Total</b> cell for a field that contained an expression, the <b>COUNT</b> function was not added to the SQL code in the <b>SQL</b> workspace. In addition, when you cleared the <b>Show Totals</b> check box for a query that contained the <b>COUNT</b> function in the SQL code in the <b>SQL</b> workspace, the <b>COUNT</b> function was not deleted from the SQL code. These issues have been resolved.	DE93645
Previously, when you ran a query that contained a prompt, the following issues existed in the <b>Enter Parameter Values</b> window:  <ul style="list-style-type: none"> <li>• You could not select a value from any other drop-down list box.</li> <li>• If the underlying query for a parameter value was invalid, an error message appeared as selectable values within the corresponding drop-down list box in the window.</li> </ul> These issues have been resolved.	DE50924

### Table 60: Obsolete Features

As of this release, the following items are no longer available.

Description	Tracking ID
The fields that appeared when the <b>Include</b> check box was cleared no longer appear in the <b>Entity Key</b> drop-down list box in the <b>Specify Parameters</b> section of the <b>URL Builder</b> window. This change has been made because when you selected a field when the <b>Include</b> check box was cleared, an invalid link was created.	US313866

## Record Manager

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0


#### Table 61: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, in a user session, if you created a user account for a Security User with the email ID associated with the user account, and then accessed a record for the Conditional Alert family, the email ID did not appear in the <b>Fixed Distribution List</b> and <b>Optional Distribution</b> drop-down list boxes. This issue has been resolved.	DE103178
Previously, if you had accessed GE Digital APM using Internet Explorer, the horizontal scroll bar in the bulk data form did not operate as expected. This issue has been resolved.	DE90472

#### Table 62: Obsolete Features

As of this release, the following items are no longer available.

Description	Tracking ID
You can no longer create a site reference record by selecting the Create New Record button  and entering a value in the <b>Name</b> box in the Site Reference datasheet. Site reference records can be created only from the <b>Sites</b> page.	US348948

## Reliability Analytics

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

#### Table 63: Enhancements and New Features


The following enhancements and new features have been added.

Description	Tracking ID
<p>You can now define the complete System Reliability diagram in the System Reliability Data Loader. To facilitate this enhancement, the following changes have been made to the System Reliability Data Loader:</p> <ul style="list-style-type: none"> <li>• The following worksheets have been added: <ul style="list-style-type: none"> <li>◦ System Buffer</li> <li>◦ System Link</li> <li>◦ System Switch</li> <li>◦ System Sensor</li> </ul> </li> <li>• The following worksheets have been modified: <ul style="list-style-type: none"> <li>◦ System Analysis</li> <li>◦ System Subsystem</li> <li>◦ System Asset</li> <li>◦ System Diagram</li> <li>◦ System Risk</li> <li>◦ System Action</li> </ul> </li> </ul>	US324023

**Table 64: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, in Spares Analysis, an error occurred when you attempted to associate a Reliability Distribution with a Spare Application. This issue has been resolved.	DE118879
Previously, when you attempted to apply any filters using the Reliability Automation Rule Builder, the <b>Define Filters</b> drop-down list box displayed an insufficient number of characters for you to make a selection. This issue has been resolved.	DE117508
<p>Previously, in the <b>Reliability Analytics</b> page, the record counts on the tabs did not correspond to the selected filter in the Asset Hierarchy. This issue has been resolved. Now, the record counts are as follows:</p> <ul style="list-style-type: none"> <li>• When the Asset Hierarchy is set to Home, the record count indicates the number of all the analyses, whether they are linked to the Asset Hierarchy or not.</li> <li>• When the Asset Hierarchy is set to any other level, the record count indicates the asset context for each Reliability module.</li> </ul>	DE115896
Previously, in a Probability Plot, when you modified the start date of the Analysis Period, an error message appeared. This issue has been resolved.	DE115718
Previously, in the <b>System Reliability Analysis</b> page, when you attempted to delete an action, and then selected <b>No</b> in the confirmation window, the action was still deleted. This issue has been resolved. Now, in this scenario, the delete workflow is canceled and the action is retained.	DE115717
Previously, in the <b>Reliability Analytics Overview</b> page, when you changed the asset hierarchy level from home to another level, the counts that appeared on the tabs did not change according to the new level. This issue has been resolved.	DE114824
Previously, when you accessed a Reliability Analysis, in the workspace for the selected analysis, the site reference was initially displayed as Global. The correct site name was displayed after some delay. This issue has been resolved.	DE114231

Description	Tracking ID
Previously, in the <b>Production Analysis</b> page, when reviewing the production output data using the Show Data button (  ), the values in the X and Y columns were not based on the value in the <b>POINTDATE</b> column. This issue has been resolved. Now, the values in the X and Y columns are based on the value in the <b>POINTDATE</b> column.	DE113748
Previously, in System Reliability, you could not run a simulation for a System Analysis with frequent failures in risks or with a value in the Last Failure field. An error message appeared, stating that the p parameter must contain a value between zero and one. This issue has been resolved.	DE110846
Previously, in the <b>Failure Probability</b> workspace, if you selected <b>Future Probability</b> and then entered a value in the <b>Set Future Probability</b> window, the value in the Future Failure Probability column was not properly updated.	DE109848
Previously, when you attempted to access the <b>Reliability Analytics</b> page, the page took longer to load because duplicate API calls were made to the GE Digital APM server. This issue has been resolved.	DE109380
Previously, in the <b>Failure Probability</b> workspace of a Reliability Distribution Analysis, if you modified the bounds of the axes, and then modified the Future Probability value for that asset contained within that analysis, the new Future Probability value was not retained for the selected asset.	DE107174
Previously, in the <b>Failure Rate Plot</b> workspace of a Reliability Distribution Analysis, if you modified the bounds of either the Adjust Axes or Confidence Level distribution options for that plot and then navigated away from the plot, your selections were not retained.	DE107173
Previously, when running a simulation on a complex analysis with a large number of buffer components in System Reliability, the simulation did not complete.	DE105903
Previously, in the <b>Definition</b> workspace of a System Reliability Analysis, if the Time Analysis Type field was set to Monthly, when you accessed the <b>Simulation Results</b> workspace of that analysis, the Trend Plot displayed the data in years (for example, YYYY) instead of months (for example, MM).	DE105521
Previously, when you created an RCA for a Production Event from the Production Loss Analysis (PLA) module, in the <b>Analysis Summary</b> workspace, in the <b>Linked Assets</b> section, the Causing Asset associated with the Production Event did not appear in the <b>Record ID</b> column.	DE103249

## Reliability Centered Maintenance

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 65: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
To improve usability, the risk assessment window has been modified as follows: <ul style="list-style-type: none"> <li>The size and positioning of the <b>Basis of Assessment</b> box have been adjusted.</li> <li>The expand feature has been added to the <b>Basis of Assessment</b> box.</li> </ul>	US345815
You can now restrict modifying an RCM Analysis and its child record to team members only. To facilitate this enhancement, the <b>RCM FMEA Preferences</b> tab has been added to the <b>RCM FMEA Admin</b> page.	US340645
You can now modify the Recommendation at all the levels in the analysis hierarchy.	US313842
In the <b>RCM Overview</b> page, the <b>Create New Analysis</b> and <b>Create New Template</b> buttons have been renamed <b>New Analysis</b> and <b>New Template</b> , respectively.	US306105
To enhance performance and scalability, the apply template operation has been converted to a job.	US293368

**Table 66: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, if your culture setting had a culture other than English, the values in the <b>System Criticality Basis</b> column of the RCM Analysis Description report were not translated to the language based on your culture setting. This issue has been resolved.	US301689
Previously, in the RCM Recommendation report, the <b>Interval</b> and <b>Resource</b> columns were not translated. This issue has been resolved. Now, the values selected for <b>Interval Units</b> will always be translated. The values of <b>Recommended Resource</b> will be translated only if they are selected from the drop-down list box. If you enter a value that is not in the drop-down list box of <b>Recommended Resource</b> , it will not be translated.	US301684
Previously, when you attempted to promote a Recommendation that was created using the Reliability Centered Maintenance (RCM) data loader, an error occurred. This issue has been resolved.	DE116212
Previously, you could not consolidate the Recommendations that were created using the Reliability Centered Maintenance (RCM) data loader. This issue has been resolved.	DE116023
Previously, the Driving Risk Category for Mitigated Risk Assessments was determined by the Unmitigated Risk Assessment. This issue has been resolved.	DE115096
Previously, when you selected an asset in the RCM failure mode, the Related Asset Type field was not populated with the correct Taxonomy Type of the equipment or functional location. This issue has been resolved.	DE109409
Previously, when you attempted to access an asset from the <b>Linked Assets</b> section of an analysis, an error occurred. This issue has been resolved.	DE109220
Previously, the count of Recommended Actions that appeared in the <b>Recommended Actions</b> pane was incorrect. This issue has been resolved.	DE108791
Previously, in the <b>RCM Overview</b> page, if you selected the Help button when you attempted to create a template, the Help documentation did not appear. This issue has been resolved. Now, the Help button does not appear when you attempt to create a template.	DE108018



Description	Tracking ID
Previously, you encountered database errors when using RCM data loaders under certain conditions. This issue has been resolved. Now, the incremental save feature has been added to these data loaders.	DE105997
Previously, the <b>Apply Template Builder</b> window took a long time to load when the template was complex. This issue has been resolved. Now, when creating an analysis from a template, the <b>Apply Template Builder</b> window loads more quickly.	DE105577
Previously, you could delete Recommendations that were not at the Failure Effect level. This issue has been resolved. Now, you can delete only the Recommendations that are at the Failure Effect level.	DE104267
Previously, regardless of your culture settings, the values in the <b>State</b> column were displayed in English. This issue has been resolved. Now, the values in the <b>State</b> column are displayed in the language that is based on your culture settings.	DE99458
Previously, when you created an analysis from a template, the template builder did not retain the selected assets. This issue has been resolved.	DE88189
Previously, in the <b>Recommended Actions</b> pane, you could select the <b>Linked Recommended Actions</b> tab before saving a new recommended action. This issue has been resolved.	DE85488
Previously, if you searched for an RCM template record in the hierarchy, an error occurred. This issue has been resolved. Now, you can search for a child node of the selected parent record from the hierarchy.	DE79677

## Report Configuration

**Version: 4.3.1.0.0**

### Table 67: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
GE Digital APM now supports Microsoft Visual Studio 2017.	US260698

### Table 68: Obsolete Features

The following features are no longer supported.

