IBM TRIRIGA

Version 11 Release 0

IBM TRIRIGA Application Platform

Version 4 Release 0

Release Notes

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Note
Before using this information and the product it supports, read the information in "Notices" on page 44.

This edition applies to version 11, release 0 of IBM® TRIRIGA® and version 4, release 0 of IBM TRIRIGA Application Platform and to all subsequent releases and modifications until otherwise indicated in new editions.

Contents

Release Notes

Welcome to the December 2021 release of IBM® TRIRIGA® 11.0, IBM TRIRIGA Application Platform 4.0, IBM TRIRIGA CAD Integrator/Publisher 13.0, and IBM TRIRIGA Connector for BIM 4.0. This release also introduces the IBM TRIRIGA Application Suite 11.0.

This release includes the following two installation options:

- A new installation of IBM TRIRIGA Application Platform 4.0 and IBM TRIRIGA Applications 11.0.

- An IBM TRIRIGA Application Platform-only upgrade installation from 3.0.x or higher to IBM TRIRIGA Application Platform 4.0.

The IBM TRIRIGA Applications can be incrementally upgraded to 11.0 Applications after the platform upgrade is completed. For more information about specific scenarios, view the Upgrading information on the IBM TRIRIGA Application Platform 4.0 Knowledge Center.

> **Note** – The IBM TRIRIGA wiki information, formerly located on developerWorks, is migrated to the IBM Docs for IBM TRIRIGA Application Platform 3.8. As this wiki content is gradually converted and merged into ongoing releases of the 4.x platform and 11.x application content, you can access this link to 3.8.
>
> For more information, see the IBM TRIRIGA Release Information page on IBM Support.

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, IJnnnnn, IVnnnnn, and/or RFE-nnnnnn)

In addition to this document, this release includes the following files, available from the Release Notes page on IBM Support:

- The enhancements, important information, known limitations, changes, and property file changes for this release are included in spreadsheet form in an XLS file. You can use the column filters to view only the information you need.

- A separate version of the release notes that is specific to Lease Accounting includes documentation of Lease-related new functions. This document also compiles the release notes related to Lease Accounting from version 10.5.3 to the present.

> **Warning – CUSTOMERS SHOULD CONSULT WITH THEIR ACCOUNTING ADVISORS AND IMPLEMENTATION PARTNERS TO DETERMINE WHAT IMPACT, IF ANY, MAY RESULT FROM THE CHANGES IN THIS RELEASE/FIX PACK/OM PACKAGE. THIS RELEASE/FIX PACK/OM PACKAGE MAY CONTAIN CHANGES TO CERTAIN CALCULATION MODELS WHICH MAY AFFECT PREVIOUSLY PUBLISHED FINANCIAL RECORDS AND HOW FUTURE RECORDS ARE CALCULATED.**

What's New in This Release

With IBM TRIRIGA 11.0, IBM TRIRIGA Application Platform 4.0, IBM TRIRIGA CAD Integrator/Publisher 13.0, and the IBM TRIRIGA Connector for BIM 4.0, IBM TRIRIGA continues to add valuable functionality, fix defects, and reduce the effort necessary for new and existing customers to implement our products. In addition, this release introduces the IBM TRIRIGA Application Suite.

IBM TRIRIGA Application Suite (TAS) 11.0 is an integrated workplace management system that enables access to a full set of real estate and facilities applications, with flexibility to start with any real estate or facilities discipline and expand into other areas. This release offers:

- Simplified, suite-based licensing structure that provides a single point of access to the full suite of real estate and facilities management capabilities.

- IBM TRIRIGA Application Suite Managed Service for a single point of access to the full range of IBM TRIRIGA Application Suite real estate and facilities management capabilities running on IBM Cloud® with the support of IBM operational experts.

    For additional information on the TRIRIGA Application Suite, see [IBM Documentation](#).

IBM TRIRIGA 11.0 delivers:

- IBM TRIRIGA Indoor Maps with indoor wayfinding and interactive indoor mapping experience to the TRIRIGA Locate app.

- Enhancements to the TRIRIGA Connector for BIM that enable setup of reservable spaces, deliver more advanced synchronization capabilities, and improve the user experience of the connector.

IBM TRIRIGA Application Platform 4.0 brings:

- Additional user experience enhancements and display options for tabular queries and reports.

- Enhancements to session management for improved session resume and group-specific session timeout control.

- Enhancements to TRIRIGA Reporting that deliver new system functions for custom columns and advanced graph settings and filtering, including dynamic data filtering.

- The Microsoft Graph API can now be used instead of Exchange Web Services for integrating with cloud and hybrid Exchange servers.

IBM TRIRIGA CAD Integrator/Publisher 13.0 features:

- Enhanced Child Records dialog with the capability to designate a space class for the child records and to export the child records table as a file.

IBM TRIRIGA Connector for BIM 4.0 includes:

- Enhanced Reserve integration allows for many of the attributes of TRIRIGA reservable spaces to be specified and managed from the connector.

- Enhancements to Sync allows for additional parameters to be supported, and the Sync direction is now configurable for each TRIRIGA record type: push, pull, or the existing combination of push and pull.

- Some management of the location hierarchy can now be done with the Integrate Building tool.

- The Map Areas to Room tool has simplified what Areas are needed for TRIRIGA integration.

- Revit Shafts (Openings) can now be integrated with TRIRIGA vertical shafts.

IBM TRIRIGA 11.0 Enhancements

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

Area of Impact	Description
Navigation	TRIRIGA Application Platform 4.0 introduces the TRIRIGA user session timeout. Note that this timeout is different from the Application Server timeout. The TRIRIGA user session timeout is the amount of time a TRIRIGA user can stay active in TRIRIGA without performing any user actions. There is a global setting on the User Session Timeout in Minutes field in the System Info Page of the TRIRIGA Admin Console. It defaults to 30 minutes. There is also a Timeout User Group setting that can be used to allow specified users to timeout with an amount of time different from that of the global setting. This setting can be added in the Timeout User Group Manager, by creating a Timeout User Group record. In the Timeout User Group, specify the timeout value in the User Session Timeout in Minutes field, and add the user(s) to the group. Any number of Timeout User Groups can be created. In TRIRIGA Application 11.0, the Timeout User Group Manager can be accessed via the TRIRIGA Global Menu at the following location: Tools > System Setup > General. Without Application 11.0, the following navigation item is available: Master Detail - Timeout User Groups. This navigation item can be applied to any navigation collection. For consistency with TRIRIGA Application 11.0, it can be applied to the TRIRIGA Global Menu navigation collection, in the following location: Tools > System Setup > General. Note that the TRIRIGA User Session Timeout settings should always be set to a value smaller than the Application Server timeout setting. (Tri-72219)
Reservations	The TRIRIGA Room Search add-in for Outlook is enhanced to support access by delegates. To support this new feature, the add-in should be removed and reinstalled. (Tri-71416)
UX Room Reservation App UX Work Task App	UX calendar component will show weeks based upon user locale. (Tri-71891-IJ31523)

IBM TRIRIGA Application Platform 4.0 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	An issue where the Server Session inactivity warning/expiration was not functioning is resolved when the SESSION_WARNING_ENABLED property is set to Y in the TRIRIGAWEB.properties file. The server session timeout pop-up warning was not displayed and/or automatic session timeout page redirection was not occurring. Note that this feature will only operate if the TRIRIGA User Session Timeout functionality is disabled in the TRIRIGA Administrator Console, located at TRIRIGA Admin Console > System Info > TRIRIGA User Session > Disable User Session Timeout checkbox. (Tri-72362)
Administrator Console	In the TRIRIGA Admin Console > System Info, there is a new setting called Enable Unique User Session Timeout. The default setting is Off. This means that by default, all sessions from a single user remain active as long as at least one of the user sessions is active. If this setting is turned on, then each individual session from the user will be managed separately depending on when they timeout. (Tri-71297)
Administrator Console	Last User Action (Used for Timeout) is added to the User Logged In page in the Admin Console. (Tri-73129)
Administrator Console	TRIRIGA now has a global user session timeout property, which can be set in the TRIRIGA Admin Console on the System Info page. In the User Session Properties section, the field where this property is set is called: User Session Timeout in Minutes. This timeout defaults to 30 minutes. Note: 1. There is a 3-minute grace period for the session timeout because user activity is recorded in 3-minute intervals. This means the timeout can happen between the set timeout value + 3 minutes. 2, There is an agent that checks the timeout setting, which runs every 10 minutes. This means it may take a little longer for the timeout to happen as the timeout will not occur until the agent runs. Two minutes before a timeout occurs, users will be displayed a warning message asking if they want to continue their session. If there is no response to this warning message and a timeout occurs, a login prompt will display. After login in with this prompt users can continue working where they left off. The above warning and login prompt will only be displayed within the main navigation container. For windows outside the main navigation container such as new windows or popup windows users will only know the session has timed out on their next action that causes a server request. The user will be directed to the session timeout screen on that window if they first do not log in with the above mentioned login prompt.

