#### **IBM TRIRIGA**

Version 10.4.2

## IBM TRIRIGA Application Platform Version 3.4.2

### Release Notes





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#### Release Notes

Welcome to the May 2015 release of IBM® TRIRIGA® 10.4.2, IBM TRIRIGA Application Platform 3.4.2, and IBM TRIRIGA CAD Integrator/Publisher 12.1.2.

This release includes the following two installation options:

- 1. A new installation of IBM TRIRIGA Application Platform 3.4.2 and IBM TRIRIGA Applications 10.4.2.
- 2. An IBM TRIRIGA Application Platform-only upgrade installation from 3.0.x or higher to IBM TRIRIGA Application Platform 3.4.2.

The IBM TRIRIGA Applications can be incrementally upgraded to 10.4.2 Applications after the platform upgrade is completed. For more information about specific scenarios, view the <u>Upgrading</u> 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).



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 <a href="https://www.ibm.com/support">www.ibm.com/support</a>.

#### What's New in This Release

With IBM TRIRIGA 10.4.2, IBM TRIRIGA Application Platform 3.4.2, and IBM TRIRIGA CAD Integrator/Publisher 12.1.2, IBM TRIRIGA continues to add valuable functionality, fix defects, and reduce the effort necessary for new and existing customers to implement our products. Highlights in IBM TRIRIGA 10.4.2, IBM TRIRIGA Application Platform 3.4.2, and IBM TRIRIGA CAD Integrator/Publisher 12.1.2 include the following:

IBM TRIRIGA V10.4.2 enhances Real Estate Payments, Lease Accounting, and Transaction Management functions as well as new capabilities with Data Loader, including:

- Streamlined management of payment schedules for nontraditional monthly payment periods including the support of partial payment calculations.
- Support for retail accounting using 13-period fiscal calendars.
- Simplified retroactive payment adjustments.
- The addition of depreciation basis calculations to the Executive Summary in Real Estate Transaction Management.
- Enhancements to Payment Instructions functionality and ability to more easily and accurately update the lease payment's Remit To.
- A new Data Load Manager application guides users through the data load process, as well as many improvements to Data Load capabilities.

IBM TRIRIGA Application Platform V3.4.2 includes several technical enhancements, including:

- Enhanced data loader kit.
- Microsoft Exchange 2013 and Microsoft Outlook 2013 support for IBM TRIRIGA Workplace Reservation Manager Add-in.
- IBM TRIRIGA Workplace Reservation Manager Outlook Add-in native single sign-on support.
- Multiple browser support for IBM TRIRIGA Application Builder, including Internet Explorer, Firefox Extended Support Release, Safari, and Chrome.
- Native browser Scalable Vector Graphics (SVG) rendering, removing the need for a plug-in.
- IBM WebSphere Application Server Liberty support integrated into the installer.
- Floor plan hatching (fill patterns) in web graphics.
- Removed Java Applets within Workflow Builder and Document Manager.

### IBM TRIRIGA 10.4.2 Enhancements

The following enhancements to IBM TRIRIGA are in this release:

Area of Impact	Description
Data Load	<ul> <li>Enhancements to Data Load include the following features:</li> <li>A new Data Load Manager application guides users through the data load process.</li> <li>An Integration Object option is included to validate data with the DataConnect scheme.</li> <li>Sample Data Load Sets, Integration Objects, and Data Files allow users to load portfolio data via DataConnect.</li> <li>Users can create Microsoft Excel spreadsheets that include business object metadata and validation macros.</li> <li>Users can export business object records to Microsoft Excel spreadsheets.</li> <li>Users can specify the order to configure and process Integration Objects.</li> <li>Users can upload spreadsheet data to the Data Load Manager application.</li> </ul>
Real Estate: Asset Lease Real Estate Lease	You can now set the 'Effective From' and 'Effective To' dates for payment instructions. You can use this information to manually update payment schedules when you create new/update the remit to organization for payment instruction for a specific period. In addition, you can now automatically make updates to payment instructions using a new 'Update Payment Instruction' action that is available from the Contact Details tab of the lease record.
Reporting	Percentage Rent Report BIRT form report is added to the Percentage Rent Reporting record.

## IBM TRIRIGA Application Platform 3.4.2 Enhancements

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

Area of Impact	Description
Document Management	Document Manager content is now sorted in the following order: Shortcuts, Publications, Folders, and Documents with contents of each type in alphabetical order. (Tri-146251)
Document Management	Document Manager has been enhanced to allow searching of documents and folders. (Tri-132969)
Document Management	You can now check in and check out documents from the Related Documents section of the Notes & Documents tab of a record, for example in a lease or a capital project. This functionality is not in the as-delivered application. You must make the following changes to use this new functionality.  1) In the Data Modeler, revise the Document business object.  2) Change the state transition that is labeled Check In that goes from CheckedOut to CheckedIn. Click the Url radio button and put the following value in the Custom Url field:  "/pc/doc/upload?multiFile=false&context=CHECKIN&bidiEnabled=false&textDirection=Default" (do not put in the double quotation marks). Select the Default Display field. Click Apply. Click Save.  3) Change the state transition that is labeled Check Out that goes from CheckedIn to CheckedOut. Click the Url radio button and put the following value in the Custom Url field:  "/html/en/default/docmgmt/manager/checkout.jsp?hidePageController=true" (do not put in the double quotation marks). Select the Default Display field. Click Apply. Click Save.  4) Publish the business object.  5) In the Form Builder, revise the Document form. Change the state transition that is labeled Check In that goes from CheckedOut to CheckedIn by selecting the Default Display field. Click Apply.  6) Change the state transition that is labeled Check Out that goes from CheckedIn to CheckedOut by selecting the Default Display field. Click Apply. Click Save.  7) Publish the form. (Tri-135962; RFE-45125)
Globalization	Data export now supports exporting only new and updated data to the deltaOnly folder when the current system is compared either with a reference folder or the US English language pack. Also, the result of a label delta export now includes just what changed instead of the entire group being removed from an existing file and re-added to the last file. (Tri-126541)
Globalization	If you started a label or data export or import, portal and email notifications are now sent to you after the export or import process is complete. (Tri-127166, Tri-151695)

Area of Impact	Description
Globalization	Improved the handling of automatic republishing for objects with localized fields. Specifically, when a business object with a localized field that has referencing locator or smart section fields with modify is published, the business objects that contain the locator or smart section fields are put in the queue to be published. If the referencing business object is already published, then it is revised and put in the queue to be published. (Tri-125804)
Globalization	Label and data import moved from the Administrator Console to the Globalization Manager and now are in a single unified form. Go to Tools > Administration > Globalization Manager > Import action.
	Label and data import functions are merged. Any language file can now be imported. Enhancements include the following features:
	- Ability to select multiple files and import them at once.
	<ul> <li>Ability to import files within a zip file in any file structure. Files don't need to be in the main directory inside the zip files. Moreover, zip file may contain a mixture of label and data files.</li> </ul>
	- Ability to import a mixture of files with different target languages.
	You are no longer required to import a data language pack to swap the base language of the data. Instead you only need to select a new base language from the Base Language for Data form. Go to Tools > Administration > Globalization Manager > Base Language action. (Tri-134380)
Globalization	Regular and extended formulas, when the target or result field is a localized text field, now calculate values for all translated values available for the localized tokens (including label translations). For example, an Italian user triggers a calculation of a concatenation formula. In previous releases, only the internal and Italian language values were calculated. Now, the platform recalculates the internal and Italian language values. It also recalculates other language values at the same time. If there are German or Chinese language values available in a token, they are also recalculated. If there are no localized values available, the default internal values (T_ table) are used. Aside from the localizable text field, the target field of the formula can be a name or path field if the business object name mapping has at least one localized field in it.
	If the target field of the formula is not marked as localized, only the internal values are calculated even if there are localized tokens in the formula.
	Extended Formula text functions (+, replace, replaceCRLF, toUpper, toLower, and trim) now calculate all localized tokens, if the target or result field is a localized text field. If a token does not have localized token values, the internal value is used in the calculation. Note that Workflow Conditions that use extended formulas only use internal values because Conditions evaluate to a number or to a Boolean.
	The calculation of the language values in a formula only happens if the target field of the formula is marked as localized and a data language pack/file has been imported into the system.
	(Tri-93063, Tri-93064, Tri-158159)

Area of Impact	Description
Globalization	Support for System Label export now includes module and business object names in the XLIFF files for BIRT form and query report labels so that the system can import correctly the translated BIRT labels across environments where module or business object IDs maybe different. You need to re-export your System Labels in order for the import to work across these environments. (Tri-133520)
Globalization	The import action in the Globalization Manager can now auto-detect the language when you import label and data language packs without specifying the language. The import is based on metadata from the contents of the language pack imported. If you do not select the auto-detect target language option, the system imports the language packs by using the target language that you select.  Some notes to consider when the auto-detect target language option is checked:  * For XLIFF file (both label and data files), the target language in the file must match the two-letter language code or locale set for that target language in the Language Code of the Globalization Manager. For example, if the XLIFF file is to be imported into Russian target language, the "target-language" attribute inside the file must have "ru" or "ru-RU" as its value. For language codes that include a specific country code, such as Brazilian Portuguese, then the full locale text must be in the file with a dash (-) between the language and country codes instead of an underscore (_) character. In this example, the "target-language" attribute inside the file has "pt-BR" as its value.
	* For XML file (only label files exported using pre-3.4.2 are supported), the target language in the file must match the US English value of the "Language" list in the system. For example, if the XML file is to be imported into "Russian" target language, the "TargetLanguage" attribute inside the file must have "Russian" as its value.
	* If the target language inside the file matches multiple languages in the target system, the system throws a MultipleLanguageIdRuntimeException error and skips importing that particular file. It does not affect the other files in the import. When a MultipleLanguageIdRuntimeException error is in the log, you must resolve the language code set up in the target system by removing the duplicate language or fixing the locale with the appropriate language code for the language in the files then re-import the files.
	* If you are importing a custom file that is not from the as-delivered language packs, verify the language code in the file before you import the file. The system now uses that code to determine the target language of the import if the autodetect target language option is checked. Otherwise, the system uses the selected target language during import and disregards the target language inside the file. (Tri-134382)
Globalization	The structure of the language packs .zip file changed to make it easier to import the data and labels for a language. The language packs .zip file now contains one .zip file for each language, and each language's .zip file contains both label and data files. The label and data files contain .xliff files with the translations from US English. (Tri-134381)

Area of Impact	Description
Globalization	The Swap Base Language functionality is now available in the Globalization Manager in the Base Language action link. The languages defined in TRIRIGA, mirroring, country two-letter codes, and language two-letter codes are now available in the Globalization Manager in the Language Code action link. (Tri-134354)
Globalization	When you export data for translation, you now can specify the modules and business objects to include in or exclude from the export. (Tri-100600)
Globalization	You can now choose whether to overwrite existing translations when you import instance data, labels, or both. (Tri-118178)
Hierarchies	Hierarchy records can now be configured to be excluded in hierarchy trees based on their state. (Tri-135894; RFE-33244; RFE-51139)
Installation	IBM WebSphere Application Server Liberty profile is now shipped with IBM TRIRIGA, embedded with the installer. You no longer need to download an application server and install a separate directory. WebSphere Application Server Liberty profile is installed to the tririga/wlp directory. You can start the application server by going into tririga/wlp/bin/run.sh for Linux or AIX or run.bat for Windows. We recommend using WebSphere Application Server Liberty profile if you used JBoss in the past. (Tri-134379)
Installation	New database installations can now be done on Oracle databases with NLS_DATE_FORMAT set to a non-US default. (Tri-152263-IV66602)
Installation	The installer download file names now contain the operating system for which each file is intended. (Tri-138958)
Mail	Email sent from the TRIRIGA Application Platform can now be configured to include a from email address, instead of defaulting to the WF_NOTIFICATION_EMAIL_ID property in TRIRIGAWEB.properties. This can be manually enabled in an existing application by adding a smart section named 'ExternalMailFrom' in the mail module notification business object. The smart section is defined against the triPeople object. If this section is populated with a user when the notification is sent, the "from user" will default to this user's email address. (Tri-135914; RFE-22868; RFE-33240)
Mail	The Administrator Console platform logging now has an Outgoing Mail category to help debug out-bound mail configurations. (Tri-164912)
MS Project	The Import from MS Project utility has been upgraded to use MPXJ 4.6.0, and now supports the import of .MPP files. (Tri-145122)
Portals	Navigation collections are configured to hide a specific Navigation item for a group without updating the same Navigation item that is found in other Navigation collections and can also be updated through object migration. (Tri-128082)

