

IBM TRIRIGA
Version 10 Release 5.2

IBM TRIRIGA Application Platform
Version 3 Release 5.2

Release Notes



Note

Before using this information and the product it supports, read the information in “Notices” on page 70.

This edition applies to version 10, release 5, modification 2 of IBM® TRIRIGA® and version 3, release 5, modification 2 of IBM TRIRIGA Application Platform and to all subsequent releases and modifications until otherwise indicated in new editions.

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Release Notes

Welcome to the December 2016 release of IBM® TRIRIGA® 10.5.2, IBM TRIRIGA Application Platform 3.5.2, and IBM TRIRIGA CAD Integrator/Publisher 12.1.5.

This release includes the following two installation options:

A new installation of IBM TRIRIGA Application Platform 3.5.2 and IBM TRIRIGA Applications 10.5.2.

An IBM TRIRIGA Application Platform-only upgrade installation from 3.0.x or higher to IBM TRIRIGA Application Platform 3.5.2.

The IBM TRIRIGA Applications can be incrementally upgraded to 10.5.2 Applications after the platform upgrade is completed. For more information about specific scenarios, view the [Upgrading](#) page on the IBM TRIRIGA wiki.

These release notes include the following:

- An overview of enhancements and changes
- A list of known limitations
- A list of documentation changes
- Many of the descriptions include an internal reference number (Tri-nnnnnn, IV-nnnnnn, and/or RFE-nnnnnn)



Note - To request access to IBM TRIRIGA application upgrade packages or documentation for releases before IBM TRIRIGA 10.2, submit a ticket through the IBM Software Support site at www.ibm.com/support.

What's New in This Release

With IBM TRIRIGA 10.5.2, IBM TRIRIGA Application Platform 3.5.2, and IBM TRIRIGA CAD Integrator/Publisher 12.1.5, IBM TRIRIGA continues to add valuable functionality, fix defects, and reduce the effort necessary for new and existing customers to implement our products. IBM TRIRIGA 10.5.2, IBM TRIRIGA Application Platform 3.5.2, and IBM TRIRIGA CAD Integrator/Publisher 12.1.5 include the following highlights.

Lease Accounting

IBM TRIRIGA 10.5.2 continues to enhance IBM TRIRIGA Real Estate Manager lease accounting processes to accelerate compliance with the final lease accounting standards announced by FASB in February 2016 and IASB in January 2016.

In addition to improvements to functionality for Monthly partial payments and enabling the Generate Payment Schedules wizard on clauses, specific improvements for the current accounting standard (ASC 840) and the new accounting standard (ASC 842) include:

Current Accounting Standards (ASC 840)

- Improvements to Incentive schedules
- Asset impairment for Capital/Finance Leases
- Support for Fair market less than Net Present value scenario
- Gross lease support for Straight line/Amortization schedule
- Impact of Initial Direct cost and Rental Prepayment to Straight line/Amortization schedule
- Full support of Monthly and Non-monthly for Straight line/Amortization schedules for Standard Calendar
- Capital/Finance to Capital/Finance Lease Modifications

New Accounting Standards (ASC 842)

- Initial Right of Use of Asset Value processing to include
 - Unamortized Costs (Rental prepayment and Initial Direct Cost)
 - Unamortized Lease Incentives
- Tenant incentive improvements to impact lease liability
- Impact of Initial Direct cost and prepaid rent to Operating/Finance accounting schedule
- Full support of Monthly and Non-monthly in Operating/Finance schedules for Standard Calendar
- Gross lease calculations (for Monthly and non-monthly) for Adoption
- Indexed Rent enhancements: Application of Min%(Floor) for GAAP (FASB)
- Multinational support enhancements for ASC 842
- Removal of Fair market less than Net Present value scenario

Move Me & Group Move

IBM® TRIRIGA® 10.5.2 introduces the new Move Perceptive applications. The Move Me and Group Move apps are Perceptive applications that are built upon the new UX framework. Perceptive applications feature rapid deployment to tablet devices and simplified user interfaces according to role-based tasks.

- **Move Me app:** By using this Perceptive application on your phone, tablet device or desktop, you can easily create an individual move request. You can search where or when you want to move, select an available room on a floor plan by using new Graphic Find features, and submit the request.
- **Group Move app:** By using this Perceptive application on your tablet device or desktop, you can easily create a group move request. You can search whom and what items to move, select where and when you want to move them, and submit the request.

For information on the UX framework and Perceptive applications, see "[UX Articles](#)" in the IBM TRIRIGA wiki. For information on how to vulcanize perceptive applications, see "[How to vulcanize your UX application](#)" in the IBM TRIRIGA wiki.

Watson Analytics

Watson Analytics is a data analysis solution in the cloud, which guides data discovery and predictive analytics with automatic visualizations and enables effortless dashboard creation. Pairing Watson Analytics data analysis capabilities with TRIRIGA's data enables you to easily explore your integrated workplace management processes and obtain new insights that will help optimize your day to day operations.

"IBM TRIRIGA Connector for Watson Analytics" is the latest of TRIRIGA's perceptive applications. "IBM TRIRIGA Connector for Watson Analytics" allows you to export TRIRIGA data of your choice into Watson Analytics. In this release, Standard TRIRIGA queries define the data content to be exported to Watson Analytics. Standard queries are exposed to "TRIRIGA Watson Analytics Connector" via a TRIRIGA data set definition.

"IBM TRIRIGA Connector for Watson Analytics" provides an intuitive user experience where TRIRIGA users are capable of searching & selecting TRIRIGA data sets, and exporting their associated TRIRIGA data to Watson Analytics.

Specifically, "IBM TRIRIGA Connector for Watson Analytics" includes:

- Perceptive application to search, select and export TRIRIGA data to Watson Analytics
- Predefined data sets associated with TRIRIGA Real Estate, TRIRIGA Projects, TRIRIGA Facilities, TRIRIGA Operations, and TRIRIGA Sustainability modules.
- System level configuration to support TRIRIGA data to Watson Analytics data set definition and IBM Watson Analytics authentication model

Availability Section

The platform provides a new JavaScript based DHTML component version of the IBM TRIRIGA Availability functionality that can be run in all of the browsers listed in the IBM TRIRIGA compatibility matrix. This version of the Availability section replaces the Java applet-based Availability section. Most browsers are no longer supporting Java applets.

New features include a Home button to return the resource availability back to time selector, integrated help, and result size limits which helps in performance

For more information, see [Availability section](#) on the [IBM TRIRIGA wiki](#).

Gantt

Several enhancements are available in the JavaScript based DHTML component version of the IBM TRIRIGA Gantt scheduler that was introduced in the previous release.

Drag and drop of tasks to umbrella tasks

You can drag a task to another task and drop it to create an umbrella task. You can then drag and drop other tasks under the umbrella task to create a task grouping.

Undo/Redo of changes in Gantt scheduler

You can undo many of the actions that you take in the Gantt scheduler by selecting CTRL+Z. You can redo many of the multiple actions that you undo by selecting CTRL+Y. These actions are also available in the Gantt scheduler toolbar.

Some of the actions that you can undo in the Gantt scheduler task table are populating and changing field values, dragging tasks under and out from under umbrella/summary tasks, creating and deleting dependencies, and resizing task bars. When you save the Gantt, the undo/redo feature is reset.

Show baseline on Gantt chart

You can show the baseline for each task on the Gantt chart by clicking the Show Baseline check box on the Gantt scheduler toolbar.

A baseline bar displays within each task bar. To view the baseline for a task, hover your mouse over the baseline bar. The baseline start and end dates display in the date format that is set in the user profile.

Gantt scheduler adheres to Enable bidi support in user profiles

When users select Enable Bidi Support in their user profiles, the Gantt scheduler user interface now reflects this setting. For information on enabling the bidirectional feature, see [Setting language preferences in profiles](#).

For more information, see [Gantt Scheduler](#) on the [IBM TRIRIGA wiki](#).

Document Manager

This release introduces the first phase of support for Content Management Interoperability Services (CMIS). The release enables integration between IBM TRIRIGA document management and Enterprise Content Management (ECM) solutions that support CMIS, such as IBM FileNet and EMC Documentum. With the initial release of this feature, binary content that is uploaded to a TRIRIGA document record can be stored in a linked ECM solution rather than in the TRIRIGA database schema. The integration also supports downloading files from the ECM through the TRIRIGA document record when the files were uploaded via TRIRIGA. Users do not see a change in TRIRIGA behavior when files are stored on the linked ECM solution.

Before you can integrate the CMIS with an external ECM, you must work with your company's ECM administrator to ensure that your company already has a CMIS-capable ECM and the corresponding CMIS gateway program for the ECM.

In this first phase,

- The link between TRIRIGA and a CMIS enabled ECM solution only functions for TRIRIGA documents that are newly created after the CMIS link is established. Migration of existing TRIRIGA document records via CMIS is being considered for a future release.
- The link is primarily a one-way link from TRIRIGA to the ECM solution. Specifically, binary content that is uploaded into TRIRIGA is stored in the linked ECM solution, along with some respective document metadata information. Viewing or manipulating content that exists in the linked ECM solution via TRIRIGA (outside of the CMIS link) is being considered for a future release.
- When CMIS is enabled, the Cut, Copy, and Paste actions are not available in the Document Manager.
- Publications are saved in the TRIRIGA Document Manager database. Storing publications in the ECM solution via CMIS is not supported.
- This functionality can be used by admin and non-admin users.
- Globalized file names are supported.

Upgrade

The previous IBM TRIRIGA version introduced the ability to label, revision, and compare metadata for high-level objects. These capabilities are extended in IBM TRIRIGA 10.5.2 and 3.5.2. The purpose of labeling, revisioning, and comparing objects is to help you to track the changes that you, your service teams, and IBM make to objects that comprise your IBM TRIRIGA applications. The tracking of object changes in TRIRIGA will aid in upgrading your IBM TRIRIGA applications. The following paragraphs highlight the new features in IBM TRIRIGA 10.5.2 and 3.5.2.

Object Revisions

IBM TRIRIGA 10.5.2 and 3.5.2 extend the ability to track metadata for more objects, which include navigation collections, navigation items, portals, portal sections, and security groups. Changes that are made to these objects are now captured in revisions.

The builders are enhanced as follows:

- In the Navigation Builder, you can compare two revisions of a navigation collection. You can compare two revisions of a navigation item as well.
- In the Portal Builder, you can compare two revisions of a portal. You can compare two revisions of a portal section as well.
- In the Security Manager, you can compare two revisions of a security group.
- In the UX designers, you can compare two revisions of a UX metadata record.

In addition to the ability to compare revisions of an object, this version introduces the ability to compare objects with different names. For example, in the Form Builder, you can compare two forms with different names, cstBuilding and triBuilding.

UX metadata content files are now included in compares and comparison reports for Web View Files. Specifically, the report indicates whether the content files, such as HTML and CSS, are the same or different.

Object Labeling

IBM TRIRIGA 10.5.2 and 3.5.2 extend the identification / labeling of objects to more objects, which include navigation collections, navigation items, portals, portal sections, and security groups.

Enhancements to the Object Label Manager include the ability to export object list reports and object change reports for multiple object labels at the same time. Data for UX metadata, navigation collections, navigation items, portals, portal sections, and security groups is now included in the object reports.

For documentation on these enhancements, see [Object Labels and Revisions](#) on the TRIRIGA wiki.

Object Migration

Changes to the Object Migration tool include the ability to create a Full Metadata Package export package that contains all objects from the entire system, except for most record data.

In addition to workflow properties being compared, workflow tasks are now compared. Comparison reports for workflows now indicate if workflow tasks are the same or different between an import package and the target TRIRIGA environment.

Group overrides are now exported and imported with their associated navigation collections. In previous versions, group overrides are exported and imported with security groups. Group overrides that were exported with security groups in older OM packages can still be imported.

IBM TRIRIGA 10.5.2 Enhancements

The following specific enhancements to IBM TRIRIGA are in this release in addition to the enhancements described above:

Area of Impact	Description
Perceptive Applications	IBM TRIRIGA 10.5.2 enhances TRIRIGA data analysis capabilities by providing integration capabilities with IBM Watson Analytics through the "IBM TRIRIGA Connector for Watson Analytics" perceptive application.
Real Estate Real Estate Lease Asset Lease	Assumptions audit log is enhanced to support Asset Impairment scenarios for both ASC 840 and ASC 842.
Real Estate Real Estate Lease Asset Lease	Capital to Capital lease modifications for amortization schedule is supported for ASC 840.
Real Estate Real Estate Lease Asset Lease	Enhanced Adjust payments functionality for Monthly frequency.
Real Estate Real Estate Lease	Fair Market Value less than Net Present Value scenario is supported and calculation of Interest expense is performed using adjusted borrow rate using IRRx() function.
Real Estate Real Estate Lease Asset Lease	Generate payment wizard is enhanced to support to capture of Upfront Incentives and Rental Prepayment.
Real Estate Real Estate Lease Asset Lease	Generation of Monthly payment schedule and to calculate partial payment can be performed irrespective of calendar month.

Area of Impact	Description
Real Estate Real Estate Lease Asset Lease	Gross leases are now supported for accounting calculations for Straight-line/Amortization schedule and, upon adoption to ASC 842, for Operating/Finance schedule.
Real Estate Real Estate Lease	Indexed rent now supports the application of Min% (Floor) for Operating/Finance schedule for GAAP (FASB) Standards for ASC 842.
Real Estate Real Estate Lease Asset Lease	Monthly payment generation is enhanced to support payments on Specific Day of period, First Day of Period, or Last Day of Period
Real Estate Real Estate Lease Asset Lease	<p>On Generate Payment Schedule, the fields on the Payment Parameters section have been re-arranged based on the selected frequency. Also, some of the field labels are changed to improve clarity.</p> <p>On the Payment Schedule form, the Current Period Start Date is now hidden. The field has been removed from Payment Schedule queries on Real Estate Lease and Asset Lease.</p>
Real Estate Real Estate Lease Asset Lease	Straight-line/Amortization schedules, Operating/Finance Schedules are now enhanced for Monthly/Non-Monthly frequencies.
Real Estate Real Estate Lease Asset Lease	Upon transition to ASC 842 the Right of Use asset calculations now includes unamortized costs and unamortized incentives.
Space Assessment	<p>Current weather for the user's location now displays on the My Space Assessments page.</p> <p>The location is set in My Profile > General tab. You specify postal/zip code and country code to see weather. My Space Assessments also displays the due date's forecasted weather for the city of the building being assessed. The building location is set at Building > General tab. You specify the postal/zip code and country code to see weather. It will not display if these values are not set and if the due date is not within 10 days of current date.</p> <p>Changes to the application include:</p> <ul style="list-style-type: none"> - A weather API key can be configured in TRIRIGAWEB.properties file - A "Country Code" field is added to My Profile, General tab. Changing the Geography Lookup should change the Country Code to the Country Code on the Geography Lookup, but you can overwrite this value (same behavior as Country Code in Building, General tab.) In order for weather to be shown, you must use the 2-letter country code, e.g. "US" - A "Temperature Unit Default" field is added to My Profile, Preferences tab. <p>NOTE: This field only supports degrees-celsius and degrees-fahrenheit. Fahrenheit is default.</p>

IBM TRIRIGA Application Platform 3.5.2 Enhancements

The following enhancements to the IBM TRIRIGA Application Platform are in this release in addition to the enhancements described above:

Area of Impact	Description
Administrator Console	A new category has been added to Platform Logging in the Administrator Console to enable debugging for TRIRIGA Connector for Watson Analytics.
Administrator Console	A new category has been added to Platform Logging in the Administrator Console. "SQL Performance" will log general SQL queries not tied to a specific metadata category already listed in the server log. (Tri-232660)
Administrator Console	The Administrator Console will now show a warning message when running an unsupported version of database. (Tri-235702)
Agents	Debugging for the Data Integrator Agent can now be enabled via Platform Logging in the Admin Console. (Tri-236037)
Alternate Forms	Related queries now open records in alternate forms if available from the originating query. (Tri-233590)
Application Server	Apache CXF is upgraded from version 2.6.2 to version 3.1.2. (Tri-230578)
Application Server	Spring Framework is upgraded to version 4.3.0. The Jackson fasterXml libraries are upgraded to version 2.7. (Tri-228765)
Availability	The Availability applet has been replaced with a JavaScript based DHTML component and no longer has a Java client dependency. (Tri-234624)
Brava!	Support for Brava! is updated to version 16.02. (Tri-228280)
Gantt	Added the ability to directly drag tasks as a method to create umbrella tasks. Dragging tasks preserves parent child relationships, but ordering does not persist beyond saving. New tasks that are created directly in Gantt do not support dragging or dropping until you save the section first.
Gantt	Added the ability to Undo or Redo actions in the Gantt section by using the standard keyboard commands, for example, CTRL-Z and CTRL-Y in Windows. Saving resets undo and redo support.
Gantt	Gantt online help is improved and provides detailed information about the Gantt section.
Gantt	TRIRIGA Gantt now supports the ability to see the baseline dates for a schedule inline within the Gantt section.
GIS	The Esri GIS JavaScript library is upgraded to Esri JavaScript API version 3.17. (Tri-229288)
Globalization	When users enable bidirectional support in their profiles, the Gantt scheduler user interface now reflects this setting.