Area of Impact	Description
	3. If the TRIRIGA user session timeout is set to more than the server timeout, the server timeout will be honored. (Tri-70996)
CAD Integrator Connector for BIM	CAD Integrator and Connector for BIM now support opening a TRIRIGA record from a graphic selection on TRIRIGA servers configured for service provider OAuth SSO. (Tri-72286)
Connector for BIM CAD Integrator	There is a new authentication type named Web Login that looks similar to the browser login of IBM TRIRIGA. (Tri-72173)
Custom Tasks	The DynamicFieldValueHelper custom task is enhanced as follows: Triggering the DynamicFieldValueHelper custom task allows getting field values dynamically. To use the custom task, pass the workflow parameter named triDynamicFieldValueHelpers into a workflow custom task with the class name: com.tririga.platform.util.customtasks.DynamicFieldValueCustomTask. The workflow parameter can contain one or more helper records that are built from the triDynamicFieldValueHelper business object (BO) in the System module. - The triRecordIdNU field must contain the record ID of the IBM TRIRIGA record with the field that you want to get. - The triFieldNameTX field must contain the field name of the field that you want to get. The following field types are supported: Text (TX), Number (NU), Date (DA), DateTime (DT), and Duration (DU). The field must be named in accordance with IBM TRIRIGA naming conventions or best practices. - The triFieldValueTX field must contain the value of the field that you want to get. If you map a value that is not the native type (for example, a text value into a text field), this process is not supported and might not give the expected results. - The triFieldValueNU field must contain the value of the field that you want to get. - The triFieldValueDU field must contain the value of the field that you want to get. - The triFieldValueDT field must contain the value of the field that you want to get. - The triFieldValueDA field must contain the value of the field that you want to get. - The triDynamicActionPostBL field is added to the BO. If this checkbox is not enabled, the custom task will process the fields to get the values. If a non-supported BO type is used, the execution of the custom task will fail. If an error occurs, see the server log for more information. (Tri-55724)
Exchange Integration	The Microsoft Graph API now supports integrating TRIRIGA with cloud and hybrid Exchange servers. (Tri-67098)
Integration Object	Calls to integration endpoints such as CBA calls, API rest endpoint calls, and Class Loader rest calls now record user activity consistent with the rest of TRIRIGA. This is to prevent TRIRIGA user timeouts when using those integrations endpoints. (Tri-73390)
Licensing	If a TRIRIGA AppServer shuts down for any reason for environments that have multiple AppServers, user sessions tied to that AppServer will be removed. It may take up to 80 seconds for the session to be removed as that is the length of time it

Area of Impact	Description
	takes for the service checking AppServer status to run its next iteration. (Tri-71299)
Licensing	The License Manager page will now show App license point details when SLS mode is enabled. The point detail will turn red if used points become more than entitled points. (Tri-74728)
Licensing	When the same user logs into TRIRIGA with multiple user sessions (multiple devices, browsers, etc.), license usage will only be counted once. (Tri-71303)
Login	The alternate login page template at userfiles/alt/index.html is updated for styling consistent with the login page for all TRIRIGA Applications. For reference purposes, the classic/legacy alternate login page template is available at userfiles/alt/index_classic_template.html. (Tri-72674)
Navigation	A new responsive login screen has been introduced that is shared by the foundation apps, UX Apps, and the Admin Console. (Tri-70429)
Navigation	For TRIRIGA Application Suite, new responsive login screen has been introduced that is shared by the foundation apps, UX Apps, and the Admin Console. (Tri-70429)
Navigation	The breadcrumb in TRIRIGA represents navigation structure rather than navigation history. If, however, the link clicked on from a portal landing page such as the Home landing page is not recognized in the navigation structure, the breadcrumb will use the location of the portal landing page as the root link. (Tri-73253)
Navigation	The Switch Project link in the navigation header is renamed to Select Project when a user is in the company level context. When a user is in a project context other than company level, the link is named Switch Project. (Tri-72481)
Navigation	TRIRIGA Application Platform 4.0 introduces the TRIRIGA user session timeout. Note that this timeout is different from the Application Server timeout. The TRIRIGA user session timeout is the amount of time a TRIRIGA user can stay active in TRIRIGA without performing any user actions. There is a global setting on the User Session Timeout in Minutes field in the System Info Page of the TRIRIGA Admin Console. It defaults to 30 minutes. There is also a Timeout User Group setting that can be used to allow specified users to timeout with an amount of time different from that of the global setting. This setting can be added in the Timeout User Group Manager, by creating a Timeout User Group record. In the Timeout User Group, specify the timeout value in the User Session Timeout in Minutes field, and add the user(s) to the group. Any number of Timeout User Groups can be created. In TRIRIGA 11.0, the Timeout User Group Manager can be accessed via the TRIRIGA Global Menu at the following location: Tools > System Setup > General. Prior to version 11.0, the following navigation item is available: Master Detail - Timeout User Groups. This navigation item can be applied to any navigation collection. For consistency with TRIRIGA Application 11.0, it can be applied to the TRIRIGA Global Menu navigation collection, in the following location: Tools > System Setup > General. Note that the TRIRIGA User Session

Area of Impact	Description
	Timeout settings should always be set to a value smaller than the Application Server timeout setting. (Tri-72219)
Navigation	Users that have multiple TRIRIGA sessions will now be given the option to log out of all sessions when they select the Log out button. (Tri-71534)
Object Migration	Object Migration export package creation now has a multi-select drop-down for Object Label Owner exclusion on the Create Package dialog when creating package by date. There is also the same multi-select drop-down for Object Label Owner exclusion within the Object Migration package search for object feature. The multi-select drop-down allows users to select one or more Object Label Owners to exclude from object searches, in that any objects associated with those Object Label Owners will not show up in the search results. (Tri-36565)
Outlook	The Exchange Appointment BO now has the Time Stamp of incoming iCal data. (Tri-70400)
Outlook	When using the Reserve Outlook add-in, only Outlook activity within the add-in is handled as TRIRIGA user activity with regard to TRIRIGA session timeouts. Normal outlook activity such as scheduling a meeting and sending the meeting request is now not tracked as TRIRIGA user activity. (Tri-75442)
Reporting	Editable queries that do not have any editable columns will now display with the enhanced query grid renderer. (Tri-71069)
Reporting	Reports that are run through the enhanced query grids now support row height selection, in addition to an option to wrap text. After running a report, users can select the Gear icon in the header of the report. A context menu will display where users can select between the following row heights: Compact 24px, Short 32px, Medium 48px, Tall 64px. The context menu also has the option to wrap text. (Tri-70067)
Reporting	The image file extension will now not be case-sensitive in enhanced render mode. (Tri-70357-IJ30235)
Reservations	Workflows are enhanced so that PowerShell scripts generate valid space email addresses and an Exchange Domain length limitation is added to the field in tririgaweb.properties, EXCHANGE_DOMAIN_MAX_LENGTH. While generating email address, if the Domain length is greater than 255, the workflow throws an exception. Exchange Domain length limitation is added to the field in tririgaweb.properties, EXCHANGE_DOMAIN_MAX_LENGTH. While generating email address, if the Domain length is greater than 255, the workflow throws an exception. (Tri-71346)
Single Sign-On	For SSO configured environments, if the user tries to login with SSO credentials that do not have access to TRIRIGA, then index.html login page is displayed with "Cannot sign into IBM TRIRIGA as you do not have a valid user" message. Earlier it was a login screen on index.html for SSO. (Tri-73450)