Area of Impact	Description
Record Runtime	Added a new property SYSTEM_SECTION_ADD_ACTION_STYLE to TRIRIGAWEB.properties to determine what style the form section action "Show Add" should use. (Tri-170811)
Record Runtime	The numeric fields can be configurable to display zero or empty when null. (Tri-135949; RFE-26951)
Reporting	For performance reasons, the Report Builder now displays a message if a report contains an association filter that has the reverse association flag set to Yes. It also displays if the report contains an association filter on a downstream query that has the reverse association flag set on its association filter.  It is no longer possible to set the Reverse Association Flag on new reports. Only existing reports with the flag set will be able to show the flag in the association filter. Once the reverse association is set to No, it is not possible to set to back to Yes. (Tri-163796)
Reporting	In an editable query of a parent object, you can now configure single smart section fields to wrap. (Tri-158636)
Reporting	TRIRIGA Application Platform now supports SAP Crystal Server 2013 SP4. (Tri-149350)
Security	You can enable virus scanning on files as they are uploaded to the TRIRIGA system. TRIRIGA supports virus scanners that communicate with the Internet Content Adaptation Protocol (ICAP). This feature is disabled by default. You enable virus scanning with the VIRUS_SCAN_ENABLED property in the TRIRIGAWEB.properties file. (Tri-147160)
System Setup	As an administrator, you can view, alter, drop, and create database table indexes in the IBM TRIRIGA Application Platform Database Table Manager tool. For more information, see <i>Database tables</i> in the <i>Administering IBM TRIRIGA</i> section of the IBM TRIRIGA 10.4.2 Knowledge Center, and <i>Migration of Database Table Indexes</i> in the <i>IBM TRIRIGA 3.4.2 Application Platform Object Migration User Guide</i> . Note that if you are not on TRIRIGA 10.4.2, in order to access the Database Table Manager, you must apply the Navigation Item 'Master Detail - Database Table Manager' into an IBM TRIRIGA Menu via the Navigation Builder. (Tri-145980)
System Setup	Firefox, Chrome, Safari, and Internet Explorer 10 & 11 are now supported for use with application building and administrative tools. (Tri-135951; RFE-43186)
Web Graphics	On the Layer Configuration record, a new Layer State, Visible By Group, displays a Security section where specific user groups can be assigned. By assigning groups, the layer criteria ensures that in order to see the layers that fit this criteria, a user must either be an Admin User, or be a member of that group. If a user is not a member of one of the groups, these layers are invisible to them. (Tri-160728; RFE-63738)
Web Graphics	TRIRIGA CAD Integrator/Publisher users can now configure hatch patterns to display in the Web Graphics section. (Tri-135954; RFE-43292)

Area of Impact	Description
Workflow	Field mappings are no longer displayed by default when editing the map for a new modify or create task. You can click 'Map All' to populate the mapping for all fields if no mapping was saved previously. (Tri-135874; RFE-33721)
Workplace Reservation Manager	The Reservation Manager Outlook Add-in now supports Outlook 2013.
Workplace Reservation Manager	The TRIRIGA Reserve Outlook Add-in has been enhanced to support Windows Authentication when connecting to the TRIRIGA server.
	When you select Windows authentication, the add-in uses the credentials of the currently logged in Outlook user to connect to TRIRIGA. Specify Windows as the authentication type only if the TRIRIGA system is configured for SSO and the SSO uses NTLM authentication.
	You can specify Windows as the authentication type during add-in installation (attended installation or silent installation). You can also select Windows as the authentication type after add-in installation in the Outlook Add-in options.
	For more information, see the topics in the section "Installing the IBM TRIRIGA Reserve add-in in Microsoft Outlook" in the IBM TRIRIGA 10.4.2 Knowledge Center. (Tri-118075)

# IBM TRIRIGA CAD Integrator/Publisher 12.1.2 Enhancements

The following enhancements to IBM TRIRIGA CAD Integrator/Publisher are included in this release:

Area of Impact	Description
CAD Integrator	CAD Integrator now supports AutoCAD 2015 and AutoCAD Architecture 2015. (Tri-132392)
Command Line API	Added API commands in AutoCAD to detach a drawing with all entities or detach just the drawing. (Tri-155909)
General	Improved the feedback for messages related to sync, reporting, and child records. (Tri-92973)
Graphics	The Web Graphics Image field (triImageIM) and Web Graphics Image Scale field (triImageDimensionNU) are now displayed in the following queries: (1) triCiHatchPattern - Find - CI Hatch Patterns, and (2) triCiHatchPattern - Navigation - Ci Hatch Pattern Manager Default Query. (Tri-166213)
Installer	Added a silent installation feature to the CI installer. The installer runs an upgrade if a previous CI version is detected. For new installations, it includes default and some configuration options in a properties file. (Tri-146375; RFE-53130)

#### Important Installation and Upgrade Information

Before installing, go to the IBM TRIRIGA Application Platform 3 Knowledge Center and read *Installing IBM TRIRIGA Application Platform*.

Before upgrading, go to the Upgrading page of the IBM TRIRIGA wiki and read the IBM TRIRIGA Application Platform 3 Upgrade Installation Guide and the procedures that outline the upgrade steps for a selection of upgrade scenarios at the following link:

www.ibm.com/developerworks/community/wikis/home?lang=en#/wiki/IBM+TRIRIGA1/page/Upgrading.

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.

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.

## **IBM TRIRIGA 10.4.2**

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

## Important Information

The following items are important information concerning IBM TRIRIGA for this release:

Area of Impact	Description
Geography	On the Asset Specification form, in the System tab, the System Geography field needs to be cleared in order for buildings to be displayed correctly for location, equipment, and vehicle reservation types in the Room Reservation form for the Contact Center. (Tri-87474)
GIS	To be compliant with Esri licensing, an authentication token must be obtained from ArcGIS to retrieve Latitude and Longitude on Building records and other records in the Location module. Esri OAuth Credentials (Client ID and Client Secret) must be provided in the client_id and client_secret fields of the "Esri ArcGIS Authentication (OAuth) Credentials" record (Tools >System Setup >System >GIS Esri Authentication. Esri Oauth Credentials can also be provided in the UserName and Password fields of the "Geocode Address - Esri - Authentication" Integration Object record (Tools > System Setup > Integration Object). The following link provides details on retrieving your Esri OAuth Credentials: https://developers.arcgis.com/rest/geocode/api-reference/geocoding-authenticate-a-request.htm (Tri-143457)
Globalization	Contact Roles record names can now be translated. If you do not upgrade your application to 10.4.0, you must republish the following business objects manually so that the language tables will be created and import of their data will succeed: <module name="">.<bo name=""> System.Help System.Licence Details triCiApplicationManager.triCiSpecialField triSetup.triOfflineContent triSetup.triUserMessage (Tri-113883)</bo></module>
Globalization	The records within the following classifications are not intended to be translated nor are the paths for these classifications: (1) Building System Class, (2) CSI-Construction Class, (3) CSI Masterformat, and (4) Uniformat. (Tri-166231)

Area of Impact	Description
Notifications	An issue was resolved where some internal Notification Detail Helper records were not being removed after-use, causing the system to become bogged down with IBS_SPEC and IBS_SPEC_ASSIGNMENT records.
	Use the following SQL to identify how many of these records exist in your environment:
	SELECT COUNT(*) FROM  IBS_SPEC  WHERE SPEC_TEMPLATE_ID IN (SELECT SPEC_TEMPLATE_ID FROM  IBS_SPEC_TYPE WHERE UPPER(NAME) =  'TRINOTIFICATIONDETAILHELPER');
	The following SQL can be used to clean up the records when the next Cleanup process is initiated by the system.
	UPDATE IBS_SPEC SET OBJECT_STATE = NULL, OBJECT_ID=0-SPEC_ID WHERE SPEC_TEMPLATE_ID IN (SELECT SPEC_TEMPLATE_ID FROM IBS_SPEC_TYPE WHERE UPPER(NAME) = 'TRINOTIFICATIONDETAILHELPER') (Tri-130778)
Real Estate: Real Estate Lease	Before upgrading to the 10.4.2 release, customers should convert all existing lease abstract records with payment schedules to real estate leases. After upgrading to 10.4.2 with the payment instruction enhancements, do not create payment schedules on the lease abstract. Create payment schedules directly on the real estate lease.
	Customers can create an option record in the lease abstract but will need to associate the payment schedules after converting the lease abstract to a real estate lease. (Tri-170265)
Real Estate: Real Estate Transaction Management	Before upgrading to the 10.4.2 release, customers should convert all existing RE Project Lease records with cash flow line items to create the Lease Abstract records with payment schedules, then convert the Lease Abstract records to Real Estate Lease records.
	After upgrading to 10.4.2 release with the payment instruction enhancements, cash flow line items on the RE Project Lease should no longer be converted to payment schedules on the Lease Abstract. Create payment schedules directly on the real estate lease. (Tri-173423)

Area of Impact	Description
Real Estate: Asset Lease Real Estate Lease Owned Property (Fee) Agreement	Contracts for Real Estate Lease, Asset Lease, and Owned Property now have a new Payment Instruction tab on the Payment tab. This allows contract administrators to create a payment instruction per payment type rather than many payment types per payment schedule.  On Clauses, the ability to add a payment schedule is removed. Only the find/remove action remains. NOTE: When selecting Find, the query action has an Add action that the user should NOT use to add a payment schedule here. The contract administrator should always use the generate payment schedule wizard. On Option, the ability to add a payment schedule is removed. Only the find/remove action remains. NOTE: When selecting Find, the query action has a Add action that the user should NOT use to add a payment schedule here. The contract administrator should always use the generate payment schedule wizard. On the Asset Lease Payment tab, the add action is removed. To add a payment schedule, the contract administrator uses generate payment schedule. On the Own Property Payment tab, the add action is removed. To add a payment schedule, the contract administrator uses generate payment schedule.
Real Estate: Real Estate Transaction Management	Existing customers will need to manually remove financial category roll-up records from financial categories. The following financial category roll-up records should be removed:  - In the Depreciation financial category, remove "RE Improvement" and "Dilapidation/Restoration" - In the Total Cost financial category, remove "Dilapidation/Restoration" - In the Buildout & Relocation Costs financial category, remove "RE Improvement Costs" - In the Classification Cost Type > RE Improvement Costs, remove "Technology Purchases - Expensed" from RE Improvement Costs - In the Project Type > RE Project Lease and RE Project Acquisition, remove "RE Improvement Costs"
Real Estate: Real Estate Transaction Manager	Existing projects that have already generated RE Cash Flow line items in the Executive Summary must recalculate cash flow for the financial categories to display correctly on the new Cash Flow Metric Graph. Also there is a new check box on the Financial Category for "Show in Cash Flow Graph," which allows Cash Flow financial categories to be added or removed from the graph. If you select or unselect this setting for a project, you must recalculate cash flow because the graph draws from RE Project data. If you select or unselect this setting for a project, you must recalculate cash flow because the graph draws from RE Project data. (Tri-139930)
Real Estate: Real Estate Lease	If existing data records for a Real Estate Project Lease or Real Estate Project Acquisition need to be recalculated, the projects must be in "Planning" status before recalculating. Once in "Planning" status, a "Calculate Cash Flow" button displays, and you can recalculate the Executive Summary Cash Flow and the P&L Impact for the project.