Area of Impact	Description
Graphics	<p>Updated Web Graphics and CAD Integrator Themes, Label Styles, Label Filters, and Graphic Reports to honor reporting. The Theme, Label Style, and Label Filter forms for both Graphics and CI now include a security tab that allows users to specify group security. This means a non-admin user will only see these items if they have matching security group. No groups specified means "allow all". Group security only applies to the items itself, so it does not aggregate, i.e. Theme will not account for any referenced label style security, just itself. If the default theme specified in a form is not allowed for a user due to security, it will fall back to using the global default theme. Because a theme is required to render, the global default theme will ignore group security.</p> <p>Updated the default theme picker in form to display the theme description.</p> <p>Fixed an issue with Reports not sorting for a translated user properly in Web Graphics.</p> <p>Fixed issue with CAD Integrator where it displayed only My Reports created by the user, not My Reports shared by other users. Updated Web Graphics to now also show My Reports like CAD Integrator does.</p> <p>Made the following Application changes to the Graphics and CI application: Added a new section to the Theme, Label Style, and Label Filter records called Group Security. You can now associate Groups to these records. Updated the Label Style and Label Filter manager and associated display queries to now include a description field, which can be used to contain information about security. Also, updated these queries to have better information in general. (Tri-234379; RFE-85026)</p>
Installation	<p>In the IBM TRIRIGA database creation scripts for DB2, AGENT_STACK_SZ was added to set the agent memory. (Tri-209072)</p>
Installation	<p>The embedded version of IBM WebSphere Liberty is updated to 16.0.0.3. (Tri-228275)</p>
Installation	<p>The installation of TRIRIGA Platform now supports connecting to Oracle via Service Name. This will allow you to use a RAC URL, or PDB installations. The installer will prompt for connecting via the older SID, or the Service Name as a section choice. (Tri-213951)</p>
Installation	<p>The JSESSIONID and other server/browser cookies are now set to HTTPOnly. Other cookies set and accessed in JavaScript cannot be set to HTTPOnly by definition. These JavaScript accessible cookies are used for display decisions only, such as the state of portal sections (collapsed or open) the what levels you have open in a tree, and report manager search/filter terms. These cookies must be set to HTTPOnly=false so that the JavaScript that controls the display can set the preferences for you. (Tri-234618; RFE-34523)</p>
Installation	<p>TRIRIGA now supports only traditional WebSphere 9.0.0.x and 8.5.5.10 with Java 8. IBM Java 8 must be installed and configured with traditional WebSphere's profiles before installing TRIRIGA. (Tri-231222)</p>
Installation	<p>TRIRIGA supports IBM DB2 10.5 and 11.1 on DB2 installations. (Tri-228272, Tri-245950)</p>

Area of Impact	Description
Object Labels	The Labeled Objects tab in the Object Label Manager now shows any object that has ever been associated with an Object Label being viewed, even if it is not the current Object Label applied to that object. There is a new column named Current Object Label, which indicates the Object Label that is currently applied to the object. (Tri-229013)
Object Labels and Revisions	Added support for revision compare of UX metadata components.
Object Labels and Revisions	In Navigation Builder, navigation collections now include a Revisions tab, which contains a list of the different revisions for the navigation collection. You can do a compare between two navigation collection revisions. Object Labeling is now supported on Navigation collections.
Object Labels and Revisions	Navigation items are now revisioned. In Navigation Builder, each navigation item now includes a Revisions section, which contains a list of the different revisions for the navigation item. You can do a compare between two navigation item revisions. Object Labeling is now supported on navigation items
Object Labels and Revisions	In Object Label Manager, UX metadata is now compared and is included in the comparison report for an object label when you click Export Object Changes on the Labeled Objects tab. Files that are attached to the Web View File metadata, such as HTML and CSS files, are included in the report. However, the results indicate only if the files are the same or different. Details on differences are not reported. A report that indicates No Differences on Web View Files means that all properties and any attached binary files, are the same. You can use a HTML "diff" tool to compare binary file versions.
Object Labels and Revisions	Object Label Manager is now available as a builder, which you can select from the Builder drop-down list of the Navigation Item Editor in the Navigation Builder. (Tri-239842)
Object Labels and Revisions	On the Object Label Manager landing page, you can now select multiple object labels and export a list of object changes from those labels at the same time by selecting the action, Export Object Changes From Selected. In the previous release, you can export an object change list for only one object label at a time. You can also export a list of all of your object modifications, no matter the object label, by selecting Export All Custom Changes.
Object Labels and Revisions	Portal sections are now revisioned. In Portal Builder, each portal section now includes a Revisions section, which contains a list of the different revisions for the portal section. You can do a compare between two portal section revisions. Object Labeling is now supported on portal sections.
Object Labels and Revisions	Portals are now revisioned. In Portal Builder, each portal now includes a Revisions tab, which contains a list of the different revisions for the portal. You can do a compare between two portal revisions. Object Labeling is now supported on portals.
Object Labels and Revisions	When you save a module or query, or publish a form, BO, or workflow without changing anything, the object label no longer changes to In Progress. The current

Area of Impact	Description
	object label is retained. The object label changes to In Progress only if you make actual modifications to the object.
Object Migration	Group overrides are now exported and imported with their associated navigation collections. Previously, group overrides were exported and imported with security groups. Group overrides that were exported with security groups in older OM packages can still be imported.
Object Migration	The Create Mode field in Object Migration now contains a Full Metadata Package option. With this option, the export package contains all objects from the entire TRIRIGA system, except for most record data. The record data for Classifications is included in the package; however, any record data that is associated to the classifications is not included. This option replaces the Full Package option available in earlier releases.
Portals	A new column is added to the Action Items portal section with a column label 'Record Name' that represents the Published Name of a Smart Object. This enhancement helps the user distinguish between the records waiting to be approved so that the user no longer needs to open each record to see the name of the item awaiting action. (Tri-223781)
Portals	The Help and Support links on the top right corner of the TRIRIGA Application are now hidden by default. If you want to enable these links, set the SHOW_HELP_AND_SUPPORT_LINKS property in TRIRIGAWEB.properties to TRUE. (Tri-237994; RFE-93328)
Projects	Added support for Gantt Strict mode for users that want strict enforcement of the As Soon As Possible constraint. Set GANTT_STRICT_MODE to TRUE for Strict enforcement of the As Soon As Possible constraint type. TRIRIGAWEB.property setting: GANTT_STRICT_MODE=FALSE (Tri-250145)
Projects	The triSequenceNU (#) field on the Task Business Object is now editable in the Gantt section. The # field is used for imported Microsoft Project tasks. (Tri-237632)
Reporting	Added 8 new Command Line API commands that allow for applying reporting data via the AutoCAD AutoLisp API: CiApplyTheme, CiQueryThemes, CiApplyReport, CiQueryReports, CiApplyLabelStyle, CiQueryLabelStyles, CiApplyLabelFilter, and CiApplyLabelFilters. Details of the API will be updated on the TRIRIGA wiki: https://www.ibm.com/developerworks/community/wikis/home?#!/wiki/IBM%20TRIRIGA1/page/AutoCAD%20Command%20Line%20API%20Specification (Tri-234620; RFE-79110)
Reporting	In My Reports, a user can search for a group name when the user shares a report with a group. (Tri-234614)
Reporting	Two new actions are now available in the Advanced Tab of the report definition in Report Manager. The first allows you to specify a synchronous workflow to run on selected records. The second action will email the XLSX export to yourself, using the email address you have in your my Profile record. In addition, the action "Custom" has now been renamed to "Action Form". (Tri-224185)

Area of Impact	Description
Reporting	You can now click on the Field Label in Report Manager to toggle if the field is included in the Report or the User Filter Columns. (Tri-248524)
Security	Implemented a new UI to display all permissions of a user group, including a button to export the permissions into a tab-delimited text file. (Tri-229835)
Security	<p>In Security Manager, groups now include a Revisions tab, which contains a list of the different revisions for the group. You can run a comparison between two different group revisions.</p> <p>Object Labeling is now supported on groups.</p>
Security	Security logging error messages were updated to give resolution steps and more detailed information about why an error occurred. These errors are triggered when a user attempts to access a record for which the user does not have valid groups or licenses. To see these messages in the security.log, enable debug mode for the security logger in the log4j.xml file. (Tri-227301)
Security	The inner save action on the Access tab of the Security Manager is removed. It is no longer required to save after permission changes for every application. Permission changes are now treated the same as general changes and member changes. The user can make multiple permission changes, mix them with general changes and member changes, and save all at the end with the Save or Save&Close actions. A warning message is displayed if the user makes permission changes and tries to close the screen without saving.
Security	The License Manager now includes a Matrix View. The Matrix View displays a table. The columns are the licenses in the system. The rows are applications and modules. The table indicates what is supported for each license. You can search for and select from a list of users. The available licenses for the selected user are highlighted in the table. Whenever you scroll the table, the top and left panes remain fixed for guidance. When you move the cursor over an intersection of highlighted cells, the cell is dark green. The information that was previously in the License Manager is now in the List View tab. The previous functionality did not change. (Tri-226031)
Single Sign-On	<p>The platform now complies with the SSO_DISABLE_UNAUTHORIZED_STATUS property in all scenarios. When SSO_DISABLE_UNAUTHORIZED_STATUS=Y, the platform does not send any '401 UNAUTHORIZED' responses.</p> <p>NOTE: This change is designed to be used only in an IIS enabled SSO solution. (Tri-237987; RFE-93228)</p>
System Setup	A new flag has been added to module properties, Synchronous Hierarchy Path Update, which determines whether the Platform will synchronously update the hierarchy path of children in a hierarchy when any parent record in that module is saved. If this is false, the platform will do nothing, and it is intended for an application developer to configure a workflow to handle the update of the hierarchy paths. This allows the application developer to have more control of update scenarios involving large amounts of hierarchical data and can improve performance by not including the overhead of Platform updates to the hierarchy. By default, and for new modules, this flag is true, to use existing behavior. (Tri-240887-IV89434)

Area of Impact	Description
Upgrade	<p>Added the ability to compare two objects with different names, such as two forms named <code>cstBuilding</code> and <code>triBuilding</code>. This capability is available for forms, modules, BOs, queries, navigation collections, navigation items, portals, portal sections, security groups, and UX metadata. You compare the two objects in their respective builder. (Tri-220348)</p>
Upgrade	<p>Compare reports now indicate not only whether differences exist in a Workflow's header properties between an import package and a target environment, but also whether differences exist in the Workflow's tasks. Specifically, the reports indicate only if the Workflow tasks are the same or different between the source and target.</p> <p>When a compare report indicates No Differences on a Workflow, it means that its header properties and its tasks are the same between the source and target. For a detailed examination of Workflow tasks, the Text Export Selected action in the Objects panel of the Object Migration tool can still be used. (Tri-221866)</p>
Upgrade	<p>In Object Migration, UX metadata content files are now included in compares and comparison reports for Web View Files. Specifically, the report indicates if files, such as HTML and CSS, are the same or different between the source and the target environment. Details on differences are not reported. A report that indicates No Differences on Web View Files means that all properties for UX metadata objects and any content files are the same. Use an HTML diff tool to compare the content file versions. (Tri-221867)</p>
Upgrade	<p>The UX builders such as Application Builder now include a Snapshots tab, which contains a list of all snapshots of the UX metadata object. You can do a compare between two snapshots of a UX metadata object. (Tri-207419)</p>
UX Framework	<p>A component called <code>triplat-duration</code> is now available that accept a numeric duration value and transforms it into a readable formatted string is added. The component provides an input box with a duration icon. The input box is read-only and displays the duration periods and values. Clicking on the icon brings up a duration dialog and allows you to change the duration periods and values. Once values are set, a new numeric duration value is generated so it can be saved.</p> <p>The duration periods are configurable. By default, the years, months, weeks, days, hours, minutes and seconds are displayed.</p> <p>An application developer can overwrite the default setting for each of the duration periods: minimum and maximum value, increase and decrease step, and looping functionality.</p> <p>See the <code>triplat-duration</code> documentation page for additional details.</p>
UX Framework	<p>A new advanced component called <code>triplat-ds-core</code> is now available for UX applications. This component can be used instead of <code>triplat-ds</code> when you need more direct control of context or filters than is available from <code>triplat-ds</code>. Whereas context and filters are specified using <code>triplat-ds-context</code> and <code>triplat-query</code> when using <code>triplat-ds</code>, you directly define JavaScript objects for context and filters when using <code>triplat-ds-core</code>. Generally, <code>triplat-ds</code> should be your first choice because it provides a layer of abstraction, but <code>triplat-ds-core</code> is available for cases where more control is needed.</p> <p>See the <code>triplat-ds-core</code> documentation page for additional details.</p>

Area of Impact	Description
UX Framework	<p>A new component called triplat-incremental-input provides a counter functionality is added. The component includes an input box with increase and decrease icons. The value can be typed directly in the input box or increment and decrement by clicking the icons (default increment and decrement by one but can be configured). Value must be a positive number and can be set to accept numbers within a range. The layout of the component (label, input and icons) should be defined outside of the component by custom CSS.</p> <p>When using triplat-increment-input, the user cannot type then minus sign to denote a negative value if the minimum is set to zero. (Tri-235324)</p> <p>See the triplat-incremental-input documentation page for additional details.</p>
UX Framework	<p>A new plug-in for the triplat-graphic component called triplat-graphic-layer-manager is now available to manage the layers of a graphic. The UX Framework was enhanced to allow the developers disable or enable the layers on a graphic.</p> <p>See the triplat-graphic-layer-manager documentation page for additional details. (Tri-241944)</p>
UX Framework	<p>A new property no-label-float has been added to triplat-datetime-picker component to hide the label when there is a value in the input field. (Tri-228390)</p> <p>The triplat-datetime-picker component now allows the application developer to set the step amount for the Hours, Minutes and Seconds time periods. (Tri-233161)</p> <p>See the triplat-datetime-picker documentation page for more details.</p>
UX Framework	<p>A new UX component called triplat-ds-search-input is now available for the UX Framework. It includes a styled input box that has a search icon and a clear button. It allows the application developer to filter each column with its own data source so filtered columns are independent from each other to improve performance.</p> <p>See the triplat-ds-search-input documentation page for additional details. (Tri-233606)</p>
UX Framework	<p>A new UX component called triplat-file is now available for the UX Framework. The new component is used for uploading, downloading, and displaying binary files. See the triplat-file documentation page for additional details. (Tri-173890)</p>
UX Framework	<p>A new UX plug-in for the triplat-graphic component called triplat-graphic-legend is now available for the UX Framework. The plug-in shows a graphical legend for controlling the spaces that are highlighted and the pins that are shown on a graphic. Using the legend plug-in, the user can select the criterion that will select and filter the spaces to be highlighted on the graphic.</p> <p>See the triplat-graphic-legend documentation page for additional details.</p>
UX Framework	<p>A new UX plug-in for the triplat-graphic component called triplat-graphic-pin is now available for the UX Framework. The plug-in allows the developers to denote the location of an entity on a graphic via an icon and optionally a label.</p> <p>See the triplat-graphic-pin documentation page for additional details.</p>

Area of Impact	Description
UX Framework	For application developers who are using the RESOURCE_CALENDAR data source, support is added for user-defined fields. Fields that are defined as Additional Display Columns in the calendar set may be added as fields to the data source.
UX Framework	For UX application developers who use triplat components, all triplat components now have colors that are styled with values in the triplat-theme file. (Tri-239108)
UX Framework	<p>New components that access the weather information provided by The Weather Channel API (for a given location) are added.</p> <p>triplat-weather-current is a new component that retrieves the current weather conditions information for a given location from The Weather Channel (TWC) using the TWC API. Weather observations are generated on demand from The Weather Channel Currents On Demand system. The return observation object contains weather data such as temperatures, winds, and pressure.</p> <p>triplat-weather-forecast is a new component that retrieves forecasts weather conditions information for a given location from The Weather Channel (TWC) using the TWC API. Weather forecasts are generated from The Weather Channel Forecast system. The return forecasts object contains array of weather data such as temperatures, winds, and pressure.</p> <p>Note that The Weather Channel API requires a license and is constrained by the API Key entitlements. To use this component, update the TRIRIGAWEB.web properties file and set The Weather Channel API license key in the WEATHER_API_KEY property.</p> <p>See the triplat-weather documentation page for more details.</p>
UX Framework	<p>Support for accessing a child data source for several context ids is added. This retrieves all the spaces for selected people. The data source would likely be a query data source that has a \$\$RECORDID\$\$ filter using a supplied person ID. When providing several context ids for the parent data source, a single request is sent to the server, and the server execute the request against each of the context ids and return the appended results. The number of context ids should be limited as the server executes the query for each context id.</p> <p>User will now be able to access metadata (default values and sizes) of the fields included on non-primary data sources. (Tri-235259)</p> <p>When triplat-ds fires the error event 'ds-get-error', it now includes the error object itself to provide details on the error, i.e. if the data source does not exist. (Tri-228966)</p> <p>The user can now retrieve metadata of the datasource fields defined in Data Modeler via triplat-ds. New properties include-metadata and metadata have been introduced to enable this feature. At present, the user can only retrieve default value and size metadata from the following supported field types: Text, List, Date, Datetime and Number. (Tri-237292)</p> <p>The documentation page now contains a 'Best Practices' section describing things to consider for optimizing performance.</p> <p>See the triplat-ds documentation page for additional details.</p>

Area of Impact	Description
UX Framework	<p>The component triplat-radio-group style and class properties are now deprecated. They are now mixins in its replacement and should be used instead. (Tri-230287)</p> <p>The triplat-radio-group component now has a "removeNone" property to handle removing the "None" radio button option. (Tri-230286)</p>
UX Framework	<p>The documentation page of triplat-search-input now includes best practices for performance considerations. Also, the header 'Show More' option performance has improved since it is loading records on demand as the user scrolls down.</p> <p>The triplat-search-input now provides better responsiveness based on the screen size. When the available space is not enough to accommodate all selected filters, the input will offer an option to expand/collapse filters along with other features, such as removing single filters and clearing all filters.</p>
UX Framework	<p>The Navigation Builder has been enhanced to allow an "Application" type navigation item to display the application either in the same tab or new tab. A checkbox labeled "Render in new window" is added in the Navigation Item Editor when target type is "Application". Existing navigation items with "Application" type are all upgraded to "yes" to render in new window as the default behavior.</p> <p>If the checkbox is unchecked, when this application navigation item is clicked in the menu, quick links or the sitemap, the application content will be rendered in the existing tab under the TRIRIGA header, menu and bread crumbs.</p> <p>There is a known limitation where the embedded application cannot render responsively because it is within the container of the TRIRIGA portal.</p>
UX Framework	<p>The triblock-table component is delivered as a TRIRIGA UX Framework component and is documented in the TRIRIGA UX Component Documentation page.</p> <p>See the triblock-table documentation page for more details.</p>
UX Framework	<p>The triplat-date-picker and triplat-datetime-picker components are updated to improve the design and user experience. The mixin '--tripat-date-picker-width' default value is now set to 100%.</p> <p>The time section of the triplat-datetime-picker is now displayed by default. The hours, minutes, seconds inputs in time section have been replaced with the 'tripat-incremental-input' component. The seconds input in the time section is hidden by default and can be enabled by the 'displaySeconds' property. The year selection will no longer have an "OK and Cancel" button, and will close once a year is selected. The year selection can be disabled by enabling the property 'disableSelectYear'.</p> <p>The picker icon for the triplat-date-picker and triplat-datetime-picker is now updated to use the IBM icon set. (Tri-222308)</p> <p>The application can now customize the label of the component using text style and icons. (Tri-233298, Tri-224363)</p> <p>The triplat-date-picker and triplat-datetime-picker mixins '--tripat-date-picker-icon-height' and '--tripat-date-picker-icon-width' have now been consolidated and replaced with '--tripat-date-picker-icon-size'. (Tri-228465)</p>

Area of Impact	Description
	<p>The triplat-date-picker and triplat-datetime-picker picker icon now has a ripple effect when click or tapped on. Also, the accessibility on the picker has been improved. (Tri-228461)</p> <p>See the triplat-date-picker and triplat-datetime-picker documentation page for additional details.</p>
UX Framework	<p>The triplat-date-utilities has a new method called "getBrowserTimeZone" to get client's browser time zone. (Tri-222996)</p>
UX Framework	<p>The triplat-graphic-zoomable plug-in in triplat-graphic component provides a new property called "cached" that will allow the user to preserve pan and zoom settings.</p> <p>See the triplat-graphic-zoomable documentation page for additional details.</p>
UX Framework	<p>The triplat-resource-calendar is a new UX component that displays calendar resources using the FullCalendar API.</p> <p>The ability to change the color of resources that are displayed in the triplat-resource-calendar is supported.</p> <p>See the triplat-resource-calendar documentation page for more details.</p>
UX Framework	<p>The triplat-uom component is enhanced with the ability to modify UOM value in a UX application is added.</p>
UX Framework	<p>The TRIRIGA UX Framework triplat-theme component is enhanced to reflect IBM Design specifications. In addition, the triplat-theme documentation page now contains improved documentation. (Tri-240793)</p>
UX Framework	<p>The UX component triplat-date-picker now provides a new property "noLabelFloat" to hide the floating label above the triplat-date-picker field. (Tri-232648)</p> <p>See the triplat-date-picker documentation page for more details.</p>
UX Framework	<p>The UX components triplat-duration, triplat-incremental-input, triplat-note, and triplat-image now have the ability to handle custom labels, such as displaying an icon with a label. The triplat-duration and triplat-change-tracker now provide the CSS mixins to style cancel and done buttons.</p> <p>See the component documentation page for more details.</p>
UX Framework	<p>The UX Framework now allows a developer to create an alternate login for UX Applications. A new UX component called triplat-login is now available, a new property (ALTERNATE_UX_LOGIN_VIEW) has been added to the TRIRIGAWEB.properties file and the WebViewSync tool now provides a template to help the developer to define an alternate login page.</p> <p>See the triplat-login documentation page for additional details.</p>
UX Framework	<p>The UX Framework was enhanced to display a field of type NOTE. A new UX component called triplat-note is now available and a new NOTE data type has been added to the Data Source Metadata form. See the triplat-note documentation page for additional details. (Tri-223150)</p>

Area of Impact	Description
UX Framework	There is now a new building block component called "triblock-app-layout" that provides a basic application layout with a responsive banner. (Tri-239990) See the triblock-app-layout documentation page for more details.
UX Framework	You can now control of alignment and position of image can be achieved. See the triplat-image documentation page for more details. (Tri-233137)
UX Framework	You can now use the triplat-loading-indicator component as a loading indicator in a UX application. See the triplat-loading-indicator documentation page for more details.
Workplace Reservation Manager	Added two new style color classes that can be used for the Availability section: Time Window Border Color, for the border color of the time selector, and Tentative Period, for the color of Tentative reservations. (Tri-230876)
Workplace Reservation Manager	The Availability section has been enhanced to provide online help. (Tri-230877)
Workplace Reservation Manager	The pre-event buffer is updated to be top-aligned and the post-event buffer to be bottom-aligned when a user creates a reservation for a room that requires preparation time or breakdown time. If two bookings are next to each other, the preparation and breakdown time for each booking is distinguishable.