Description	Tracking ID
GE Digital APM no longer supports Microsoft Visual Studio 2013 and Microsoft Visual Studio 2015.	US260698

## Results Grid

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

### Table 69: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
<p>The user interface of the Results Grid feature has been enhanced with a new look and feel. Additionally, the performance of the Results Grid feature has been improved.</p> <p><b>Note:</b> The images for the following modules in the GE Digital help system have been updated. Images for the remaining modules will be updated in a future release.</p> <ul style="list-style-type: none"><li>• Asset Health Manager</li><li>• Analytics</li><li>• eLog</li><li>• GAA Wind</li><li>• General Dashboard</li><li>• Policy Designer</li><li>• Production Loss Analysis</li><li>• Queries</li><li>• RScript</li></ul>	F44103

### Table 70: Known Issues

The following issues are unresolved in this release.

Description	Tracking ID
<p>With the Web accessibility feature enabled in Chrome, performance degradation is observed in filtering and sorting of Data grids which have configured multiple selection of rows. By default the Web accessibility flag is off, in case you see degradation, you can check the status of the flag and disable it.</p> <p>To disable the flag and check the status, enter <code>chrome://accessibility/</code> in your chrome browser and clear the option Web accessibility.</p>	DE118458

## Risk Based Inspection (RBI)

This topic provides a list of product changes released for this module on the dates listed below.

**RBI 580 and RBI 581**

**Version: 4.3.1.0.0**

### Table 71: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID										
Security Users who were members of the MI RBI Analyst Security Group are now automatically assigned the MI Inspection Plan Approver Role.	US360378										
To enhance usability when superseding RBI Recommendations, the <b>Completion Comments</b> box has now been added to the RBI Recommendation datasheet.	US358589										
You can now re-promote an asset from Risk Based Inspection (RBI) to Asset Strategy Manager (ASM) when the asset has been previously promoted to ASM and the resulting actions have been consolidated on the Asset Strategy. To facilitate this enhancement, any consolidated actions on the Asset Strategy will now be unlinked during the promotion of an asset.	US353336										
To enhance usability and readability, the Process Unit navigation in the <b>RBI 581 Inventory Groups</b> workspace has been updated to display the Functional Location Entity ID instead of the Functional Location ID.	US348279										
To enhance performance, the queries used in the <b>Risk Based Inspection Overview</b> page, which referenced MI_ENTITIES directly, now reference the Equipment family. To facilitate this enhancement, the following queries have been updated:	US343930										
<table border="1"> <thead> <tr> <th>Query</th> <th>Path</th> </tr> </thead> <tbody> <tr> <td>RBI Assets for a Functional Location</td> <td>Public\Meridium\Modules\Risk Based Inspection \Queries\</td> </tr> <tr> <td>Asset Counts for Units</td> <td>Public\Meridium\Modules\Risk Based Inspection \Queries\</td> </tr> <tr> <td>Analyses Ready For Evergreening – 580</td> <td>Public\Meridium\Modules\Risk Based Inspection \Queries\</td> </tr> <tr> <td>Analyses Ready For Evergreening - 581</td> <td>Public\Meridium\Modules\Risk Based Inspection – 581\Queries\</td> </tr> </tbody> </table>	Query	Path	RBI Assets for a Functional Location	Public\Meridium\Modules\Risk Based Inspection \Queries\	Asset Counts for Units	Public\Meridium\Modules\Risk Based Inspection \Queries\	Analyses Ready For Evergreening – 580	Public\Meridium\Modules\Risk Based Inspection \Queries\	Analyses Ready For Evergreening - 581	Public\Meridium\Modules\Risk Based Inspection – 581\Queries\	
Query	Path										
RBI Assets for a Functional Location	Public\Meridium\Modules\Risk Based Inspection \Queries\										
Asset Counts for Units	Public\Meridium\Modules\Risk Based Inspection \Queries\										
Analyses Ready For Evergreening – 580	Public\Meridium\Modules\Risk Based Inspection \Queries\										
Analyses Ready For Evergreening - 581	Public\Meridium\Modules\Risk Based Inspection – 581\Queries\										
<p>You can now implement RBI recommendations that belong to an Inspection Plan in:</p> <ul style="list-style-type: none"> <li>• Asset Strategy Management.</li> <li>• Inspection Plan as Inspection Task.</li> </ul> <p>To facilitate this enhancement, a new option, <b>Implement Recommended Actions to Tasks in ASM</b>, has been added to the <b>Global Preferences</b> section of the <b>RBI Admin Preferences</b> page.</p>	US335134										

## Table 72: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, for a Criticality RBI Component - Exchanger Bundle, when you copied an RBI Criticality Analysis or created a What-If Analysis from an RBI Criticality Analysis, and then calculated the analysis, the Final Phase and Final Phase Shell Side fields in the related Criticality Consequence Evaluation record were not populated. This issue has been resolved.	DE117340
Previously, the value in the Desired Interval field in an Inspection Task was recalculated when the related RBI Recommendation was either deleted or transitioned to the Archived state. This issue has been resolved.	DE117062

Description	Tracking ID
Previously, when you applied a Criticality RBI Component – Cylindrical Shell component that contained the value Storage Tank in the Component Type field, an error message appeared. This issue has been resolved.	DE109897
Previously, when calculating inventory for the Criticality RBI Component – Cylindrical Shell component that contained the value Storage Tank in the Component Type field, an error occurred. This issue has been resolved. Now, the Calculated Inventory field is populated with the correct inventory value.	DE100794
Previously, when you attempted to finalize risk of multiple analyses that belonged to multiple Assets or Corrosion Loops, the operation failed completely when there were multiple analyses that belonged to a single component. This issue has been resolved. Now, in this scenario, the analyses that belong to different components are updated to Risk Completed and an error message appears to indicate the number of failed analyses.	DE95713
Previously, you could unexpectedly modify unmitigated risk values on Failure Risks with a source of RBI in Asset Strategy Manager (ASM). This issue has been resolved.	DE83069

## RBI 580

### Version: 4.3.1.0.0

#### Table 73: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
<p>To enhance usability of the Risk Based Inspection (RBI) 580 Data Loader, the following values are now updated in the Interface Log record generated by the data loader:</p> <ul style="list-style-type: none"> <li>• Number of Record Processed: This value is incremented by one for each asset processed by the data loader.</li> <li>• Number of Records Rejected: This value is incremented by one for each RBI Criticality Analysis record that encounters an error when processed by the data loader, thus resulting in the record not being created or updated.</li> <li>• Number of Records Created: This value is incremented by one for each RBI Criticality Analysis record that is created.</li> <li>• Number of Records Updated: This value is incremented by one for each existing RBI Criticality Analysis record that is updated.</li> </ul>	US366675
To enhance usability, in the RBI Recommendation, the value in the RBI Recommendation Methodology field has been changed from Criticality Calculator to RBI 580.	US353694

Description	Tracking ID								
<p>To enhance usability when using a UOM conversion set, the values within numeric fields are rounded off according to the type of the numeric field as follows:</p> <table border="1" data-bbox="264 352 1120 625"> <thead> <tr> <th data-bbox="264 352 695 401">Numeric Field Type</th> <th data-bbox="695 352 1120 401">Number of Decimal Places</th> </tr> </thead> <tbody> <tr> <td data-bbox="264 401 695 485">Pressure, Temperature, Stress, Length, Diameter, Area, Mass, Percent, Age, Cost, Risk</td> <td data-bbox="695 401 1120 485">2</td> </tr> <tr> <td data-bbox="264 485 695 533">Thickness, Corrosion Rate, Damage Factor</td> <td data-bbox="695 485 1120 533">4</td> </tr> <tr> <td data-bbox="264 533 695 625">Probability of Failure</td> <td data-bbox="695 533 1120 625"> <ul style="list-style-type: none"> <li>• Exponential if value is less than 1</li> <li>• 8 decimal places if value is greater than 1</li> </ul> </td> </tr> </tbody> </table> <p>This change is applicable to the fields from the following families:</p> <ul style="list-style-type: none"> <li>• All RBI Component Families</li> <li>• RBI Criticality Analysis</li> <li>• RBI Consequence Evaluation</li> <li>• Criticality Int. Corr. Deg. Mech. Eval.</li> <li>• Criticality Ext. Corr. Deg. Mech. Eval.</li> <li>• RBI Degradation Mechanisms</li> </ul>	Numeric Field Type	Number of Decimal Places	Pressure, Temperature, Stress, Length, Diameter, Area, Mass, Percent, Age, Cost, Risk	2	Thickness, Corrosion Rate, Damage Factor	4	Probability of Failure	<ul style="list-style-type: none"> <li>• Exponential if value is less than 1</li> <li>• 8 decimal places if value is greater than 1</li> </ul>	US352458
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<p>The properties of the following representative fluids that are valid for RBI Criticality Analysis have been updated as per the API 581, 3rd Edition, Addendum 1 specification:</p> <ul style="list-style-type: none"> <li>• C13-16 (Diesel)</li> <li>• C17-25 (Gas Oil)</li> <li>• C25+ (Resid)</li> <li>• C5</li> <li>• Chlorine</li> <li>• CO</li> <li>• EO</li> <li>• H2</li> <li>• H2O (Water)</li> <li>• H2S</li> <li>• HCl</li> <li>• HF</li> <li>• MEOH (Methanol)</li> <li>• NH3</li> <li>• Phosgene</li> <li>• Steam</li> </ul>	US349921								