Area of Impact	Description
Single Sign-On	On SSO environments when a timed out TRIRIGA user clicks the Renew Session button from the session timeout pop-up dialog, the user may encounter an SSO authentication pop-up window open and then immediately close. This can happen if the credentials for the user are already authenticated with the SSO server. After the pop-up window closes, the user can proceed in TRIRIGA. (Tri-72997)
System Setup	A custom task is added that validates the information that is entered on the Reservation tab of System setup. The custom task queries Exchange to validate the existence of the given email address in Default Reserve User email field. The validation result is recorded in the field by triSetup > triApplicationSettings > triExchangeTestResultsTX. (Tri-68853)
UX Framework	The UX Login page is updated to be consistent with all TRIRIGA Applications. (Tri-70430)
Workflow	Support for finding callers on the asynchronous workflows. Callers would be considered workflows that have a trigger action task for the event/BO. (Tri-72177)
Workflow	Workflow engine and builder now support the passing of parameters through a Trigger action. (Tri-68326)

IBM TRIRIGA CAD Integrator/Publisher 13.0 Enhancements

The following enhancements to the IBM TRIRIGA CAD Integrator/Publisher are in this release in addition to the enhancements described above:

Area of Impact	Description
Export	An export button is added in the child records window to export the child records to a file. (Tri-71377)
Login	On login, CAD Integrator/Publisher now checks that the platform version is compatible. (Tri-73181)
Login	The CAD Integrator/Publisher login experience is updated with Carbon styling for consistency with TRIRIGA web apps. (Tri-74864)
Login	The Server Definition form has a new Web Login option, which is the default for new server definitions. It uses the TRIRIGA web portal to log in to the BIM Connector. (Tri-72142)

IBM TRIRIGA Connector for BIM 4.0 Enhancements

The following enhancements to the IBM TRIRIGA Connector for BIM are in this release:

Area of Impact	Description
Detach	Detach tool now has an additional option to detach Reserve parameters if they exist in the model. (Tri-70017)
Integrate Buildings	In the Integrate Building form, retired locations are no longer shown in the Locations tree. (Tri-71314)
Integrate Buildings	Integrate Building now uses the Project Issue data as the Building In-service date. (Tri-70535)
Integrate Buildings	The Building tool is now enabled even after integrating the model to view/edit the currently linked TRIRIGA building. (Tri-71654)
Integrate Buildings	The Building tool now prevents the erroneous linking of the a model more than once to the same building. (Tri-74553)
Integrate Rooms	After linking the model with existing building, in the Room tool, in the right-hand column it displays the Space Use Class name of the existing spaces in TRIRIGA. (Tri-70021)
Levels, Rooms, and Spaces	A new column is added to the linked table of Levels, Rooms, and Spaces to display the TRIRIGA record state. (Tri-71875)
Login	The Server Definition form has a new Web Login option, which is the default for new server definitions. It uses the TRIRIGA web portal to log in to the BIM Connector. (Tri-72142)
Look and Feel	The BIM Connector UX is updated with Carbon styling for consistency with TRIRIGA web apps. (Tri-72632)
Map Areas to Rooms	Map Areas to Rooms tool is reworked to allow mapping of Gross, Gross Measured, and Rentable area plans. (Tri-72634)
Project Settings & Populate Parameters	Reserve Parameters like Capacity, Layout type, ReservationClass, etc. are now added to the parameters list of Revit Rooms and Areas. (Tri-70010)
Project Settings & Populate Parameters	The Project Settings and Populate Parameters tabs now have two new parameters for TRIRIGA Reserve.Name, if Profile=Reserve is set in Tririga_AR.Porperties. (Tri-70016)
Project Settings & Populate Parameters	Type project parameters can now be used in asset naming rules. (Tri-71536)

Area of Impact	Description
Reservations	The Connector for BIM now displays a Reserve Properties Panel if Profile is set as Reserve in TRIRIGA_AR.properties. The new property panel can be used to manage reserve-related properties of a selected Revit Room/Area. (Tri-69999)
Shafts	Revit Shafts can now be integrated with TRIRIGA vertical shafts. (Tri-65453)
Sync	The Sync retire space feature now has an option to set the area of the retiring space to 0. (Tri-61326)
Sync	The Synchronize with TRIRIGA tab in the sync tool is enhanced to choose parameter sync direction, such as 'Revit to TRIRIGA' or 'TRIRIGA to Revit'. (Tri-66008)

Important Installation and Upgrade Information

Pre-10.3.0 requires modification scripts

If you are upgrading from a pre-10.3.0 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.

You can apply the script regardless of the platform version, but you **MUST** apply the script before upgrading the Application.

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.

Do not delete OM packages for pre-10.5.0 application upgrades

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 and higher 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.

Pre-10.4.0 localization changes require republish of business objects

If version 3.5.x or higher 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 upgrade**d** 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 or higher.

NEVER do either option after upgrading to 3.5.0 or higher.

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)

Java Development Kit

See information specific to Windows and Linux below.

Restriction: GNU OpenJDK is not supported and will not work with IBM TRIRIGA and the IBM TRIRIGA Application Platform installation program. The OpenJDK package should be completely uninstalled from the server.

Windows:

The IBM TRIRIGA installer for Windows runs on an internally bundled JVM (IBM JDK 8). The IBM TRIRIGA installer for Windows also allows you to install this bundled JVM on your local machine to use with the TRIRIGA runtime.

Linux:

The Java Development Kit (JDK) must be installed before you run the IBM TRIRIGA Application Platform installer. The JDK must be installed before you run the IBM TRIRIGA application. This can be downloaded at https://developer.ibm.com/javasdk/downloads/sdk8/ and is licensed and appropriate for production use on Linux and AIX. Java must be running during an IBM TRIRIGA Application Platform installation. You must set the JAVA_HOME environment variable to the path of the JDK before you start the IBM TRIRIGA Application Platform installation program.

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 IBM Support.

IMPORTANT NOTICES: Effective April 30, 2019, IBM no longer supports IBM Tivoli Directory Integrator. Migrate your TDI assemblies to a supported technology, such as Pentaho. As of version 3.7.0, the IBM TRIRIGA Application Platform no longer ships with or supports TDI assemblies.

As communicated in the IBM TRIRIGA Application Platform 3.7.0 Compatibility Matrix, IBM does not support Oracle WebLogic with IBM TRIRIGA Application Platform version 3.7.0 and later. Please see the Compatibility Matrix for the full listing of compatible products and versions.

IBM TRIRIGA 11.0

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

Important Information

The following item is important information concerning IBM TRIRIGA that is newly added for this release. For Important Information related to previous releases, see the Release Notes page on IBM Support.

Area of Impact	Description
Navigation	Starting with version 3.8 of the platform, you can no longer right-click on a menu item link and open it in new tab. Instead, duplicate the tab and then select the menu item from the new tab. (Tri-69283)
Reservations	The old VSTO add-in is no longer be supported, starting with version 4.0 of the platform. (Tri-75630)

Known Limitations

The following items are known limitations concerning IBM TRIRIGA that are newly added for this release. For Known Limitations related to previous releases, see the Release Notes page on IBM Support.