IBM TRIRIGA CAD Integrator/Publisher 12.1.5 Enhancements

No enhancements to the IBM TRIRIGA CAD Integrator/Publisher are in this release, however IBM TRIRIGA Application Platform 3.5.2 does contain enhancements for working with IBM CAD Integrator/Publisher.

Important Installation and Upgrade Information

If you are upgrading from a previous version of the Application and have not previously done so, apply the SQL script to update the system fields with sub-attribute type of CreatedDateTime to CreatedDateTime (Number) and ModifiedDateTime to ModifiedDateTime (Number). Scripts for Oracle and Microsoft SQL Server are located on the upgrade disk in the \Scripts folder. Instructions are within the scripts.

Run the script PRIOR to installation of IBM TRIRIGA Application Platform version 3.5.0.

NEVER run the script after upgrading to 3.5.0.

For Oracle, run SetVarcharColsToNumeric_ORCL.sql.

There are two scripts for MSSQL, SetVarcharColsToNumeric_MSSS.sql and SetVarcharColsToNumeric_MSSS_Publish_BO.sql. Run SetVarcharColsToNumeric_MSSS.sql first. When it completes, run SetVarcharColsToNumeric_MSSS_Publish_BO.sql.

If you imported pre-10.5.0 application upgrade packages into an environment on platform version 3.5.0 or 3.5.0.1, please do not delete the packages from the Object Migration tool. Additionally, do not delete the notifications related to the import of these packages.

Object Label cleanup will run the first time the AppServer is started on Platform version 3.5.2 to ensure that the Root object label is applied appropriately to Modules, Business Objects, Forms, Queries, and Workflows. Packages and notifications are used for tracking purposes to clean Object Labels for Modules, Business Objects, Forms, Queries, and Workflows that are incorrectly given the In Progress or ObjectLabelInProgress object label when you did not modify them.

If notifications related to the imports have been deleted, the Object Label cleanup will still run, but any in progress labels given to an object by a manual modification will be changed to the Root object label, if the manual change happened on the same day as the pre-10.5.0 application upgrade on platform version 3.5.0 or 3.5.0.1, and by the same user who applied the upgrade.

If application upgrade packages have been deleted from the Object Migration tool, the Object Label cleanup will not be able to ensure that the Root object label is applied appropriately to objects imported by those deleted packages.

If version 3.5.x is your first version of TRIRIGA Application Platform, please disregard this release note. If you are upgrading from 3.4.x/10.4.x please read this release note. If you upgraded the platform to 3.4.x but did not also upgrade the application to 10.4.x, many business objects must be republished to support localization changes.

You can do one of the two options. Make sure you do either option **BEFORE** the installation of TRIRIGA Application Platform 3.5.0.

NEVER do either option after upgrading to 3.5.0.

Option 1: To republish all of the business objects, you can follow the instructions given in the Publish_all_BOs_For_localization_MSSS.sql or Publish_all_BOs_For_localization_ORCL.sql scripts, which are found in the scripts directory of the Application Upgrade disk. You use the ORCL script for DB2.

Option 2: You can choose to manually republish the business objects. The following business objects, listed with business object name first and module name in parentheses, need to be republished:

Classification (Classification)
Cost Code Container (triCostCode)
Data Utilities (Data Utilities)
Document Container (Document)
Geography (Geography)
Group (Group)
Group Member (Group)
Holidays (System)
Location (Location)
Organization (Organization)
Permission Line Item (triPeople)
Polylining Standard (Polylining Standard)
Project Group Container (Group)
ROOT (Document)
triAnalyticEvent (triAnalyticEvent)
triAnalyticItem (triAnalyticItem)
triAnalyticProcess (triAnalyticProcess)
triAnalyticRule (triAnalyticRule)
triApplicationSettings (triSetup)
triApproval (triRouting)
triApprovalRule (triSetup)
triAssetEvent (triAnalyticEvent)

triAssetLink (triAsset)
triBidResponse (triProposal)
triBuildingSystem (triBuildingSystem)
triBuildingSystemLink (triBuildingSystem)
triCatalog (triCatalog)
triCatalogLink (triCatalog)
triCiApplicationDefinition (triCiApplicationManager)
triCiAssociatedObject (triCiApplicationManager)
triCiHierarchyNode (triCiHierarchyNode)
triContactRole (triIntermediate)
triContract (triContract)
triContractLink (triContract)
triCostCode (triCostCode)
triCostItemLink (triCostItem)
triCTQAssessment (triIntermediate)
triDataAttributeItemIntermediate (triIntermediate)
triDesignLink (triDesign)
triEnergyRatingErrorLog (triLog)
triEnergyStarValidationItem (triIntermediate)
triExternalMailServer (System)
triGeographyLink (Geography)
triInspectionLink (triInspection)
triInventoryLocation (triInventoryLocation)
triInventoryLocationLink (triInventoryLocation)
triItemLink (triItem)
triKeySecurity (triKeySecurity)
triLeaseAbstract (triContract)
triLeaseAbstractAction (triActionForm)
triLocationEnergySpace (triIntermediate)
triLocationLink (Location)
triNotificationDetails (triRouting)
triOSCREUtil (Data Utilities)
triPeopleLink (triPeople)
triPermitLink (triPermit)
triPlan (triPlanning)
triPlannedSpace (Location)
triPlanning (triPlanning)
triPlanningConflictItem (triPlanningItem)
triPlanningEnvironment (triPlanning)
triPlanningPeriodItem (triPlanningItem)
triPlanningScopeItem (triPlanningItem)
triProductsAndServicesLink (triProductsAndServices)
triProjectCalcItem (triCalculationItem)
triProjectLink (triProject)
triProjectReport (triProgressReport)
triProjectUpdater (triActionForm)
triREContractLocations (triIntermediate)
triRequest (triRequest)
triRequestLink (triRequest)
triReservationGroup (triSetup)
triResource (triIntermediate)
triRetailCompany (triIntermediate)
triReview (triActionForm)
triReviewer (triIntermediate)
triScheduleTask (triTask)

triSpaceForecastItem (triPlanningItem)
triSpaceForecastSurvey (triPlanning)
triSpacePlan (triPlanning)
triSpaceScenario (triPlanning)
triSpecificationLink (triSpecification)
triSurveyQuestionResponse (triIntermediate)
triTaskLink (triTask)
triTaskResourceAllocation (triTaskAllocation)
Working Hours (System)

(Tri-128841, Tri-128369)

IBM TRIRIGA Supported Versions and IBM TRIRIGA Application Platform Compatibility Matrix

The *IBM TRIRIGA Supported Versions* lists information related to IBM TRIRIGA's supported products and platform and relays information about end-of-life plans for such software. The *IBM TRIRIGA Application Platform Compatibility Matrix* lists supported operating systems, databases, and related details for and about the IBM TRIRIGA Application Platform and relays information about end-of-life plans for such software. The *IBM TRIRIGA Supported Versions* and the *IBM TRIRIGA Application Platform Compatibility Matrix* may change over time. The *IBM TRIRIGA Supported Versions* and the *IBM TRIRIGA Application Platform Compatibility Matrix* can be found on the IBM TRIRIGA wiki at <https://www.ibm.com/developerworks/community/wikis/home?lang=en#/wiki/IBM+TRIRIGA1/page/Support+Matrix>.

IBM TRIRIGA 10.5.2

This release includes information, known limitations, and changes to IBM TRIRIGA.

Important Information

The following items are important information concerning IBM TRIRIGA that are newly added for this release. For Important Information related to previous releases, see the [Release Notes](#) page of the IBM TRIRIGA wiki.

Area of Impact	Description
Object Migration	The 10.5.2 patch helper workflows will be triggered automatically after the 10.5.2 OM package is finished importing. If you do not want them to be triggered automatically, you can clear the workflow before importing the OM package and trigger manually. The workflow name is "triPatchHelper - Synchronous - 10.5.2 - Main Patch Helper". (Tri-250137)
Translation	Some labels and data delivered in IBM TRIRIGA version 10.5.2 are not yet translated. They are downloadable on the TRIRIGA wiki for customers who would like to translate the labels before they are available as part of a future release.

Known Limitations

The following items are known limitations concerning IBM TRIRIGA and are newly added for this release. For Known Limitations related to previous releases, see the [Release Notes](#) page of the IBM TRIRIGA wiki.

Area of Impact	Description
Move Requests	Classic TRIRIGA shows a request is for "Someone Else" instead of "Me" when viewing the same move request created in IBM TRIRIGA Group Move. (Tri-249875)
Move Requests	If the application server is running on Websphere 9, UX applications, such as Move Me, Group Move, Space Assessment, and Space Management, will not load for users that have a non-US English language set in their profile. (Tri-252859)
Move Requests	If user is on Oracle and uses a non-English language, he won't be able to use the IBM TRIRIGA Group Move perceptive <u>app</u> to select people to move. The Search page will freeze upon adding the persons returned from a people search. This issue will be addressed in a fix subsequent to release 10.5.2. (Tri-252447)
Move Requests	In both IBM TRIRIGA Group Move and Move Me, a page may not load after session time-out and a loading spinner may be displayed for an indefinite period of time. User should re-login if he encounters such a situation. (Tri-250858)
Move Requests	In IBM TRIRIGA classic move request application, the entitlement rules do not include those used by the new perceptive application. Hence the available spaces found via the two applications may differ. User of the perceptive app should use the same perception application to make any revision to the move request if one is allowed. (Tri-251995)
Move Requests	In IBM TRIRIGA Group Move and Move Me, the portion of the calendar denoting the days "S M T W T F S" may overlap one another depending on the language used. (Tri-249890)
Move Requests	In IBM TRIRIGA Group Move, if one selects multiple floors as Move To locations when moving Rooms, Assets or Equipment and if these floors lack floor plans, space assignment is possible only on one floor, but it is not possible in subsequent floors. A workaround is to refresh the page, or select floors from the Search drop-down one at a time, i.e. when one needs to work on a different floor, select another floor from the Search drop-down. Additionally, if one selects a single floor with no floor plan as Move To locations when moving Assets, Equipment or Rooms, and if there is a preceding space assignment to move a Person, space cannot be assigned to these subsequent moves on Assets, Equipment or Rooms, unless one refreshes the page first. (Tri-252457)
Move Requests	In IBM TRIRIGA Group Move, the keyboard on an Android phone may be triggered automatically by these actions: Check/Uncheck Legend, scroll up/down the space list in List view, click Sandwich icon. (Tri-251676)
Move Requests	In IBM TRIRIGA Group Move, the notification from Move Item will display "{6}" when there are no move instructions. (Tri-232595)
Move Requests	In IBM TRIRIGA Move Me running on Android phones or iPhones, the status of the move request is not translated and is displayed in English. (Tri-250389)

Area of Impact	Description
Move Requests	In the Move page of IBM TRIRIGA Group Move, when user opens the calendar to select a Requested Move Date, a vertical scroll bar may show up sometimes. (Tri-251102)
Move Requests	In the new move request Search page in IBM TRIRIGA Group Move, cursor jumps off from the search field when keyboard opens. User can regain focus on the search field by tapping it again. (Tri-250619)
Move Requests	In the Search for a Room page in IBM TRIRIGA Move Me, when the browser window is made very narrow horizontally on a desktop, the right scroll bar next to the calendar cannot scroll to the top portion of the screen. (Tri-251310)
Move Requests	Landscape mode is not completely supported in IBM TRIRIGA Move Me. User is advised to remain in portrait mode. (Tri-249100)
Move Requests	Landscape mode is not completely supported in IBM TRIRIGA Move Me. User is advised to remain in portrait mode. (Tri-246383)
Move Requests	Some icons in IBM TRIRIGA Group Move do not have hover text/tool tips when moused over. (Tri-246350)
Move Requests	The columns in the Approval section of the Detail Information page of IBM TRIRIGA Group Move cannot be sorted. (Tri-240818)
Move Requests	The legends in List view in IBM TRIRIGA Move Me listing available spaces on a given building and floor may overlap one another and may be missing their color indicators when running on Edge. (Tri-251080)
Move Requests	The name of a space may get truncated if it is too long in the List view of available spaces of a given building and floor in IBM TRIRIGA Move Me. (Tri-251118)
Move Requests	The task owner is not automatically added to the Recipient List of a move request in classic TRIRIGA and, therefore, is not notified when the request is cancelled. However, you can manually add the task owner to the list of users who will receive the notification. (Tri-250999)
Move Requests	The To Space Graphic View always shows the floor plan of the first floor regardless of the floor selected for the item in the Move Details of the Move Request. To show another floor, you will need to select manually in the Menu drop-down in the To Space Graphic View. (Tri-249647)
Move Requests	The tool tips of the Floor Plan and the List view icons in the Search page may be partially obstructed in IBM TRIRIGA Group Move when performing a search on location. (Tri-251517)
Move Requests	The user may notice a flash-by of the Search page when a submitted request is clicked on the Landing page in IBM TRIRIGA Group Move. (Tri-251070)
Move Requests	Upon submission of a move request in IBM TRIRIGA Move Me, a toast message "You have not selected a room" may be shown when all the default values are left unchanged in the Search for a Room page and after a room has been picked. (Tri-251626)

Area of Impact	Description
Move Requests	When a comment is added to an item in the Details page in IBM TRIRIGA Move Me, the Comments count is not incremented until one refreshes the page. (Tri-250864)
Move Requests	When running IBM TRIRIGA Group Move on an Android device, a button on a page such as the New Request button may not be entirely inside the viewing area. User will need to swipe left if he wants to bring the entire button into full view. (Tri-252106)
Move Requests	When running IBM TRIRIGA Group Move on an Android tablet in portrait mode, a button on a page such as the Done button may not be entirely inside the viewing area. User will need to swipe left if he wants to bring the entire button into full view. (Tri-251760)
Move Requests	When using IBM TRIRIGA Group Move on Surface Pro Windows 10 Edge browser, the labels (i.e. the floors) on the floor tabs are not displayed in the Move and Search pages, but the tabs remain clickable and the correct floor plan for the floor will be shown. User may work around it by clicking "Change" and choosing one floor at a time. (Tri-250896)
Notifications	Notification Content The status display for Notification Content retired records displays as Review in Progress but should be Retired. (Tri-174514)

Area of Impact	Description
Real Estate	<p>In order to change the Initial Liability Carryover Balance and/or Initial Direct Costs, you must use the following steps:</p> <ol style="list-style-type: none"> 1. Queries run directly in report manager are not controlled by System Geography and System Organization if implemented in group security. It is possible to update the Initial Liability Carryover Balance and/or Initial Direct Costs values on lease records that the user may not have access to, but the user will not be able to drill in to view or perform any action on the lease record. 2. Lease Accountant role has access to Accounting tab so the Administrator will need to give the Lease Accountant access to the query in My Reports > System Reports. 3. Updates to Initial Liability Carryover Balance should only be made for leases that are in Revision = 0. <p>The queries used in step 1 below are:</p> <p>triRealEstateContract - Report - <u>Editable</u> - Update Initial Direct Costs and/or Initial liability Carryover(Title : All Real Estate Leases - Update Initial Direct Costs and/or Initial Liability Carryover)</p> <p>triAssetLease - Report - <u>Editable</u> - Update Initial Direct Costs and/or Initial liability Carryover (Title : All Asset Leases - Update Initial Direct Costs and/or Initial Liability Carryover Balance)</p> <p>Follow the steps below to update Initial Direct Costs and/or Initial liability Carryover Balance</p> <ol style="list-style-type: none"> 1. Run the appropriate query listed above for either real estate or asset leases. It brings all Active status leases which are in triIssued State. 2. Filter it by Contract Name or Lease ID. 3. Editable fields are Initial Liability Carryover Balance and Initial Direct Costs. 4. Update the amounts for the fields. 5. Click Save action (top right). Multiple record updates can be saved at the same time. 6. Click on the record to open the lease, then click on the Review Assumptions action. 7. Select the any Review Type other than "Initial Adoption to New Standard". 8. Set the Fiscal Period = Accounting Start Date period 8. Check the Recalculate Schedules check box under the Accounting Term section. 8. Click Submit action. 9. The lease status will change to "Processing" and once completed changes to "Active" status. Review Assumptions action will become available again. 10. The calculated schedules take into account the changed values for Initial Liability Carryover Balance and Initial Direct Costs. <p>(Tri-251736)</p>
Real Estate	Interest expense calculations and accounting schedules calculations are calculated based on a simple interest method.
Real Estate	Lease Accountant users with System Organization or System Geography set cannot view generated fiscal line items for a lease they created. Users should have organization and geography established and not be using the System Organization and Geography fields. (Tri-223860)