Area of Impact	Description
Real Estate: Asset Lease RE Project Lease	Lease Abstract and RE Project Lease are not updated to work with the new enhancements for updating the Remit To for Payment Instructions. If you are using Lease Abstract or RE Project Lease, you might have issues when creating contracts.
	To resolve these issues, you must use a Patch Helper to create retroactive data for existing Payment Instructions that were associated with the Payment Schedule and now must be associated as one Payment Instruction per Payment Type on the contract. Payment Instructions for Payment Line Items that are current and active will be correctly associated to the contract in the Current and Future Payment Instruction query.
	You must ensure that the Payment Schedule data for each contract has the correct Payment Instructions before running this Patch Helper. Also, Payment Line Items must be current and up to date with payments. If a Payment Line Item is Active/Past Due and associated to the Past Payment Instruction. This Patch Helper associates the Current and Future Payment Instructions to the Contract and to the Payment Line Items that are included in the Current and Future Payment Instructions. The retroactive contracts created by running the Patch Helper, include RE Lease, Asset Lease, and Owned Property (Fee) Agreement.  The workflow name for the Retro Payment Instructions Patch Helper is:
	triPatchHelper -triCalculate - 10.4.2 - Retro Payment Instructions
	To run this Patch Helper, use the following string: 10.4.2 Payment Instruction Update
	(Tri-156793)
Real Estate: Asset Lease Real Estate Lease Owned Property (Fee) Agreement	On a Payment Schedule in Pending status, the Payment Type, Start Date and End Date fields are editable. With the new Payment Instruction enhancement, we recommend that the Payment Type, Start Date and End Date values are not modified once the Payment Schedule is created. If Payment Type, Start Date or End Date values need to be changed, create a new Payment Schedule using the Generate Payment Schedule form to keep the Payment Instruction in sync. (Tri-164802)
Real Estate:	RE Projects (except RE Project Current Term) will now be able to trigger Calculation Cash Flow from the Planning state from Draft to Planning status.
Real Estate Transaction Management	There will no longer be a Submit action available when in Draft status. After changing the status to Planning, the Submit action will be available.
Real Estate: Real Estate Transaction Management	Real Estate Project forms are revised for usability. On the Financial Terms Tab, a field is added to the 'Purchase Terms' section for 'Purchase Term (Years)' and the 'Leasehold Improvements' field is renamed to 'Improvements'. (Tri-139923)
Real Estate: Lease Abstract	The Lease ID of a Lease Abstract record should be unique.

Area of Impact	Description
Real Estate: Real Estate Transaction Management	To remove Other Adjustments and Income Statement Impact, manually go to Classification > Project Type > RE Transaction Projects > Lease, New Lease, Co-Location, and Renewal. In each of the classifications in the Financial Category section, filter Other Adjustments and Income Statement Impact and remove them. To remove Total Cash Flow, manually go to Classification > Project Type > RE Transaction Projects > Lease and Renewal. In each of the classifications in the Financial Category section, remove the Total Cash Flow.
Real Estate: Real Estate Lease	Users may experience extended processing times when using the Bulk Create Review Assumptions Request across a large number of leases. To process more efficiently, instead of selecting all of the leases at one time for bulk update, select a few at a time. (Tri-80985)
Real Estate: Asset Lease Lease Abstract Real Estate Lease Owned Property (Fee) Agreement	When creating payment schedules, you can no longer select Bi-weekly or Weekly from the Frequency look up. Existing payment schedules with Bi-weekly or Weekly frequencies can no longer be processed.  For existing installations, the Bi-weekly and Weekly values should be manually removed from the Frequency Type Classification system data. For new installations, the Bi-weekly and Weekly values will not be available in the Frequency Type Classification system data.
Real Estate: Real Estate Transaction Management	You can no longer select Bi-weekly and Weekly frequencies when creating a Rent Expense cash flow line item. Existing cash flow line items with Bi-weekly or Weekly frequencies can no longer be processed.  For existing installations, the Bi-weekly and Weekly values should be manually removed from the Frequency Type Classification system data. For new installations, the Bi-weekly and Weekly values will not be available in the Frequency Type Classification system data.
Real Estate: Asset Lease Real Estate Lease	You can no longer use Payment Schedule records to add payment instructions. Contract administrators must now either add or remove and modify payment instructions on the payment instruction section of the payment tab or use the generate payment schedule wizard to add payment instructions based on the created schedule.

Area of Impact	Description
Space - Plan Moves	After you upgrade to 10.4.0 from another version, the Bulk Print Move Items action on the Move Planner's "All Move Line Items" section displays a blank screen.
	Use the following steps to correct this issue:  1. Log in as an admin user.  2. Go to Tools > Document Manager > TRIRIGA > triltem.  3. Point, but do not click, your mouse at the "Move Request Line Item Record (BIRT)" document. At the lower left corner of your browser, you may see "javascript:openDocument(XXXXXX);". The XXXXXX is the document ID.  4. Go to Tools > Builder Tools > Form Builder.  5. Click triPlanning and open triMovePlanner form.  6. Click the "All Move Line Items" query section.  7. In the Properties window, click the "Bulk Print Move Items" action.  8. In the URL of the action property, you will find "/html/en/default/common/RepBuilder.jsp?source=bulk&docId =XXXXXXX&showFilters=false&queryName=triItem_triMoveRequestLineItemtriMoveRequestLineItemMoveDesignerBulkPrintForAllItems".  9. If the document ID is different from the one from step 3, replace the value in the URL path in step 8 with the document ID from step 3.  (Tri-128907)
Upgrade	When upgrading to 10.4.0, update the patch helper workflow "triPatchHelper - triCalculate - 10.3.2 - Retro Contract to Set Payment Timing" by changing the "Update Payment Timing" modify task to have "Map From Records" point to the "Start" task instead of the "Get Existing Contract" query task. This reduces the processing time of upgrading. (Tri-128918)
Workplace Reservation Manager	In the current design for iCal notification attachments, if a room is declined for a specific occurrence, an iCal update is not sent. This is working as designed. The iCal contents are based on the reservation as a whole and are not just for a specific resource or room. For example, if a reservation is made for two rooms, the system sends a single iCal attachment - for the reservation. When a resource or room is declined, the user does receive a notification that indicates the declined status, but the notification does not have an iCal attachment. (Tri-107380)  When you use the IBM TRIRIGA Reserve tab in Microsoft Outlook to make a reservation, after you specify the reservation subject, either press Tab or click outside the Subject field. (Tri-77073)

## **Known Limitations**

The following items are known limitations concerning IBM TRIRIGA for this release:

Area of Impact	Description
Analytics	The Create Date of the Asset Event Requests shows the date and time in the local time zone in the work task record. To find this date and time value, go to Sustainability > Set Up > Analytics > Rule Engine. From the rule engine, go to the Tasks tab, and open the task. The Created Date/Time is not in GMT in the Requests section. (Tri-133787)

Area of Impact	Description
Gantt	If you create many tasks in the Gantt, then delete the tasks from the Gantt, and then save the project record, some of the tasks may not be deleted. This is because all of the asynchronous workflows that are triggered by these activities did not have sufficient time to complete. If this occurs, wait or refresh the Tasks Query Section (not the Gantt) until all of the deleted tasks have been removed. If you save before the workflows are completed, you will need to delete the tasks again. (Tri-38256)
Globalization	Attention messages for Classification records display in US English because the record language for the delivered instance data (system data) is US English. (Tri-39803)
Globalization	Due to a third-party issue, you cannot save the offline forms for triRELeaseAbstract or triRETransOffline for a non-US English language. (Tri-166171)
Installer for the IBM TRIRIGA Workplace Reservation Manager Add-in to Microsoft Outlook	The installer is only available in US English. Installing to a path under Program Files may not work in a non-US English-language version of Windows.
Language Packs	Some list values might not display translated values. If you find a list with values that require translation, use the Globalization Manager in the Administrator Console to export the list values for translation, then import them back into the system by using the Globalization Manager.
Real Estate	We do not support partial payment calculations Semi-Annual and Annual frequencies in this release.
Real Estate: Asset Lease Owned Property (Fee) Agreement Real Estate Lease	Attention! message "The Adjust Amount To value entered must be equal to or greater than the Expected Cash Amount value on the payment schedule." is only available in English. The message displays on the Payment Adjustment form. (Tri-163108)
Real Estate: Asset Lease Real Estate Lease	If you select a period start day of the 29th, 30th, or 31st of the month, the payment schedules generate with an incorrect number of quarters in a year, resulting in incorrect payment dates and payment amounts when you activate the lease. For more information, see <a href="Examples of calculating partial payments">Examples of calculating partial payments</a> in the IBM Knowledge Center. (Tri-145984)
Real Estate: Real Estate Lease	In the Payment Schedule form, changing the format of the same End Date value from mm/dd/yyyy to mm/d/yyyy, and then clicking the cursor away, sets the Partial Last Payment > Expected Amount to zero. The Start Date demonstrates the same behavior. For example, changing 11/01/2013 to 11/1/2013 without the zero, even though the actual date did not change. (Tri-151363)
Real Estate: Asset Lease Owned Property (Fee) Agreement Real Estate Lease	On an active Lease with a modified Payment Instruction in active Payment Schedules that used the Update Payment Instruction to create new landlord, the copy of the lease will not have the payment instruction associated to the payment schedule. (Tri-168507)

Area of Impact	Description
Real Estate: Asset Lease Real Estate Lease	Payment schedules with the Quarterly frequency cannot start on February 29 (leap year). (Tri-140617)
Real Estate: Real Estate Transaction Management	To remove Other Adjustments and Income Statement Impact, you need to manually go to Classification > Project Type > RE Transaction Projects > Acquisition. Then, in the Financial Category section, filter Other Adjustments and Income Statement Impact and remove them.
Real Estate: Real Estate Lease Asset Lease	Under the proposed FASB/IASB guidelines for lease accounting (May 2013 Exposure Draft), index leases work only for monthly frequency. Index leases do not work for non-monthly frequencies, for example, quarterly, semi-annually or annually. If an adjustment is made from the Index Adjustment calculator, the adjusted amount is applied to periods that do not have payments, resulting in incorrect calculations. (Tri-115636)
	Weekly, bi-weekly, or 13-period frequencies are not supported for schedule generation. This is true for current accounting standards and proposed guidelines. (Tri-115639)
	When the Contract Terminate or Contract Expiration pop-up window displays, you must enter the information correctly before selecting the Continue action. If any errors are not corrected and the transaction is canceled, the record is still processed and could remain in an unusable state. The parent or calling record will transition to the next state regardless of what occurs in the pop-up form. (Tri-123274)
Reservation Survey Request	In a new Reservation Survey Request form, you must select the Create Draft action before selecting either the Find Parameter Recipients action or the Find Random Recipients action when the parameter fields are populated. In an existing Reservation Survey Request form, when the parameter fields are modified or populated, you must select the Save action before selecting either the Find Parameter Recipients action or the Find Random Recipients action. If you do not, neither action works as expected; the action does not pick up the changes in the parameter fields. (Tri-36865)
Workplace Reservation Manager	When looking at a reservation from Microsoft Outlook Web Access (OWA), the text on action buttons (such as check in, early notification) does not show clearly in preview mode. To see the text more clearly, you can open the appointment. (Tri-68953)
	When you make a one-time reservation for a room that has setup and breakdown requirements, if the setup and breakdown times overlap another reservation, currently the booking is accepted when it should be declined. Instead of using the setup and breakdown feature, reservation coordinators can manually add separate reservations for the setup and breakdown times. (Tri-115568)
	After you have changed the start time of an existing reservation, queries may still show a record with the old start time in addition to a record with the new start time. (Tri-134201)

## IBM TRIRIGA 10.4.2 Changes

The following changes to IBM TRIRIGA are in this release:

Area of Change	Description
Approvals	The Attention user message in the Escalation form is now appropriately picked from the Escalation Rule defined in the Approval record. (Tri-147281)
Capital Projects	In the Capital Projects form > Notes & Documents tab, the Related Documents query section is now displaying the Revision Date column according to the Date Time Format in the user's My Profile. When this Date Time Format in the My Profile form > My Profile tab is changed, the user must sign out and then sign in to effect the change. (Tri-135328-IV61034)
Capital Projects	In the Cost section of the Contract Cost Breakdown Items form, the Amount field and the Retention % field are now right justified. The width of the Retention % field is also reduced. (Tri-136563)
Capital Projects	In the General tab of a standard contract, the Financial Rollup fields under the Summary section now display correct values and do not include removed contract cost breakdown items. (Tri-136114-IV61295)
Capital Projects	On a change order, cost breakdown line items now calculate correctly when existing line items are modified or when line items are added to the change order. Imported line items will update to new change orders and will update any change order drafts with an issued status. If you issue multiples change orders at the same time, line items will update correctly. (Tri-108533-IV51666)
Capital Projects	The Closeout tab on the triCapitalProjectTemplate form has been deleted. The tab does not display on the form during runtime. (Tri-146701-IV64619)
Capital Projects	The copy action is no longer displayed on the Contract Cost Breakdown Items form that is opened from the Standard Contract form. (Tri-136564)
Capital Projects	When you perform a budget change, the approval amount in an Approval record will now get the project's currency from the parent record. (Tri-131139-IV60573)
Classifications	Default proration settings were corrected for some of the Space Class Current Classification records. (Tri-156180-IV68511)
Classifications	In a Financial Category Classification record, the Copy action now creates a copy of the record. All of the data, except for the associated records under the Financial Category Rollups section, is copied from the original record to the copy record. The Sequence # field is smaller and value is now justified to the right. (Tri-140613)
Classifications	In the Financial Category Rollup form, the instructional text was updated. In the Financial Category Classification, the Financial Category Rollup record no longer has a copy action. (Tri-142874)
Classifications	In the Financial Category Rollups section, the query delete action is now removed. (Tri-140611)

Area of Change	Description
Classifications	In the Pro Rata Methods Classification form, the Number of Days number field is now justified to the right. (Tri-141388)
Classifications	New Time Zones classification records have been created for (GMT) London [Europe/London] and (GMT) Lisbon [Europe/Lisbon] to account for Daylight Saving Time. (Tri-132431-IV60163)
Classifications	The following changes were made:
	<ol> <li>Created a new Standard Calendar, 4-5-4, and 4-4-5 nodes under the Fiscal Period node.</li> <li>Moved all the years under the Standard Calendar node.</li> <li>Created a new patch helper workflow (triPatchHelper - triCalculate - Set Standard Calendar Node for Fiscal Periods) to fix existing customers.</li> </ol>
	(Tri-169050)
Document Management	A new query has been created to display data in the "Documents in this Folder" section of Folder form. (Tri-171475)
Document Management	In the Document Manager, instructional text now exists in the Propagation Settings on the Permissions tab of the Folder record. (Tri-148241-IV65231)
Document Management	In the Document Manager, the "Should these permissions be propagated?" field in the Propagation Settings on the Permissions tab of the Folder form is now left-aligned. (Tri-166993)
Document Management	The Check In and Check Out actions are now available on Document form so that the user doesn't have to go to Document Manager to perform these actions. (Tri-170534)
Document Management	The Date column under the Revision History section of the History tab on the Document form now displays in the user defined time format. (Tri-152252)
Document Management	The Rollback Revision action has been removed from Document, Document Container, and Publication BO, and Forms. (Tri-155270-IV67757)
Facility Assessment	The Estimated Savings section on the Evaluation tab of the Funding Request is now read-only. (Tri-134995)
Funding Sources	Now the Funding Source field in the Funding Source Line Item that associated to the new Funding Source is populated after making a copy of the existing Funding Source. The chart (metric query section) is able to display the data correctly. Contact Roles is copied to the copied funding source, as well as the Authorizing organization and Description fields in the Funding Source Details Section. When allocating funds to a program, now the funding source name is populated on the Funding Source Program Intermediate. (Tri-140396-IV63287)
Globalization	Corrected the BO mapping on the following business objects: triCostItem (Module) - triCostItem (BO) - Line Number (Field) triLog (Module) - triCoreAssignmentLog (BO) - Location (Field) triIssue (Module) - triIssue (BO) - ID (Field) triProductsAndServices (Module) - triProductsAndServices (BO) - ID, Name (Fields)

Area of Change	Description
	(Tri-134793)
Globalization	Removed duplicate Rule Parameter records to resolve errors that displayed at the time of language data import. (Tri-135588)
Globalization	The following new Currency UOM Value records are created in shipping application.
	Chinese Yuan Hong Kong Dollar Macanese Pataca New Taiwan Dollar Czech Koruna (Tri-168261)
Globalization	The locator flag on the following fields was cleared:
	triDailyJournal(Module) > triDailyEvents(BO) > triContractTX(Field)
	triRequest(Module) triInspectionRequest(BO) > triBusinessObjectLabelTX(Field) triOffCatalogRequest(BO) > triLocationRequestedT(Field) triLeaseRequests(BO) > triLocationRequestedTX, triRequestedForTX, triRequestedByTX (Fields) triPersonnelAndMoveServices(BO) > triLocationRequestedTX(Field) triRequestLink(BO) > triBusinessObjectLabelTX(Field)
	<pre>triMeeting(Module) &gt; triMeetingItem(BO) &gt; triProjectTX(Field)</pre>
	<pre>triTemplate(Module) &gt; triTemplate(BO) &gt; triTemplateOwnerTX(Field) (Tri-154834)</pre>
Graphics	On the Layer Configuration record, added a new Layer State, Visible by Group, which displays the Security Groups query section. (Tri-162861)
Inventory Management	The Primary Inventory Location is now populated correctly on the Receipt Transaction. (Tri-108587)
Locations	Space level allocations will now display only under the allocated Organization record and will no longer be visible under the Primary Organization record. (Tri-141064-IV63242)
Locations	The Do Not Include as Common Space check box on the space record will now update when a space is associated or de-associated to organization via CI. (Tri-140283-IV62557)
Locations	The fields under Occupancy section of triSpace form has been aligned in a single row in order to avoid the horizontal scroll bar. (Tri-171942)
Locations	The fields under the Occupancy section of the triSpace form have been aligned in a single row in order to avoid the horizontal scroll bar. (Tri-171942)

Area of Change	Description
Locations	The Parent Property field under the Reporting Section of Building, Floor, and Space records created as child records of the Property record is no longer cleared upon activating the Location Category record.
	This applies to Property and other child records such as Land, Structure, Vertical Shaft, Space Group, Reservation Space Group.
	This also applies to Retail Center and child records such as External Retail Location, Retail Location. (Tri-142053-IV63058)
Locations	The Percent drop-downs on the Building and Assessment tabs are now read-only labels. (Tri-90378)
Locations	The row span of triLocationGraphic section on triSpaceGroup form is changed to 1 to support the new platform functionality. (Tri-163337)
Locations	The Total Area Occupied Calc (Imperial) and Total Area Occupied Calc (Metric) fields are now calculated correctly. Also the Total Area Occupied (manual) is now label correctly. (Tri-141100)
Locations	The UOM Source Attribute has been set for following fields under Location base Business Object. The UOM Source Attribute set on these fields is similar to the value on triBuilding or triProperty Business Objects. "Total CO2e (Carbon Footprint) Equity Share", "Carbon Footprint", "Current Replacement Value", Total CO2e Equity Share", "Total CO2e Equity Share Reporting", "Grand Total Emission", "Total CO2e Reporting", "Gross Area Num (Imperial)", "Approx. Distance from Intersection", "Projected Total Deficiency Cost Level1", "Total Environmental Deficiency Cost Level1", "Rentable Area", and "Usable Area". (Tri-137667-IV61722)
Locations	When you remove the Primary Location from the Employee record, the association to the Primary Location on the My Profile record is now removed as well. (Tri-165529-IV71010)
Locations Workplace Reservation Manager	Spaces cannot be added under Reservation Space Group in Location Hierarchy. (Tri-163309)
Locations Workplace Reservation Manager	You can no longer add Spaces directly under Reservation Space Group in the Location Hierarchy. (Tri-163309)
Notifications	You can now localize the "WFTaskLabel" field under the "WorkFlowActionItem" BO of the "System" module. (Tri-159976)
Object Migration	Form warnings that occurred when validating Object Migration package have been addressed. (Tri-153652)
Outlook	Food and Equipment orders from Outlook reservations are now showing up on IBM TRIRIGA Workplace Reservation Manager. (Tri-151665)
Outlook Workplace Reservation Manager	When the delegate makes a reservation from Microsoft Outlook, the Requested For, Requested By, and Organized By sections of the Reservation Definition form

Area of Change	Description
	are now populated correctly. The data is populated correctly for both with and without the IBM TRIRIGA reservation add-in for MicrosoftOutlook. (Tri-143667)
Payments	The Payment Reconciliation Invoice BIRT form report is added to the Payment Reconciliation record. (Tri-89200)
People	When the name of the security group is changed, the associated group details on the people or people template record are now updated. (Tri-156313-IV67781)
Portals	The Energy Use Intensity GIS portal section has been removed from the Sustainability landing page. (Tri-134607)
Projects	The 'Add Funding' action on the Program Funding section of the Program is disabled when the Program is in NULL state. This action is available only after creating the Program record. (Tri-144560, IV63706)
Projects	The Contract Invoice now shows the correct amount while adding it in the Invoices section of Payment Release. (Tri-166395)
Projects	The Paid field in the Project Cost Code record and Project Cost Code hierarchical query now display the correct result. The label of field is changed from k. Paid (h-i) to k. Paid. (Tri-146821)
Query	Resolved performance issue where the Find action query under the Parent Asset section on the Asset form is now a Prompt Before query. (Tri-157832-IV68277)
Real Estate Environmental Sustainability	The conversion factor for US Tons is now the same (907184.74) in both UOM_VALUES and T_UOMVALUE tables. (Tri-140988)
Real Estate Environmental Sustainability Workflow	IBM TRIRIGA Real Estate Environmental Sustainability Impact Manager supports a new ETL Job Item Type for "Tivoli Directory Integrator Transformation". In this ETL job item, the user can add resource files, which are used during the execution of this job item. If the job item has an associated resource file, the item can be executed by clicking the "Run Process" button. Also, the job item can be triggered by the job scheduler according to the defined schedule. (Tri-135438)
Real Estate: Asset Lease Real Estate Abstract	Add action under the Payment Instruction section on the Generate Payment Schedule form now populates data into the Paid By section of the Payment Instruction form as follows:
Real Estate Lease	<ol> <li>Defaults from Contact Details tab Tenant section on the Real Estate Lease</li> <li>Defaults from Contact Details tab Asset Lessee section on the Asset Lease</li> <li>Defaults from General tab Tenant section on the Lease Abstract</li> </ol>
	(Tri-163213)
Real Estate: Asset Lease Owned Property (Fee) Agreement Real Estate Lease	Address fields in the Remit To section on the Payment Instruction form are now in sync with the layout in the Default Remit To section on the Contact Details tab of the lease. (Tri-155811)