**Table 74: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID																							
<p>Previously, if the <b>Override Minimum Required Thickness</b> check box was selected for an RBI Criticality Analysis, the value specified in the <b>Specified Tmin</b> box was not considered while calculating the Estimated Half-Life for the Criticality Calculator External Corrosion Degradation Mechanism Evaluation. This issue has been resolved.</p>	DE117296																							
<p>Previously, in the Risk Based Inspection (RBI) 580 Data Loader template, in the Consequence_Evaluation worksheet, the Consequence field contained the default value RBI. Due to this, an error occurred when importing data using the data loader. Now, the default value in the Consequence field has been changed to RBI Consequence.</p> <p><b>Note:</b> The error message that appears when importing data using the Risk Based Inspection (RBI) 580 Data Loader that contains an invalid value in the Consequence field has now been updated to include the invalid value and the associated Analysis ID.</p>	DE111087																							
<p>Previously, in Criticality Calculator RBI Components, the value in the Calculated Inventory field was rounded off to the nearest whole number. Due to this behavior, if the value in the Calculated Inventory field was less than or equal to 0.5, the value was rounded off to 0, which resulted in incorrect calculations. This issue has been resolved. Now, the calculated inventory field displays up to two decimal values.</p> <p>A similar change has been made to the Inventory field in the Criticality Consequence Evaluation and Criticality Calculator RBI Components.</p>	DE107865																							
<p>Previously, in the Criticality Consequence Evaluation datasheet, two required fields for Heat Exchanger Bundles, Flammable Leak Type and Toxic Leak Type, did not contain the Not Applicable (N/A) option in their respective drop-down list boxes. This issue has been resolved.</p> <p>Additionally, the following validation changes have been made:</p> <ul style="list-style-type: none"> <li>• The Flammable Leak Type field is required irrespective of the governing representative fluid type.</li> <li>• The Toxic Leak Type field is required in the following scenarios: <ul style="list-style-type: none"> <li>◦ If the Governing or Leaking fluid is toxic.</li> <li>◦ If the Governing or Leaking fluid contains a toxic mixture.</li> </ul> </li> </ul>	DE107646																							
<p>Previously, the <b>Material Grade</b> boxes in the records of the following families contained incorrect values:</p> <ul style="list-style-type: none"> <li>• Piping Stress</li> <li>• RBI Components</li> <li>• RBI Criticality Analysis</li> </ul> <p>This issue has been resolved. Now, the correct values appear in the <b>Material Grade</b> boxes, as specified in the following table.</p>	DE96435																							
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Description	Tracking ID
<p>Previously, in an RBI Criticality Analysis for a Heat Exchanger Bundle component, the values in the following drop-down list boxes were not translated:</p> <ul style="list-style-type: none"> <li>• <b>Flammable Leak Type</b></li> <li>• <b>Toxic Leak Type</b></li> </ul> <p>This issue has been resolved.</p>	DE94111
<p>Previously, when creating a What-If Analysis, the Long Term Avg. Corr. Rate, Short Term Avg. Corr. Rate, and Controlling Corrosion Rate fields in the Criticality Calculator Internal Corrosion Degradation Mechanism were not populated with the calculated values from the Thickness Monitoring module. This issue has been resolved.</p>	DE86408

**RBI 581**

**Version: 4.3.1.0.0**

**Table 75: Enhancements and New Features**

The following enhancements and new features have been added.

Description	Tracking ID
<p>To enhance usability of the Risk Based Inspection (RBI) 581 Data Loader, the following values are now updated in the Interface Log record generated by the data loader:</p> <ul style="list-style-type: none"> <li>• Number of Record Processed: This value is incremented by one for each asset processed by the data loader.</li> <li>• Number of Records Rejected: This value is incremented by one for each RBI 581 Risk Analysis record that encounters an error when processed by the data loader, thus resulting in the record not being created or updated.</li> <li>• Number of Records Created: This value is incremented by one for each RBI 581 Risk Analysis record that is created.</li> <li>• Number of Records Updated: This value is incremented by one for each existing RBI 581 Risk Analysis record that is updated.</li> </ul>	US366675
<p>The formula for calculating the Expected Metal Loss Fraction (Art) for components with or without cladding or weld overlay now adheres to API 581 3rd Edition, Addendum 1.</p>	US356898
<p>To enhance usability, in the RBI Recommendation, the value in the RBI Recommendation Methodology field has been changed from RBI 581 Recommendation to RBI 581.</p>	US353694

Description	Tracking ID										
<p>To enhance usability when using a UOM conversion set, the values within numeric fields are rounded off according to the type of the numeric field as follows:</p> <table border="1" data-bbox="264 352 1122 674"> <thead> <tr> <th data-bbox="264 352 695 401">Numeric Field Type</th> <th data-bbox="695 352 1122 401">Number of Decimal Places</th> </tr> </thead> <tbody> <tr> <td data-bbox="264 401 695 485">Pressure, Temperature, Stress, Length, Diameter, Area, Volume, Mass, Velocity, Percent, Age, Cost, Risk</td> <td data-bbox="695 401 1122 485">2</td> </tr> <tr> <td data-bbox="264 485 695 533">Thickness, Corrosion Rate, Damage Factor</td> <td data-bbox="695 485 1122 533">4</td> </tr> <tr> <td data-bbox="264 533 695 581">Strength Ratio</td> <td data-bbox="695 533 1122 581">8</td> </tr> <tr> <td data-bbox="264 581 695 674">Probability of Failure</td> <td data-bbox="695 581 1122 674"> <ul style="list-style-type: none"> <li>• Exponential if value is less than 1</li> <li>• 8 decimal places if value is greater than 1</li> </ul> </td> </tr> </tbody> </table> <p>This change is applicable to the fields from the following families:</p> <ul style="list-style-type: none"> <li>• All RBI Component Families</li> <li>• RBI 581 Risk Analysis</li> <li>• RBI 581 Consequence Evaluation</li> <li>• All RBI 581 Degradation Mechanism Evaluation Families</li> <li>• RBI Degradation Mechanisms</li> </ul>	Numeric Field Type	Number of Decimal Places	Pressure, Temperature, Stress, Length, Diameter, Area, Volume, Mass, Velocity, Percent, Age, Cost, Risk	2	Thickness, Corrosion Rate, Damage Factor	4	Strength Ratio	8	Probability of Failure	<ul style="list-style-type: none"> <li>• Exponential if value is less than 1</li> <li>• 8 decimal places if value is greater than 1</li> </ul>	US352458
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Probability of Failure	<ul style="list-style-type: none"> <li>• Exponential if value is less than 1</li> <li>• 8 decimal places if value is greater than 1</li> </ul>										
<p>The properties of the following representative fluids that are valid for RBI 581 Risk Analysis have been updated as per the API 581 3rd Edition, Addendum 1 specification:</p> <ul style="list-style-type: none"> <li>• Acid</li> <li>• EO</li> <li>• HCl</li> <li>• HF</li> <li>• NH3</li> <li>• Steam</li> </ul>	US349921										
<p>You can now generate recommendations irrespective of the value in the Inspection Will Mitigate field. To facilitate this enhancement, the Inspection Will Mitigate check has been removed from the following module workflow policies:</p> <ul style="list-style-type: none"> <li>• RBI 581 External Damage Inspection Recommendation</li> <li>• RBI 581 Env Cracking Insp Recommendation</li> <li>• RBI 581 Tank Bottom Insp Recommendation</li> <li>• RBI 581 Tank Shell Ext Corrosion Recommendation</li> <li>• RBI 581 Tank Shell Int Corrosion Recommendation</li> <li>• RBI 581 Thinning and Lining Insp Recommendation</li> </ul>	US343660										

**Table 76: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.



Description	Tracking ID																				
<p>Previously, in an RBI 581 Analysis, when the Representative Fluid field was changed to a fluid with ambient state other than Liquid or Gas, the Release Fluid Phase field was not cleared. This issue has been resolved.</p>	DE112859																				
<p>Previously, in the Risk Based Inspection (RBI) 581 Data Loader template, in the RBI_581_Consequence worksheet, the Consequence field contained the default value RBI. Due to this, an error occurred when importing data using the data loader. Now, the default value in the Consequence field has been changed to RBI Consequence.</p> <p><b>Note:</b> The error message that appears when importing data using the Risk Based Inspection (RBI) 581 Data Loader that contains an invalid value in the Consequence field has now been updated to include the invalid value and the associated Analysis ID.</p>	DE111087																				
<p>Previously, irrespective of the Unit of Measure (UOM) Conversion Set configured for your user account, the Consequence of Failure and Risk Values on the RBI 581 ISO-Risk Plot appeared in imperial units. This issue has been resolved.</p>	DE110866																				
<p>Previously, you could not create a Quantitative (581) analysis if the logged-in user culture was set to Russian. This issue has been resolved.</p>	DE107414																				
<p>Previously, in an RBI 581 Risk Analysis, if you selected a fluid in the <b>Representative Fluid</b> box that did not have a value in any of the following tables, the analysis calculation failed:</p> <ul style="list-style-type: none"> <li>• Personnel Injury Flammable Consequence Equation Constants table (Table 4.9/4.9M, API 581 3rd edition)</li> <li>• Component Damage Flammable Consequence Equation Constants table (Table 4.8/4.8M, API 581 3rd edition)</li> </ul> <p>This issue has been resolved. Now, in this scenario, the analysis calculation proceeds considering the constant values as 0.</p>	DE103262																				
<p>Previously, the <b>Material Grade</b> boxes in the records of the following families contained incorrect values:</p> <ul style="list-style-type: none"> <li>• Piping Stress</li> <li>• RBI 581 Risk Analysis</li> <li>• RBI Components</li> </ul> <p>This issue has been resolved. Now, the correct values appear in the <b>Material Grade</b> boxes, as specified in the following table.</p>	DE96435																				
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Description	Tracking ID
<p>Previously, if the <b>Insulated</b> check box was selected, you could not generate RBI Recommendations for the RBI 581 Risk Analyses with the following degradation mechanisms:</p> <ul style="list-style-type: none"> <li>• 581-Ferritic Component Atmospheric Corrosion</li> <li>• 581-Ferritic Component Corrosion Under Insulation</li> <li>• 581-Austenitic Component Atmospheric Cracking</li> <li>• 581-Austenitic Component Cracking Under Insulation</li> </ul> <p>This issue has been resolved.</p>	DE82239
<p>Previously, in an RBI 581 Risk Analysis, if you selected a Toxic fluid in the Representative Fluid field, the application did not calculate the Weighted Component Damage Consequence and Weighted Personnel Injury Consequence even if the fluid had a value in the following tables:</p> <ul style="list-style-type: none"> <li>• Personnel Injury Flammable Consequence Equation Constants table (Table 4.9/4.9M, API 581 3rd edition)</li> <li>• Component Damage Flammable Consequence Equation Constants table (Table 4.8/4.8M, API 581 3rd edition)</li> </ul> <p>Now, the application calculates the Weighted Component Damage Consequence and Weighted Personnel Injury Consequence for any fluid selected in the Representative Fluid field.</p>	US337384