Area of Impact	Description
Real Estate	When a currency is converted from US Dollars to the Euro or from the Euro to US Dollars, the actual currency amount is correct but the currency symbol is not correct. (Tri-216279)
Real Estate	When an Accounting Start Date and Accounting End Date are both the last day of the month, the liability does not reduce to \$0. (Tri-186878)
Space Assessment	<p>If you get your TRIRIGA application 10.5.2 via a fresh install, when you click the Space Assessment menu item and the Space Management menu item in the TRIRIGA menu under Space/Assess Space, they bring you to the non-vulcanized URL's instead of the vulcanized ones. To access the vulcanized version of the applications on a per user per session basis, remove the "Dev" suffix after "spaceAssessment" or "spaceManagement" from the URL's.</p> <p>If you want to change to the vulcanized version for everyone all the time, you can correct this in the Navigation Builder. Edit the 'TRIRIGA Global Menu' navigation collection. Locate the 'Landing Page - Space', then expand it to find 'Menu Group - Assess Space' and expand that. For each navigation item under this menu, edit it and change the 'Application' to point to the vulcanized version for it's respective application in the drop down list, i.e. 'triSpaceAssessment' and 'triSpaceManagement', and then tap on 'Save & Close'. Once both applications are fixed, then 'Save & Close' the navigation collection. (Tri-252872)</p>
Usability	Multiple tab orders differ depending on the DB type. (Tri-207445)
Workplace Reservation Manager	When setting a delivery date on a Food order for a recurring meeting, the delivery date is not updated for each occurrence of the meeting. (Tri-225122)

IBM TRIRIGA 10.5.2 Changes

The following changes to IBM TRIRIGA are in this release:

Area of Change	Description
Capital Projects	The Add button under the Find action popup query of Drawings and Specifications Query sections on the Permit Application form is removed. Use the Add action from Drawings and Specifications Query sections to create new records. (Tri-250468)
Document Management	The system now correctly shows "Checked In" as the File Status field value in the Description tab if you cancel a check out of the RE Disposition Term and the RE Sublease document records. (Tri-232116)
Gantt	<p>The "Both" option in the Calculate Project From field is deprecated. The value is removed from the list dropdown options.</p> <p>For any existing projects, if the value is set to "Both," the user is prompted with a message to change the list value to either "Start" or "End." Gantt Project uses Calculate Project From "Start" if the value is set to "Both." (Tri-210445)</p>
Locations	For Space, Space Group, and Reservation Space Group, corrected an issue where the original space was mapped into the System Location field instead of the copied space. (Tri-231315-IV86740)

Area of Change	Description
Locations	When a Space record with System Organization that is different from the current user's Primary Organization is copied, the Associate and De-Associate workflows are looping to map and overwrite the System Organization from Space and My Profile records. The Associate workflows have been fixed and the looping will not happen anymore. (Tri-213422-IV85414)
Maintenance	On a Job Plan, when an Asset or Location is added after work tasks are already generated, the Task Grouping Rule is now properly applied when the rule is set to Create Task For Each Asset/Location. (Tri-233869)
Notifications	The DateTime value in the Message Content section of the Notification record always showed the Server TimeZone. A new Notification Time Zone list field has been added to the Application Settings record with an option of displaying the TimeZone in USER or SYSTEM format. The Time Zone of the DateTime value in the Message Content section is now displayed based on the value selected for the Notification Time Zone list field on the Application Settings record. (Tri-232736-IV86879)
Object Labels and Revisions	The Object Label Manager navigation item is added to following navigation collections: triApplicationAdministrator - Quick Links - Home Utilities triApplicationBuilder - Quick Links - Home Utilities triTools - Quick Links - Utilities TRIRIGA Global Menu (Tri-2399985)
Object Migration	The "Active Start Date" and "Active End Date" fields were removed from Event BO but not the Form. Fixed the issue by removing the "Active Start Date " and "Active End Date" fields from Event Info section of Event Form. (Tri-235118-IV87570)
OSLC	OSLC user message records from OSLC0057 to OSLC0087 are now included in the system for a new database install. (Tri-237152)
People	The "Consultants - Active Users" related report now displays records with status of Active User. (Tri-245409)
People	The Employee Manager Query "triEmployee - triPeople - Manager Query" is causing performance issues due to the 'In' Operator being used under System Filter Columns of the query. The issue has been resolved by changing the 'Not In' Operator to use 'In' Operator under System Filter Columns of the Employee Manager Query. (Tri-246387-IV90375)
Portals	The My Active Tasks portal section now returns larger amounts of data faster. (Tri-237087-IV89913)
Preventive Maintenance	The Find Action Query on 'Select the Shadowing PM Schedules' section of PM Event Form now displays the Add action. The System Add action is displayed by the Platform and has been deprecated moving forward. The issue has been resolved by adding the Add action on Advanced tab of Find Action Query. Also, for Reading-Based PM Schedules, the Shadowed By Query section has been hidden. Tasks created from Reading-Based PM Schedules are now properly displayed on the Job Plan. (Tri-248381-IV90489)

Area of Change	Description
Preventive Maintenance	The query displayed in Tasks section of Job Plan form has the Reverse Association flag removed from the Association filter. The Reverse Association issue has been resolved by selecting the correct Association Type on the Association Filter of Tasks query to display the results correctly. (Tri-248950)
Preventive Maintenance	When a Location is added or removed from a Job Plan, the associated Planned Work Tasks and the Route Group Locations record are now added or deleted correctly. (Tri-233331)
Preventive Maintenance	When an Asset is removed from the Job Plan, the associated Planned Work Tasks and the Route Group Asset record are not deleted. The De-Associate workflow has been fixed to delete the associated Planned Work Tasks and the Route Group Asset record. The Route Group Asset is deleted through De-Associate workflow, so the Delete action on Route Group Asset form has been removed. Also, when a new asset is added to Job Plan, it does not look for the Task Grouping Rule on Service Plan to associate Asset to existing Planned Work Tasks. The Associate workflow has been fixed to look for Task Grouping Rule on Service Plan. (Tri-231296-IV86862)
Projects	Allocating funds to Capital Projects will no longer incorrectly duplicate the allocation to other Capital Projects of the same name.
Projects	<p>The Calculate Project From field value on the Schedule tab of the following default as-shipped Facilities Project Template records was set to the deprecated value, 'Both'. The Calculate Project From field value now defaults to 'Start' in these template records.</p> <p>DEFAULT - Facility Project Template for Inspection Project DEFAULT - Facility Project Template for Planned Work Request DEFAULT - Facility Project Template for Move Projects</p> (Tri-245325)
Projects	The Capital Projects form contained task types that are not needed for Capital Projects. The task types now correlate to the Capital Projects license, specifically: Contract Review, Inspection Task, Punchlist Task, Schedule Task, Submittal Task, and Work Task. (Tri-214411)
Projects	The Checklist Items section on Closeout Checklist record is not populated with data. This section should be populated with the data from Survey Question record on Default Closeout Checklist Template record through the pre-create workflow. Currently, the workflow is trying to render the shipping Default Closeout Checklist Template record at Project Level and does not find anything. The workflow has been modified to run at Company level in order to render the Default Closeout Checklist Template record to populate data under Checklist Items section on Closeout Checklist record. (Tri-230577-IV86601)
Projects	The Facility Projects form contained task types that are not needed for Facility Projects. The task types now correlate to the Facility Projects license, specifically: Facility Assessment Work Task, Schedule Task, and Work Task. (Tri-214412)
Projects	The Project Container Context query is displaying only the Parent Project records and not the Child Projects. The issue has been resolved by changing the Data Scope of Project Container Context query to All Projects in order to display both Parent and Child Project records. (Tri-235751-IV87840)

Area of Change	Description
Projects	The Remove action in the Project Tasks section of the Schedule tab on the Capital Project record does not remove the Task record from the Task Hierarchy section. The issue is resolved by calling a workflow on the Remove action to remove the Task record from the Project Tasks section and the Task Hierarchy section. (Tri-239796-IV88651)
Real Estate Asset Lease Real Estate Lease	Added a new action on the clause to add payment schedules using Generate Payment Schedules. (Tri-225131)
Real Estate Asset Lease Real Estate Lease	Both Lease Accountant and RE Contract Manager have full access to Index Adjustment Calculator record. (Tri-240394)
Real Estate Real Estate Lease	Corrected an issue where payment schedules associated to options were not getting copied by the Copy action on the real estate lease. (Tri-225141)
Real Estate Asset Lease	Drilling in to a fiscal line item record in the asset lease Operating Schedule section now renders the Schedule Operating Fiscal Line Item form. Previously the Lease Fiscal Line Item form was incorrectly rendered. (Tri-245375)
Real Estate Real Estate Lease	Extended formula for 2 fields on the payment line items is removed. This was causing issues in performance when a long-term lease is activated. This formula was being used in an older approach of Straight line calculations which utilized values from payment line items. Now the straight line calculations are done through the use of Fiscal line items. Additionally, in the workflow that created payment line items, the Formulas property in workflow task is set to Disable Auto Recalculation. (Tri-233150-IV87104)
Real Estate Asset Lease Real Estate Lease	For current accounting (ASC 840) and for Amortization schedule, when the Fair Market Value is less than the NPV (Liability) the system now calculates the Lease Rate Used (IRR) correctly and calculates the value for a year. This IRR is used instead of the borrow rate to calculate the interest expense resulting in more interest for this scenario. Corrections around calculations of Amortization(Depreciation) is also made via this fix. In the situation where FMV < NPV, the Liability and Asset Value starting point is now the Fair Market Value. (Tri-244494)
Real Estate Asset Lease Real Estate Lease	For the new accounting standard, when the Fair Market Value is less than the Net Present Value, the system now uses the liability and asset values as starting liability and asset value for the Operating/Finance schedule. Additionally, the Lease Rate Used (IRR) field is no longer needed and is removed. (Tri-244461)
Real Estate Asset Lease Owned Property (Fee) Agreement Real Estate Abstract Real Estate Lease	On the Generate Payment Schedule form when Frequency = Annually and the Full Payment Start Date, From Date, and To Date are before 1/1/1970, the Create Schedule(s) action will create an annual payment schedule before 1/1/1970. (Tri-234829)

Area of Change	Description
Real Estate Real Estate Lease	On the real estate lease revise action with amendment, the created History record now maps the Rent Component Assumptions values on the Accounting tab from the original real estate lease record to the history record. (Tri-243024)
Real Estate Asset Lease Real Estate Lease	Payment schedules can now be created directly from the lease clause. Previously it was necessary to create the payment schedule on the lease first before creating the lease clause. The user should make sure the payment type selected on the payment schedule is appropriate for the type of clause being created. (Tri-248427)
Real Estate Real Estate Lease	Real Estate Invoice BIRT Report will now display the correct values for Invoice Amount, Tax, Total Due and the Past Due section after the contract payments are added to the invoice. Previously these values remained blank until a One Time Payment was added to the invoice.
Real Estate Real Estate Lease	Rent Component Assumptions section displays on the Accounting tab of the real estate lease generated from the completed lease abstract if the Lease Category = Full Service Gross or Modified Gross. (Tri-242170)
Real Estate Asset Lease Owned Property (Fee) Agreement Real Estate Abstract Real Estate Lease	The "triGeneratePaySchedule - Synchronous - OnChange - Payment Frequency Hide and Show Fields and Section" workflow has a Switch task with same field mapping on both true and false paths. The Switch task is not needed in this case and has been removed. (Tri-226633-IV85843)
Real Estate Asset Lease Real Estate Lease	The Adjustment radio button on Index Adjustment Calculator is now hidden. (Tri-251048)
Real Estate Asset Lease Real Estate Lease	The Fair Market Value field that was introduced in 10.5.1 is removed. The Fair Market Value field that is being used now is in FASB Treatment / IFRS Treatment section. (Tri-248541)
Real Estate Real Estate Transactions	The Gantt and Task sections of the Real Estate Transaction Plan and related transaction type forms now include only the task types that correlate to common usage, specifically: Contract Review and Schedule tasks. (Tri-215023)
Real Estate Asset Lease Real Estate Lease	The IFRS Lease Treatment section of the history record is now copied correctly. If the lease treatment is FINANCE, the history record will also have the lease treatment showing as FINANCE. (Tri-243973)
Real Estate Real Estate Lease	The Principal column label is changed to "Change in Liability Value" for Amortization schedule, Operating/Finance and Local Reporting schedules. The calculation of the "Change in Liability Value" is also changed to $-1 * (\text{Net Rent Payment} - \text{Interest Expense})$. If the Net rent payment column is zero, the values in the Change in Liability Value column would show as positive which is correct. (Tri-244402)
Real Estate Real Estate Lease	The query "triRealEstateLease - Analytics - Lease Financial Data" now has the correct associated Business Object and Association. (Tri-229673)

Area of Change	Description
Real Estate Real Estate Lease	The Renewal Expiration Date and Must Exercise By Dates are now set correctly when the Effective Date is populated and the Renewal Term is 5 years. (Tri-233144-IV87261)
Real Estate Asset Lease Owned Property (Fee) Agreement Real Estate Abstract Real Estate Lease	The switches with no conditions are removed and the workflow is improved to remove unnecessary tasks. (Tri-225818-IV85139)
Real Estate Real Estate Lease	There were two issues addressed by this defect: 1. Payment reconciliation record is now created when a Reconciliation lease is Terminated before the lease is over. The unschedule event was clearing all the events that were after today's date causing the system to not create a final reconciliation record which is required to be present to process reconciliation. A change has been made to delay the unscheduling of the event to be triggered after the required reconciliation record is created. 2. When a lease is expired the payment schedules associated to lease are not voided as long as there are active payments to be processed. The system Voids the payments after the expiry date and voids any payment schedules that start after the expiry date. (Tri-235740-IV88930)
Real Estate Real Estate Lease	Upon Amendment (in current accounting standard) if the lease classification is CAPITAL/FINANCE, the starting asset value is calculated by taking into account the difference between the new Liability value (NPV) and the Old liability value and adding it to the previous asset value. $\text{New Asset value} = \text{Previous Asset Value} + (\text{New Liability} - \text{Previous Liability})$. Note that combination of Capital to Capital, Operating to Operating is supported in TRIRIGA. For other combination of Capital to Operating and Operating to Capital the system uses the liability value as a Starting asset value. There is a manual intervention needed when the original lease classification is different than the newly calculated classification. (Tri-244495)
Real Estate Real Estate Lease	When a non-English user logs into TRIRIGA, labels on Percentage Rent and Payment Reconciliation Invoice BIRT reports are now translated in the language of the log in user.
Real Estate Asset Lease Real Estate Lease	When a user works on the first Index Adjustment Calculator, the Adjust option hidden field is set to "Scheduled Amount" and it will default the Adjust Payment with the base rent amount. When the user works on the next Index Adjustment Calculator (the first Index Adjustment Calculator has been issued), the Adjust option hidden field will be set to "Last Adjusted Amount" and it will now correctly default the Adjust Payment with the last adjusted amount. (Tri-251504)
Real Estate Asset Lease Real Estate Lease	When the real estate lease and asset lease is in Status = Draft, the Review Assumptions action will generate the fiscal line items and the Assumption Audit Log. Revise action with amendment option, will create a lease record in Status = History and the Assumption Audit Log will be read only. (Tri-249458)
Reporting	The Products section under Products & Services tab of Blanket Purchase Order form has the Reverse Association flag removed from the Advanced tab of Query "triProducts - triContract - Display Query". The Reverse association flag has been

Area of Change	Description
	turned off and a correct forward Association Type has been selected on Query "triProducts - triContract - Display Query" to resolve the issue. (Tri-237148)
Reporting	The Query "triApproval - Approval Status and Routing Rules Associated to Current Record" displayed for Manual Approvers Query section under Notifications tab of many TRIRIGA records across the application has the deprecated Reverse Association flag set on Advanced tab. The reverse association on this query has been removed by selecting the correct association string has "Has Approval" on Advanced tab. (Tri-243970)
Requests	The action/buttons on Search Exceptions tab of recurring room reservation record was not visible for user logged in with TRIRIGA Request Central - Reserve group. The issue has been resolved by giving access to missing action/buttons on Search Exceptions tab of room reservation form for TRIRIGA Request Central - Reserve group. (Tri-248211-IV90206)
Requests	The layout of fields under Problem section of Contact Center form is now displayed correctly. This has been fixed by changing the column span of fields under Problem section of Contact Center form to display the layout correctly. (Tri-234034-IV87377)
Space Assessment	A security popup error is displayed when a read-only user tries to create a new record in Space Assessment. (Tri-245207)
Space Assessment	If the user is an admin user and has a license that has no access to create a Space Assessment, the "New Assessment" button will not show. (Tri-248395)
System Setup	Notification records with temporary passwords were viewable to all TRIRIGA users. A workflow was created to delete Notification records with temporary passwords after sending out a notification email with the temporary password. (Tri-222136-IV84740)
System Setup	<p>The Lease Abstract Approval Requirement record has a bad Lease Abstract Approval Template record being referenced. The issue has been resolved by deleting the Lease Abstract Approval Requirement record since it is no longer needed.</p> <p>Note for upgrading customers: The Lease Abstract Approval Requirement record has been deleted from shipping application and will not be available in future clean installs. But, upgrading customers must manually delete the record from their environment if it is not being used. OM package import will not handle deletion of record data. (Tri-223355)</p>
System Setup	The Set Up navigation item displayed under each of the first level Menu Items - Requests, Projects, Tasks, Space, Maintenance, Sustainability, Inventory, Contracts, and Portfolio has the same label and does not comply with 508 Accessibility Standards. This has been fixed by changing the label of Set Up navigation item to display as Request Set Up, Project Set Up, Task Set Up, Space Set Up, Maintenance Set Up, Sustainability Set Up, Inventory Set Up, Contract Set Up, and Portfolio Set Up. (Tri-244191-IV89886)
Tasks	The Constraint Date/Time field on Task Forms allowed invalid dates to be entered. The issue is resolved; the Constraint Date/Time field is now required when the Task Type field value is set to 'Must Finish On', 'Must Start On', or 'Start No Earlier Than' on the following Task Forms:

Area of Change	Description
	triConditionAssessmentWorkTask triConditionAssessmentWorkTaskTemplate triContractReviewTask triContractReviewTemplate triInspectionTask triInspectionTaskTemplate triInventoryCountWorkTask triInventoryCountWorkTaskTemplate triInventoryPickWorkTask triInventoryPickWorkTaskTemplate triKeyWorkTask triKeyWorkTaskTemplate triMaterialOrderTask triPunchlistTask triPunchlistTaskTemplate triReserveAsset triReserveMeetingSpace triReserveVehicle triReserveWorkTask triReserveWorkTaskTemplate triScheduleTask triSubmittalTask triSubmittalTaskTemplate triTask triWorkTask triWorkTaskTemplate (Tri-232379)
UX Framework	Licensing checks in a UX application has changed. A user must now have at least read access to all the data sources in a UX application to access the application. To perform an action or operation, the user must have full license access to the data source action. (Tri-232231)
Workflow	The "triTask-any-Synchronous-Work Task Assign Provider Log" workflow is not used anywhere and has been retired. (Tri-233775-IV87103)
Workflow	The workflow Activate Task now activates the task without the check for scheduled event being created. (Tri-234090-IV89014)
Workflow Builder	The Map Default Request Class task was not defined correctly on workflows "triPlannedWorkRequest - Synchronous - DeferredLineitemManager" and "triPlannedWorkRequest - Synchronous - PrePopulate." As a result, a "No object found.." error occurred. The Map Default Request Class is now defined correctly and does not cause an error. (Tri-236401-IV87863)
Workplace Reservation Manager	Fixed an issue where adding a Food Order while creating a new Series Exception did not bind the Food Order to the Room Exception record correctly. (Tri-231876)
Workplace Reservation Manager	Fixed an issue with Series/Recurring Reservation, where if you open an occurrence of the series and remove an equipment order, the order was being removed from ALL occurrences. (Tri-231115)
Workplace Reservation Manager	When the Quantity Requested on Equipment Order of a Room Reservation Form was changed, the count of associated Work Task records was not getting updated correctly. The issue has been resolved by modifying the Equipment Order workflow

Area of Change	Description
	to match the number of Work Task records with Quantity Requested value on Equipment Order of Room Reservation Form. (Tri-234035)

IBM TRIRIGA 10.5.2 Patch Helper Workflows

Patch helper workflows correct the record data in your IBM TRIRIGA application. A patch helper workflow can revise and update, bring new data records for a release, and recalculate records. The patch helper makes necessary changes to your IBM TRIRIGA database. You apply the patch helper workflows for a release after you install or upgrade to that release. Wait for one patch helper workflow to complete before you begin the next. Some patch helper workflows can take a long time to complete.