Area of Change	Description
Real Estate: Asset Lease Owned Property (Fee) Agreement Real Estate Lease	After clicking the Save or Save & Close action buttons, the Copy and Delete action buttons are no longer visible on the Payment Voucher form. (Tri-164797)
Real Estate: Asset Lease	Asset Lease Clause Copy action now appends the copy record to the parent Asset Lease. (Tri-148335)
Real Estate: Asset Lease	Asset Lease Template Copy action now copies the payment schedule from the original Asset Lease Template record to the Copy of record. (Tri-148339)
Real Estate: Real Estate Lease	Changed the Lease Treatment test for 'Does Lease begin in the last 25% of Building Life?" If it set to Yes then the "Is NPV of Rent >= 90% of Asset's FMV?" criteria is ignored and Lease Treatment remains OPERATING. (Tri-168008)
Real Estate: Asset Lease Real Estate Abstract Real Estate Lease	Changes to the payment schedule record will not be committed/saved if User answers "OK" in the pop up message box "You are about to lose all the changes made. Close the window anyway?" (Tri-143512)
Real Estate: Real Estate Lease	Contract Rentable (Imperial), Contract Rentable (Metric), Contract Usable (Imperial), and Contract Usable (Metric) fields now use the correct unit of measure. (Tri-140889)
Real Estate: Asset Lease	Contract Rentable field is no longer visible under the Payment Parameters section on the Generate Payment Schedule form for the Asset Lease. (Tri-142968)
Real Estate: Asset Lease Owned Property (Fee) Agreement Real Estate Lease	Copy Action on the Lease Cause and Asset Clause will no longer copy the associated payment schedule. Copy action on the payment schedule was removed so lease clause and asset clause needs to be consistent. (Tri-173425)
Real Estate: Real Estate Lease	Copy and Delete action are removed from the system generated One Time Payment payment line item from Percentage Rent Reporting. User is not expected to be able to perform these actions on a system generated record. (Tri-165558)
Real Estate: Asset Lease Real Estate Abstract Real Estate Lease	Delete action is removed from the payment schedule form. Payment schedules should be deleted using the query section Remove action. (Tri-163359)
Real Estate: Asset Lease Real Estate Abstract Real Estate Lease	Fixed Growth and Percent Growth hidden fields are now cleared when growth type is switched back to a blank value. Fixed Growth and Percent Growth fields are not cleared when switched between Fixed and Percent Growth Type values. (Tri-125841)

Area of Change	Description
Real Estate: Real Estate Lease	For a Real Estate Lease, the Billing End Date on the Payment Reconciliation form no longer overlaps with the Billing Start Date on the next Payment Reconciliation form. (Tri-154146-IV66761)
Real Estate: Real Estate Lease	In a clause or a Lease Clause template, the label for the Cost Per Area field in the Audit Details section was changed to Base Cost/Area. (Tri-140056-IV62781)
Real Estate: Asset Lease	In a Payment schedule, if you adjust a one-time payment, the Pro Rata Basis field is now hidden and is no longer required on the adjustment record. (Tri-151442)
Real Estate: Asset Lease Real Estate Abstract Real Estate Lease	In a payment schedule, start dates and end dates are now required fields for Frequency. (Tri-146255)
Real Estate: Asset Lease	In an Asset Lease Clause and Asset Lease Clause template, the Required Name field under the General section is now populated with the Asset Clause Type value selected in the Asset Lease Clause Details section. (Tri-72278)
Real Estate: Real Estate Transactions	In P&L Impact of the Executive Summary, the Depreciation Financial category is now named Total Depreciation. (Tri-152020)
Real Estate: Asset Lease	In the Asset Lease form, clicking the "Activate" button now displays the Attention section and "Bypass Date Gap Validation" check box when one or more date gaps exist in the payment schedules. The Asset Lease does not transition to Active status until the gaps are resolved or bypassed. (Tri-133673)
Real Estate: Real Estate Abstract	In the Lease Abstract form, the Copy action now populates the "Subject" value in the Simple Event form that is associated to the Payment Schedule of the Lease Abstract copy. (Tri-94646)
Real Estate: Real Estate Lease	In the Lease Responsibilities Lease Clause form, the Lease Responsibilities query section is now correctly displaying the "Service" value that is populated in the Lease Clause Service form. (Tri-87875)
Real Estate: Real Estate Lease	In the Payment Schedule query section, the Add action now populates the Frequency Type on the linked Payment Terms record. The Frequency type uses the value that is selected in the Payment Parameters section of the Generate Payment Schedule form. The behavior is consistent with the Generate Schedule action. (Tri-141539)
Real Estate: Real Estate Lease	In the Process AR Receipts form, clicking the "Issue" button now displays the Attention section only if the Actual Amount is greater than the Expected Amount. The displayed Attention message is "Payment Line Item Actual Amount cannot exceed Expected Amount. Please adjust these amounts accordingly." This message is not displayed if the Actual Amount is less than or equal to the Expected Amount. (Tri-153521-IV66817)
Real Estate:	In the Real Estate Lease form > Accounting tab > Schedule Type B section, the Net Rent Payment for the first fiscal period is now reflecting the Initial Direct Costs

Area of Change	Description
Area of Change	Description FASD MSD appropriate "Transport of the Passes
Real Estate Lease Asset Lease	value. According to the proposed joint FASB-IASB standard, "Type B" refers to the straight-line approach of most leases of real estate such as land, a building, or part of a building. "Type A" refers to the financing approach of most leases of assets such as equipment, aircraft, cars, or trucks. (Tri-157560)
Real Estate: Real Estate Lease	Lease Abstract Copy action now copies the Termination Detail and the Residual Value Guarantee to the Copy of a record. (Tri-95214)
Real Estate: Asset Lease Real Estate Lease	Lease Clause and Lease Clause template forms are now resized and no longer require horizontal scrolling. (Tri-72759)
Real Estate: Asset Lease	On an Asset Lease, a Bypass Date Gap message now appears when the lease is revised and activated the second time with a new pending payment schedule added of the same type with a date overlap as the existing scheduled payment schedule. (Tri-168806)
Real Estate: Real Estate Lease Asset Lease	On RE Invoice record, the newly added One Time Payment will not be associated to a Lease at the time of creation and One Time Payment will remain editable. The One Time Payment will be associated to Lease when the RE Invoice is issued. The same is applicable to One Time Payment created on Asset Invoice. (Tri-161011-IV69213)
Real Estate: Asset Lease Owned Property (Fee) Agreement Real Estate Lease	On the Payment Line Item form, the Delete action is no longer available. (Tri-163360)
Real Estate: Asset Lease Owned Property (Fee) Agreement Real Estate Lease	On the Payment Line Item, the value for the Name field for a generated partial last payment is no longer blank. The Name field is now populated with the payment type from the associated payment schedule. (Tri-146252)
Real Estate: Asset Lease Owned Property (Fee) Agreement Real Estate Lease	On the Payment Schedule Payments tab, the related reports on the Payments Schedules sub tab are now sorted alphabetically. (Tri-154779)
Real Estate: Asset Lease Real Estate Abstract Real Estate Lease Owned Property (Fee) Agreement	On the Payment Schedule, the Copy action has been removed from the More drop down and moved next to the Save & Close action. (Tri-163984)
Real Estate: Asset Lease Owned Property	On the Payment Voucher form, the embedded link in the Payment Instruction section is now removed. User will no longer be able to drill into the Payment Instruction record to edit. (Tri-163113)

Area of Change	Description
(Fee) Agreement Real Estate Lease	
Real Estate: Real Estate Lease Assets	On the Payment Voucher, the Add action under the Payment Instruction section is removed. (Tri-162684)
Real Estate: Asset Lease Real Estate Lease	On the Payment Voucher, the Copy action is removed. (Tri-162606)
Real Estate: Real Estate Lease	On the Process Payments form, the related reports queries for the Payments section now have a circular reference to each other. (Tri-161266)
Real Estate: Real Estate Lease	On the Stop Payment form, the Payments section Add action to add payment line item is removed. Payment line items are system generated. (Tri-167683)
Real Estate: Asset Lease Owned Property (Fee) Agreement Real Estate Lease	Payment Adjustment Log query added Control Number so that the sort will display sequentially. (Tri-157056)
Real Estate: Asset Lease Real Estate Lease	Payment Schedule Copy action now copies the Subject value from the Simple Event record associated to the payment schedule on the original Real Estate Lease to the Simple Event record associated to the payment schedule on the Copy of record. (Tri-90249)
Real Estate: Real Estate Lease	Payment Voucher is now generated for a paid One Time Payment Percentage Rent Reporting record through Process Payments. (Tri-163823)
Real Estate: Asset Lease Real Estate Lease	Payment Vouchers now receive the Payment Instructions from the Payment Line Item. On the Payment Voucher, the Copy action is removed. On the Payment Instruction, the Add action is removed. (Tri-154137)
Real Estate: Real Estate Transactions	Primary Use, Occupancy Date, Purchase Price, Spend Category data is now mapped on the Complete action from the RE Project Acquisition record to the created Owned Property (Fee) Agreement record. (Tri-152145)
Real Estate: Real Estate Lease	Remit To section on Percentage Rent Reporting form is now hidden. (Tri-172190)
Real Estate: Real Estate Transactions	Restoration / Dilapidation sub tab label is changed to Dilapidation/Restoration to be consistent across RE Transaction Management RE Projects: Current Term, Disposition, Expiration, Lease, Sublease, Termination. (Tri-152257)

Area of Change	Description
Real Estate: Real Estate Transactions	Term Total and Total of Year amounts now display with correct currency indicator in the Cash Flow hierarchical query on the Executive Summary for RE Project records. (Tri-171940)
Real Estate: Real Estate Lease Workflow	The 10.3.2 Patch Helper workflow "triPatchHelper - triCalculate - 10.3.2 - Retro Contract to Set Payment Timing" is now updated to reduce the processing time of an application upgrade. Specifically, the Update Payment Timing modify task was updated so that the Map From Records section points to the Start task instead of the Get Existing Contract query task. (Tri-136988)
Real Estate: Asset Lease Real Estate Abstract Real Estate Lease Real Estate Transaction Management Owned Property (Fee) Agreement	The 13-period value is removed from the Frequency Type Classification. The functionality to support 13-period is actually related to 4-4-5/4-5-4 accounting with the user making a selection of Frequency as either Monthly, Quarterly, or Semi-Annually and not for 13-period.  Customers must manually delete the 13-period record from the Frequency Type Classification. (Tri-124696)
Real Estate: Asset Lease Real Estate Lease	The accrual formula for both Straight line schedule and Capital/Finance schedule is corrected. The label is Net Rent Payment - StraightLine Expense for Current Accounting Standards. (Tri-171299)
Real Estate: Asset Lease Real Estate Abstract Real Estate Lease	The Add action under the Payment Instruction section on the Generate Payment Schedule form now populates data into the Paid By section of the Payment Instruction form as follows -  1. Defaults from Contact Details tab Tenant section on the Real Estate Lease 2. Defaults from Contact Details tab Asset Lessee section on the Asset Lease 3. Defaults from General tab Tenant section on the Lease Abstract  (Tri-163213)
Real Estate: Real Estate Lease Asset Lease	The Adjust Payment field on Index Adjustment Calculator record will display the cumulative value when the "Last Adjustment Amount" option is selected. (Tri-152963-IV67242)
Real Estate: Asset Lease Real Estate Lease	The Audit Clause, Services Included, Services Excluded sections are hidden on One Time Payment payment line items created on RE Invoice and Asset Invoice.  A patch helper workflow is available to fix existing One Time Payment records associated to RE Invoices and Asset Invoices. (Tri-161601)
Real Estate: Asset Lease Owned Property (Fee) Agreement	The Bypass Date Gap Validation check box is visible and triggered on the Activate action on the Owned Property (Fee) Agreement and Asset Lease Payments tab. The check box is not visible on the Save or Save & Close actions. (Tri-133732)