## Risk Matrix

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

#### Table 77: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
In the default risk matrix, the colors associated with risk thresholds have been modified to improve contrast.	US335434

#### Table 78: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
<p>Previously, in the financial risk control, you could not calculate the financial consequence if the following fields did not contain a value:</p> <ul style="list-style-type: none"> <li>• Production Loss</li> <li>• Maintenance Cost</li> </ul> <p>This issue has been resolved. Now, you can calculate the financial consequence if any one of the fields contain a value.</p>	US333940

## Root Cause Analysis

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

**Table 79: Enhancements and New Features**

The following enhancements and new features have been added.

Description	Tracking ID
To improve usability, the RCA Logic Tree design has been modified. This enhancement provides greater design canvas space, improves visibility of the node content, and enables Teams to define and list the node items before adding them into the Logic Tree.	US361852

**Table 80: Resolved Issues**

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, if you had created a customized message using a custom rule, when you attempted to publish an RCA that was refrained from being published, the Internal Server Error message appeared, instead of the customized message. This issue has been resolved.	DE116153
Previously, when you attempted to link an asset to an analysis, you could not find a list of Production Events associated with the asset in the <b>Linked Events</b> section. This issue has been resolved. Now, you can find a list of events associated with the asset and link them to the analysis.	DE115273
Previously, after linking grouped elements in the RCA Event diagram, the connections were lost when you exited the page. This issue has been resolved.	DE114790
Previously, when exporting the RCA Event Diagram to the SSRS Comprehensive Analysis Report, the resolution of large diagrams was poor when you zoomed in on them. This issue has been resolved.	DE113894
Previously, if APM Now sent an alert message for an RCA Preserve Item Record, and if you attempted to access the URL in the alert message, an error occurred because the URL contained the domain name of the Virtual Machine (VM) instead of the domain name of the load balancer. This issue has been resolved.	DE113040
Previously, if the user account of a Security User who was a member of the RCA team was inactive, the remaining members of the RCA team could not create a recommendation. This issue has been resolved.	DE110615
Previously, in the <b>My Analysis</b> section, if you published an analysis that was in the In Progress state, an error occurred. This issue has been resolved.	DE105523

Description	Tracking ID
Previously, when viewing an RCA Template, the <b>State Assignment</b> drop-down list box appeared erroneously. This issue has been resolved.	DE104893
Previously, when you created an RCA for a Production Event from the Production Loss Analysis (PLA) module, in the <b>Analysis Summary</b> workspace, in the <b>Linked Assets</b> section, the Causing Asset associated with the Production Event did not appear in the <b>Record ID</b> column. This issue has been resolved.	DE103249

## Rounds Data Collection

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

#### Table 81: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
In the <b>Recommendations</b> section of the <b>RDC Overview</b> page, you can now view only the Recommendation records that contain your user name in one of the following fields: <ul style="list-style-type: none"> <li>• Author Name</li> <li>• Assigned To Name</li> <li>• Reviewer Name</li> <li>• Final Approver</li> <li>• Last Modified By</li> </ul>	US343516

#### Table 82: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, when you used the GE Digital APM mobile application to collect data, you could view a list of Routes that were not assigned to you. This issue has been resolved.	DE112478
Previously, while using the GE Digital APM mobile application to collect data, you could not scan bar codes longer than 11 characters. This issue has been resolved. Now, you can scan bar codes with a length of up to 20 characters.	DE110128
Previously, if you created an Operator Rounds Recommendation record without the <b>Create Work Request?</b> check box selected, and then selected that check box later when updating the recommendation, the work request was entered into your SAP system, but the recommendation was not updated with the data of the work request.	DE108362
Previously, when attempting to create an Operator Rounds Recommendation, if you selected the <b>Create EAM Work Request?</b> check box prior to saving the recommendation, an error occurred, and the recommendation record would not be created. This issue has been resolved.	DE105520

Description	Tracking ID
Previously, when you accessed a Lubrication Requirement checkpoint for a Route using devices with smaller screens or lower screen resolution, the data in the <b>Lubrication Requirement Summary</b> section was truncated. This issue has been resolved.	DE100891
Previously, while disconnected from a network, if you created a recommendation for a Route, the time stamp of the recommendation displayed the time at which your device reconnected to a network, not the time at which the recommendation was created.	DE98858

## Rounds Designer

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

#### Table 83: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
A Route Revision check has been added to prevent concurrent updates to a Route by two different users.	US354168
To create Checkpoint conditions for a character Measurement Location, a new relational operator, is not, has been added to the <b>Select Relation</b> drop-down list box that appears in the workspace for the Measurement Location.	US254766

#### Table 84: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, when you used the Rounds Routes Data Loader to import Routes that contained Checkpoint Tasks, the schedules were not populated correctly. This issue has been resolved. <b>Note:</b> To fix this issue for Routes that were imported in a previous version, reimport the Routes with complete data in the MI_CP_TASK0 worksheet.	DE112728
Previously, in the <b>Rounds Designer Overview</b> page, in the <b>Routes</b> section, when you attempted to access a Route by selecting the Route ID link, an error occurred, and you could not access the Route datasheet. This issue has been resolved.	DE111834
Previously, if a Measurement Location Template Group contained Measurement Location Templates assigned to different sites, an error occurred when you attempted to modify the values in the following fields of a template in the template group: <ul style="list-style-type: none"> <li>• Template ID</li> <li>• Description</li> </ul> This issue has been resolved.	DE110379
Previously, if you created a Route using the Rounds Route Data Loader, the Route sequence did not load as expected.	DE108351

Description	Tracking ID
Previously, in the condition of a Checkpoint template, you could not enter a value in the <b>Allowable Values</b> or <b>Select Value</b> fields unless allowable values were defined.	DE108709
Previously, if you attempted to use a data loader to add a Checkpoint to a Route, the sequence of existing Checkpoints on the Route was unintentionally modified.	DE106752
Previously, loading a small number of records using the Rounds Routes Data Loader occasionally resulted in time-out errors.	DE106749
Previously, if you attempted to move a Checkpoint node by dragging and dropping it into a header, an error occurred.	DE106403
Previously, running the Aging Query - Oracle and Aging Query - SQL Server queries, stored in the \\Public\Meridium\Modules\Operator Rounds\Queries and \Baseline\Meridium\Modules\Operator Rounds\Queries folders, returned an error. This issue has been resolved. Now, these queries return a list of Measurement Locations that are overdue.	DE102602
Previously, when you modified a Checkpoint, a different Checkpoint was selected than the Checkpoint you modified. This issue has been resolved.	DE85258
Previously, if you moved a Checkpoint condition to a new Checkpoint, or if you modified and saved the condition or the successor Checkpoint of the condition, the predecessor Checkpoint of the condition was selected afterwards, as opposed to the condition itself. This issue has been resolved.	DE82246
Previously, Rounds Designer repeatedly switched between Checkpoints if you: <ul style="list-style-type: none"> <li>Modified and saved a Checkpoint only after attempting to navigate to another Checkpoint without saving.</li> <li>Modified and saved a Checkpoint before immediately selecting another Checkpoint multiple times.</li> </ul> This issue has been resolved. Now, a warning message appears in these scenarios.	DE78766
Previously, while adding a reading for a Checkpoint with the character ML type and the allowable values defined, the <b>Reading Value Character</b> box appeared as a text box instead of a drop-down list box until the reading was created. When you attempted to modify the reading later, the <b>Reading Value Character</b> drop-down list box appeared with appropriate values. This issue has been resolved.	DE74228

## R Scripts

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

#### Table 85: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
Microsoft Machine Learning Server 9.3.0 is now supported for R Script execution.	US326009

### Table 86: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, in the Parameters pane of a new parameter, when you selected a value in the Type column and saved the R Script, the value was not saved. This issue has been resolved.	DE97066

## Rules

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

#### Table 87: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
You can now compile only the family rules that you added or modified, instead of compiling all the family rules in a rules library project. To facilitate this enhancement, the data source ID is now used instead of GUID. This enhancement also resolves possible errors when compiling rules with references to other rule projects. <b>Note:</b> You must compile all the family rules only if you modify the data source ID.	US352396

## Schedule Logs

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

#### Table 88: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
You can now delete the historical Schedule Logs entries.	US337522

#### Table 89: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, a policy was not executed as per schedule until you updated the policy, if the following changes had been made to the GE Digital APM database that contained the policy: <ul style="list-style-type: none"><li>The GE Digital APM database had been restored and connected to another data source.</li><li>The GE Digital APM server associated with the GE Digital APM database had been restarted.</li></ul> This issue has been resolved.	DE102150

## Scripts

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

**Table 90: Obsolete Features**

As of this release, the following items are no longer available.