The following patch helper workflows are in this release:

Name	Description
triPatchHelper - triCalculate - 10.5.2 - Retro NonMonthly Payment Schedule	This patch helper hides the current period start date for non-monthly payment schedules. (Tri-249193)
triPatchHelper - triCalculate - 10.5.2 - Setup Watson Analytics Data Sets	Workflow will associate all Watson data sets to Admin group to make them visible to admin users and trigger form on change workflows.
triPatchHelper - triCalculate - 10.5.2 - Retro Monthly Payment Schedule	This patch helper to set the Period Start Date and Current Period Start Date fields on the Monthly Payment Schedules which are pending or already scheduled.
triPatchHelper - triCalculate - 10.5.2 - Retro Rent Component Assumption Read Only	This patch helper make the Rent Component Assumption on the Accounting tab of Real Estate Lease or Asset Lease to be read-only when the lease is revised

IBM TRIRIGA Application Platform 3.5.2

This release includes important information, known limitations, changes, and property file changes to the IBM TRIRIGA Application Platform.

Important Information

The following items are important information concerning the IBM TRIRIGA Application Platform and are newly added for this release. For Important Information related to previous releases, see the [Release Notes](#) page of the IBM TRIRIGA wiki.

Area of Impact	Description
Accessibility	To keyboard navigate in Apple Safari browser, there are two settings to be aware of: 1. In Mac System Preferences > Keyboard > Shortcuts, bottom page "Full Keyboard Access:" section, click "All controls" 2. In Safari > Preferences > Advanced > Accessibility section, click "Press Tab to highlight each item on a webpage" By using these settings, the user can navigate all links using the Tab key on the keyboard. (Tri-239697)
Accessibility	TRIRIGA HTML forms are produced using UTF-8. (Tri-248041)
BIRT	Platform version 3.5.1 and later need the 2016 version of BIRT Designer 4.6 to preview and design BIRT reports. (Tri-236665-IV88018)
Installation	TRIRIGA cannot be installed and is not supported on WebSphere ND with a federated profile. The profile must be locally managed in order to properly install TRIRIGA. (Tri-250557-IV90949)
Java Applet Support	TRIRIGA areas impacted by end of Java applet support in most browsers: Starting in early 2016, most browser vendors no longer support the NPAPI architecture. Most Java applet plug-ins for web browsers rely on NPAPI to render Java applets. The end of NPAPI support prevents the Java applet-based TRIRIGA areas such as the Gantt, Availability, and Stacking sections from rendering in IBM TRIRIGA applications on certain browsers. For specifics on TRIRIGA areas impacted and options going forward, see Java Applet Support on the TRIRIGA wiki.
Performance	Performance logging has been added to the startup classes. In order to enable the logger, add this category to Log4j.xml in the config folder: <pre><category name="Startup Duration Log" additivity="false"> <priority value="INFO" /> <!-- Set to DEBUG to enable logging --> <appender-ref ref="FILE"/> </category></pre>
Properties Files	For performance reasons, the Reverse Association flag is being deprecated and is planned for removal in an upcoming release. To begin this transition, a new property has been added to TRIRIGAWEB.properties named ALLOW_REVERSE_ASSOCIATION. The default for this setting is currently TRUE,

Area of Impact	Description
	<p>allowing the legacy behavior of reverse associations to be run in reports and queries as defined in Report Manager. If you want to disable reverse associations from being run for testing purposes, you can set <code>ALLOW_REVERSE_ASSOCIATION=FALSE</code> and no queries will be executed with reverse associations. Note that this should be performed on a test environment first to ensure the integrity of data coming back from queries. In most cases, the flag is not necessary, and in cases that it is, some minor metadata changes can be made to render it unnecessary. Further details about this property and the implications are described below.</p> <p>What does this new Property do?</p> <p>For any queries or reports defined in the Report Manager with the Association Filter set with the Reverse Flag, the <code>ALLOW_REVERSE_ASSOCIATION=FALSE</code> setting ignores this flag, and interprets and runs queries as if this flag was not set, so only forward associations are returned.</p> <p>Why is the Reverse Association Flag being deprecated?</p> <p>The query that is generated to return both the forward and reverse association is expensive from a database perspective. It can lead to poorly performing queries that can consume significant CPU across the database server, which can slow down other queries and operations on the database when they are executed. In most cases it adds unnecessary overhead without affecting the query results. Note that the platform has not allowed new queries to be created with the Reverse Association flag since 3.4.2, and the performance best practices recommends against it.</p> <p>Why should I set this property to false, and what do I do if I run into issues?</p> <p>If you want to run your system with this property set to false to evaluate the performance implications, we strongly advise that you do so in a dev/test environment first. You may encounter a query on a manager, query section or workflow that no longer has the results you were expecting. If this happens, you should first examine the Association tab of the records in question and note the correct forward association string. Then you can open the query in Report Builder, go to the Association Filter, and examine the association string used there. If they are different, then update the report to use the correct association string. If your records only have a one-way association, you will need to create the forward and reverse association in Association Manager, and then update your data via workflow to set the forward and reverse association.</p>
System Setup	The Gantt client translation files are moved to the <code>Translations/TreeGrid/3.5.2/</code> directory. These translations are also used in the new Availability section. Retain the 3.5.1 translations in the <code>Translations/Gantt</code> directory so that they can be manually merged if needed. (Tri-245012)
Translation	Some labels and data delivered in IBM TRIRIGA Application Platform version 3.5.2 are not yet translated. They are downloadable on the TRIRIGA wiki for customers who would like to translate the labels before they are available as part of a future release.
Workflow	To enable workflows in TRIRIGA to properly display within the Workflow Builder, apply Oracle support's patch 18729264 to WebLogic 12.1.3. (Tri-241167-IV89199)

Known Limitations

The following items are known limitations concerning the IBM TRIRIGA Application Platform and are newly added for this release. For Known Limitations related to previous releases, see the [Release Notes](#) page of the IBM TRIRIGA wiki.

Area of Impact	Description																																	
Availability	RTL/BIDI is not supported in this release of the DHTML/JavaScript Availability section. (Tri-250428)																																	
Browser	The 'Click here to Open Package.' link in object migration notifications that were created prior to 3.5.1 does not work on Safari. An alternate browser can be used or the object migration package can be opened directly from the Object Migration Manager. (Tri-225363)																																	
Document Management	In CMIS implementations, publications are saved in the TRIRIGA Document Manager database. (Tri-207045)																																	
Document Management	When CMIS is enabled, the Cut, Copy, and Paste actions are not available in the Document Manager. (Tri-252172)																																	
Gantt	<p>IBM TRIRIGA supports the export of Gantt projects in two different formats, .MPX and .XML. If you export in .MPX format, the latest MS Project version (v2013 and later) will not read the export file. MS Project does not open the file and it shows a message to use an older version of MS Project.</p> <p>The following table explains the support for MPX project files in different versions of Microsoft Project.</p> <table border="1"> <thead> <tr> <th></th> <th>Create</th> <th>Read</th> </tr> </thead> <tbody> <tr> <td>Microsoft Project 4.0</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>Microsoft Project 4.1</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>Microsoft Project 98</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>Microsoft Project 2000</td> <td>No</td> <td>Yes</td> </tr> <tr> <td>Microsoft Project 2002</td> <td>No</td> <td>Yes</td> </tr> <tr> <td>Microsoft Project 2003</td> <td>No</td> <td>Yes</td> </tr> <tr> <td>Microsoft Project 2007</td> <td>No</td> <td>Yes</td> </tr> <tr> <td>Microsoft Project 2010</td> <td>No</td> <td>Yes</td> </tr> <tr> <td>Microsoft Project 2013</td> <td>No</td> <td>No</td> </tr> <tr> <td>Microsoft Project 2016</td> <td>No</td> <td>No</td> </tr> </tbody> </table> <p>You can also export the IBM TRIRIGA Gantt projects in XML format, which is readable by Microsoft Project version 2016. (Tri-239975)</p>		Create	Read	Microsoft Project 4.0	Yes	Yes	Microsoft Project 4.1	Yes	Yes	Microsoft Project 98	Yes	Yes	Microsoft Project 2000	No	Yes	Microsoft Project 2002	No	Yes	Microsoft Project 2003	No	Yes	Microsoft Project 2007	No	Yes	Microsoft Project 2010	No	Yes	Microsoft Project 2013	No	No	Microsoft Project 2016	No	No
	Create	Read																																
Microsoft Project 4.0	Yes	Yes																																
Microsoft Project 4.1	Yes	Yes																																
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Microsoft Project 2000	No	Yes																																
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Microsoft Project 2007	No	Yes																																
Microsoft Project 2010	No	Yes																																
Microsoft Project 2013	No	No																																
Microsoft Project 2016	No	No																																

Area of Impact	Description
Menus	<p>Menu type Navigation Collections will fail to save for environments running on a Microsoft SQL Server database, if the Navigation Collection has an Object Label other than In Progress, and has a Group Override on a Portal. An example of this is the delivered TRIRIGA Global Menu. The issue will cause the server to hang due to a database locking issue. A fix is tentatively scheduled for TRIRIGA Application Platform 3.5.2.1.</p> <p>To work around the issue, run the following SQL. (Note this SQL is specific to TRIRIGA Global Menu. Replace TRIRIGA Global Menu with the name of the Navigation Collection you are encountering this issue on).</p> <pre>update NAV_COLLECTION set OBJECT_LABEL_ID = -2 where NAV_COLLECTION_NAME = 'TRIRIGA Global Menu'</pre>
Platform Maintenance Scheduler	<p>The CLEAN_TIMEOUT property will not be honored when starting the PlatformMaintenanceScheduler agent manually from the AdminConsole -> Database Manager. (Tri-240911-IV8914)</p>
Reporting	<p>When you render a report that uses groups, when you click a column header, data is sorted inside the groupBy rows. (Tri-237629)</p>
Security	<p>The comparison of security groups with a large amount of differences, for example, comparing the TRIRIGA Global Data Access Group and TRIRIGA Inventory Manager group, can take several minutes to finish. (Tri-252185)</p>
UX Framework	<p>When using a UX application with the Firefox browser on a Windows-based touch device, the pinch-to-zoom will be done on the whole page, therefore zooming on a floor plan will not work as expected. This is a limitation on Firefox. Use another browser to work around this issue. (Tri-196521)</p>
Workplace Reservation Manager	<p>Single select in an Availability section is not supported in this release. (Tri-230811)</p>
Workplace Reservation Manager	<p>The Availability section does not currently support moving or resizing the Time selector even if 'Enable time window selector change' is enabled in the section metadata. To change the time for the reservation, use the Start Date and End Date fields in the Reservation Details section. (Tri-230802)</p>

IBM TRIRIGA Application Platform 3.5.2 Changes

The following changes to the IBM TRIRIGA Application Platform are in this release:

Area of Change	Description
Accessibility	A long-standing issue in the Create Program section of the TRIRIGA application is resolved. The pop up layer corresponding to the Type field was not accessible by the keyboard and the focus frequently moved to the address bar of the browser. No other areas were affected by this change. The pop up Type field layer is now accessible and the focus remains in the pop up window. (Tri-228046)
Accessibility	An accessibility issue was resolved that involved identifying headers for table rows and columns. (Tri-229929)
Accessibility	An accessibility issue: "For a data table (i.e., the table tag does not contain a WAI-ARIA 'presentation' role), identify headers for the table rows and columns." is resolved. (Tri-248040)
Accessibility	Complex data tables now have a summary or an aria-described by that references a summary. (Tri-233925)
Accessibility	Frames and iFrames now have a non-empty title attribute. (Tri-248043)
Accessibility	iFrames are updated to have either names or titles. (Tri-245750-IV89897)
Accessibility	In Google Chrome, JAWS now announces custom alert dialogs. (Tri-228590)
Accessibility	List fields displayed as Radio type now provide an accessibility label to allow screen readers like JAWS to read the field properly. (Tri-228110)
Accessibility	Screen readers now read the column name and cell values of tables located within the portal section. Note that Firefox on Mac offers minimal support for Voice Over. As a result, Column Names are not announced in Firefox on a Mac OS. (Tri-228105)
Accessibility	State actions are now visible when navigating via a keyboard. (Tri-237716)
Accessibility	The accessibility issue "Image alt text must not be redundant with adjacent link text." is resolved. (Tri-233921)
Accessibility	The cancel button in the form action area has a proper ARIA label (cancel button) to describe the X button. (Tri-244192-IV89889)
Accessibility	The Interactive Maps in the TRIRIGA Application are now accessible. The Hide Options and Show Table buttons can now be accessed with the Tab key of your keyboard. (Tri-242239)
Accessibility	The TRIRIGA application no longer uses ::before and ::after pseudo-elements to insert non-decorative content. (Tri-248042)
Accessibility	The triWidget drop down menu closes in a Record Runtime selection drop down menu after the user presses enter on the keyboard while using keyboard navigation and JAWS. (Tri-229839)

Area of Change	Description
Accessibility	The user can now tab and select interactive elements within TRIRIGA. (Tri-244183-IV89878)
Accessibility	TRIRIGA HTML elements now have language and/or XML attributes that conform to BCP:47. (Tri-229930, Tri-245728-IV89896)
Accessibility	Users can now keyboard navigate with JAWS using Internet Explorer. (Tri-228593)
Accessibility	When keyboard navigating in TRIRIGA, focus now remains visible while navigating through empty cells. (Tri-237715)
Accessibility	When keyboard navigating within the geography lookup dialog, users can use the up/down arrow key inside the related reports drop-down dialog to select the report, hit Enter to confirm selection, or Esc to close the dialog. (Tri-228043)
Accessibility	When navigating via a keyboard, focus now remains visible when navigating checkboxes. (Tri-237714)
Accessibility	When navigating via a keyboard, tabbing backwards now focuses on the selected field. (Tri-237717)
Accessibility	When navigating via keyboard, the current highlighted tab now has a border when selected. (Tri-237713)
Accessibility	When running a Rational Performance Tester, the TRIRIGA application no longer has the following accessibility issue, "Verify that important background image information is conveyed when the system is in high contrast mode." (Tri-233914)
Accessibility	While using keyboard navigation in TRIRIGA, the browser now highlights which tab is focused (Tri-235668)
Administrator Console	In the Build Number object, the Patch History section shows information about what patches were applied. This table is now sorted in date sequence with the most recent patch listed first. (Tri-243956)
Administrator Console	Resolved an issue where the Workflow Template Cleanup failed to run on Windows application servers. (Tri-230176-IV86257)
Administrator Console	The Administrator Console Users Manager tab styling was updated to make labels easier to read. (Tri-347305)
Administrator Console	The Administrator Console's speed test metric is changed from kilobytes to megabytes (Tri-224857)
Agents	The concurrent license agent now removes stale data in the agent registry. The stale data prevented recording of the license metric snapshot value. (Tri-237778-IV88910)
Application Server	Session Serialization messages in the server.log are no longer be thrown with Liberty High Availability SessionDB configuration (Tri-251570)
Application Server	The API documentation was removed from the platform. The API doc page <a href="http://< address>:<port>/api/doc">http://< address>:<port>/api/doc no longer renders. (Tri-236151)

Area of Change	Description
Approvals	Accepting a user action no longer triggers a security warning. (Tri-243282-IV89474)
Authentication	CAD Integrator and BIM commands that launch TRIRIGA, such as Edit Record and Launch Portal, now authenticate automatically as needed and no longer show session expiration messages. (Tri-225378-IV85756)
BIM	IBM TRIRIGA Connector for BIM now supports Revit 2017. (Tri-211756)
BIM	TRIRIGA user must now have a CORE or the IBM TRIRIGA CAD Integrator/Publisher license to access TRIRIGA through BIM/Revit. (Tri-218774)
BIRT	An issue was resolved in BIRT reports where date time fields which were set to the value of '01 Jan 1970 00:00:00 GMT' or set to the milliseconds value of '0' in the database, would display as the current date time instead. Now, a blank value is displayed in the BIRT report. This is consistent behavior compared to a blank value being displayed in the form when the date time value is changed to the Java default date time. (Tri-230554-IV86623)
BIRT	An issue was resolved with BIRT reports on Windows servers where the file path separators were defined with "\" rather than "/". This caused issues when rendering BIRT reports because it could not locate the report. (Tri-230009)
Browser	The Association tab now renders second level associations when using Internet Explorer. (Tri-249795-IV90455)
Charts	Charts in a very small portal window now render. (Tri-230054)
Charts	Metric charts with no data now display "This chart has no data" if the chart remains empty after a filter is toggled. (Tri-213745)
Connector for Business Applications	Resolved a Connector for Business Applications (CBA) issue where the download operation was attempting to download the image field files from the userfiles\Company-1 directory on the TRIRIGA server. The download operation now downloads the image files from the database. (Tri-249312)
Crystal Reports	IBM TRIRIGA Application Platform now supports Crystal 2016. (Tri-228274)
Data Modeler	A cross-site scripting vulnerability is no longer present when displaying list of sections and associations in Data Modeler. (Tri-250598)
Data Modeler	All users with access to the Data Modeler can now use the BO Bulk Publish utility. Previously, only Admin users had this access. (Tri-220632)
Data Modeler	Date or Date-Time fields no longer have the Relative flag set as true if a formula was removed from the field. All new Date fields also have the relative flag set as true by default. (Tri-238075)
Data Modeler	In the Data Modeler, you can no longer add fields with an ampersand (&) in the name. (Tri-230984-IV86403)
Data Modeler	Resolved a styling issue in the Field List display in the Data Modeler. (Tri-250725)