Area of Change	Description
Real Estate: Real Estate Lease Asset Lease Real Estate Abstract	The Clear action on the Frequency field no longer toggles the Payment Schedule option from One Time Payment or Pay on [x] day of Month to Advanced Schedule. (Tri-143483)
Real Estate: Real Estate Lease	The Copy and Delete actions are removed from the system generated One Time Payment payment line item from Percentage Rent Reporting. You are not expected to be able to perform these actions on a system generated record. (Tri-165558)
Real Estate: Asset Lease	The Credit Remaining field was modified to display the Accounts Receivable information and not the Accounts Payable. (Tri-134177)
Real Estate: Asset Lease Real Estate Lease	The income fields from the sublease are now correctly mapped to the parent lease. (Tri-167056)
Real Estate: Asset Lease Real Estate Lease	The index adjustment calculator will now display Real Estate Contract section or the Asset Lease section, which will depend on which record is linked. (Tri-113599)
Real Estate: Real Estate Lease	The labels on the Payment Terms form are changed to be consistent with the corresponding labels in the Payment Parameters section of the Generate Payment Schedule form. The Amount Due label was changed to Amount Per Basis and the Frequency Type was changed to Frequency. (Tri-141938)
Real Estate: Real Estate Abstract	The Lease Abstract Copy action now copies the data in the Purchase Details section on the Purchase Option record to the Copy Of record. (Tri-95215)
Real Estate: Asset Lease Real Estate Abstract Real Estate Lease Owned Property (Fee) Agreement	The Location Specific Quarter field is now cleared on both Generate Payment Schedule and Payment Schedule forms when the frequency is changed to blank or something else besides "Specific Quarterly (Location Specific)". (Tri-151680)
Real Estate: Asset Lease Owned Property (Fee) Agreement Real Estate Abstract Real Estate Lease	The Name field in the General section of the Payment Instruction form is removed. (Tri-165733)
Real Estate: Owned Property (Fee) Agreement Real Estate Lease	The name field on the auto generated Space Use Agreement is now populated from the name field on the Owned Property (Fee) Agreement. (Tri-113721)

Area of Change	Description
Real Estate: Asset Lease Real Estate Abstract Real Estate Lease Owned Property (Fee) Agreement	The Notes & Documents tab is removed from the Payment Instruction form. (Tri-163115)
Real Estate: Real Estate Lease	The Payment Voucher is now generated for a paid One Time Payment Percentage Rent Reporting record through Process Payments. (Tri-163823)
Real Estate: Asset Lease Owned Property (Fee) Agreement Real Estate Lease	The Process Payment payment voucher for the One Time Payment, for example Termination Fee, now matches the payment line item amount. (Tri-161267-IV70542)
Real Estate: Real Estate Transactions	The RE Cash Flow by Year dependent form is now read only. (Tri-104113)
Real Estate: Real Estate Transactions	The RE Cash Flow form, the revision number, and the Notes & Documents tab was removed. The Status field will now populate a History status. (Tri-104249)
Real Estate: Real Estate Lease	The Real Estate Lease Copy action now copies the Subject value from the Simple Event record associated to the payment schedule on the original Real Estate Lease to the Simple Event record associated to the payment schedule on the Copy of record. (Tri-90251)
Real Estate: Real Estate Lease	The Real Estate Transaction Lease Term forms were resized and you no longer must scroll horizontally. (Tri-72758)
Real Estate: Real Estate Lease	The Record State on Contract Notification added to Lease is set to triActive whenever the status field value is "Scheduled". (Tri-154872)
Real Estate: Asset Lease Real Estate Lease	The Rent Accrual formula is corrected. The label is Net Rent Payment - SL Expense for Proposed Accounting Standards. (Tri-171481)
Real Estate: Real Estate Transactions	The Revenue Forecast embedded spreadsheet has been removed from triRevenueForecast form. This function has been dependent on a Microsoft browser plugin which has been discontinued by Microsoft. At this time there are no plans to provide a replacement for this functionality. Customers who desire bidirectional data interaction with Microsoft Excel can consider using TRIRIGA Offline.  Also, the Revenue Forecast Revision section is now hidden on RE Project Lease and RE Project Acquisition forms. (Tri-171480)

Area of Change	Description
Real Estate: Asset Lease Real Estate Lease	The Summary Type is populated when Payment Type is selected in "One Time Payment - To Process" editable query section and then the RE Invoice is saved or issued. Similarly, the Summary Type is populated for One Time Payment created on Asset Invoice. (Tri-161602)
Real Estate: Asset Lease Owned Property (Fee) Agreement Real Estate Lease	Voucher # field label on the Payment Voucher form is relabeled to Check Memo. Check Memo value entered on the Payment Instruction form is mapped to this field. (Tri-166455)
Real Estate: Real Estate Lease	When a capital Real Estate Lease is created with FASB 13 parameters where FMV < NPV, the Accounting tab > Schedule Capital/Finance section is no longer treating the NPV of Rent as the starting Asset Value. Instead, it is now treating the Fair Market Value as the starting Asset Value. The internal rate of return must be calculated manually to apply to a scenario where FMV < NPV. (Tri-157428-IV68187)
Real Estate: Real Estate Lease	When a Payment Adjustment form is opened from the Payment Schedule form > Adjust Payment action, the Payment Adjustment form > Cost Code section > Find action is now displaying the cost codes in the "Service Cost Codes associated to the Location Cost Code" query. (Tri-134138)
Real Estate: Asset Lease Real Estate Lease	When a RE Invoice is copied, the One Time Payment records will not be associated to the copied RE Invoice records. You must manually create the One Time Payments on the copied RE Invoice record. The same is applicable to copy of Asset Invoice records. (Tri-161603)
Real Estate: Asset Lease	When an Asset Lease is copied or amended, the Asset Lease form > Summary tab > Sublease query section no longer generates or displays cross-associations to the original, revised, or copied record. If bad records must be removed, you can use the Form Builder to enable the Remove system action in the Asset Lease form > Summary tab > Sublease query section. After the form is revised, open the affected Asset Lease records, select the records to remove from the Sublease section, and click the Remove action. (Tri-112420)
Real Estate: Real Estate Lease	When any Clause Type with an onChange workflow to display a hidden section is selected first, then changed to an Alterations Clause Type which also triggers an onChange workflow to display an Alterations section, the previous section associated to the previous clause type is now hidden again and only the Alterations section displays. This applies to Alterations Clause Type with Rights Section Category. (Tri-72284)
Real Estate: Real Estate Lease	When the lease is revised as an amendment, the Contract Rentable and Contract Percentage fields on associated SUA will not be doubled. The extended formula on Contract Rentable field of triSpaceUseAgreement BO has been corrected to use a query instead of field and the query excludes history lease records. (Tri-139796-IV62771)
Real Estate: Real Estate Lease Asset Lease	When the lease was revised with an amendment, an Index adjustment record for the lease clause was getting created even though Index Adjustment boolean flag was unchecked. This was causing the lease to never come out of 'Processing' status. (Tri-146545)

Area of Change	Description
Reporting	Changes were made to applicable Fact tables, ETLs, and metric reports to allow the calculations to be performed in the metric report's aggregation settings instead of having them embedded within the ETL. New fields triFactEmissionsCarbonTotalLbNU and triFactEmissionsCarbonTotalKgNU were added to triLocationFact and new field triFactCostPerAreaMetNU was added to triREContractFact. These fields can be used in customized reports to display results in metric measurements. (Tri-141525-IV62843)
Reporting	The Current Year parameter on the Energy and Water Usage Report (BIRT) now displays Calendar Year Classification records instead of hardcoded values. (Tri-146887-IV64708)
Reporting	The Percentage Rent Report BIRT form report is added to the Percentage Rent Reporting record. (Tri-89199)
Reporting	The SQL Script defined in Data Sets of the following BIRT reports has been changed to case sensitive in order to support SQL Server Database: 1. Group Security Permissions Report Filter by Group 2. Group Security Permissions Report Filter by Groups (Has Access) 3. Group Security Permissions Report Filter by Groups, Module and BOs 4. Group Security Permissions Report Filter by Module, Business Object, GUI, Tab and Section
	(Tri-135944-IV62559)
Requests	In a service request form, clicking the "Copy" button now generates only one copy of the request. The workflow "triServiceRequest - triCopy - Creates a Copy" was modified so that it does not always create the generic service request. (Tri-162575-IV69748)
Requests	In a service request form, the Service Request section is now correctly displaying the request classes for the location that is selected from a graphic section floor plan. (Tri-143900-IV63506)
Requests	In the General Evaluation Request form, recipients that are manually removed from the Survey Recipients query section are now repopulated through the Find Random Recipients action. (Tri-113716)
Requests	Move Request Line Items can now be added asynchronously to a move request. A setting called "8. Move items within a request exceeding this number will process asynchronously." is in the Move Planning Settings tab in Application Settings. Line items exceeding the number value specified in this setting will be added in the background to allow the user to continue using the application. (Tri-132071)
Requests	Move Requests are now assigned correctly even if there are identical location names in the system. (Tri-134602-IV61540)
Requests	Removed the Assets and Other Locations sections from the Move Services request form. These sections served no functional purpose. (Tri-164792)
Requests	The query that is used for the Requests Pending Approval portal section and navigation items on Requests Landing Page, now displays pending request records that are waiting to be approved. (Tri-143796-IV6336)

Area of Change	Description
Requests	The Remove action on the Child Items section of the Move Request Line Item now correctly deletes the selected child item. (Tri-137822-IV61717)
Requests	When multiple Work Tasks are generated from multiple Work Task Templates in a Service Plan, the Responsible Organization is no longer mapped from a single template to all tasks. Instead, the Responsible Organization is now correctly mapped from the proper Work Task Template to the Work Task. (Tri-166462-IV71012)
Schedule	Custom Add and Remove actions have been added to Service Provider Costs section of Work Task form. These actions will remain inactive until the Work Task is created. Also the Line Number on Service Provider Costs records being created is now incremented. The ask section on Service Provider Costs record is populated with Name, Task ID, and Status fields. (Tri-159025, IV68783)
Schedule	The typographical errors for the label Task ID were corrected in the following three navigation queries:
	triTask - Navigation - Unassigned Tasks for My Team - Filtered By Org Manager triTask - Navigation - Unassigned Tasks - Filtered By Org Any triTask - Navigation - Unassigned Tasks - Filtered By Resource (Tri-150960)
Space and Move	When the Move Planner form (triPlanning > triMovePlanner) is customized, the menu navigation Space > Plan Moves is now correctly displaying the Move Designer tab. Also, the menu navigation Space > Manage Moves is now correctly displaying the Move Project Planner tab. (Tri-163824-IV69952)
System Setup	Classification for Calendar Month under Calendar Period now has the correct Quarter name format (ex 2004 - Q1). Years spanning 2004 - 2010 have been corrected. (Tri-172744)
System Setup	In Classifications under Fiscal Period, the Fiscal Month records from 2004-2010 have the Quarter value under the Reporting section updated to have the correct Quarter name format (ex. 2004 - Q1). Now when the fiscal line items are generated the Fiscal Quarter value is populated. (Tri-154344)
System Setup	In the Password Change form and Password Reset form, the Attention section is no longer hidden and now displays the appropriate Attention messages. (Tri-148679-IV65176)
System Setup	Location Module business objects now have the correct field properties set for UOM List and Default UOM for triRentableAreaMetNU and triRentableAreaImpNU. (Tri-163951-IV69830)
System Setup	Locator fields with incorrect association string and fields are no longer in the asdelivered application, and corresponding warnings no longer appear in the ObjectMigration.log. (Tri-134930)
System Setup	On the Application Administration portal, the Application Builder portal, and the TRIRIGA Global menu, the Label Manager was renamed as Globalization Manager. (Tri-134357)