Description	Tracking ID
The Cognitive Analytics and Scripts modules are no longer available in GE Digital APM. <b>Note:</b> The catalog items and families used by the two modules have not been removed from GE Digital APM.	F44508

## Search

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

**Table 91: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, when you performed an advanced search by defining a numeric field condition where the numeric field had a UOM associated with it, the records returned by the search did not contain a UOM. This issue has been resolved.	DE98915

## Security Manager

This topic provides a list of product changes released for this module on the dates listed below.

**Version: 4.3.1.0.0**

**Table 92: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, you could access a Map query in the Maps tool only if you had one of the following privileges: <ul style="list-style-type: none"><li>You were assigned to MI Configuration Role Security Group.</li><li>You were a Super User.</li></ul> This issue has been resolved. Now, all the GE Digital APM users can access the Map queries in the Maps tool.	DE115905



### Table 93: Obsolete Feature

The following issues are no longer used in GE Digital APM.

Description	Tracking ID
You will no longer receive a password change prompt 30 days before the password expiry date. After the password expires, you must change the password in the Active Directory and run the LDAP sync. After the sync is successful, you will be able to log in with the new credentials.	US367105

## SIS Management

This topic provides a list of product changes released for this module on the dates listed below.

### Version: V4.3.1.0.0

#### Table 94: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
The SIS Proof Test feature now supports integration with Work Management. You can perform Proof Tests for Proof Test Tasks created from SAP or Asset Strategy Management (ASM). In addition, a confirmation record will now be created when SIS Proof Tests are closed.	US352931


## System Codes and Tables

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

#### Table 95: Resolved Issues

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, in the <b>System Codes and Tables</b> page, after you modified the properties of an existing table and saved the table, if you selected the <b>Search</b> button (  ) in the <b>System Tables</b> section, an error message appeared. This issue has been resolved.	DE104335

## System Requirements

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0

#### Table 96: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
APM Mobile is now compatible with Zebra TC-75X touch computer and utilizes both the integrated barcode scanning and the NFC RFID tag scanning.	US351912


## Thickness Monitoring

This topic provides a list of product changes released for this module on the dates listed below.

### Version: 4.3.1.0.0



**Table 97: Enhancements and New Features**


The following enhancements and new features have been added.

Description	Tracking ID						
You can now view, add, and delete the Thickness Measurements related to a Thickness Measurement Location in the table in the <b>TMLs</b> section.	US371494						
To enhance usability when using a UOM conversion set, the values in the numeric fields are rounded off according to the type of the numeric field as described in the following table.	US358876						
<table border="1"> <thead> <tr> <th>Numeric Field Type</th> <th>Number of Decimal Places</th> </tr> </thead> <tbody> <tr> <td>Allowable Stress</td> <td>2</td> </tr> <tr> <td>Design Pressure</td> <td>2</td> </tr> </tbody> </table>	Numeric Field Type	Number of Decimal Places	Allowable Stress	2	Design Pressure	2	
Numeric Field Type	Number of Decimal Places						
Allowable Stress	2						
Design Pressure	2						
This enhancement is applicable to the fields in the Thickness Measurement Location family.							
When you calculate thickness measurement for an asset, you can now close the window that displays the progress of calculation. This enables you to perform other operations while the calculation is in progress. After you close the window, the calculation continues in the back end and you can view the calculation details from the scheduler window.	US348278						
You can now save the TML measurements and calculate the corrosion analysis for an asset from the <b>Measurement Data Entry</b> workspace. To facilitate this enhancement, a new option, Save and Analyze (  ) has been added to the <b>Measurement Data Entry</b> workspace.	US346563						
For Thickness Measurement Locations, you can now modify the sequence of the default columns except the <b>TML ID</b> column using Column Chooser. The configuration is saved as a user preference in the database.	US343673						
To enhance the performance of the <b>Thickness Monitoring Analysis Overview</b> workspace, duplicate network calls have been removed.	DE115278						

**Table 98: Resolved Issues**

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
<p>Previously, in the following scenarios, only the first 100 TML records were displayed, instead of all the related TML records:</p> <ul style="list-style-type: none"> <li>You attempted to access TMLs for an asset or a TML Group using the <b>Quick View</b> option in the <b>TM Quick View</b> page.</li> <li>You searched for TML Families using the global search box and selected the <b>Show All Records</b> option.</li> </ul> <p>This issue has been resolved.</p>	DE114781
<p>Previously, after collecting data using the DMS Go+ device, if you pressed the <b>Send</b> button for more than two seconds, the device also stored an A-Scan reading. In addition, the GE Digital APM Thickness Monitoring Datalogger could not process the file containing an A-Scan or display the readings. These issues have been resolved.</p> <p><b>Note:</b> GE Digital APM Thickness Monitoring does not store the A-Scan data stored on the device. You must upgrade the Meridium Device Service application to the latest version.</p>	DE113273
<p>Previously, in the <b>Analysis Overview</b> workspace, when you selected the <b>Manage RBI Components</b> option, you could not access the active RBI Components to map to Thickness Measurement Location (TML) Groups. This issue has been resolved.</p>	DE112036
<p>Previously, if your culture was set to Russian, and if you accessed a TML for an asset in the <b>Analysis Overview</b> page, the <b>Calculated Date</b> field in the <b>Analysis Output</b> section was incorrectly translated. This issue has been resolved.</p>	DE109440
<p>Previously, in the <b>Measurement Data Entry</b> workspace, if you specified values in the <b>Measurement Taken Date</b> and <b>Measurement Taken By</b> boxes, when you navigated away from the workspace, and then accessed the <b>Measurement Data Entry</b> workspace, the specified values were not retained. This issue has been resolved.</p>	DE108534
<p>Previously, in the <b>Thickness Monitoring Dataloggers</b> page, users had to select all the records individually in multiple pages of the TMLs table to select all the records on all pages before transferring data between GE Digital APM and the datalogger. This issue has been resolved. Now, if you select the <b>Select All</b> check box, all the records on all pages of the TMLs table are selected.</p>	DE107158
<p>Previously, if you used the TM Equipment or TM Functional Location data loaders to load data that consisted only of measurements, the <b>Analysis Required</b> check box in the TML Corrosion Analysis datasheet was not selected, and the Calculate button (  ) did not turn orange. If you tried to calculate the analysis, the newly loaded measurements were not included in the calculation. This issue has been resolved. Now, when you load measurements, the <b>Analysis Required</b> check box is selected, and the Calculate button (  ) turns orange, indicating the analysis is ready to be calculated. When you calculate the analysis, the newly loaded measurements are included in the calculation. Also, the affected assets are available in the <b>Assets Requiring a Calculation</b> section of the <b>Thickness Monitoring Overview</b> page, ready for bulk calculation.</p>	DE105931

Description	Tracking ID																				
<p>Previously, the <b>Material Grade</b> boxes in the records of the following families contained incorrect values:</p> <ul style="list-style-type: none"> <li>• Piping Stress</li> <li>• Thickness Measurement Location</li> </ul> <p>This issue has been resolved. Now, the correct values appear in the <b>Material Grade</b> boxes, as specified in the following table.</p> <table border="1"> <thead> <tr> <th>Design Code</th> <th>Code Year</th> <th>Material Specification</th> <th>Material Grade (Incorrect Value)</th> <th>Material Grade (Correct Value)</th> </tr> </thead> <tbody> <tr> <td>B31.3</td> <td>2014</td> <td>A234</td> <td>WFB</td> <td>WPB</td> </tr> <tr> <td>B31.1</td> <td>2014</td> <td>B366/B622</td> <td>Starts with NS</td> <td>Starts with N/A</td> </tr> <tr> <td>B31.3</td> <td>2014</td> <td>B366/B622</td> <td>Starts with NS</td> <td>Starts with N/A</td> </tr> </tbody> </table>	Design Code	Code Year	Material Specification	Material Grade (Incorrect Value)	Material Grade (Correct Value)	B31.3	2014	A234	WFB	WPB	B31.1	2014	B366/B622	Starts with NS	Starts with N/A	B31.3	2014	B366/B622	Starts with NS	Starts with N/A	DE96435
Design Code	Code Year	Material Specification	Material Grade (Incorrect Value)	Material Grade (Correct Value)																	
B31.3	2014	A234	WFB	WPB																	
B31.1	2014	B366/B622	Starts with NS	Starts with N/A																	
B31.3	2014	B366/B622	Starts with NS	Starts with N/A																	
<p>Previously, when you modified the value in the <b>Status Indicator</b> box of a previously inactive Thickness Measurement Location (TML) record to Active, and then saved the record, the Calculate icon (  ) in the <b>Analysis Overview</b> workspace did not retain the orange highlight after the page was refreshed. This issue has been resolved. Now, in this scenario, the icon remains highlighted in the orange color even after the page is refreshed.</p> <p><b>Note:</b> Before you modify the status of a previously inactive TML to Active, we recommend that you calculate the TML so that the Analysis Required field of the TML Corrosion Analysis resets properly prior to the reactivation of the TML.</p>	DE96015																				
<p>Previously, you could modify the site assigned to the Resource Role records because the Resource Role family was enabled for site filtering. When the site assigned to a Resource Role for a given user was modified, the name of that user did not appear in the drop-down list boxes in the respective datasheets. This issue has been resolved. Now, the Resource Role family is no longer enabled for site filtering and the user names appear correctly.</p> <p><b>Note:</b> The fields containing the user names will continue to be filtered based on the site to which the respective record is assigned.</p>	DE91540																				
<p>Previously, the TML Asset ID field was not available in the <b>Choose Columns</b> window, due to which you could not view the <b>TML Asset ID</b> column in the TML grid. This issue has been resolved. Now, <b>TML Asset ID</b> column is available in the TML grid by default.</p>	DE87019																				

## Units of Measure and Conversions

**Version: 4.3.1.0.0**

**Table 99: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, when you converted the original UOM value to a new UOM value, the calculation was based on the last value instead of the original value. This issue has been resolved. Now, when you convert a UOM using the <b>Unit of Measure Converter</b> window, the calculation is based on the original value.	DE96069

**Version: 4.3.0.7.6**

**Table 100: Resolved Issues**

The following issues that existed in one or more previous versions have been resolved.