Area of Change	Description
Data Modeler	URL fields have been updated to support 400 characters. (Tri-252012-IV91059)
Document Management	By default, the Name field in document records that are created by using single file upload now contain the file extension. (Tri-251230)
Document Management	Filters in Document Manager now support all supported languages. (Tri-223665)
Document Management	In the History tab, Revision History section, when you select a record and click the View Content section action, the content displays in a full-size window in all supported browsers. (Tri-232282)
Document Management	Restored the Download link for folders in the Document Manager. (Tri-242734)
Document Management	Security is updated for Document Manager. (Tri-243382)
Document Management	The Delete action no longer disappears when you use the filter text boxes in Document Manager. (Tri-229290)
Document Management	The upload window in the Document Manager now validates the length of the names of the files to be uploaded before upload. If a file name is too long or too short, the user is alerted and the uploader resets. The file name length includes the dot and the extension. For example, myfile.txt is length 10. (Tri-229802)
Document Management	Users can now filter folder and documents in Document Manager for non-English users. (Tri-245198-IV89869)
Document Management	When a user attempts to view content in revision history without making a selection, user now sees an informative message. (Tri-241788)
Document Management	When a user defines a folder with a name that contains slashes (/) and then downloads the folder, the slashes in the folder name are replaced with underscores (_). For example, a folder with the name "My Documents - 09/16/2016" becomes "My Documents - 09_16_2016" when downloaded. (Tri-241783)
Document Management	When an environment is using CMIS, the folder names that are shown in Chemistry, Webtop, and similar CMIS tools are the internal value for the names. (Tri-229622)
Document Management	When CMIS is enabled, the Cut, Copy, and Paste actions are not available in the Document Manager. (Tri-252172)
Document Management	When using IE11, users now see print previews of PDF document records and the previews are full height, whether the document is previewed in the Document Manager or in the Notes & Documents tab of a record. (Tri-238811-IV89312)
Extended Formula Agent	Application server now starts up regardless of the number of rows in the extended formula queue. (Tri-231260)

Area of Change	Description
Form Builder	In the Form Builder, after you select to search for a pre-load workflow, the form that displays was resized. (Tri-250574)
Form Builder	Resolved an issue around Graphic Sections that would not allow an Associated Query to be set through the Form Builder. (Tri-228466)
Form Builder	Resolved an issue where an unneeded "Query" parameter was rendering in the properties of a graphics section in Form Builder. (Tri-228467)
Form Builder	The Auto Refresh Boolean property now saves for query sections within the Form Builder. (Tri-243366-IV89551)
Form Builder	The hexadecimal value of the color that is selected in the color picker is now displayed in the Current Value field of the Advanced section in the color picker. (Tri-239852-IV89004)
Form Builder	The navigation arrows in Form Builder and Association Manager no longer decreases in size after a click. (Tri-225864)
Gantt	An issue was fixed with the Finnish Gantt language files. (Tri-233865)
Gantt	Directional icons for a bidi users now point in the correct direction based on their behavior. (Tri-249326)
Gantt	Gantt help has been updated with additional information. (Tri-250140)
Gantt	Gantt section has been updated to better handle sizing within the form page. It has a default minimum size of 200px and will grow dynamically as the user adds rows. The calendar picker has been replaced with the TRIRIGA DateTime picker. (Tri-223186)
Gantt	In a Gantt section, if you remove a child task of another task from a project, the hierarchical association is removed. To update the query section without using the Gantt, after you remove a task from a project, clear the Rollup To Task smart section found on the Advanced tab of the task. (Tri-238029-IV88651)
Gantt	Increased the width of the print and show columns dialog to accommodate "Hide All" for some languages that have a long translation for it. (Tri-225541)
Gantt	Localizable instance data is now displayed and can be updated properly for localized data within Gantt sections. (Tri-236929)
Gantt	Milestones in the HTML5/JavaScript Gantt chart now display a tooltip. (Tri-233572)
Gantt	New tasks added within an umbrella structure now maintain their level if you commit a record level save before you do a promotion or demotion of the task within the Gantt. (Tri-234977)
Gantt	Removed the option, Add a row above or below the focused row. This option is not applicable as after the save of the task, it will be ordered by the Id column value. (Tri-235348)

Area of Change	Description
Gantt	Resolved an issue in the Gantt section where deleting a task did not delete all of its dependencies. (Tri-248483-IV90254)
Gantt	Resolved an issue where if you set a constraint in the Gantt section but did not specify a constraint date, the date was being set to 01/01/1970. The resulted in the Gantt section to display the range from 1970 to the current date, making the section usable. (Tri-232381)
Gantt	Tasks with planned durations under an hour now display correctly in Gantt sections. (Tri-233571)
Gantt	The "Gantt chart" label in the print and show/hide columns dialog in a Gantt section is now localized. (Tri-226144)
Gantt	The edit record icon in the Gantt section now renders correctly for environments with the default "/" context path. (Tri-248672)
Gantt	The Gantt section is changed to better support resizing to fit the provided space. (Tri-210423)
Gantt	The Gantt section now displays instance data translated values. (Tri-223777)
Gantt	The task delete and edit icons in the Gantt section are aligned better. (Tri-231111)
Gantt	Updated required fields that are not part of the Gantt query to display the BO label instead of the field name. In translated environments, Gantt uses the translated BO label, if available. (Tri-233569)
Gantt	Updated the dependency tooltip to support bidirectional localization. Updated the tooltip for a dependency with lead time to be a positive number of hours instead of negative. Updated dependencies without lead or lag to no longer display a 0. (Tri-240722)
GIS	Esri GIS now displays the National Geographic Basemap thumbnail when a user selects the Switch Basemap section of a GIS Map. (Tri-232666)
Globalization	Labels in the Revisions tab of a report definition are now translated. (Tri-225537)
Globalization	Resolved a regression in WebSphere and WebSphere Liberty that prevented runtime filters from working when the filters contained multi-byte characters. (Tri-231325-IV86579)
Globalization	The complete breadcrumb in the Document Manager is now translated. (Tri-224221)

Area of Change	Description
Globalization	<p>The localized path of a hierarchy record is now properly recalculated when the internal value of its name is updated but the localized value of its name is not updated by a language user. The language now sees the correct and recalculated path.</p> <p>A record with a classification field that shows the full path is no longer marked as modified when it is loaded in a form. Before the fix, the record was marked as modified, which did not allow the record to be updated with fresh data from the server when the page was refreshed. The issue occurred because the path of the classification field in the page was recalculated even when the path did not change. The path recalculation logic is updated so the path is only recalculated when the path changes. (Tri-234037)</p>
Globalization	The section collapse and section expand icons are now displayed when viewing the icon tooltips in Globalization Manager. (Tri-250730)
Globalization	To decrease the size of the TRIRIGA installer, the installer no longer includes the TRIRIGA language packs .zip file. The language packs .zip file is on the Application Upgrade image in the IBM TRIRIGA application eAssembly on the IBM Passport Advantage website. Download the image and copy the language packs .zip file into the <install directory>/userfiles/LanguagePacks directory on your TRIRIGA server. (Tri-239704)
Globalization	When a non-US English-language user cuts and pastes in a hierarchy, for example the Location hierarchy, the hierarchy path now updates correctly. (Tri-248463)
Incoming Mail Agent	Incoming mail attachments now process attachments and inline attachments when the attachment header is in lowercase or uppercase. It is now case insensitive. (Tri-234811-IV87402)
Incoming Mail Agent	When the user is running Incoming Mail Agent and has an Incoming Config Record with invalid login credentials, the server log no longer shows the stack trace. To see the stack trace for this, they can debug logging. (Tri-226979)
Installation	Documentation has been updated to specify that TRIRIGA installations on Microsoft SQL require "SQL Server Authentication" and a user account with Database Owner credentials. (Tri-233148-IV86983)
Installation	Microsoft SQL Server 2016 is now supported. (Tri-228278)
Installation	The TRIRIGA Installer installs to WebSphere 8.5.5.10 as well as 9.0.0.0. (Tri-245641-IV89933)
Installation	TRIRIGA supports IBM DB2 v10.5 and v11.1. (Tri-245950)
Installation	WebLogic installations on Ubuntu were failing because the default shell of 'dash' did not source the WebLogic environment correctly. The installation script now specifically calls the '/bin/bash' as the scripting language to use. Bash must be installed on the system to configure WebLogic with TRIRIGA. (Tri-251508)

Area of Change	Description
Installer	An issue was resolved where upgrades to 3.5 or 3.5.1 caused some DB2 tables to be created in the wrong tablespace. The 3.5.2 upgrade moves the tables into the TRIRIGA tablespace. If there are tables that you do NOT want in the TRIRIGA tablespace, you can set a comma separated entry in TRIRIGADB.properties. Add the entry DB2_TABLES_OUTSIDE_TABLESPACE=XXXX,YYYY where XXXX and YYYY are tables you want to exclude from the move. If you wish to skip the upgrade until a later time, you can set DB2_TABLES_OUTSIDE_TABLESPACE=SKIP_UPGRADE. This upgrade might take additional time depending on the amount of data in the tables and the number of tables being moved. (Tri-249612)
Installer	The IBM TRIRIGA Platform Installer for Microsoft Windows Server has been updated with a new code signing certificate. (Tri-251599)
Installer	When the application server starts up and uploads user files to the database, a problem with a single file no longer causes the entire upload process to fail, and information about the individual failure is written to the server log. (Tri-251057-IV90844)
Integration Object	Resolved an Integration Object File to DC issue where staging tables were not correctly loading on the Data Map tab, if the business object selected had the same name as another business object belonging to a different module. (Tri-237085)
Integration Object	Resolved an Integration Object issue with the File To DC scheme. Mapped number fields that contained decimal values caused validation to fail if the Validation check box was selected on the Integration Object record definition. Integration objects with decimals in mapped number fields now correctly upload. (Tri-237356-IV89067)
Integration Object	The Integration Object HTTP Post now sends multi-byte characters correctly in the outgoing HttpRequest. NOTE: If your Integration Object HTTP Post scheme configuration leaves the Content-Type field blank and if the Content-Type is not defined in the Headers field, the Content-type of the HttpRequest defaults to the following: Content-Type: text/plain; charset=UTF-8. In prior releases, the HttpRequest defaulted to Content-Type: null. (Tri-235755-IV87787)
Lease payment schedules	Fixed long-standing issues when creating leases with dates prior to 1970. (Tri-233828-IV87336)
License	IBM TRIRIGA Real Estate Environmental Sustainability Impact Manager now has explicit license access to Technology Metrics (ETLs/TDI). (Tri-250868)
Logging	Security logging no longer reports warnings by default, reducing unnecessary logging. Verbose warning logging must be enabled explicitly. (Tri-239496)
Logging	The server no longer logs an ArrayIndexOutOfBoundsException exception from MapLK while resetting duplicate error queue. (Tri-238715)
Logging	When the Incoming Mail Agent is started, but not configured, the server.log now suppresses the message. (Tri-240784)
Login	The TRIRIGA User ID tool tip has been updated to match the corresponding label for both the Admin Console login page and the Application page. (Tri-233664)

Area of Change	Description
Managers	Links in windows that display hierarchies now have higher contrast when hovered to increase readability. (Tri-239470-IV88841)
Navigation	External URL navigation items now open in a new window to avoid cross-origin scripting vulnerabilities. (Tri-24764-IV90046)
Navigation Builder	The Portal Full option in the Target Type list from the Navigation Library menu was removed. The Portal Full option does not provide any functionality as a Target Type. (Tri-240795)
Navigation Item	Resolved object migration issues where Navigation Items may not export correctly if the Dynamic Label check box was selected and the Dynamic Label Query was not selected on the Navigation Item definition. (Tri-250723)
Notifications	Single email notification to multiple users now correctly includes preview details in the email. (Tri-215246-IV86808)
Object Label	On the Labeled Objects tab in Object Label Manager, and the exported Labeled Objects report, a new type name has been given to UX Web View objects. The new type name is Web Component. On the prior release the type name was WebView. (Tri-242867)
Object Label	Resolved an Object Label definition issue where the Apply Label To In Progress Objects button was displayed for newly created Object Label definitions, before the Create button was clicked. (Tri-239649)
Object Label Manager	Changed the export file names generated by Object Label Manager. The object list reports are now prefixed with "ObjectList_" and the object change reports are now prefixed with "ObjectChanges_". (Tri-227773)
Object Labels and Revisions	Fixed a problem where the Merged From field in Object Label Manager shows the description of the selected object label instead of the display name. Merged From now correctly shows the display name of the label. (Tri-228283)
Object Labels and Revisions	In Object Label Manager, The action Apply Label to InProgress Objects is renamed to Apply Label to In Progress Objects. (Tri-237080)
Object Labels and Revisions	Resolved an issue where Workflows labeled as Root were not appearing on the Labeled Objects tab for the Root object label in Object Label Manager. Additionally, Workflows were not showing up in the export object list report for the Root object label. Workflows are now included in this report. (Tri-248536)
Object Labels and Revisions	The TRIRIGA object label, ObjectLabelInProgress is renamed to In Progress. The TRIRIGA object label, RootObjectLabel is renamed to Root. (Tri-237077)
Object Migration	An issue in object migration import of form type hierarchy structures with no specific forms set is resolved. (Tri-222478-IV88401)
Object Migration	In object migration, the comparison results for a navigation collection now show navigation items that belong to the navigation collection for the target environment but not in the object migration package, and vice versa. (Tri-238286)

Area of Change	Description
Object Migration	Resolved an issue that caused comparison results to be inaccurate when you run a revision compare against a business object with a hierarchical structure such as the Classification business object. The ObjectMigration.log file showed several invalid column errors on the table columns, SYS_VERSION and CHILD_SYS_VERSION. The errors caused the inaccurate comparison results. This issue is resolved. (Tri-231928)
Object Migration	Resolved an issue where OM packages that you validated with "Validation Successful with Warnings" indicated "The package is not validated" when you imported them. (Tri-229826)
Object Migration	Resolved an issue where searching by object label did not find business objects if the InProgress label was used as the search criteria. (Tri-231253)
Object Migration	Resolved an object finder issue in the Object Migration tool where applications and web components were not always found when using the Modified By User and Modified By Date search filters. (Tri-248036)
Object Migration	Resolved an Object Migration compare issue where some UX metadata objects such as Web View Files were detected as new items in the comparison results, even though the Object Name name matched. When the UX metadata object name matches, the comparison results now handle the object as an existing item. (Tri-228776)
Object Migration	<p>Resolved an Object Migration package issue where creating packages by date did not bring in UX Applications. The issue occurred if the only item that changed was a child UX metadata component such as a Data Source. The UX Application containing the change Data Source should now appear in the package, and not the individual child UX metadata component.</p> <p>Also resolved an issue where UX metadata components were potentially showing up as Associated Record Data. The issue occurred when you select Find Dependents for specific Record Data while creating an Object Migration Export package. (Tri-246375)</p>
Object Migration	The Object Migration page now has a creation date-time column for each object that is imported or exported. The column title is "Date", and the columns in the import and export sections are ordered by name and then date. (Tri-226452)
Object Migration	When a user uploads an OM package, a confirmation message is now displayed to let the user know the upload is in progress. (Tri-250743)
OSLC	The OSLC language select policy has changed. OSLC will use the language requested even if country code is invalid for TRIRIGA. And it will return the result in user default language if the language part doesn't match any TRIRIGA supported languages. Also, changed the Language Code screen in the Globalization Manager to display an error message, instead of switching to en-US, if the user enters an invalid locale code for a language. (Tri-243342-IV89495)
Outlook Add-in	IBM TRIRIGA Workplace Reservation Manager Add-in is now supported on Outlook 2016. (Tri-225367)

Area of Change	Description
Performance	An issue was resolved where unnecessary Navigation Item Security Group Overrides were being added into the database, which made it difficult to export these overrides. Now, all superfluous Navigation Item Security Group Override rows will be removed from the database upon server startup. (Tri-228531-IV86575)
Performance	Improved performance with Financial Rollups and Budget Transactions. (Tri-234737-IV87340)
Performance	Resolved a performance issue that caused the Report Manager to take a long time to display the report list. (Tri-231073)
Performance	The TRIRIGA record runtime performance is improved by reducing the number of requests that are made to the server. (Tri-239884)
Platform Maintenance Scheduler	The CLEAN_TIMEOUT property is now being honored by the Platform Maintenance Scheduler. However, the CLEAN_TIMEOUT property will not be honored when starting the PlatformMaintenanceScheduler agent manually from the AdminConsole -> Database Manager. (Tri-240911-IV8914)
Portals	Resolved an error displaying in the browser console when rendering menu items that don't have images associated with them. (Tri-228154)
Portals	Resolved an issue with forms' pop up sizes not behaving as expected. Form opened through TRIRIGA portals no longer display in the default size even if another size is set. (Tri-229187-IV85762)
Portals	When a pop-up layer is displayed inside a portal section, the width of the layer is adjusted automatically. (Tri-236321-IV87867)
Print Preview	Changes that caused by a regression with a fix to APAR IV78106 have been reverted. The font size of the forms printed through the printer friendly view of the application has increased to its default size. If a user experiences any issues with sections of the form getting cut off in the printed page, then the user must use the Form Builder's Alternate Print Form in order to modify the sections that experience issues after being printed. For more information, please refer to the TRIRIGA User Guide's Alternate Print Form. (Tri-249301-IV90450)
Projects	Microsoft Project import into TRIRIGA applications now imports tasks and milestones correctly. (Tri-240714)
Projects	When applying a template to a project, tasks created now have unique ID's. Before, the ID was being copied from the old target template task, leading to multiple tasks with the same ID in the system. (Tri-247881-IV90417)
Record Runtime	All system location, system geography and system organization fields will now display full path in the record. (Tri-226469)
Record Runtime	Fixed an issue where numeric fields were not being saved after tabbing through different sections of a TRIRIGA form. (Tri-248920-IV90394)