Area of Change	Description
System Setup	The "Link Description" field on "Notification Link" BO under "Mail Module" has been marked as localizable. (Tri-167147)
System Setup	The jtds-1.2.2.jar Resource File has been removed from the Integration ClassLoader. Also, the jtds-1.2.2.jar Resource File has been deleted from the shipping application.
	Note for upgrading customers: This record will not be deleted through the OM package. It has to be manually removed from the customer environment. (Tri-165373)
System Setup	The Reporting Base Year and Current Scenario Year fields under General tab of the Application Settings record have been updated to display 2015. (Tri-166863)
System Setup	The shipping UOM Values records are now updated to display the correct Conversion Factor value. The UOM Type record for "Time" is now updated with a Base UOM value of "seconds". Also, some of the UOM Values records and UOM Type records that were not used in the shipping application are now deleted. (Tri-136931-IV62515)
System Setup	When reassigning the Contact Roles in the Contact Role Manager - By Person, the user message now denotes the Reassigned From person and the Reassigned To person. Previously, the user message indicated only the number of records that were updated. (Tri-109529)
Workflow	A Linked Record ID on the Contact Role record will now match with the Record ID of the object that it references. (Tri-108127)
Workflow	A new "External Mail From" smart section is added to Notification BO and Form. The smart section is defined against triPeopleLink BO. The Notification workflow should be setup so that this section will be populated with the sender (From user) information. Also the email notification will look like it is coming from the user who sent it instead of the TRIRIGA System. (Tri-168369)
Workflow	When the same building is submitted for an energy rating multiple times, duplicate buildings are no longer generated in the ENERGY STAR Portfolio Manager Live Server. Instead, the same building is now correctly updated. The issue with the workflow "triEnergyStarTransaction - Synchronous - Find Lookup Table Match" is now resolved. (Tri-143605-IV67567)
Workplace Reservation Manager	In the Resource Downtime form, (1) a user message validation now prevents the user from selecting an Offline Date/Time in the past. Also, (2) the Reserve Downtime Action form now alerts the user that any existing reservations are canceled during the offline period from Offline Date/Time to Online Date/Time. (Tri-132057-IV60123)
Workplace Reservation Manager	Recurring Reservations that use the Reserve Cut-Off Duration setting now check the current date time and the cut-off duration instead of the start date of the reservation. (Tri-134796-IV61366)
Workplace Reservation Manager	The column span on many sections of "triReservationManagerLocation" and "triReservationManagerConcierge" forms under triReservation Module has been changed to support the new platform functionality. (Tri-169225)

Area of Change	Description
Workplace Reservation Manager	When you reschedule a single instance from a Reservation Recurrence series, the Cut-off Duration setup will now be respected. (Tri-142039-IV63289)

#### IBM TRIRIGA 10.4.2 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 - 10.4.2 - Application Setup Data	This workflow adds classifications, user messages, and notifications for 10.4.2.
triPatchHelper - triCalculate - 10.4.2 - Application Data - App Version	This workflow creates an Application Version record for 10.4.2.
triPatchHelper - triCalculate - 10.4.2 - Update OTPs associated to RE and Asset Invoice	This workflow is created to update One Time Payments associated to RE Invoice and Asset Invoice.
triPatchHelper - triCalculate - 10.4.2 - Retro Groups Details On My Profile	This workflow is created to update the group details on My Profile records. This patch helper workflow should be executed only when the name of Security Group is changed after the groups have been added to the Employee or My Profile records.
triPatchHelper - triCalculate - 10.4.2 - Retro Document Revision Date	This workflow is created to update the Revision Date on Documents.
triPatchHelper - triCalculate - 10.4.2 - Retro Date on Revision History Line Items	This workflow is created to update the Revision Date on Revision History Line Items.
triPatchHelper - triCalculate - 10.4.2 - Retro Classification Timezone GMT Greenwich Mean Time; London, Lisbon	This workflow is created to update the time zone Greenwich Mean Time (GMT).
triPatchHelper - triCalculate - 10.4.2 - Recalculate RE Project Acquisition Total Building Price	This workflow is created to update the Total Building Price on RE Project Acquisition.
triPatchHelper - triCalculate - 10.4.2 - Retro Payment Schedule To Set Charge Amount Basis	This workflow sets the Charge Amount Basis on existing 'Monthly', 'Quarterly', and Specific Quarterly (Location Specific) Payment Schedules which are in Pending or Scheduled status and also when the Pro Rata Basis value is blank.

Name	Description
triPatchHelper - triCalculate - 10.4.2 - Retro Leases Set Accounting Calendar From App Settings	This workflow sets the default Accounting Calendar from Application Settings on all the Real Estate and Asset Lease records.
triPatchHelper - triCalculate - 10.4.2 - Application Settings Defaults	This workflow sets the default values on the "Application Settings" record.
triPatchHelper - triCalculate - 10.4.2 - Retro Specific Quarterly Payment Schedule	This workflow sets the Payment Due Day and Payment Due On for Specific Quarterly (Location Specific) Payment Schedules.
triPatchHelper - triCalculate - 10.4.2 - Retro Quarterly Payment Schedule	This workflow sets the Period Start Date and Payment Due On for Quarterly Payment Schedules.
triPatchHelper - triCalculate - 10.4.2 - Retro Payment Line Item To Set Start and End Dates	This workflow sets the Start and End Dates on Payment Line Items.
triPatchHelper - triCalculate - 10.4.2 - Retro Payment Instructions	This workflow will retro all the Payment Instruction from Payment Schedule to have association on Contract. It will also clean up any matching payment instructions per payment type. Please refer to the Important information in the release notes above.  To run this patch helper "10.4.2 Payment Instruction Update" string is used.

#### IBM TRIRIGA 10.4.1 Enhancements

The following enhancements to IBM TRIRIGA are in this release:

Area of Impact	Description
Mobile Support	Includes enhancements for working with IBM TRIRIGA Anywhere Workplace Operations.

## IBM TRIRIGA 10.4.1 Changes

The following changes to IBM TRIRIGA are in this release:

Area of Change	Description
Workflow	The workflow "triJobRunItem - Synchronous - Run Job Item" is updated so that the "Update TEMP triETLJobItem" task has "Has Resource File" association. Now, job schedules can completely invoke and execute a job item with a resource file. (Tri-136341)

#### IBM TRIRIGA 10.4.1 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 - 10.4.1 - Application Data - App Version	This workflow creates an Application Version record for 10.4.1.
triPatchHelper - triCalculate - 10.4.1 - Mobile - Create Or Update TRIRIGAAnywhere Folder And Permission	This workflow gives Admin Group, TRIRIGA Service Technician, and TRIRIGA Service Manager Security Groups permissions to the TRIRIGAAnywhere folder. You can add more Security Groups by modifying the "Group - Workflow - Default Groups for TRIRIGAAnywhere Folder" query.
triPatchHelper - triCalculate - 10.4.1 - Mobile - Retro Work Tasks to Create Bar Code Intermediate	This workflow creates barcode intermediate records for each location and asset associated to a work task. Running this workflow is necessary for the barcode scanning feature on the work list page on the mobile app to work.
triPatchHelper - triCalculate - 10.4.1 - Mobile - Update Priority and Status records	This workflow updates the out of the box priority and status records with their respective abbreviations for use and as displayed in the mobile app.

#### IBM TRIRIGA 10.4.0 Enhancements

The following enhancements to IBM TRIRIGA are in this release:

Area of Impact	Description
Notifications	Sending notification content with different languages has always been based on the language of the linked record. The administrator now has the ability to send notification content based on the recipient's language instead. A field in the Application Settings named Send Notification Based On specifies whether notifications are sent based on the record's language or the user's language. The default setting is the record's language. (Tri-124320)

Area of Impact	Description
Real Estate Environmental Sustainability	IBM TRIRIGA Real Estate Environmental Sustainability Impact Manager now provides the option to extend the capabilities of IBM TRIRIGA Real Estate Environmental Sustainability Manager with the following features to help reduce energy use and cost:
	Analytics added to the current TRIRIGA workflow capability to analyze energy usage and energy sensor data, such as temperatures and pressures, to identify assets that are not performing correctly.
	Over 40 predefined analytics to improve HVAC and chiller performance, the equipment that is the major energy consumer for many customers
	Automatic creation of corrective work orders to resolve problems that are identified by the analytics
	Automatic creation of corrective work orders from SNMP alerts from other systems such as a building management system (BMS)
	Additional predefined reports on energy usage and sensor data
	Tools to allow collected energy use and sensor data to be periodically moved into TRIRIGA log files for long-term trend analytics
	A TRIRIGA Real Estate Environmental Sustainability Impact Manager toolkit is available on the IBM Integrated Service Management Library. The toolkit assists customers and service providers to develop integrations that periodically load energy usage and energy sensor data into TRIRIGA. The data is used by the new analytics and for reporting. The toolkit is at <a href="http://www.ibm.com/software/ismlibrary?NavCode=1TW10IB09">http://www.ibm.com/software/ismlibrary?NavCode=1TW10IB09</a> .
Real Estate Lease	Usability enhancements were made for the adjust payment process.
	Tenant improvement calculations for the current FASB standard were added.  A processing status indicator to avoid data corruption while workflows are running an extended process was added.
	An alternate use case was added for handling payment line items when a payment schedule is voided.
	A Pro Rata Basis field was added to the Payment Adjustment log form. The field is always visible. (Tri-127038)
	An Actual Adjustment column named triAdjustmentAmountNU was added to the Index Adjustment Calcs Processing Details and Fair Market Rate Value Calcs Processing Details related reports on the Payment Processes sub tab of the Payments tab. (Tri-114869)

Area of Impact	Description
Workplace Reservation Manager	A new feature was added to handle mutually exclusive rooms that can be combined by using movable partitions into multiple variations and sizes. (Tri-118213)
	The process for helping users to schedule rooms for recurring meetings was enhanced.
	The Reservation Policy feature makes it possible to specify how far in advance a reservation may be made and to restrict early reservations to a specific set of users. A typical use of this feature is to allow executive assistants advanced access to room reservations. When the restricted period ends, reservations are available to all users. (Tri-115604-IV52419)
	You can now specify colors to use in calendars for declined and dependent resource reservations.
	The Reservation system now supports sending TRIRIGA notifications to Outlook users who do not have a registered user/profile in TRIRIGA. Also, the TRIRIGA calendar view now displays the Outlook email associated with these reservations so that reservation coordinators can view the information. (Tri-123790)
	You can now limit the number of reservation query results.
	TRIRIGA now supports silent installation of the reservation add-in for Microsoft Outlook.
	The recurring reservation process now supports the ability to resolve conflicts while making the reservation. (Tri-68952)

# IBM TRIRIGA 10.4.0 Changes

The following changes to IBM TRIRIGA are in this release:

Area of Impact	Description
Asset Lease	Accounting Term Months is now updated on the associated payment line item. (Tri-125435)
Asset Lease	The security group TRIRIGA Contract Manager has been updated to not allow the page actions to display on the asset lease contract payment schedules. This change makes an asset lease contract function like the real estate contract with regard to the payment schedules. (Tri-128661)
Asset Lease	The Unit Count column was added to the payment schedule queries on the asset lease and asset lease template. (Tri-125369)
Asset Lease	When applying an asset lease template to an asset lease record, the payment schedule from the asset lease template correctly applies to the asset lease record. (Tri-131982)
Asset Lease	When the user selects the Voided Payment Schedules related report, then selects the Recurring Payment Setup related report on the Payments tab, the Unit Count column displays, not the Contract Rentable. (Tri-125375)
Asset Lease Real Estate Abstract Real Estate Lease	After a lease record is saved, the currency for fields in the IFRS Treatment section on the Accounting tab are now refreshed with the new currency selected on the General tab. (Tri-128937)