Area of Impact	Description
UX Work Task App	After downloading a document attached to an asset from a work task in the perceptive Work Task Management app, if the user returns to the home page via the Home button and tries to open the work task again, the page will freeze. The work-around is to use the browser Back button instead of the Home button in the app. (Tri-75101)

IBM TRIRIGA 11.0 Changes

The following changes to IBM TRIRIGA are in this release:

Area of Change	Description
Lease - Asset and Real Estate	Resolved Null Pointer Exception in server logs while performing lease adoption. (Tri-76177)

Area of Change	Description
Licensing	An issue is resolved where the groups/licenses are out of sync when the groups/licenses are modified before a newly created user is logged in for the first time. (Tri-75462)
Outlook	For users logging in for the first time, the closing authentication pop-up will open the Search filter in the add-in and not the Continue button again. (Tri-73255-IJ33309)
Outlook	The TRIRIGA Outlook Room Search add-in is resolved to no longer display an error message before the add-in is loaded. (Tri-73802)
Outlook	The TRIRIGA Outlook Room Search add-in will no longer remove the MS Teams Links (or any other text) from the event body when adding or removing rooms to the event. (Tri-73239-IJ32199)
Performance	The TRIRIGA Outlook Room Search add-in will no longer crash when displaying a large number of rooms (+200) on the search results page. The issue occurred when using the add-in inside a Windows Outlook Client. (Tri-73230)
Requests	Move Request record is deleted from the database upon canceling a request. (Tri-70200-IJ29927)
Reservations	A system with active Reservation Policy records will follow policy criteria that include time, people, and room while creating or updating reservation records. Any reservation that does not comply with Reservation Policy criteria is declined. (Tri-74644)
Reservations	Fixed timing issue when new reservations are edited quickly. (Tri-76780)
Reservations	For Reservation records created/updated/canceled through foundation TRIRIGA or the Room Reservation perceptive app, the system will now be able to Cancel and Update a corresponding Reservation meeting occurrence by importing into Outlook the resulting .ics file that TRIRIGA sends in the reservation notification. (Tri-68256-IJ29842; Tri-70801-IJ29846)
Reservations	If a Reservation is created via Outlook with a blank/empty Subject, the user will now be able to Update that Reservation by adding Equipment and Food to that particular Reservation via the Reservation UX App. (Tri-69924-IJ29365)
Reservations	In the Room Reservation UX application, when a user creates a reservation in the DST period, there will not be any time mismatch between the reservation created in the UX application and in foundation TRIRIGA. (Tri-69887-IJ29798)

Area of Change	Description
Reservations	On a Reservation Calendar record, while adding the Available Resource record from the Working Hour section, the two fields, Event Start and Event End Date are relative fields. Hence these fields would always display the date and time in UTC format. The time is converted and displayed correctly in UTC format based on the Start Date/Time entered on the Recurrence record. (Tri-74064-IJ33039)
Reservations	Reservations created via Outlook with multiple rooms added will create a single entry of reservation definition record in the classic TRIRIGA Reservation application. Any updates to this Reservation via Outlook will correctly reflect in the classic TRIRIGA Reservation application. (Tri-69381-IJ30025)
Reservations	Resolved an issue that could occur when a reservation made in Exchange is cancelled quickly after booking where the reservation would be cancelled in Exchange but not in Reserve. (Tri-69376-IJ29822)
Reservations	System will now map Reservation ID and the correct End Time on the Notification when Resource gets declined. (Tri-75691)
Reservations	The Room Reservation perceptive application now shows an alternate layout image when the alternate layout is selected. (Tri-71696-IJ32918)
Reservations	The system will now add a new room to all the occurrences in the series except for the occurrence in which timings are edited before adding the new room. (Tri-71075-IJ30699)
Reservations	The system will now bypass the approval flow on the Declined Reservation only if there is no change other than the Subject of Reservation. (Tri-70011-IJ30155)
Reservations	The system will now no longer create multiple reservation definition records for one reservation that has multiple rooms. (Tri-69379-IJ29303)
Reservations	When a reservation is canceled from triReservation UX application, the user will now receive a cancelation .ics file in the email to cancel the reservation. (Tri-69171-IJ29717; Tri-70856-IJ29717)
Reservations	The TRIRIGA Outlook Room Search add-in no longer unexpectedly shuts down while opening large floor plans that contain more than 500 spaces in Windows Outlook clients (Windows 10 ver. < 1903 or Microsoft 365 ver. < 16.0.11629). (Tri-68804-IJ28543)
Reservations	The UX Room Search add-in for Outlook is changed to 'not display as available' for recurring meetings for the rooms that have "Do Not Allow Series Reservations" field checked. (Tri-67918)
Reservations	The workspace reservation restrictions based on functional roles will work in the TRIRIGA Reserve perceptive application. (Tri-72033-IJ30934)
Reservations Globalization	The UX Room Search add-in now correctly filters the rooms by layout type when the user has a non-English language selected. (Tri-67917)

Area of Change	Description
UX Group Move App	All checkboxes and radio buttons in the application have an ARIA label now. Platform component triplat-ds-select-input is also updated. (Tri-68642-IJ28866)
UX Group Move App	As a performance improvement, the list of Move Requests on the home page now loads faster. (Tri-72237-IJ31188)
UX Group Move App	Creation of move line items is now an asynchronous process. (Tri-71006)
UX Group Move App	In the Search New Request page in the Group Move application, the screen reader informs the user about the row number, column header, and the information stored in the row when on the Add/Remove button. (Tri-74367-IJ33471)
UX Group Move App	In the UX Group Move app, the list view now displays occupants of the space when space is returned from a location. (Tri-68651)
UX Group Move App	The Details tab shows the organization of the selected person. (Tri-70195-IJ29818)
UX Group Move App	The triplat-theme used by UX applications now has a Carbon Design look and feel. (Tri-68561-IJ28986; Tri-68806-IJ28976)
UX Group Move App	The UX applications using triblock-app-layout, now contain a Level 1 heading. (Tri-70004-IJ9234)
UX Group Move App	The UX Group Move App now shows assigned space for all Move Line Items (MLI) when a single space is assigned to multiple MLIs in List view. (Tri-73260)
UX Group Move App	While navigating through the dates with a screen reader, the day is now correctly informed with the corresponding dates. (Tri-67884-IJ30366)
UX Group Move App	While navigating through the triplat-date-picker component using the screen reader, past is now disabled. (Tri-67887-IJ30368)
UX Perceptive Apps	Carbon Styles are applied to application to address contrast issues. (Tri-68369-IJ28979)
UX Perceptive Apps	Now, for the requested date, reason and scheduled date, and username for date and time color contrast ratio is fixed for AA. (Tri-68565-IJ28987)
UX Perceptive Apps	Now, for the requested date, reason and scheduled date, and username for date and time color contrast ratio is fixed for AA. (Tri-69085-IJ28983)
UX Space Assessment App	In the UX Space Assessment App, when the user is navigating through the due date column, the screen reader informs the user about the date format. (Tri-68178-IJ29262)
UX Space Assessment App	The application has Level 1 heading now. (Tri-67981-IJ29006)

Area of Change	Description
UX Stacking App	The UX Stacking app now creates stack plans for subspaces. (Tri-69100-IJ28747)
UX Stacking App	To improve performance, TRIRIGA now loads 50 space class list records initially and then loads the next 50 records when the user scrolls. (Tri-68413)
UX Work Task App	The Task Name is now a required field to submit a Work Task in UX apps. (Tri-74270-IJ33335)

Workflow	Removed leading spaces for following Date Time format:
	   dd-MM-yyyy HH'h'mm
	   yyyy.MM.dd HH:mm zzz
	   yyyy-MM-dd HH:mm zzz
	
	New list values are now created without the leading space. The patch helper workflow triPatchHelper - triCalculate - 11.0 - Fix Invalid DateTimeFormat fixes existing My Profile records that contain Date Time Format with the extra space. (Tri-74606)

IBM TRIRIGA 11.0 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.

Note: Many of the patch helpers included in this release have already been included in earlier fix packs, as shown in the patch helper name. When you run the main 11.0 patch helper workflow, it determines which of the other patch helper workflows have already been applied and does not re-run any that are already applied to your system.

The following patch helper workflows are in this release:

Name	Description
triPatchHelper - Synchronous - 11.0 - Main Patch Helper	The 11.0 patch helper workflows will be triggered automatically after the 11.0 OM package is finished importing.
triPatchHelper - triCalculate - 11.0 - Application Data - App Version	This patch helper updates the application version record with the upgraded date if an application version exists, otherwise, it creates an application version record.
triPatchHelper - triCalculate - 11.0 - Fix Invalid DateTimeFormat for MyProfile	Fixes leading/trailing spaces for date-time format set in the profile record.

IBM TRIRIGA Application Platform 4.0

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 that is newly added for this release. For Important Information related to previous releases, see the Release Notes page on IBM Support.