Description	Tracking ID
Previously, in the UoM field, when you searched for a converted value, the search was applied on the original UoM data instead of the converted value in a query result. In addition, the issue data was not filtered correctly. This issue has been resolved. Now, the search on the UoM field works according to the User conversion set.	DE113353

## V4.3.1.0.X Patch Release Notes

### V4.3.1.0.11

This topic provides a list of product changes released for this module in this version.

#### Thickness Monitoring

**Table 101: Resolved Issues**

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, in the <b>Measurements</b> section, when you created a Thickness Measurement record as a user with a non-imperial UOM conversion set, if there were additional required fields configured on the Thickness Measurement family, the value specified in the Readings field of the <b>Add Measurement</b> window was incorrectly copied to the datasheet. This issue has been resolved.	DE170640

### V4.3.1.0.10

This topic provides a list of product changes included in this patch.

#### Record Manager

**Table 102: Resolved Issues**

*The following issues, which existed in one or more previous versions, have been resolved.*

Description	Tracking ID
Previously, when you configured the Required behaviour for additional fields of a family, and then entered a measurement value under Readings in the <b>Add Measurement</b> section, the datasheet was partially loaded, and the record was not created. This issue has been resolved.	DE159115

## Strategy Macros

### Table 103: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, when you scheduled any strategy macro on SQL database, and tried to retrieve the schedule, an error occurred. This issue has been resolved.	DE156585

## System Requirements

### Table 104: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, when you used Google Chrome version 91 to access GE Digital APM, the navigation menus containing scroll bars appeared in the wrong location when you accessed them multiple times. This issue has been resolved.	DE160345

## V4.3.1.0.9

This topic provides a list of product changes included in this patch.

### APM Mobile Application

#### Table 105: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, when the GIS capability of the mobile device was updated, the checkpoint count on the progress bar appearing in the <b>Routes</b> page for the GE Digital APM mobile application and the Rounds Data Collection was removed. This issue has been resolved. Now, the checkpoint values show the number of completed checks on a route.	DE149990

### Single Sign-On (SSO)

#### Table 106: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, after upgrading GE Digital APM V4.3.0.x.x to V4.3.1.x.x, when you attempted to log in to GE Digital APM using Single Sign-On (SSO) using the SHA-256 signing certificate, the login failed. This issue has been resolved.	DE148272

## General Dashboards

### Table 107: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, if the parent folder of a folder that contained the Dashboard or Homepage referenced catalog items was deleted, during an upgrade from V3.X.X.X to V4.3.1.0.X, the object does not exist message appeared. This issue has been resolved.	<ul style="list-style-type: none"> <li>• DE137968</li> <li>• DE137967</li> </ul>

## Rounds Data Collection

### Table 108: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, when the GIS capability of the mobile device was updated, the checkpoint count on the progress bar appearing in the <b>Routes</b> page for the GE Digital APM mobile application and the Rounds Data Collection was removed. This issue has been resolved. Now, the checkpoint values show the number of completed checks on a route.	DE149990

## V4.3.1.0.8

This topic provides a list of product changes included in this patch.

### APM Mobile Application

#### Table 109: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, in Rounds Data Collection module, the GIS data associated with the readings captured for a checkpoint were collected periodically. This issue has been resolved. Now, you can capture the GIS data more frequently and consistently. To use the updated GIS coordinate process, in the <b>Default Device Settings</b> workspace of the Rounds Designer module, set the value in the <b>Maximum length of time (seconds) that is allowed to retrieve GIS</b> box to a value greater than zero.	DE146279

## Rounds Data Collection

**Table 110: Resolved Issues**

*The following issues, which existed in one or more previous versions, have been resolved.*

Description	Tracking ID
Previously, in Rounds Data Collection module, the GIS data associated with the readings captured for a checkpoint were collected periodically. This issue has been resolved. Now, you can capture the GIS data more frequently and consistently. To use the updated GIS coordinate process, in the <b>Default Device Settings</b> workspace of the Rounds Designer module, set the value in the <b>Maximum length of time (seconds) that is allowed to retrieve GIS</b> box to a value greater than zero.	DE146279

## SIS Management

**Table 111: Resolved Issues**

*The following issues, which existed in one or more previous versions, have been resolved.*

Description	Tracking ID
Previously, in SIS management Protective Instrument Loop, the calculated results were not updated in Sensor Group and Final Element Group. This issue has been resolved.	DE147197
Previously, if the Hazards Analysis license was not active in GE Digital APM, when you attempted to add a team member to the team associated with a Safety Integrity Level (SIL) Analysis, an error occurred. This issue has been resolved.	DE145656

### V4.3.1.0.7

This topic provides a list of product changes included in this patch.

## APM Connect

**Table 112: Resolved Issues**

*The following issues, which existed in one or more previous versions, have been resolved.*

Description	Tracking ID
Previously, data loader jobs were getting stuck because of insufficient privileges to access the Interface Log Record family. This issue has been resolved.	DE139514

## Asset Health Manager

**Table 113: Resolved Issues**

*The following issues, which existed in one or more previous versions, have been resolved.*



Description	Tracking ID
Previously, when you accessed the <b>Health Indicator Source Trend</b> page from Rounds Designer and modified the date range in the date filter, the date range changes were not applied. This issue has been resolved.	DE141756

## Installation

### Table 114: Enhancements and New Features

*The following enhancements and new features have been added.*

Description	Tracking ID
To improve security, you can now install the latest version of Redis on a Linux server. For more information on how to install Redis on a Linux server, refer to KBA 000036587.	US423311

## Root Cause Analysis

### Table 115: Resolved Issues

*The following issues, which existed in one or more previous versions, have been resolved.*

Description	Tracking ID
Previously, when you attempted to access an RCA Analysis without an active PLA license, an error occurred. This issue has been resolved.	DE139843

## SAP Adapters

### Table 116: Resolved Issues

*The following issues, which existed in one or more previous versions, have been resolved.*

Description	Tracking ID
SAP Work History extraction interface has been enhanced to improve the performance of the synchronization process.	DE142499

## Security Manager

### Table 117: Enhancements and New Features

*The following enhancements and new features have been added.*

Description	Tracking ID
Security has been improved with advanced encryption in GE Digital APM.	DE144383

### Table 118: Resolved Issues

*The following issues, which existed in one or more previous versions, have been resolved.*

Description	Tracking ID
Previously, if you removed multiple Security Users from a Microsoft Active Directory Group, and then ran the LDAP synchronization process, the Security Users were not dissociated from the corresponding Security Role in GE Digital APM. This issue has been resolved.	DE143225

## System Requirements

### Table 119: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, if user authentication using SSO was enabled for GE Digital APM, when you attempted to access GE Digital APM using Google Chrome version 80 or a higher version, an error message appeared, and the login failed. This issue has been resolved.	DE141209

## V4.3.1.0.6

This topic provides a list of product changes included in this patch.

### APM Mobile Application

#### Table 120: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, in Rounds Designer, when a set of checkpoints existed under a condition and one of the checkpoints was set to inactive, the subsequent checkpoints in the set did not appear in Rounds Data Collection or GE Digital APM mobile application. This issue has been resolved.	US423023
Previously, the GE Digital APM mobile application did not recognize the camera on Android devices. This issue has been resolved.	DE138628

### Production Loss Analysis

#### Table 121: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, when creating a plan template, in the <b>Template Builder</b> window, the values in the <b>Duration</b> drop-down list box appeared in English regardless of your culture settings. This issue has been resolved. Now, the values in the <b>Duration</b> drop-down list box appear in the language based on your culture settings.	DE135321

## Risk Based Inspection (RBI) 581

**Table 122: Resolved Issues**

*The following issues, which existed in one or more previous versions, have been resolved.*

Description	Tracking ID
<p>Previously, release rate calculation in RBI 581 Consequence Evaluation was based on the value in the Release Fluid Phase field of the related RBI 581 Risk Analysis. This issue has been resolved. Now, the Release Rate calculation is based on the Initial Fluid Phase field value in the RBI 581 Risk Analysis.</p> <p>In addition, for a user with unit of measurement conversion set assigned, Release Fluid Phase in the RBI 581 Risk Analysis was populated incorrectly for fluids where:</p> <ul style="list-style-type: none"><li>• Initial Fluid Phase field value in the RBI 581 Risk Analysis family was set to Liquid.</li><li>• Ambient Fluid Phase field value in the RBI 581 Risk Analysis family was set to Gas.</li><li>• BoilPt field value in the RBI 581 Risk Analysis family was set between 80 degree to 176 degree Fahrenheit range.</li></ul> <p>This issue has been resolved.</p>	DE137703

## Rounds Data Collection

**Table 123: Resolved Issues**

*The following issues, which existed in one or more previous versions, have been resolved.*

Description	Tracking ID
<p>Previously, in Rounds Designer, when a set of checkpoints existed under a condition and one of the checkpoints was set to inactive, the subsequent checkpoints in the set did not appear in Rounds Data Collection or GE Digital APM mobile application. This issue has been resolved.</p>	US423023

## Rounds Designer

**Table 124: Resolved Issues**

*The following issues, which existed in one or more previous versions, have been resolved.*

Description	Tracking ID
<p>Previously, in Rounds Designer, when a set of checkpoints existed under a condition and one of the checkpoints was set to inactive, the subsequent checkpoints in the set did not appear in Rounds Data Collection or GE Digital APM mobile application. This issue has been resolved.</p>	US423023

### V4.3.1.0.5

This topic provides a list of product changes included in this patch.