Area of Change	Description
Record Runtime	In a Notes & Documents tab, when a user uploads a document that has the same name as an existing document, TRIRIGA considers it a version and adds the new document to the existing document record. A new document record is not created. The previous version of the document is preserved and can be viewed in the History tab of the document record. (Tri-249854-IV90499)
Record Runtime	Opening a new tab in Safari now maintains current session. (Tri-249477-IV90462)
Record Runtime	Pop-up windows in IE11 compatibility view now display as layers similar to Chrome to correctly perform expected functionality. (Tri-231932-IV86610)
Record Runtime	Pop-up windows in Internet Explorer now display as modal windows to improve visibility and access to all areas of the form. (Tri-230581-IV86985)
Record Runtime	Resolved an issue with forms that called other forms. In Internet Explorer 11 and Edge, an empty alert box is no longer shown to the user when the parent form is closed before the currently active form is closed. (Tri-226381)
Record Runtime	The Modal window pop-ups is correctly dragged now. It used to go to the top when being dragged by the user. (Tri-227698)
Record Runtime	The More action of a record now works when a user transitions a record's state through an onChange workflow of the record. (Tri-228962-IV85684)
Record Runtime	The Stacking Applet can now assign tasks to resources in Internet Explorer 11. (Tri-236200-IV88253)
Record Runtime	The work task report displays when a user selects a work task and clicks the Form action. (Tri-238425-IV88868)
Record Runtime	Upgraded the TinyMCE editor used in Notes fields to 4.3.13. (Tri-206236)
Record Runtime	When a US English user updates the value of a classification field that shows its full path, and no data language pack was ever imported into the system, the record is now updated in the page after an asynchronous workflow transitions it to another state. (Tri-230449-IV86739)
Reporting	A long-standing issue where Reserve Legacy and Reserve reports were not being logged even when the Reports option was set to Log in the Platform Logging menu of the Admin Console is resolved. Reserve Legacy and Reserve reports are now being logged. (Tri-242778)
Reporting	A non-admin user can now add a related report in My Reports. (Tri -233835)
Reporting	Add action buttons were displayed to the user even though no Add action was specified for the report. Now, an Add action is displayed only if it was defined for the report in the Report Manager. Note that in some cases, users may have been relying on Add actions which were not purposefully exposed in a report definition. As a result of resolving this issue, those users may indicate an Add action as missing after the platform upgrade. If the business need exists for the Add action in that scenario, the resolution is to specifically define an Add action for the underlying report. (Tri-226549-IV85264)

Area of Change	Description
Reporting	Applying filters within My Reports now works consistently with Internet Explorer 11 after changing tabs. (Tri231691-IV86605)
Reporting	Chart colors now honor both the setting defined in the My Profile/Color Preferences section, as well as a new property DEFAULT_CHART_COLORS in the TRIRIGAWEB.properties file The property is a comma delimited list of hexadecimal colors in RRGGBB format. It can be changed to suit the color palette of your company. (Tri-252193)
Reporting	Column sorting now properly sorts when using Internet Explorer 11. (Tri-233261-IV87143)
Reporting	Date time charts are now more stable and support user date formats. (Tri-238733)
Reporting	Empty numeric fields in query reports no longer show zero values when the value of the SHOW_ZEROS_IN_NUMBER_FIELDS property in TRIRIGAWEB.properties is N. When SHOW_ZEROS_IN_NUMBER_FIELDS is N, empty values show as blanks. The default value is Y. (Tri-240617)
Reporting	<p>Exporting reports/queries to MS Excel no longer causes the server to run out of memory if the report is too large. Exporting a large amount of data now adheres to the REPORT_MEMORY_USAGE_LIMIT previously used only for BIRT report exports. Excel exports are now limited to a percentage of memory. It is not a best practice to export more than 65,000 records at a time to Excel. If there is a requirement to export a large amount of data for use in an integration, a proper Integrations framework must be used to export data from TRIRIGA to the external system.</p> <p>If an Excel report runs out of memory while processing, the downloaded .xlsx file will contain only an error. (Tri-247356-IV90015)</p>
Reporting	External reports (BIRT and Crystal) with missing format files will no longer give you an error if you attempt to open the report in Report Builder. (Tri-225707-IV85144)
Reporting	In charts, tooltips and date and date time labels now reflect user profile settings. (Tri-238184-IV88809)
Reporting	In the Report Manager, the association list can be sorted and displayed based on the user locale. (Tri-225549)
Reporting	Invalid BIRT reports no longer display stack traces in user browsers. (Tri-239597-IV88857)
Reporting	On a report, the Columns tab and Filters tab show sections on the left side of the page that are easier to read because of improved color contrast for the text and background. (Tri-248628)
Reporting	Queries with numeric filter types no longer show a "Contains" column filter when the filters are set to show "Equals." (Tri-229948-IV85984)
Reporting	Report Builder now shows all forms in the selection list including forms that have the same label. (Tri-235070-IV87669)

Area of Change	Description
Reporting	Resolved an issue that prevented a new query or report from being created because of the default value for OM_UPDATED_DATE. (Tri-228304-IV86058)
Reporting	System and Community reports that generate extremely large amounts of data, such as some Group By Queries and some Summary Reports, could crash the server when executed. These reports will now be constrained by the same REPORT_MEMORY_USAGE_LIMIT web property that was previously used to constrain My Reports and Community Reports. It will log the memory threshold error to the server log, and prevent reports from running the server out of memory, leading to a server crash. (Tri-251184)
Reporting	<p>The Excel integration framework used by the platform was upgraded from Apache POI 3.13 to Apache POI 3.15.</p> <p>The default TRIRIGAWEB property REPORT_MEMORY_USAGE_LIMIT has been increased from 35 to 90.</p> <p>An issue was resolved where export large excel files from report manager would consume the entire java memory heap. This has been resolved by streaming the rows written to the excel file, and ensuring that TRIRIGA code consumes as little resources as possible during the generation of this excel file. (Tri-249617-IV90015)</p>
Reporting	The TRIRIGA default data query no longer exposes the table headers if a user does not have access to the business object being queried against and if the web property ENFORCE_GUI_LEVEL_QUERY_SECURITY is set to Y. (Tri-220795)
Reporting	Tooltips in metric charts now correctly display the formatted date on percentage charts. (Tri-241791)
Reporting	Tooltips on metric charts with multiple data-sources no longer cause JavaScript errors. (Tri-235804)
Reporting	Updated text in column headers in summary reports that could not be read because it was the same color as the background. (Tri-228613)
Reporting	Users without appropriate access can no longer view metric reports. (Tri-220639)
Reporting	When a user disables a series by clicking on a legend item, charts with multiple data sources no longer dynamically rescale the x-axis. (Tri-237112)
Reporting	When an out of memory threshold is encountered during report Excel export, the Excel file exported now contains an error message indicating the issue, with an MID number. (Tri-251484)
Reporting	When exporting Excel files from Report Manager, the title and header row are now in bold font, and the column widths are adjusted to fit all values in each column. If a cell value is too big, the value is word-wrapped. Also, the gridlines have been removed, to resemble the look from releases prior to 3.5.1. (Tri-251203-IV90837)

Area of Change	Description
Reporting	When the user clicks the Export action in a report, now the Export actions are disabled and a spinning icon enabled. The Export actions are enabled after the Excel file downloads or when the prompt on the browser displays to download the file. This occurs for reports with or without group by, tabular reports, and summary reports. (Tri-250603)
Reporting	When you close a newly opened pop-up, a prompt no longer displays. (Tri-234989-IV87444)
Security	A new category has been added to the Platform Logging menu in the Admin Console. This new category is called Verbose Security Logging. When this option is enabled, detailed information about request errors will be printed in the security log. This information includes; user id, request url, request headers, request parameters, session duration, and session id. (Tri-245042)
Security	Addressed several XSS vulnerabilities in the platform. (Tri-241793)
Security	An HTML5 Cross-Origin Resource Sharing (CORS) policy was removed so that other domains no longer have access to the application. (Tri-236023-IV87866)
Security	Cross-site scripting attacks are now remediated via sanitization of client data. (Tri-239209)
Security	For a user in a group with no access to My Reports, Community Reports, or System Reports, <ul style="list-style-type: none"> - User can search by using locator query search functionality. - User can run related reports for queries for which they have access. - Actions display on query sections and perform appropriately. (Tri-239984-IV88937)
Security	In the TRIRIGA Global Data Access Group security group, the default values were returned to System Organization = \Organizations and System Geography = \Geography. (Tri-251958)
Security	Non-admin users with access to the Form Builder can now create new forms. (Tri-250572)
Security	On the Access tab of the Security Manager, the path of the node of the GUI tree on the right hand side is now displayed on top of the Permission panel on the left hand side. This helps the users to identify exactly what permission is in the view. (Tri-248995)
Security	Resolved a privilege escalation issue that allowed a user without system report access to create system reports if the user entered the correct URL into the address bar. (Tri-229490)
Security	Resolved an issue with systems that have more than 500 organizations and system org level security configured on the security group. (Tri-209139-IV84871)
Security	Some resources are no longer exposed to cross-site scripting vulnerabilities. (Tri-237364-IV88400)
Security	The Admin Group cannot be copied. (Tri-232690, Tri-234244)

Area of Change	Description
Security	The IBM TRIRIGA Capital Project Manager license now allows creation of survey questions. (Tri-229459-IV86141)
Security	The Security Manager module is removed from the Object panel on the Access tab of a Group. User access to the Security Manager module is granted through the Group module only. (Tri-194005)
Security	The selection of the tree node on the Access tab of the Security Manager now retains when the user navigates to a different tab and back, or when the user saves changes. (Tri-248598)
Security	Updated the IBM TRIRIGA Integrated Workplace Manager license to contain privileges from the core licenses (IBM TRIRIGA Real Estate Manager, IBM TRIRIGA Facilities Manager, IBM TRIRIGA Workplace Operations Manager, and IBM TRIRIGA Capital Projects Manager). (Tri-237072)
System Setup	When SSO is configured with an alternate login page, you can now log in. (Tri-238745-IV88701)
System Setup	You can now install TRIRIGA on a Case Sensitive MS SQL Server. The TRIRIGA database still needs to be Case Insensitive. (Tri-227194-IV89177)
Usability	Various areas of the UI now have better color contrast between text and background making them easier to read. (Tri-238397)
UX Framework	A new "type" property is added to the triplat-query-filter UX component. For client filtering of Date field type, the "type" property should be set to "DATE" so that triplat-query can properly filter date fields on the client side. (Tri-236907)
UX Framework	A new "type" property was added to the triplat-query-filter UX component. For client filtering of DateTime fields, the "type" property should be set to "DATE_TIME" so that the triplat-query can properly filter datetime fields on the client side. (Tri-236924)
UX Framework	Fixed a cleanup agent issue where dependent associated children were being incorrectly removed if a dependent parent was deleted, and the dependent child was still associated to another valid non-deleted parent. (Tri-230730)
UX Framework	For UX application developers, the View Designer now supports manually adding and removing files from a view in addition to WebViewSync. (Tri-249286)
UX Framework	For UX applications that use the triplat-calendar component, triplat-date-picker, or triplat-datetime-picker, sometimes a page will be skipped when using swipe during Year selection. (Tri-243163)
UX Framework	For UX applications that use the triplat-date-picker component, there is a timing issue that sometimes changes the focus to the field in the background when the dialog is closed. (Tri-242540)

Area of Change	Description
UX Framework	For UX applications that use the triplat-select-input component, there is a new property called scrollElementIntoView that allows the application to control the location of the field on the view. It will scroll the component to the top (if possible) and thus enable more items in the drop-down to be displayed. See the component doc page for additional details. (Tri-240424)
UX Framework	For UX applications that use triplat-calendar-container, there is a new property, fit-to-parent-width, which enables allow you to have more control of the width. See the doc page for additional details about this property. (Tri-241864)
UX Framework	For UX applications using client-side filtering on dates, the client-side filtering for null and empty strings both with and without ignoreIfBlank was changed to better align with the server-side filtering. (Tri-246419)
UX Framework	For UX applications, there is now a loading spinner shown while the application is loading but before all of the components are available to render the initial page content. (Tri-233944)
UX Framework	For UX developers using the WebViewSync tool, the user account being used must either be an Administrative user or belong to the TRIRIGA Application Builder group and have the IBM TRIRIGA Application Builder license. This resolves a security risk. (Tri-249821)
UX Framework	In triplat-date-utilities, the private methods _getDateString(date) and _getDatetimeString(dateObj) now return the argument date string instead of the current date or datetime string. (Tri-231133)
UX Framework	On an Android device, when clicking on a triplat-select-input field it will now be displayed above the virtual keyboard. (Tri-226971)
UX Framework	On touch screen devices, where triplat-select-input drop list items is displayed over paper-input, selecting an item will no longer have the unwanted effect of moving the focus to the underlay paper-input. (Tri-208471)
UX Framework	Removed iron-flex-layout deprecated files references from UX Framework components. Any view created that uses iron-flex-layout CSS classes without importing it, must import "../iron-flex-layout/iron-flex-layout-classes.html" file. See Polymer documentation at: https://elements.polymer-project.org/elements/iron-flex-layout . (Tri-226554)
UX Framework	Resolved a "Cannot read property 'drawingId' of undefined" error that was displayed when using the triplat-graphic-zoomable element. (Tri-240908)
UX Framework	Resolved an issue where a UX application using triplat-graphic without the triplat-graphic-zoomable plugin on a mobile device when performing pinch to zoom sometimes saw issues with the clone drag icon offset with the touch target, causing the drop zone to not be recognized properly. (Tri-223012)
UX Framework	The component triplat-query is now able to filter date fields in records where the date value is null and the filter is set with ignore if blank on client side filtering. (Tri-235948)

Area of Change	Description
UX Framework	The component triplat-query-resource-calendar will now only fire one event when values are changed simultaneously via JavaScript. (Tri-225616)
UX Framework	The component triplat-select-input will now close the drop down dialog when the user presses the TAB key from the dialog or when the SHIFT + TAB key combination is pressed from the input field. (Tri-248615)
UX Framework	The component triplat-select-input will now focus on the first item in the drop down dialog when the user TAB from the Clear icon or from the input field (if there is no clear icon). (Tri-250124)
UX Framework	The component triplat-select-input will now have a properly sized dropdown menu when it is opened during a selection change. (Tri-245248)
UX Framework	The component triplat-select-input will now overwrite its iron-dropdown positions setting and make the dropdown relative to its positionTarget element (input field). This will guarantee that the dropdown is positioned with its input, even if application page has a scroll. Also, the queryScrollPagelId property and --triplat-select-input-dropdown-max-height mixin style were added to provide the application developer with a better control with displaying the dropdown scrollbar for small pagination sizes. (Tri-245383)
UX Framework	The following components: triblock-side-nav, triblock-tabs, and triblock-table are now officially supported. Please see the UX component documentation as the APIs may have changed. (Tri-245700)
UX Framework	The HTTP 500 errors will no longer occur when multiple users access the UX components documentation page at the same time (/p/web/doc). (Tri-247894)
UX Framework	The tricore-error component can now be configured to display a link to the sign-in page. (Tri-247374)
UX Framework	The tricore-signon component now disables autocomplete, autocorrect, autocapitalize, and spellcheck for the User ID field. (Tri-249831)
UX Framework	The triplat-date-picker and triplat-datetime-picker now focus on the previous month arrow when the pop-up calendar is opened. (Tri-234346)
UX Framework	The triplat-date-picker and triplat-datetime-picker will no longer throw an error in the console when the displayFormat property value is null or undefined while the property is bound to a disabled triplat-ds. (Tri-231278)
UX Framework	The triplat-date-picker UX component now displays the date when the application server has the time zone set to +0 GMT. (Tri-229042)
UX Framework	The triplat-date-picker, triplat-datetime-picker, triplat-calendar-container components no longer have an issue where multiple incorrectly selected years are highlighted when you reopen the year selector in Firefox, Safari, Edge browsers. (Tri-226809)
UX Framework	The triplat-datetime-picker UX component now displays the date and time when the server has the default time zone defined to +0 GMT. (Tri-228353)

Area of Change	Description
UX Framework	The triplat-datetime-picker will no longer display incorrect time format where 'hh' (12hr) format with 'a' (am/pm) was showing in military hours. (Tri-231282)
UX Framework	The triplat-datetime-picker would display the incorrect locale when initially loaded without any additional properties besides the value property. It now displays the correct locale. (Tri-231283)
UX Framework	The triplat-graphic-highlight element has been enhanced to allow the developer to define which layer of spaces it will highlight. See the triplat-graphic-highlight documentation page for additional details. (Tri-249624)
UX Framework	The triplat-graphic-highlight-group element has been enhanced to allow the developer to define which layer of spaces it will highlight. See the triplat-graphic-highlight-group documentation page for additional details. (Tri-245692)
UX Framework	The triplat-graphic-zoomable and triplat-graphic-bounding-selection plug-ins are now active only when there is a graphic loaded. (Tri-249708)
UX Framework	The triplat-query component now updates "filteredData" when different triplat-query-filter values get consecutively updated with the same value. (Tri-246406)
UX Framework	The triplat-query UX component now correctly filters date fields on the server side when the user's date format preference is different from "MM/dd/yyyy". (Tri-237533)
UX Framework	The triplat-query UX component now correctly filters datetime fields on the server side when the user's timezone is different from the server timezone. (Tri-237034)
UX Framework	The triplat-query UX component now correctly filters datetime fields on the server side when the user's datetime format is different from "MM/dd/yyyy HH:mm:ss". (Tri-237047)
UX Framework	The triplat-query-filter will now properly handle number values with the 'contains' operator. (Tri-229487)
UX Framework	The triplat-search-input component drop down now handles small screen form factors properly. (Tri-222981, Tri-223001)
UX Framework	The triplat-search-input component is now responsive when the screen width is adjusted. (Tri-222979)
UX Framework	The triplat-search-input component now disables the autocomplete, autocorrect, autocapitalize, and spellcheck. (Tri-249722)
UX Framework	The triplat-select-input component now has a search delay. This delay is required so we can wait a bit before presenting the results list in the drop-down. This way we can achieve better performance, skipping searches against single letter inputs. (Tri-242688)
UX Framework	The triplat-select-input component will now reset to the selected item when the user modifies the search value and selects the same item. (Tri-243889)