Area of Impact	Description
Navigation	The Open in New Window link has been restored to the personalization and bookmark action bar, similar to where it was located on previous releases. When the new window opens it will be a duplicate of the original page. It will include the side navigation, header, and the personalization and bookmark action bar which will also include the Open in New Window link. (Tri-75307-IJ34402)
Reporting	An issue that would cause summary row totals to not be displayed if the decimal separator was a character other than '.' is resolved. (Tri-72613-IJ32431)
Installation	Arabic, British English, Danish, Dutch, Finnish, Hebrew, Hungarian, Norwegian, Swedish language license agreements are not available, please refer to the default English version. (Tri-77253)
Reporting	The sum on financial roll-up fields is now displaying. (Tri-74172)
Security	The 'system' user is different in a TRIRIGA Application Suite (TAS)-enabled environment. The 'system' user is given TAS-Base, which allows the system user to create users. Admin users should be given the TAS-Configure licenses to have access to the admin tools. (Tri-71709)
Single Sign-On	When Single Sign-On (SSO) is implemented in a specific TRIRIGA application server, native (internal) authentication is disabled for the standard browser-based interfaces. This means you can no longer have one set of users authenticate natively and another using SSO for that specific application server. Native authentication may still be allowed via another application server where SSO is not enabled, such as a process server.

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 on IBM Support.

Area of Impact	Description
Login	For Safari browser, the login page responsive design may distort when decreasing and increasing window size and with screen sizes 865 and above. (Tri-75537)
Login	There is a Chrome and Edge browser limitation where user auto filled user name and passwords are not automatically enabling the continue button on the login screen. (Tri-72065)
Navigation	After logging in via the session timeout login prompt, other browser windows, and/or tabs still open, you may encounter a session timeout page if the very next user action after the login is on one of those pages. Most TRIRIGA pages will not encounter this issue. Below is a list of product areas where the session timeout may occur in the above scenario on some but not all of their respective pages. There may be other areas not listed below. Admin Console Alternate Form builder Budget Currency Business Object properties and State Transition pages Document Management Flat Hierarchy Hierarchy Tree Label Manager Object Label Manager Performance Manager Reserve Scorecard Security Groups Style Manager Workflow Mapping (Tri-75057)
Navigation	Clicking the home link after a session is terminated due to a multi-session logout from another device, may result in a loading please wait message and a spinner, instead of a session expired message. (Tri-74439)
Navigation	For best results with user profile images and the enhanced navigation, user profile images should have a square aspect ratio and be sized 96 x 96 pixels. Other sizes are supported but the recommended size will provide the best results. (Tri-70209)
Navigation	For Safari browser, the latest favicon is not displaying in the browser page/tab title. (Tri-75590)

Area of Impact	Description
Navigation	For Safari browser, the latest TRIRIGA favicon does not appear in the browser title of the page/tab for the new window after clicking the Open in New Window link. (Tri-77135)
Navigation	If performing no actions after logging into TRIRIGA and letting the TRIRIGA session timeout while on the home page, after logging back in via the login dialog that appears and then the next action by the user is refreshing the home page, then the TRIRIGA user session might be destroyed. (Tri-74036)
Navigation	Navigating to the login page in the same browser session where other windows are open still accessing TRIRIGA, may result in the TRIRIGA user session being destroyed for those mentioned open windows. (Tri-73831)
Navigation	On Safari browser for RTL users, the far-left button on the multi-session logout dialog may appear truncated. (Tri-76034)
Navigation	The following TRIRIGAWEB.properties setting is not correctly navigating the specified logout page. SSO_SINGLE_SIGN_OUT_REDIRECT_URL The workaround is as follows: SSO_SINGLE_SIGN_OUT_REDIRECT_URL=/p/websignon?redirectUrl=YOUR_SIGN_OUT_URL (Tri-74208-IJ34600)
Navigation	The hamburger icon in the menu header displays when company level is disabled. The hamburger icon is not needed in this scenario. (Tri-70419)
Navigation	The Select Project link may still appear for users after the project license is removed. (Tri-72300)
Navigation	The tooltip for the hamburger icon in the menu header is not translated. (Tri-69877)
Navigation	The visible only in sitemap navigation item option is not being honored at runtime. (Tri-76285)
Navigation	UX applications that open within the navigation container might unexpectedly display the bookmark / header bar at the top of the page.
Navigation	When clicking the page title after clicking a portal section link, the breadcrumb may go back to home instead of the correct navigation path in some scenarios. (Tri-76222)
People	In TAS, when using the user's Profile to manage AppPoints, you do not get feedback when you run out of points. Use the License Manager to receive feedback on available AppPoint levels. (Tri-74304)

Area of Impact	Description
Portals	Portal Section auto refresh feature is preventing TRIRIGA user sessions from timing out. When the portal section auto refresh triggers, the platform thinks the user is still active. (Tri-77619)
Reporting	For queries displayed in enhanced rendering grid if a filter value is entered that returns no results, the no data to display message may lack proper alignment if the grid size is too small. This is noticeable but not limited to queries on forms. (Tri-75367-IJ34728)
Reporting	For queries displaying in portal sections, the Apply Filters and Clear Filters links may display in scenarios where there are no filters. (Tri-75024)
Reporting	For reports that have a user-defined column width specified on a group column, the specified column width may not take effect on the group column but instead affect the adjoining column when rendered through the enhanced query grid. (Tri-66609)
Reporting	For Safari browser, the entering values in the more filter feature on reports run through the enhanced query grid may have a false positive of returning no results. (Tri-77022)
Reporting	For users with a Date Time Format that includes a ZZZ time zone token, Data And Time query filters may not display accurate results in certain scenarios if the time zone part is entered into the filter value. (Tri-77134)
Reporting	Hierarchy queries displayed through the enhanced grid view may not get sized correctly if they have a group report as a child. Extra whitespace might be seen on the child query. (Tri-66121)
Reporting	If a large number of query actions are defined in certain scenarios on a maximized portal section that is rendering a query with the enhanced query grid view, the overflow menu may not display all the actions. (Tri-66167)
Reporting	In Safari for the enhanced render query grid, blue focus is displaying by default on the first element in the row size drop down menu, when the menu is selected. (Tri-74334)
Reporting	In some scenarios where a column label is too large in the enhanced query grid view, the far-right column context menu may appear clipped. Users can see the entire the context menu by dragging the column size larger. (Tri-66166)
Reporting	On reports rendered through enhanced grid, a horizontal scroll appears at the bottom of pinned columns even though visually a horizontal scroll is not necessary. (Tri-71983)
Reporting	On some pop-up queries, such as locator pop-ups that display with the enhanced query rendering grid, an unnecessary horizontal scroll bar may display. (Tri-66387)

Area of Impact	Description
Reporting	On some query sections displaying the enhanced query rendering grid, if no data is in the results, the no data to display text may overlap the query header. (Tri-66391)
Reporting	Some pop-up dialogs, such as "Find" lookup dialogs that render with the enhanced query grid, may appear to have their footer cropped off if launched from a smaller form. The dialog can be dragged up to make the footer visible by clicking and dragging in the white border of the dialog. After you drag the dialog to the appropriate position, you may need to double-click in the white border to release dragging mode. (Tri-66477)
Reporting	Sorting currency columns on queries may have incorrect sort order in some scenarios. (Tri-76838-IJ35712)
Reporting	Text fields with Type Field set to DateTime or Date type incorrectly show data in milliseconds on the editable query results page. (Tri-54627-IJ08888)
Reporting	The ellipses of the overflow menu for manager queries might appear truncated when a record is open in inline view from that manager query. (Tri-74402)
Reporting	The wrap text feature on reports displayed via the enhanced query grid will visually make grid row heights slightly smaller if the row height has been set to 64px. (Tri-74584)
Reporting	User-defined column widths defined in a prompt before query report that is rendered with the Enhanced Report Renderer may not be honored after the display is refreshed. Initially, the custom column size shows, but after a refresh, the customized sizing may be replaced by sizing that maximizes the data displayed in the grid. (Tri-66608)
Reporting	When filtering a Date And Time field on a TRIRIGA query, users may get unexpected results if their user profile date time format is: MMMMM dd, yyyy hh:mm a zzz, and they leave off the time zone part in their filter value. (Tri-74890)
Security	After a TRIRIGA user session timeout, SSO users who click the Renew session button may see an SSO authentication popup window automatically open and close immediately prior to the session being renewed. (Tri-73614)