**Table 125: Asset Strategy Management**

Description	Tracking ID
Previously, when trying to import an asset from EAM, an error message appeared. This issue has been resolved.	DE131487

**Table 126: Rounds Data Collection**

Description	Tracking ID
Previously, when a Route was not loaded due to incorrect combination of size and structure of the route, an error message appeared in the android devices. In other cases, Route did not load and the GE Digital APM mobile application closed. This issue has been resolved. Now, the Route loads without any error.	DE132813

### V4.3.1.0.4

This topic provides a list of product changes included in this patch.

**Table 127: APM Connect**

Description	Tracking ID
Previously, when multiple jobs of the same type were running simultaneously, there could be a scheduling collision causing one job to get stuck in Staging Complete. This issue with resource contention has been resolved.	DE128658
Previously, in APM 4.3.1, when running data loaders for non-English users (for example, German), numeric values for that culture were not being formatted correctly. This issue has been resolved.	DE127334

**Table 128: Dataloader**

Description	Tracking ID
Previously, if the APM Relationship for a link is defined as a Foreign Key Relationship, the APM Family Data Loader did not support the ability to update a link from one record to another. This issue has been resolved.	DE128737

**Table 129: Family Policies**

Description	Tracking ID
Previously, in the Math node, when you modified an equation containing an indexed variable name conflicting with an input variable name, an error occurred. This issue has been resolved.	DE128545

**Table 130: Policy Designer**

Description	Tracking ID
Previously, in the Math node, when you modified an equation containing an indexed variable name conflicting with an input variable name, an error occurred. This issue has been resolved.	DE128545
Previously, the Close Event node did not execute according to the policy logic. This issue has been resolved.  <b>Note:</b> To facilitate this change, a Close Event node will no longer be executed if a Create Event node using the same event name is the immediate predecessor of the Close Event node. If you have a policy which uses this arrangement of nodes, please contact <a href="#">GE Digital Support</a> for assistance.	DE127661

**RBI 581**

Description	Tracking ID
Previously, when calculating the mitigated risk on the plan date for External Cracking Degradation Mechanism Evaluation on an RBI 581 Risk Analysis, the age calculation did not consider the target inspection date. As a result, the Total Damage Factor With Plan field (RBI Degradation Mechanisms) contained incorrect values for the following damage mechanisms: <ul style="list-style-type: none"> <li>• 581-Austenitic Component Atmospheric Cracking</li> <li>• 581-Austenitic Component Cracking Under Insulation</li> </ul> This issue has been resolved.	DE128738

**System Requirements**

Description	Tracking ID
Previously, if you accessed GE Digital APM using Chrome browser version 80 or higher, you may have experienced some issues. These issues have been resolved.	DE128739

**Thickness Monitoring**

Description	Tracking ID
Previously, in the <b>TM Dataloggers</b> page, in the <b>Send To</b> and <b>Receive From</b> sections, the Thickness Measurement Locations (TMLs) were not sorted. This issue has been resolved. Now, the TMLs are sorted in alphanumerical order of the corresponding TML IDs.	DE128020

**Queries**

Description	Tracking ID
Previously, older queries that included a date/time format without the time parameter would not return any data. This issue has been resolved.	DE127899

### V4.3.1.0.3

This topic provides a list of product changes included in this patch.

#### Asset Health Manager

Description	Tracking ID
Previously, when you implemented an action as a health indicator related to a risk, the health indicator did not appear in the <b>Risks</b> section of the <b>Health Summary</b> page. This issue has been resolved.	DE125188

#### Asset Strategy Management

**Table 131: Enhancements and New Features**

Description	Tracking ID
You can now implement an action as an EAM Maintenance Plan without sending an EAM Work Request. To facilitate this enhancement, sending an EAM Work Request is made optional.	US386563

**Table 132: Resolved Issues**

Description	Tracking ID
Previously, while creating a general recommendation, if the update notification was disabled, multiple notifications were sent to the EAM system, and an error occurred. This issue has been resolved.	DE126319

#### Asset Strategy Optimization

Description	Tracking ID
You can now simultaneously run three Monte Carlo simulations for a tenant in each server.	DE123166

#### Family Policies

Description	Tracking ID
Previously, in a GE Digital APM Oracle schema, the scheduled job for policy execution history retention failed to delete the old records. This issue has been resolved.	DE125249

#### General Dashboard

Description	Tracking ID
Previously, when you upgraded the GE Digital APM database from V3.x to V4.3.1.x, the upgrade failed during processing of dashboards and home pages, and an error message appeared. This issue has been resolved.	<ul style="list-style-type: none"><li>DE124721</li><li>DE124573</li></ul>

## Policy Designer

Description	Tracking ID
Previously, in a GE Digital APM Oracle schema, the scheduled job for policy execution history retention failed to delete the old records. This issue has been resolved.	DE125249

## Production Loss Analysis

Description	Tracking ID
Previously, using the Production Event data loader, you could not update the production event code under the related families. This issue has been resolved.	DE123940

## Reliability Analytics

**Table 133: Enhancements and New Features**

Description	Tracking ID
You can now simultaneously run three Monte Carlo simulations for a tenant in each server.	DE123166

**Table 134: Resolved Issues**

Description	Tracking ID
Previously, when accessing a System Reliability Analysis in certain instances, an error message appeared, and the analysis failed to open. This issue has been resolved.	DE123983
Previously, when you generated a report for an analysis that contained legends, the legends did not appear on the corresponding charts that were displayed in the report. This issue has been resolved.	DE122930

## Root Cause Analysis

Description	Tracking ID
Previously, when creating an Event timeline in an RCA Analysis, the Event Flag spanned out of the canvas area. This issue has been resolved.	DE125904

## Rounds Data Collection

Description	Tracking ID
Previously, in the GE Digital APM mobile application, individual readings were not captured intermittently. This issue has been resolved.	DE124682
Previously, some of the GE Digital APM mobile application batches of readings collected in Rounds Data Collection to be sent to the GE Digital APM application were not stored in the APM database due to a non-recoverable error in one of the readings. This issue has been resolved. Now, the batch of readings that do not have an error will now be stored in the GE Digital APM database.	DE123748

## Thickness Monitoring

Description	Tracking ID
Previously, in the <b>TM Admin Preferences</b> page, if you configured the Equipment family to use the <b>Has TML Group</b> as the Subcomponent to Asset Relationship, and then performed a bulk calculation on TML Assets, it caused an infinite loop, and the application stopped responding. This issue has been resolved.	DE125344

### V4.3.1.0.2

This topic provides a list of product changes included in this patch.

## Action Management

Description	Tracking ID
Previously, when you created a notification from a General Recommendation, the Work Request Reference field was not populated even if the <b>Create EAM Notification?</b> check box was selected. This issue has been resolved.	DE121169

## Asset Strategy Management

Description	Tracking ID
Previously, when importing actions from rounds, an error occurred when you tried to view the Route. This issue has been resolved.	DE121075

## Asset Strategy Optimization

Description	Tracking ID
Previously, under certain conditions, if the simulation stopped while saving results back to ASM, you could not cancel the simulation. This issue has been resolved. Now, you can cancel the simulation at any point in the process.	DE122729
Previously, while accessing the grid view, some of the fields did not appear until the field values were changed back and forth. This issue has been resolved.	DE122728



## Family Policy

Description	Tracking ID
Previously, if you configured a Last, Min, or Max node to operate on the output collection from a Sub Policy node, and mapped the output of the Last, Min, or Max node to another node and saved the policy, when the policy was reloaded in the <b>Design</b> workspace, the mapping was lost. This issue has been resolved.	DE121181

## Inspection Management

Description	Tracking ID
Previously, the <b>Inspection Management Overview</b> page was filtered based on the asset hierarchy context, despite providing the unit key in the Uniform Resource Locator (URL). This issue has been resolved. Now, the <b>Inspection Management Overview</b> page is filtered based on the unit key you provide.	US376669
You can now manage API RBI Recommendations in the <b>Inspection Plan</b> page for the asset. The <b>Inspection Plan</b> page of the Compliance Management module now supports viewing, managing, approving, and implementing API RBI Recommendations. In addition, the <b>Inspection Plan Management</b> page now supports managing Inspection plans with API RBI Recommendations in bulk. To facilitate this enhancement, you must follow the steps in KBA: <a href="https://digitalsupport.ge.com/communities/en_US/Article/V4-3-1-0-2-Compliance-Management-How-to-Configure-API-RBI-Recommendations-for-Inspection-Plan">https://digitalsupport.ge.com/communities/en_US/Article/V4-3-1-0-2-Compliance-Management-How-to-Configure-API-RBI-Recommendations-for-Inspection-Plan</a> . <b>Note:</b> If you had previously performed a similar <a href="https://digitalsupport.ge.com/communities/en_US/Article/V4-3-0-7-8-Compliance-Management-How-to-Configure-API-RBI-Recommendations-for-Inspection-Plan">https://digitalsupport.ge.com/communities/en_US/Article/V4-3-0-7-8-Compliance-Management-How-to-Configure-API-RBI-Recommendations-for-Inspection-Plan</a> for the V4.3.0.7.8 release, you must still perform the steps in the KBA for the V4.3.1.0.2 release and ensure the attached queries are imported.	US373707