Area of Change	Description
UX Framework	The triplat-signout component was changed to redirect the user to the root URL of the current application after a successful sign out. (Tri-248401)
UX Framework	The UX component, triplat-calendar-container added a new property "hideHeader". This property hides the calendar header when it set to true. Please see the UX component doc page for more information. (Tri-247660)
UX Framework	The UX components, triplat-datetime-picker and triplat-date-picker, will now open the pop-up picker in the center of the screen when opened on a mobile device. Also, when the browser window is resized, the pop-up picker will reposition to the center of the screen. (Tri-232074)
UX Framework	The year will now display properly in the triplat-calendar-container component when the user language is Arabic. (Tri-250966)
UX Framework	There are some custom properties name changes to improve naming convention and consistency. See triplat-icon, triplat-uom, triplat-radio-group, and triplat-number-input documentation for additional details. (Tri-244692)
UX Framework	There are some scenarios where the loading property of the triplat-ds component is not properly set to 'false' when the data has actually finished loading. Depending on how the application is written, this can cause a loading spinner to "hang". This has now been resolved. (Tri-230850)
UX Framework	There are styling changes for calendar components (tripat-calendar-container, triplat-date-picker, or triplat-datetime-picker). Some are minor, but one obvious change is that the current date is now indicated. (Tri-241396)
UX Framework	There will no longer be an exception in the console log when the timeZone property is set to a blank value in the triplat-datetime-picker. If it is set to a blank value or if the property is not set, it will default to the browser timezone. (Tri-229454)
UX Framework	Updated the triplat-loading-indicator component documentation to better explain the layout and positioning within the context of an application. (Tri-232283)
UX Framework	UX data sources will now refresh when the data source is emptied and then repopulated. (Tri-227662)
UX Framework	When a UX application defines a Locator field as a 'STRING' data type in the Model Designer, the associations could be incorrectly modified when the application calls the triplat-ds method 'updateRecord'. Locator fields should have the data type of 'STRING_WITH_ID' in the Model Designer. The platform now prevents updating the value when a Locator field has a data type of 'STRING'. (Tri-233090)
UX Framework	When a UX application uses the CURRENT_USER data source type, the data source previously was forced to be read only, regardless of the Read Only flag setting in the data source. This is changed so it now honors the Read Only flag setting in the Model Designer, which means updateRecord and performAction methods are now supported by this data source type. (Tri-247302)

Area of Change	Description
UX Framework	When you use the triplat-query-resource-calendar component, some requests are not sent to the server. Now, when calendar parameters change, a new request is sent to the server. (Tri-225277)
UX Graphics	XREF layers now appear in the UX graphic component (tripat-graphic). (Tri-232039-IV87335)
Web Services / API	A deprecated and undocumented Web Services API was removed from the platform. The axis-based API is no longer accessible. Any existing integrations that use this API need to be changed to use TRIRIGA Connector for Business Applications or OSLC. (Tri-234615)
WebLogic	JavaServer pages now compile in WebLogic for the following areas: Admin Console > Performance Manager > Instrumentation, Group manager > Access tab, Data Modeler > State Transitions, List Manager, State Family Manager, Workflow Manager > Task filter. (Tri-251225)
Workflow	For unpublished workflows, the "where used" function no longer displays a MID error. (Tri-249095)
Workflow	Resolved an issue in Workflow Builder, specifically in edit mapping, where sometimes Source mappings were not saved when the user clicked OK or Map All. (Tri-232978)
Workflow	When a Workflow Agent is configured for a specific set of users, there was no indication that workflows could also run on other workflow agents on different servers if it was marked as non-exclusive. Text is added to the Administrator Console's workflow agent manager page that makes it clear when a set of users are set as exclusive for the current server or if the user's workflows are allowed to run on other servers. (Tri-232118)
Workflow	Workflows now render in Firefox if the workflow returned a NS_ERROR_Failure error. (Tri-235621-IV87581)
Workflow Runtime	Resolved an issue where activating users in a batch/integration process would cause a few to not have a group that is correctly associated to the My profile. (Tri-225377-IV84912)
Workflow Runtime	Updated the error message that is displayed when the user does not have sufficient TRIRIGA licenses to run BusinessConnect. (Tri-227522)
Workplace Reservation Manager	A long-standing issue where recurrences that have an "All Day" duration were not creating the correct number of reservations is resolved. This issue was present whenever the user had a different time zone than the server time zone. (Tri-234170)
Workplace Reservation Manager	A long-standing issue where recurrences were not being created for the Monthly and Yearly frequencies whenever the recurrence day was set to "day", "weekday" or "weekend day". (Tri-233353)

Area of Change	Description
Workplace Reservation Manager	Reserve performance concurrency properties ENABLE_CONCURRENT_AVAILABILITY, CONCURRENT_AVAILABILITY_POOL_SIZE, and CONCURRENT_AVAILABILITY_REQUEST_BATCH_SIZE are now used to increase the performance of loading data for the Availability section. (Tri-247295)
Workplace Reservation Manager	When the IBM TRIRIGA Workplace Reservation Manager Add-in is installed into C:\Program Files, it now reads the configuration values that the user specified during installation, such as the URL. The fields now populate in the Add-in Options screen in Microsoft Outlook and in the user's outlook.properties file. (Tri-248515-IV90194)

IBM TRIRIGA Application Platform 3.5.2 Properties Files

The following changes to the TRIRIGAWEB.properties file are in this release. For more information, go to the IBM TRIRIGA Application Platform 3 Knowledge Center and select *Installing IBM TRIRIGA Application Platform>Configuring the platform>Properties files*.

Area of Change	Description
ALLOW_REVERSE_ASSOCIATION	A new property disables Reverse Associations on the current application server. When ALLOW_REVERSE_ASSOCIATION is set to FALSE, and a report is run with the Reverse Association flag, it will not honor the reverse association, and will report a WARN to the server.log with the report name that contained the Reverse Association flag. For legacy applications, this property is set to TRUE by default. (Tri-233608)
Availability	The Availability section no longer uses the AVAILABILITY_CACHE_LOAD_FACTOR and AVAILABILITY_CACHE_LOAD_THRESHOLD properties. These properties no longer appear in the TRIRIGAWEB.properties file. (Tri-240096)
AVAILABILITY_SECTION_ROW_LIMIT	Added a new TRIRIGAWEB.properties property, AVAILABILITY_SECTION_ROW_LIMIT, with a default value of 50. The property specifies the maximum number of rows that the availability section will display. If more rows need to be displayed, the availability section alerts the user of the limit. This limit is to ensure reasonable performance and memory usage of the Availability section. The maximum accepted value is 500 rows. (Tri-230881)

Area of Change	Description
<p>ENABLE_CONCURRENT_AVAILABILITY</p> <p>CONCURRENT_AVAILABILITY_POOL_SIZE</p> <p>CONCURRENT_AVAILABILITY_REQUEST_BATCH_SIZE</p>	<p>The following three properties are added to the TRIRIGAWEB.properties file:</p> <p>The ENABLE_CONCURRENT_AVAILABILITY property determines whether to process Reserve queries concurrently. The default is TRUE.</p> <p>If ENABLE_CONCURRENT_AVAILABILITY is TRUE, the maximum number of system wide threads that are used for processing availability can be set with CONCURRENT_AVAILABILITY_POOL_SIZE. The default is 50.</p> <p>If ENABLE_CONCURRENT_AVAILABILITY is TRUE, the maximum number of threads that each availability request can use to process availability can be set with CONCURRENT_AVAILABILITY_REQUEST_BATCH_SIZE. The default is 10. (Tri-242190)</p>
Gantt	<p>The Java applet-based Gantt section is deprecated and is no longer an option through TRIRIGAWEB.properties. All Gantt sections are now rendered only as a JavaScript based DHTML component. (Tri-239706)</p>
HONOR_DOCUMENT_PERMISSIONS_MODEL_FOR_DOWNLOAD	<p>A Download button was added to the Print Preview tab of a document record in a Notes & Documents tab. This button is available only when the value of the TRIRIGAWEB.property HONOR_DOCUMENT_PERMISSIONS_MODEL_FOR_DOWNLOAD is set to false. You can change the button color by importing styles for the following classes: NO_PREVIEW_DOWNLOAD_BUTTON_COLOR, NO_PREVIEW_DOWNLOAD_BUTTON_COLOR_PRESSED. (Tri-244673-IV89806)</p>
IMPORT_CONTENT_EXCLUDE_EXTENSIONS	<p>The IMPORT_CONTENT_EXCLUDE_EXTENSIONS property and the IMPORT_CONTENT_INCLUDE_EXTENSIONS property are no longer case sensitive. (Tri-234083-IV87304)</p>
INCOMING_MAIL_AGENT_SLEEP_TIME	<p>The Incoming Mail Agent sleep time is now configurable via TRIRIGAWEB.properties. The default of 5 seconds can now be changed by updating the property INCOMING_MAIL_AGENT_SLEEP_TIME. (Tri-234612)</p>
KNOWN_REFERRERS_LIST	<p>The TRIRIGAWEB property KNOWN_REFERRERS_LIST has been deprecated and replaced with a new XSS security architecture. This change resolves several issues when running with KNOWN_REFERRERS_LIST. (Tri-239227-IV88702)</p>
LOGIN_PAGE_RESOURCE_LIST	<p>The LOGIN_PAGE_RESOURCE_LIST property is added. This property specifies which images in the USERFILES table can be accessed without a user session. (Tri-248830)</p>
MAXIMUM_UPLOAD_FILE_SIZE_MEGABYTES	<p>The new MAXIMUM_UPLOAD_FILE_SIZE_MEGABYTES property allows administrators to configure the maximum permissible size for file uploads. If no value is set, the default is 20 megabytes. (Tri-234622)</p>
PORTAL_CLOSE_LOGOUT	<p>In the TRIRIGA Application, the configuration property PORTAL_CLOSE_LOGOUT has been removed since it has not been available since version 2.6. This will not cause any side effects or other issues within the Application. (Tri-248612)</p>

Area of Change	Description
SMTP_SUBJECT_PREFIX	A new property allows the subject of all mail going out to be prefixed with a common string. This will enable you to quickly see what environment a mail has been sent from. The property SMTP_SUBJECT_PREFIX can be left blank, which will be the current behavior, or it can be set with a string like [Dev] to denote that mail is coming from a development environment, as an example. (Tri-234613; RFE-62245)
SSO_SINGLE_SIGN_OUT_REDIRECT_URL	You can now configure a custom sign out redirect page for single sign out capabilities. The property SSO_SINGLE_SIGN_OUT_REDIRECT_URL can be set to an external URL or page accessible via a different context root on the server so that users can sign out of the SSO session. This property must be added to the TRIRIGAWEB.properties file. (Tri-226518-IV86578)
SYSTEM_ACTION_STYLE	The value of the SYSTEM_ACTION_STYLE property now controls the appearance of the Refresh action, for example, on the Project Tasks section of the Schedule tab of a Capital Project. (Tri-235352)
WA_MULTI_SEGMENT_UPLOAD_ENABLED	For Watson Analytics, the new WA_MULTI_SEGMENT_UPLOAD_ENABLED property allows the use of multi-segment data set uploads. If you set the value to false, the data set uploads in a single segment. The default value is true.
WA_UPLOAD_POLL_INTERVAL	For Watson Analytics, the new WA_UPLOAD_POLL_INTERVAL property is the amount of time in minutes to wait before polling Watson Analytics to check on the status of a data set upload job. The default is 1 minute.
WA_UPLOAD_POLL_TIMEOUT	For Watson Analytics, the new WA_UPLOAD_POLL_TIMEOUT property is the amount of total time in minutes to poll Watson Analytics to check on the status of a data set upload. When this time is exceeded, TRIRIGA stops polling. The default value is 30 minutes.
WA_UPLOAD_SEGMENT_SIZE_MB=10	For Watson Analytics, the new WA_UPLOAD_SEGMENT_SIZE_MB=10 property is the size in megabytes of the segments to upload to Watson Analytics. The default value is 10 megabytes. This is only used when the property and default value is WA_MULTI_SEGMENT_UPLOAD_ENABLED=TRUE.
Workflow Runtime	<p>Added the ability to add any supported "mail.smtp.*" property listed in https://javamail.java.net/nonav/docs/api/com/sun/mail/smtp/package-summary.html to the TRIRIGAWEB.properties to be used by the IBM TRIRIGA Platform mail framework.</p> <p>To enable smtp timeouts add the following to TRIRIGAWEB.properties</p> <pre>mail.smtp.connectiontimeout=120000 mail.smtp.timeout=120000 mail.smtp.writetimeout=120000</pre> <p>Where 12000 is 2 minutes in milliseconds.</p> <p>When no properties are added to the TRIRIGAWEB.properties, it will</p>

Area of Change	Description
	<p>default to the values described in https://javamail.java.net/nonav/docs/api/com/sun/mail/smtp/package-summary.html</p> <p>(Tri-235680)</p> <p>NOTE: Properties file will NOT ship with these new properties. It will be up to the customer to add them if they are needed. In most cases, they may not be needed.</p>

IBM TRIRIGA CAD Integrator/Publisher 12.1.5

This release includes important information, known limitations, changes, and property file changes to IBM TRIRIGA CAD Integrator/Publisher.

Important Information

The following items are important information concerning the IBM TRIRIGA CAD Integrator/Publisher and are newly added for this release. For Important Information related to previous releases, see the [Release Notes](#) page of the IBM TRIRIGA wiki.

Area of Impact	Description
Security	<p>IBM TRIRIGA does not support SAML (Security Assertion Markup Language) or credential-less login mechanisms such as SmartCard or CAC (Common Access Card) as a method of authentication for its non-browser clients such as IBM TRIRIGA CAD Integrator/Publisher, TRIRIGA Connector for BIM, and TRIRIGA Workplace Reservation Manager Add-in for Microsoft Outlook.</p> <p>SSO solutions need to provide a mechanism for basic authentication per the documentation in the "Requirements for single sign-on requests in the TRIRIGA Application Platform" for non-browser clients. SAML and SmartCard or CAC do not support basic authentication for non-browser based clients.</p> <p>The best practice if you are using SAML or SmartCard/CAC, is to authenticate directly to TRIRIGA on a separate process server or integration server as opposed to the SSO enabled application server. (NOTE: These users need to know their TRIRIGA user name and password to sign in using this solution.)</p> <p>An alternative best practice is to set up a separate non-SAML SSO solution for non-browser client users, which can support basic or NTLM authentication. (NOTE: SmartCard/CAC users need to know their SmartCard/CAC user name and password to sign in using this solution.) (Tri-231249-IV88274)</p>

Known Limitations

There are no new known limitations concerning IBM TRIRIGA CAD Integrator/Publisher added for this release. For known limitations related to previous releases, see the [Release Notes](#) page of the IBM TRIRIGA wiki.

IBM TRIRIGA CAD Integrator/Publisher 12.1.5 Changes

All changes that apply to IBM TRIRIGA CAD Integrator/Publisher 12.1.5 are included in IBM TRIRIGA Application Platform 3.5.2.

IBM TRIRIGA CAD Integrator/Publisher 12.1.5 Properties Files

The `ci.properties` file did not change in this release.

Related Documentation

You will find the documentation for this release in the IBM TRIRIGA 10 Knowledge Center at http://www.ibm.com/support/knowledgecenter/SSFCZ3_10.5.2/com.ibm.tri.doc/product_landing.htm and in the IBM TRIRIGA Application Platform 3 Knowledge Center at http://www.ibm.com/support/knowledgecenter/SSHEB3_3.5.2/com.ibm.tap.doc/product_landing.htm. The documentation can be found in online IBM Knowledge Center topics, or in PDF files, or both.

Additional documentation is available in the [IBM TRIRIGA wiki](#).

This release updates the following documentation:

“Administering IBM TRIRIGA” (online topics) or *IBM TRIRIGA 10 Application Administration User Guide* (PDF)

“Administering with the Administrator Console” (online topics) or *IBM TRIRIGA Application Platform 3 Administrator Console User Guide* (PDF)

“Assessing and improving the physical condition of facilities” (online topics) or *IBM TRIRIGA 10 Facility Assessment User Guide* (PDF)

“Authenticating users by using single sign-on” (online topics) or *IBM TRIRIGA Application Platform 3 Single Sign-On Setup User Guide* (PDF)

“Configuring the user experience” (online topics) or *IBM TRIRIGA Application Platform 3 User Experience User Guide* (PDF)

“Getting started” (online topics) or *IBM TRIRIGA 10 Getting Started User Guide* (PDF)

“Installing IBM TRIRIGA Application Platform” (online topics) or *IBM TRIRIGA Application Platform 3 Installation and Implementation Guide* (PDF)

“Integrating data by using OSLC” (online topics) or *IBM TRIRIGA Application Platform 3 OSLC Integration Guide* (PDF)

“Integrating data with external applications” (online topics) or *Application Building for the IBM TRIRIGA Application Platform 3: Data Management* (PDF)

“Integrating data with the TRIRIGA integration object,” “Integrating data with the TRIRIGA connector for Esri Geographic Information Systems (GIS),” and “Extending connector functions” (online topics) or *IBM TRIRIGA Application Platform 3 Connector User Guide* (PDF)

“Integrating, publishing, and reporting on CAD drawing information” (online topics) or *IBM TRIRIGA CAD Integrator/Publisher User Guide* (PDF)

“Localizing applications” (online topics) or *IBM TRIRIGA Application Platform 3 Localization User Guide* (PDF)

“Managing graphics” (online topics) or *IBM TRIRIGA Application Platform 3 Graphics User Guide* (PDF)

“Managing inventory” (online topics) or *IBM TRIRIGA 10 Inventory Management User Guide* (PDF)

“Managing leased and owned property contracts” (online topics) or *IBM TRIRIGA 10 Lease and Owned Property Contract Management User Guide* (PDF)

“Managing portfolio data” (online topics) or *IBM TRIRIGA 10 Portfolio Management User Guide* (PDF)

“Managing procurement” (online topics) or *IBM TRIRIGA 10 Procurement Management User Guide* (PDF)

“Managing real estate environmental sustainability” (online topics) or *IBM TRIRIGA 10 Real Estate Environmental Sustainability User Guide* (PDF)

“Managing reservations and reservable resources” (online topics) or *IBM TRIRIGA 10 Reservation Management User Guide* (PDF)

“Managing services” (online topics) or *IBM TRIRIGA 10 Maintenance and Service Management User Guide* (PDF)

"Managing spaces and moves" (online topics) or *IBM TRIRIGA 10 Space and Move Management User Guide* (PDF)

"Migrating Objects" (online topics) or IBM TRIRIGA Application Platform 3 Object Migration User Guide (PDF)

"Performance Framework" (online topics) or Application Building for the IBM TRIRIGA Application Platform 3: Performance Framework (PDF)

"Planning real estate transactions and projects" (online topics) or *IBM TRIRIGA 10 Real Estate Transaction Management User Guide* (PDF)

"Requesting corrective maintenance" (online topics) or *IBM TRIRIGA 10 Request Central User Guide* (PDF)

"Reporting in IBM TRIRIGA" (online topics) or IBM TRIRIGA Application Platform 3 Reporting User Guide (PDF)

"Strategic facility planning" (online topics) or *IBM TRIRIGA 10 Strategic Facility Planning User Guide* (PDF)

Application Building for the IBM TRIRIGA Application Platform 3 (PDF)

Application Building for the IBM TRIRIGA Application Platform 3: Calculations (PDF)

IBM TRIRIGA Application Platform 3 Connector for SAP BusinessObjects User Guide (PDF)

IBM TRIRIGA Application Platform 3 Post Upgrade Maintenance Specification (PDF)

IBM TRIRIGA Application Platform 3 Upgrade Installation Guide (PDF), which can be found at <https://www.ibm.com/developerworks/community/wikis/home?lang=en#/wiki/IBM+TRIRIGA1/page/Upgrading>

IBM TRIRIGA Connector for Business Applications 3 Technical Specification (PDF)

Support

IBM Software Support provides assistance with product defects, answering FAQs, and performing rediscovery. View the IBM Software Support site at www.ibm.com/support.

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