IBM TRIRIGA Application Platform 4.0 Changes

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

Area of Change	Description
Administrator Console	An additional warning is added to the Administrator Console if changing WF Instance logging to always. This is a debugging tool only and must not be used in Production. In addition, there is a limit to the number of instances that are saved and if you go over the limit, instances will not be saved and other workflow items such as action items will also not be saved. (Tri-72617)
Administrator Console	An issue where the Server Session inactivity warning/expiration was not functioning is resolved when the SESSION_WARNING_ENABLED property is set to Y in the TRIRIGAWEB.properties file. The server session timeout pop-up warning was not displayed and/or automatic session timeout page redirection was not occurring. Note that this feature will only operate if the TRIRIGA User Session Timeout functionality is disabled in the TRIRIGA Administrator Console, located at TRIRIGA Admin Console > System Info > TRIRIGA User Session > Disable User Session Timeout checkbox. (Tri-72362)
Administrator Console	Error handling is now improved if something similar to the following encountered in server.log: ERROR [html.en.default.smartrecord.jsFunctions](Default Executor-thread-12) java.lang.IllegalStateException: SmartRecordUtils.populateDefaultData method must be called before calling this method. This error will now include a stack trace. (Tri-75563)
Administrator Console	For SQL Server, the Database Connection showed in the Administrator Console on the Admin Summary and System Info tabs now contain the server name, port, and database name. (Tri-73616)
Administrator Console	In DB2 only, when running the Database speed test in the Admin Console, if the row count of ibs_spec_assignments is greater than 2,147,483,647 rows, it will no longer throw an exception. (Tri-71005-IJ30891)
Administrator Console	The two new categories are added to the Platform Logging page of the Admin Console, i.e. Security Logging and XSS Logging. This is in addition to the already existing Verbose Security Logging. (Tri-73835)
Browser Title	An issue where the title in the browser tab shows the incorrect location when a UX Application opened in a new window is resolved. The title was incorrect on the browser tab for the window that opened the new window. (Tri-73806)
Calendar	In the calendar Day/Month view, dates are displayed correctly as per user selection. (Tri-73388-IJ32983)

Area of Change	Description
Capital Project	CBA API now honors date format specified in IBM TRIRIGA user profile. (Tri-72366-IJ33046)
Connector for BIM	The DXF version used to publish floor plans to TRIRIGA is now ACAD 2018. This improved the rendering of floor plans with holes in the middle. (Tri-58758)
Data Modeler	BO Publish code will do the same logic as the Module-Level Associations (MLA) converter and add an MA table if the BO has a module_view_map.module_view_name. (Tri-71775-IJ31227)
Data Modeler	If the database type is DB2, a runstats will occur during BOPublish. (Tri-60974)
Document Management	If a user's organization changes and they upload a new document, the new document is stamped with the new organization and the user should be able to see the new document. Users may lose access to previous documents depending on the new organization. (Tri-64266-IJ24949)
Document Manager	'Modified By' field of Folder BO is now updated properly to no longer populate wrong value. (Tri-66055-IJ27109)
Exchange Integration	The TRIRIGA server no longer requires a restart after updating the Exchange settings in Application Settings. (Tri-72545)
Gantt	MPP file Import in the capital project now displays the Gantt chart properly with dependency lines and no dots. (Tri-73704-IJ33423)
Globalization	A language pack is now generated for Platform translations. (Tri-77254)
Globalization	When importing the Brazilian Portuguese language pack, the Notification Content records are now loaded. (Tri-70558-IJ30709)
Graphic Sections	The following error messages will no longer appear in the browser JavaScript console during rendering of graphic sections: ReferenceError: Not defined, TypeError: Cannot read property 'loading' of undefined, TypeError: Cannot read property 'exporting' of undefined. (Tri-73363)
Integration Object	An issue in the Integration Object is resolved where the header contains more than one ":" in HTTP Post Integration. (Tri-72952-IJ33114)
Integration Object	Integration Object will only warn once when there is no association information when creating a new record. (Tri-68942-IJ29554)
Inventory	For inventory items, the summary row now displays the corresponding currency. If the summary row contains different currencies, the total displays with an icon and message "No summary value calculated due to mixed units". (Tri-72193-IJ31897)

Area of Change	Description
Lease - Asset and Real Estate	Collapsible query sections no longer sometimes cause the browser to freeze and javascript console errors such as 'accessing a cross-origin frame'. (Tri-75147; Tri-75292)
Licensing	An issue is resolved for a user logging in who no longer has project access but was last logged into a project. User will be switched to the Company Level. (Tri-71738)
Licensing	Some Reserve privileges have been removed from the IBM TRIRIGA Integrated Workplace Manager license as Reserve is not part of the IBM TRIRIGA Integrated Workplace Manager license. (Tri-77170)
Licensing	TAS License names will now appear in the header of the License Manager matrix when the environment is in SLS mode. (Tri-73432)
Licensing	The ability to create new Modules, Business Objects, and Workflow is now controlled by access to the Application Builder Technology instead of checking for specific licenses. This also affects some UX admin tasks when the user is not an admin user. (Tri-71708)
Licensing	The license checks for CAD Integrator, CBA (Business Connect), and OSLC are updated to check for a Technology instead of any specific license. (Tri-18632)
Licensing	Users in TAS environments will need to have a CAD-enabled license to access CAD. (Tri-71360)
Licensing	Users with license access to Form Builder and not the Data Modeler will now be able to access the Form Builder. (Tri-74807)
Locations	Resolved "Certain ARIA role must contain particular children" accessibility compliance issue in item per page list in enhanced report renderer. (Tri-68654-IJ29841)
Locations	Resolved "Required ARIA attributes must be provided" accessibility compliance issue in item per page list in enhanced report renderer. (Tri-68712-IJ29271)
Login	Additional details for adding images to the alternate login page have been added to the Design Guidelines section of Readme.txt in <TRIRIGA_HOME>/userfiles/alt. Also, the description for the LOGIN_PAGE_RESOURCE_LIST property in TRIRIGAWEB.properties has been updated. (Tri-75439)
Login	If you encounter a session expired page after clicking a link due to logging out or timing out on another device or session, the Login to continue dialog will appear after a period of time if that page remains open. If the user logs in via this dialog, the session expired page may still be displayed when the login dialog disappears. At this point, the user can continue in TRIRIGA by reloading the page or clicking a side menu link. (Tri-73116)

Area of Change	Description
Lookup Queries	The Classification Type field has a Lookup Query assigned in the Form Builder that considers the field value for the filter and displays the result with a text value in the runtime filter. (Tri-70196-IJ29881)
Navigation	An issue is resolved where Navigation Items of External URL type were failing with a file not found error when clicked. This fix also resolves an issue where the Add to Bookmarks header bar was not displaying for Navigation Items of Application type that are not defined to open in a new window. (Tri-74823)
Navigation	An issue is resolved where the side navigation does not display with the page contents if you select the Open in new window browser feature or Open in new tab browser feature when right-clicking on links within TRIRIGA portal pages. Note that breadcrumbs and side navigation links do not support this behavior. As a workaround, the user can navigate to the desired navigation item, then right-click the tab and select Duplicate Tab. (Tri-74701-IJ33818)
Navigation	Side navigation clicks no longer incorrectly navigate away from pages containing unsaved changes. The issue occurred when the user selected the Cancel button in the unsaved data pop-up warning. (Tri-72898-IJ32207)
Navigation	The first and middle breadcrumbs will show the entire menu item name in the link, but in some cases, you will see an overflow ellipse on the first and middle breadcrumb if the respective menu item name is too long, even though on the screen there appears to be enough space without the overflow. (Tri-73234)
Navigation	The Open in New Window link is restored to the personalization and bookmark action bar, similar to where it was located on previous releases. When the new window opens it will be a duplicate of the original page. It will include the side navigation, header, and the personalization and bookmark action bar which will also include the Open in New Window link. (Tri-75307-IJ34402)
Navigation	The system user login works as expected when no project license is available. (Tri-73503-IJ33300)
Navigation	When selecting a navigation item that opens a new window such as a UX application, the breadcrumbs and active menu from the main TRIRIGA window that opened the new window will indicate the same location prior to the window being open. (Tri-71195)
Object Migration	A note was added to the IBM Docs documentation for Object Migration that says the following: "Use the Record Data object type only for moving setup data, templates, and other items that are imported once and used as a template thereafter. Object Migration is not meant to move data from one environment to another, including data in work task templates and user message records. For supported tools that move data from one environment to another, see Integrating data with external applications." (Tri-72668-IJ32532)