## Policy Designer

Description	Tracking ID
Previously, if you updated the schedule settings for a policy with an existing schedule and saved the policy, the updated schedule settings were not applied. This issue has been resolved.	DE122328
Previously, if you configured a Last, Min, or Max node to operate on the output collection from a Sub Policy node, and mapped the output of the Last, Min, or Max node to another node and saved the policy, when the policy was reloaded in the <b>Design</b> workspace, the mapping was lost. This issue has been resolved.	DE121181
Previously, the policy execution service processing the notifications was limited by the maximum number of concurrent WCF connections. This issue has been resolved. Now, the policy execution service is configured to allow up to 32768 concurrent WCF connections by default.	DE120993

## RBI 580

Description	Tracking ID
Previously, if an RBI Criticality Analysis contained a Chloride Stress Corrosion Cracking (CI SCC) or Hydrogen Stress Cracking (HSC) - Hydrofluoric Acid Degradation Mechanism, the value in the output fields were incorrectly calculated. This issue has been resolved.	DE121801

## RBI 581

Description	Tracking ID
Previously, when the UOM conversion set was assigned to you, while calculating an RBI 581 Risk Analysis, the Risk Category field was calculated incorrectly. In addition, the output fields were calculated incorrectly for any of the following conditions: <ul style="list-style-type: none"><li>• The component type was Storage Tank or Storage Tank Bottom.</li><li>• The analysis contained a Brittle Fracture damage mechanism evaluation.</li></ul> This issue has been resolved.	DE121779

## Rounds Data Collection

Description	Tracking ID
The APM Mobile application editing has been enhanced to ensure the route readings in the database are synchronized with the application server before removing the data from the device. Additional logging has been added to track the synchronization activity between the APM Mobile device and the APM Application server.	DE122634

## Security Manager

Description	Tracking ID
Previously, in case of database authentication, if you were a newly created user and you attempted to change the password, an error occurred. This issue has been resolved.	DE122020

## Thickness Monitoring

### Table 135: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
When performing bulk analysis from the <b>Assets</b> section of the <b>Thickness Monitoring Overview</b> page, you can now choose to analyze all assets or only the assets that require calculation.	US380458

### Table 136: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
<p>Previously, when you calculated an asset corrosion analysis in Thickness Monitoring where the Maximum Allowable Working Pressure (MAWP) was calculated for the Thickness Measurement Locations, the following error was logged in the application log file even though the calculation of the MAWP was successful:</p> <pre>System.Xml.XmlException: Root element is missing</pre> <p>This issue has been resolved.</p>	DE122427
<p>Previously, when you performed the Minimum Thickness (T-Min) calculation for more than 400 thickness measurement locations from the <b>T-Min Calculator</b> workspace, an error occurred. This issue has been resolved. Now, a pagination has been introduced to the <b>T-Min Calculator</b> workspace to load 100 thickness measurement locations per page.</p>	DE121542

### V4.3.1.0.1

This topic provides a list of product changes included in this patch.

#### Action Management

Description	Tracking ID
<p>Previously, in the <b>Recommended Actions</b> pane, if you quickly selected multiple Recommendations, the operations were incorrectly displayed. This issue has been resolved.</p>	DE119050

#### Asset Health Manager

Description	Tracking ID
<p>Previously, while accessing Asset Health Manager on a slow network connection, if you quickly navigated away, and then attempted to access Asset Health Manager, an error occurred. This issue has been resolved.</p>	DE117877

#### Asset Strategy Management

Description	Tracking ID
<p>Previously, while implementing Actions as an EAM Maintenance Plan, incorrect URL was generated and added to the Recommendation Description field. This issue has been resolved.</p>	DE119002
<p>Previously, an error occurred for a Risk matrix with a combination of a non-financial category with a protection level and a financial category. This issue has been resolved.</p>	DE118408

#### Asset Strategy Optimization

Description	Tracking ID
<p>Previously, while loading a proposed risk, if the risk assessment was performed with a risk matrix that contained less than three categories, an error occurred. This issue has been resolved.</p>	DE118410

## Data Loaders

Description	Tracking ID
Previously, when you canceled a data loader job that was in progress, the job was intermittently locked and prevented other data loader jobs from running. This issue has been resolved.	DE121444

## Family Policies

### Table 137: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
The performance while loading a policy in the <b>Design</b> workspace has been significantly improved. To facilitate this enhancement, the connections no longer connect directly to the nodes where the values appear on the design canvas when viewing the validation or execution results.	DE120166

### Table 138: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, when the job configured to delete old policy execution history records from the GE Digital APM database ran, the following issues intermittently occurred: <ul style="list-style-type: none"><li>• The job timed out.</li><li>• The job locked the policy execution history table of the database due to which policies were not executed.</li></ul> These issues have been resolved.	US378820
Previously, if a policy contained a node that must not be executed if its output is not used by any successor node, and if you mapped the output of such a node to only a Case node, the node was not executed. This issue has been resolved.	DE120494

## Inspection Management

Description	Tracking ID
<p>Previously, in APM Now, the users set up in LDAP were unable to manage Inspection Plans. This issue occurred because the Security Role IDs were changed to make them unique across multiple tenants. This issue has been resolved.</p> <p>You can now add the users to the following Security Groups that have been created with the same privileges of the corresponding Security Roles to enable them to manage Inspection Plans:</p> <ul style="list-style-type: none"> <li>• MI Compliance Administrator</li> <li>• MI Compliance Analyst</li> <li>• MI Inspection Plan Approver</li> </ul> <p>For more information about how to assign the Security Groups to the users, refer to <a href="https://digitalsupport.ge.com/communities/en_US/Article/V4-3-1-0-1-Compliance-Management-and-Risk-Based-Inspection-How-to-configure-Inspection-Plans-to-be-managed-by-users-with-a-Security-Groups">https://digitalsupport.ge.com/communities/en_US/Article/V4-3-1-0-1-Compliance-Management-and-Risk-Based-Inspection-How-to-configure-Inspection-Plans-to-be-managed-by-users-with-a-Security-Groups</a>.</p>	DE120718
<p>Previously, in the <b>Inspection Management Overview</b> page, the master detail sheet associated with an Inspection family did not appear when the following conditions were met:</p> <ul style="list-style-type: none"> <li>• You configured a family in the <b>Event Configurations</b> section in the <b>Inspection Configuration</b> page so that the family appeared in the module navigation menu.</li> <li>• You configured the master detail sheet for the related family.</li> </ul> <p>This issue has been resolved.</p>	DE120247

## Policy Designer

### Table 139: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
<p>The performance while loading a policy in the <b>Design</b> workspace has been significantly improved. To facilitate this enhancement, the connections no longer connect directly to the nodes where the values appear on the design canvas when viewing the validation or execution results.</p>	DE120166

### Table 140: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
<p>Previously, when the job configured to delete old policy execution history records from the GE Digital APM database ran, the following issues intermittently occurred:</p> <ul style="list-style-type: none"> <li>The job timed out.</li> <li>The job locked the policy execution history table of the database due to which policies were not executed.</li> </ul> <p>These issues have been resolved. Now, each time the job runs, it deletes as many records as possible and may run multiple times to delete all old policy execution history records.</p>	US378820
<p>Previously, if a policy contained a node that must not be executed if its output is not used by any successor node, and if you mapped the output of such a node to only a Case node, the node was not executed. This issue has been resolved.</p>	DE120494

## Queries

**Table 141: Resolved Issues**

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
<p>Previously, when you added or changed the criteria for a query in the <b>SQL</b> workspace, the criteria did not appear in the <b>Design</b> workspace. This issue has been resolved.</p>	DE120488

## R Scripts

Description	Tracking ID
<p>Previously, if an R Script contained a large number of parameters, you could not access all the parameters in the <b>Parameters</b> pane because the pane did not contain a scroll bar. This issue has been resolved. Now, a vertical scroll bar has been added to enable you to move through the pane.</p>	DE120272

## RBI 580

Description	Tracking ID
<p>Previously, when calculating an RBI Criticality Analysis, the value in the Estimated Half Life field in the Criticality Ext. Corr. Deg. Mech. Eval. family was set incorrectly if you had defined UOM conversion set for any field used for the calculation of estimated half-life. This issue has been resolved.</p>	DE119934

## RBI 581

Description	Tracking ID
<p>Previously, when you calculated an RBI 581 Risk Analysis on a Storage Tank component that contained a toxic mixture, the calculation failed. This issue has been resolved.</p>	DE121326

## Reliability Analytics

Description	Tracking ID
Previously, in an Reliability Recommendation record, if you selected the <b>Create Work Request</b> check box, and then saved the record, the SAP Notification that was created did not contain the Equipment and Functional Location values associated with the record. This issue has been resolved.	DE119874

## Root Cause Analysis

Description	Tracking ID
Previously, in an RCA Recommendation record, if you selected the <b>Create Work Request</b> check box, and then saved the record, the SAP Notification that was created did not contain the Equipment and Functional Location values associated with the record. This issue has been resolved.	DE119750

## Schedule Logs

### Table 142: Enhancements and New Features

The following enhancements and new features have been added.

Description	Tracking ID
You can now restart the jobs that are not run successfully but appear in the <b>In Progress</b> section. To facilitate this enhancement, a new button, <b>Recover Jobs</b> , has been added. This button appears when you select the <b>In Progress</b> tab.	DE120857

### Table 143: Resolved Issues

The following issues, which existed in one or more previous versions, have been resolved.

Description	Tracking ID
Previously, when you scheduled jobs, some of the jobs were not successfully run and the jobs appeared in the <b>In Progress</b> section. This issue occurred because the application server was disconnected from GE Digital APM when the jobs were run. This issue has been resolved. Now, GE Digital APM automatically restarts the jobs when the application server is restored.	DE120857