Area of Change	Description
Object Migration	An issue is resolved where the automatic Object Migration import process during platform upgrade was failing to revise, label, and cleanup platform delivered UX metadata. (Tri-74523)
OSLC	OSLC Request throwing Exception java.lang.ClassCastException is now resolved. (Tri-74202-IJ33732)
Audit	Audit Comment dialogue pop-up will now display for "Add", "Remove", and "Activate". (Tri-74000)
Outlook	The Microsoft OAuth refresh token now functions correctly. (Tri-71194)
Performance	Object labels are no longer recorded in the performance log and server log during performance logging of metric queries and extended formulas. (Tri-72818)
Query Sections	Vendor details are now populated as expected when you click Remit To Look Up magnifying glass and select the vendor under the Remit To section. (Tri-75235-IJ34614)
Record Runtime	Clear action on the locator field will also clear field values linked to it (if any). (Tri-70304-IJ30599)
Record Runtime	Duration display values will no longer show blank or incorrect HTML space characters if the duration value falls below the lowest defined duration display token for the field. In this scenario, the duration display value will now show 0 followed by the lowest defined display token for the field. For example, 0 Months. (Tri-70153-IJ30260)
Record Runtime	PRN Audit comments will now display for Add. (Tri-68902-IJ29946)
Record Runtime	The following note was added to the documentation: The state-transition temporary support for validations should avoid using Trigger Action tasks that call state transitions which call custom actions (such as platform Enterprise JavaBeans (EJBs)). The reason is that some of the custom action implementations can save temporary data as part of their work. (Tri-71132-IJ30522)
Record Runtime	When Audit actions are enabled, the username is now correctly printed in the username column instead of the record name. (Tri-70782-IJ29838)
Report Scheduler	The processing spinner works as expected after clicking the email action on manager queries that use the enhanced rendering grid. (Tri-72536)
Reporting	An issue has been resolved where inaccurate results were displayed after filtering enhanced query grids with multiple filters defined with the same field in the show more filters bar. (Tri-75082)

Area of Change	Description
Reporting	An issue that could cause the classifications page not to load is resolved. (Tri-71933-IJ31015)
Reporting	An issue that would cause query results that had previously been opened to not reopen the form when clicked on is resolved. (Tri-71981-IJ31244)
Reporting	An issue that would cause the Add to bookmarks button to be displayed on queries in unsupported contexts and regardless of security group settings has been resolved. (Tri-74397-IJ33468)
Reporting	An issue that would cause the Query bookmarks button to be displayed in unsupported contexts like forms and report portal sections is resolved. (Tri-73276-IJ32817)
Reporting	An issue where automatic selection was occurring on pop-up queries containing only on result on a related report has been resolved. (Tri-70334-IJ30623)
Reporting	An issue where prompt field popup queries using the enhanced query grid were not filtering on the value entered in the prompt field has been resolved. (Tri-75310-IJ34624)
Reporting	An issue where the multi-add button on queries was failing to appear in some scenarios has been resolved. (Tri-75542)
Reporting	Better error handling in the API. (Tri-76110-IJ35282)
Reporting	Chart segment is now showing grouped data for null values. (Tri-68753-IJ28629)
Reporting	Column sizing changes are implemented when running reports with the enhanced query grids to handle default column sizes based on the data stored in the columns. (Tri-71982)
Reporting	Document downloads now work in properly configured query sections. (Tri-71222)
Reporting	Editable query actions are now working as per design for queries displayed with the enhanced query grid. (Tri-76703-IJ35595)
Reporting	Metric queries loaded in the Report Manager no longer use a 'select *' SQL when loading parts of the Metric query. (Tri-55722)
Reporting	Query filter issues in reports for different DateTime formats are resolved for relative "Date And Time" fields. (Tri-73896)
Reporting	Radio button selection issue with duplicates record in enhanced report rendering mode is now resolved. (Tri-71549-IJ30579)

Area of Change	Description
Reporting	Records are loading and filters are working correctly when a filter label contains a single apostrophe. (Tri-72251)
Reporting	Report manager will correctly set filter operator for System Read Only fields by default. (Tri-68532-IJ30414)
Reporting	Reports will now run successfully if the BO display mask contains a comma. (Tri-68575-IJ29506; Tri-70496-IJ29963)
Reporting	Resolved a filter issue for Date And Time columns in reports when the user time zone is different than the application server time zone. (Tri-67322-IJ26862)
Reporting	Sorting issue is now resolved for columns with labels that contain special characters. (Tri-73495-IJ32774)
Reporting	The decimal precision from custom display masks for Business Object fields or Form fields will now be honored if different than the UOM display mask. (Tri-68735-IJ29080)
Reporting	The duration in the History tab is now shown in milliseconds instead of nanoseconds. (Tri-72879-IJ34193)
Reporting	The duration in the History tab is now shown in milliseconds, and not in nanoseconds. (Tri-72879-IJ34193)
Reporting	The end date filter in the Calendar list view is changed to ensure all hours of the end date are accounted for. (Tri-68829-IJ29183)
Reporting	The horizontal scrollbar displays for editable queries used in related reports. (Tri-65957-IJ25000)
Reporting	The processing spinner works as expected after clicking the email action on manager queries that use the enhanced rendering grid. (Tri-72536)
Reporting	The Query filter issues in reports for different operators are resolved for both relative and non-relative "Date And Time" fields. (Tri-69050)
Reporting	When a 'Classification' type field has a Lookup Query assigned in the Form Builder, it considers the field value for the filter. The filter now displays the correctly filtered result with text value in the runtime filter. (Tri-72409-IJ32206)
Reporting	When users click the Generate Data link on the Hierarchy Structure Details page for a selected Hierarchy (Data Modeler->Utilities->Hierarchy Structures), the following message will now be displayed on the page: "Flat Hierarchy data is being generated. A notification will be sent once the process is complete. You can close this window." In summary, the user can close the window and a notification will be sent to the user when the process is complete. (Tri-76440)

Area of Change	Description
Reservations	A metric chart issue involving bar percent charts with metric thresholds and data values being equal to zero causing browser out of memory errors at runtime is now resolved. (Tri-73768-IJ35190)
Reservations	An AllDay event reserved from Outlook is now properly reserved as one day in the location's Calendar in TRIRIGA. Try with the below limitations: 1. When the time zones for TRIRIGA login Profile, TRIRIGA Server, and Outlook Client are the same, then the issue is fixed with the code change. 2. If the time zones for TRIRIGA login Profile, TRIRIGA Server, and Outlook Client are different, then in TRIRIGA, My Calendar will occupy two days like 24-hour format when we create an event from Outlook client. This behavior is the same as for the Classic TRIRIGA room reservation App. (Tri-69925-IJ29727)
Reservations	An issue is resolved where reservation space that was already booked would appear as available to users with different Organization and Geography security group access. This occurred when the space was reserved by users who have an Organization and Geography defined on their profile record. (Tri-74471)
Reservations	Debug logging added to Exchange SOAP envelope. (Tri-76130)
Reservations	In MyCalendar, the DateTime Format will be shown as per the user-selected format. (Tri-66543-IJ25769)
Reservations	For Reservation records created/updated/canceled through foundation TRIRIGA or the Room Reservation perceptive app, the system will now be able to Cancel and Update a corresponding Reservation meeting occurrence by importing into Outlook the resulting .ics file that TRIRIGA sends in the reservation notification. (Tri-68256-IJ29842; Tri-70801-IJ29846)
Reservations	Reservations made from Outlook with attachments and embedded images are now reserved and showing in the location's Calendar in TRIRIGA. (Tri-73429-IJ32482)
Reservations	Reservations made from Outlook with attachments are now reserved and showing in the location's Calendar in TRIRIGA. (Tri-69048-IJ29728)
Reservations	When a reservation is canceled from triReservation UX application, the user will now receive a cancelation .ics file in the email to cancel the reservation. (Tri-69171-IJ29717; Tri-70856-IJ29717)
Reservations	When a reservation is canceled from triReservation UX application, the user will now receive a cancelation mail with an RSVP option for Removing events from the calendar. (Tri-73862)

Area of Change	Description
Security	An intermittent issue when doing a bulk activation of users has been fixed. Occasionally users were missing from the user query section and/or the user smart section of the group form. When logging in the user is getting security warnings. Now all users should appear in query section and smart section, no security warnings after login. To enable this feature, use the SYNCHRONIZE_ACTIVATE_USER=YES in TRIRIGAWEB.properties. This must be set in ALL TRIRIGA servers. (Tri-74929-IJ35191)
Security	Data validation weakness is resolved. (Tri-69785-IJ29691)
Space	On the main screen page, after clicking the Locator field, the child window opens and remains open, even if you click on the parent window until you cancel the window. The issue is now resolved. (Tri-71067-IJ30743)
UX Perceptive Apps	An issue where the JSESSIONID does not reset when logging into perceptive applications is resolved. (Tri-74603)
UX Room Reservation App	Checks are added when loading the Availability tab for the UX Reserve application ensuring the translation files have data and are accessible by the TRIRIGA user. If no data or not accessible, the UX Reserve application will use internal strings, and no translations will be available. Warnings will be logged in the server.log. (Tri-70477)

IBM TRIRIGA Application Platform 4.0 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
Administrator Console	Side Navigation and User Profile information are working correctly when ENFORCE_GUI_LEVEL_QUERY_SECURITY=Y in TRIRIGAWEB.properties. (Tri-73776)
Administrator Console	The DEFAULT_TITLE property value in TRIRIGAWEB.properties can now be used to set values for the navigation header title and the browser tab title, for enhanced navigation. This property defaults to IBM TRIRIGA. Note that although users can change the header title text, there is no longer a logo in the header, thus a custom logo cannot be added. (Tri-71645-IJ30729)
Administrator Console	The property ALTERNATE_UX_LOGIN_VIEW is removed from TRIRIGAWEB.properties. UX alternate login should now use the ALTERNATE_INDEX_HTML property in TRIRIGAWEB.properties. (Tri-73052)
Security	TRIRIGA now supports turning off browser sniffing by adding httpheader.X-Content-Type-Options=nosniff to the TRIRIGAWEB.properties file. (Tri-49651; Idea-PLAT1-I-39)

IBM TRIRIGA CAD Integrator/Publisher 13.0

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

Important Information

No additional important information concerning IBM TRIRIGA CAD Integrator/Publisher is added for this release. For important information related to previous releases, see the [Release Notes](#) page on IBM Support.

Known Limitations

No new known limitation concerning IBM TRIRIGA CAD Integrator/Publisher is found in this release. For known limitations related to previous releases, see the [Release Notes](#) page on IBM Support.

IBM TRIRIGA CAD Integrator/Publisher 13.0 Changes

The following changes concerning IBM TRIRIGA CAD Integrator/Publisher is added for this release.

Area of Change	Description
Calculations	The fields not calculating the correct area numbers in the child records window of CAD Integrator are now resolved. (Tri-67590-IJ26786)
Floor Plan Attach	Resolved an issue in the CAD Integrator/Publisher plugin for MicroStation CONNECT where the floor plan attach process would fail when regions used a comma instead of a dot to specify decimal values. (Tri-72834-IJ32430)
Installation	The CAD Integrator/Publisher plugin now loads correctly in AutoCAD 2021. (Tri-73585-IJ33577)
Labels	An issue around labels changing colors after applying a graphic report in CAD Integrator for Microstation Connect is now resolved. The labels preserve their colors after performing sync or publishing operations. (Tri-71968-IJ34212)
Labels	Label assignments in Microstation Connect are corrected. They are now centered within the boundary of the space. (Tri-72766-IJ34208)
Large Drawings	An intermittent issue where the CAD Integrator and MicroStation CONNECT unexpectedly shutting down is resolved. This issue was mainly present with large drawings that needed to load thousands of records (people, assets, labels, etc.) from the TRIRIGA Application into the CAD tool for display. The Sync feature of CAD Integrator would cause MicroStation CONNECT to shut down unexpectedly when processing the drawing records. Additional memory clean-up services are added to handle high memory transactions in the application. (Tri-69635-IJ30856)

Area of Change	Description
Legends	Resolved an issue where the text legend occasionally displayed significantly larger than the drawing in MicroStation CONNECT. Now, the legend size dynamically changes size based on the drawing that is actively being worked on. (Tri-73224-IJ32435)
Line Spacing and Labels	Resolved an issue with line spacing and labels overlapping in CAD Integrator/Publisher for MicroStation CONNECT. (Tri-73223-IJ32437)
Login	For CAD Integrator/Publisher, NTLM-based authentication and login now work as expected. (Tri-70941)
Login and Servers	Login and Servers buttons now function properly if the CAD Integrator is installed in any language. (Tri-70864)
Servers	CAD Integrator/Publisher and the Connector for BIM both start correctly when no environments.properties file exists for the current Windows user. (Tri-72631)
Servers and Preferences	Servers and preferences now update correctly. (Tri-73775)
Single Sign-On	An issue with SSO URL corruption is solved. (Tri-73960)
Single Sign-On	Resolved an issue with SSO connections where the current installer would not accept new connection protocols for single sign-on. There is a new login display to specify the desired connection type. (Tri-71394-IJ30857)

IBM TRIRIGA CAD Integrator/Publisher 13.0 Properties Files

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

IBM TRIRIGA Connector for BIM 4.0

This release includes known limitations and changes to IBM TRIRIGA Connector for BIM.

Note that only one version of the TRIRIGA Connector for BIM can be installed on one workstation, even if you are using more than one version of Revit. The BIM Connector installer can perform a new install, or it will override any previous version of the BIM Connector that had previously been installed. When the BIM Connector installer runs, it detects the versions of Revit that are installed on the workstation. If you have ever installed BIM Connector as an add-in to that version of Revit, it will be overridden by the new install.

Important Information

The following additional important information concerning IBM TRIRIGA Connector for BIM is added for this release. For important information related to previous releases, see the Release Notes page on IBM Support.

Area of Change	Description
Compatibility	This version of the Connector no longer reads models integrated with Connector versions prior to 1.4.x. (Tri-70676)
Compatibility	Update support matrix to support Revit 2022. (Tri-73667)
Compatibility	Many of the new features in 4.0 require TRIRIGA platform 4.0.x. The connector, as a whole, continues to be compatible with TRIRIGA platform 3.6.0.5 or later. However, if the BIM Connector logs into a TRIRIGA Platform prior to version 4.0, features that depend on version 4.0.x are either not displayed, or function is degraded to what is supported by the older Platform.
Installation	Due to Autodesk API changes in Revit 2022, there are now 2 versions of the BIM connector: one for 2019-2021 and one for 2022. Only one can be installed on the same workstation.

Known Limitations

No new known limitations concerning IBM TRIRIGA Connector for BIM are found in this release. For known limitations related to previous releases, see the Release Notes page on IBM Support.

IBM TRIRIGA Connector for BIM 4.0 Changes

The following changes to IBM TRIRIGA Connector for BIM are in this release:

Area of Impact	Description
Integrate Areas	Area Tool auto-match button now works correctly. (Tri-72671)
Integrate Buildings	When New Building is selected in the Building form, the default Units of Measure are correctly set from the user's profile. (Tri-70675)
Integrate Levels	The Connector for BIM now produces a more detailed error message in the place of "An item with the same key has already been added". (Tri-74711)
Login	NTLM Authentication now works properly. (Tri-69964)
Properties Files	CAD Integrator/Publisher and the Connector for BIM both start correctly when no environments.properties file exists for the current Windows user. (Tri-72631)
Sync	In project information, the IBM.Inservice date is now updating correctly in the TRIRIGA platform. (Tri-71086)

Related Documentation

You will find the documentation for this release in IBM Documentation. Documentation for the IBM TRIRIGA Application Suite is at https://www.ibm.com/docs/en/tas. The IBM TRIRIGA documentation is located at https://www.ibm.com/docs/en/tririga and IBM TRIRIGA Application Platform documentation is located at https://www.ibm.com/docs/en/tap. The documentation is available online in topics or as downloadable PDF files.

Additional documentation, previously available in the IBM TRIRIGA wiki, is available in the IBM TRIRIGA Application Platform 3.8 Knowledge Center under "Additional documentation" in the table of contents. For more information, see the IBM TRIRIGA Release Information page on IBM Support.

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