Area of Impact	Description
Asset Lease Real Estate Abstract Real Estate Lease	The name field on the Payment Line Item and the Subject field on simple event records are marked as localizable. (Tri-129101)
Asset Lease Real Estate Abstract Real Estate Lease	The Payment Instruction Allocation Percentage Attention! Message "percentage" value is now formatted to four decimal places. The Allocation % field on the Payment Instruction form rounds to four decimal places, so that the message is now consistent with the field. (Tri-125617)
Asset Lease Real Estate Lease	Payment line items using partial first payment and partial last payment amounts now correctly display in the Scheduled Cash Payment field on the Payment Line Item form. The amount had been incorrectly populated in the Adjustment Amount field. (Tri-122664)
Asset Lease Real Estate Lease	The ID field is now a read-only field and the link is disabled in the Cash Cost Code, Expense Cost Code, and Accrual Cost Code sections on the Payment Line Item form. You can update Cost Codes in the Adjust Payments functionality. (Tri-124855)
Asset Lease Real Estate Lease	The minimum index adjustment/actual adjustment is now applied correctly to the FLIs for both current standard and exposure draft. (Tri-115634)
Asset Lease Real Estate Lease	The past due payments on the Summary tab of a lease record now include the tax value. (Tri-125842)
Asset Lease Real Estate Lease	The revise amendment process no longer copies payment schedules in Void status to the History record. The Void status records now stay with the active record in Revision In Progress status. Only payment schedules in Scheduled status are copied over into Pending status.
	The Copy process copies all payment schedules in Void, History, Scheduled, and Pending status into Pending status on the copy record. (Tri-126033)
Asset Lease Real Estate Lease	The TRIRIGA Real Estate Transaction Manager security group no longer allows any form or application actions to display on asset lease and real estate lease contracts. These forms are read only for this security group. (Tri-128706)
Asset Lease Real Estate Lease	The Void Payment Schedules related report query columns and runtime filters are now in sync with the Recurring Payment Setup related report query on the Payment Schedules tab. (Tri-125285)
Asset Lease Real Estate Lease	When the Review Assumptions action is submitted, all actions are removed until the calculations are complete to avoid incorrect data calculations. (Tri-115010)
Asset Lease Real Estate Lease	When you extend a lease expiration date, if the Accounting End Date is greater than the Base Lease Expiration Date, the Likely Term End Date (Accounting tab, Term Assumption section) is now mapped with the new Accounting End Date of the lease. Otherwise, if the Base Lease Expiration Date is greater than or equal to the Accounting End Date, the Likely Term End Date is mapped with the new Base Lease Expiration Date of the lease. (Tri-115638)

Area of Impact	Description	
Classifications	An issue with the correct association on the Federal Building record when selecting Real Property Use multiple times has been resolved. The association string will be Classified by Real Property Use.	
	You can use either of the following methods to correct the existing records:	
	Method 1: An Admin user can manually remove the association strings.	
	Method 2: The user can run the specific patch helpers to correct the association; however, this method is limited to removing the Classified by triRealPropertyUse association. (Tri-118675-IV54736)	
Classifications	Natural gas is now classified under Scope 1 (energy type) rather than Scope 2. The default Base UOM is set to "Energy > Therms" for natural gas and liquefied petroleum gases. (Tri-114593)	
Classifications	The Planning Measure Type is now set to blank on all shipping Space Class Current classification records. (Tri-130092)	
Classifications	The Record Language on root records for the Weather Stations and Energy Regions hierarchies has been cleared to enable child classifications to be created in the correct language for non-US English-language users. (Tri-129588)	
Contact Center Calendar	Equipment and Vehicle reservations now display in the Calendar section of the Contact Center form. (Tri-116710)	
Currency	The display mask on the UOM_Value record for the Indian Rupees currency is changed to ##,##,###.00. (Tri-126666)	
GIS	Location and Geography forms with a GIS tab now use the new EsriJS URL. Each EsriJS URL maps to a record called GIS Map. Default GIS Map records are delivered in the application. These default GIS Maps are associated to GIS query records. (Tri-117995)	
GIS	Portal sections with GIS maps are updated to use the new EsriJS URL. ArcGIS is no longer supported. (Tri-122202)	
Globalization	Changed the Display Mask for Norwegian Krone to ###,###.00 and the UOM Delimiter to space.  Note: New customers must manually add a space in the Delimiter field for the "Norwegian Krone" and "Russian Ruble" UOM_Value records. (Tri-130355)	
Globalization	For non-US English-language users, the subject and content of the Reservation Satisfaction Survey notification now display in the user's language. (Tri-132625)	

Area of Impact	Description	
Globalization	If you are using Arabic or Hebrew, you must set the locale in the Language Manager of Administrator Console. The correct value for Arabic is ar_EG and the correct value for Hebrew is iw_IL. (Tri-126658)	
Globalization	In 15 of the specs forms (triBuildingEquipmentSpec, triConsumablesSpec, triCoresSpec, triFurnitureSpec, triKeysSpec, triLocksSpec, triOfficeEquipmentSpec, triServicesSpec, triSoftwareLicenseSpec, triSpaceStandardsSpec, triTechnologyAssetsSpec, triTelephoneSpec, triToolsandTestEquipmentSpec, triVehicleSpec, triWorkAreaOutletsSpec), changes were made to following labels:	
	General tab - "Specifier" to "Created by" and "Manage Inventory" to "Manage as Inventory"	
	Inventory tab -"Quantity Safety Stock" to "Safety Stock Quantity". (Tri-125180)	
Globalization	Report axis labels now use translated values. (Tri-128041, Tri-133253)	
Globalization	The labels in the system BIRT report "Funding Source Summary Report" now are translated. (Tri-132740)	
Globalization	The Space Scenario name, which is visible in the Sub Portfolio Plans section of the Portfolio Plan form, is now translated. (Tri-103655)	
Inventory	In the Inventory Item form, the "Estimated Stock Value (On Hand)" field is changed to "Estimated Stock Value On Hand". In the Inventory Count Work Task form, the "Quantity On Hand (From Record)" label is changed to "Quantity On Hand from Record" and "Quantity On Hand (From Count)" is changed to "Quantity On Hand from Count". In the Adjustment Transaction form, the "Quantity to be Posted" label is changed to "Quantity to Be Posted". (Tri-125175)	
Inventory	The following changes were made to inventory labels:	
	In the Inventory Item form, the label "Estimated Stock Value (On Hand)" is changed to "Estimated Stock Value On Hand".	
	In the Inventory Count Work Task form, the label "Quantity On Hand (From Record)" is changed to "Quantity On Hand from Record" and the label "Quantity On Hand (From Count)" is changed to "Quantity On Hand from Count".	
	In the Adjustment Transaction form, the label "Quantity to be Posted" is changed to "Quantity to Be Posted". (Tri-122756)	
Locations	The Geocode Address function has been upgraded to work with the Esri Geocode Service. (Tri-117994)	
Locations	When creating a space, the correct parent floor is now populated via the workflow. (Tri-122571-IV58592)	

Area of Impact	Description	
Notifications	An issue was resolved where some internal Notification Detail Helper records were not being removed after use, causing the system to become bogged-down with IBS_SPEC and IBS_SPEC_ASSIGNMENT records.	
	You can use the following SQL to identify how many of these records exist in your environment:	
	SELECT COUNT(*) FROM IBS_SPEC WHERE SPEC_TEMPLATE_ID IN (SELECT SPEC_TEMPLATE_ID FROM IBS_SPEC_TYPE WHERE UPPER(NAME) = 'TRINOTIFICATIONDETAILHELPER');	
	The following SQL can be used to clean up the records when the next Cleanup process is initiated by the system.	
	UPDATE IBS_SPEC SET OBJECT_STATE = NULL, OBJECT_ID=0-SPEC_ID WHERE SPEC_TEMPLATE_ID IN (SELECT SPEC_TEMPLATE_ID FROM IBS_SPEC_TYPE WHERE UPPER(NAME) = 'TRINOTIFICATIONDETAILHELPER')	
	(Tri-130887)	
Notifications	Approval escalation duration is now correctly calculated based on the duration that is defined in the product request template. (Tri-127601)	
Offline	In Spanish, the label for triBidOffline001 now shows the complete content. (Tri-132301)	
Offline	The fields in the Guarantor and Default Remit To sections and the Included In Rent and LandLord/Third Party fields in the Parking Details section of the RE Lease Abstract Offline form are no longer protected fields and now allow data entry. (Tri-131864-IV55013)	
Password Reset	Password Reset functionality has been added to enable the process to reset a forgotten password. This process assumes that there is only one email per user account. (Tri-127771-IV57725)	
Portfolio	When retiring a location, more visual emphasis is placed on the Auto Cleanup fields and an erroneous user message on retired spaces has been corrected. If the user chooses not to enable the Auto Cleanup functionality, then any assigned assets, people, and organizations must be manually removed from retired locations. (Tri-111659-IV52237)	
Real Estate Lease	An auto-created Space Use Agreement now remains associated to the current active revision record and the history record when performing a revise/amendment for the real estate lease or owned property (fee) agreement. (Tri-127256-IV56919)	
Real Estate Lease	On a real estate lease, exercising a renewal option now updates the contract notifications with the new expiration date reminder and sends out the notification correctly. (Tri-113289-IV52355)	

Area of Impact	Description	
Real Estate Lease	On the payment line item form for Real Estate Lease, Owned Property (Fee) Agreement, and Asset Lease, the actions are hidden when the payment line item is in active status. The following actions are allowed: Real Estate Contract section - Find, Clear Cash Cost Code section - Find, Remove Expense Cost Code section - Find, Remove Accrual Cost Code section - Find, Remove Tax Breakdown section - Add Tax Type, Remove (Tri-122510)	
Real Estate Lease	Owned Property (Fee) Agreement is no longer stuck in Processing status if the record is activated, a payment adjustment performed, then activated again. (Tri-133591)	
Real Estate Lease	The Accounting Cost Center on the payment line item (PLI) is now populated from the value entered on the payment schedule. (Tri-125494)	
Real Estate Lease	The Bypass Date Gap Validation check box is now hidden when all payment schedules are removed and the record is saved. (Tri-115144)	
Real Estate Lease	The contract notification on rolling options is no longer missing. The notification name now states, "Rolling Option Window Close for (Option Name) option of (linked contract record name). This Option must be exercised by (Effective To Date). (Role) to review."  If you upgrade to 10.4.0, you must run patch helper Application Setup Data. (Tri-113947-IV51849)	
Real Estate Lease	The Cost per Unit field on the payment schedule is now read-only. The Cost per Unit amount is calculated on Create or Save actions.  For RE Lease / Owned Property / Lease Abstract, the calculation is based on Annual Amount / Contract Rentable  For Asset Lease, the calculation is based on Annual Amount / Unit Count.  (Tri-94266)	
Real Estate Lease	The Create Schedule(s) action generates an Attention! message and displays the Bypass Date Gap Validation check box when the payment schedules have the same End Date on the Generate Payment Schedule form. This is now consistent with the Attention! message on the lease Activate action. (Tri-115145)	
Real Estate Lease	The Create Schedule(s) action on the Generate Payment Schedule form now correctly generates an Attention! message when any of the required From Date, To Date, or First Payment Date fields are blank. First Payment only applies to payment schedules using the Other frequency type. (Tri-115149)	
Real Estate Lease	The field size for the Name field on the Payment Schedule and Payment Line Item business objects was increased to 700 to correct a mismatch. (Tri-130177)	

Area of Impact	Description	
Real Estate Lease	The Is Notice Required Before Non-Monetary Grace Period Begins field and the Grade Period for Non-Monetary Default field in the Default Clause section under the Default tab of the Lease Abstract form now display correctly in the columns. (Tri-131275)	
Real Estate Lease	The real estate lease option dates are no longer recalculated when the Option form is canceled with the form "X". (Tri-129934-IV59287)	
Real Estate Lease	The retrieval of the Payment Schedule and PLIs has been changed to be 'More Than or Equals' which allows the Termination Effective Date to be equal to or after the date of the first Payment Schedule and PLIs.	
	The label on the Contract Terminate form was changed to "Void payments on and after termination date".	
	The label on the Contract Expiration form was changed to "Void payments on and after expiration date". (Tri-122953)	
Real Estate Lease	The TRIRIGA Lease Accountant security group was updated. Now the Generate Payment Schedules section action displays on the Real Estate Lease contract Payments tab. This change makes the Generate Payment Schedules section action for a Real Estate Lease contract function the same as it does for an Asset Lease contract. (Tri-128704)	
Real Estate Lease	When applying a real estate lease template to a real estate lease record, the payment schedule from the real estate lease template is correctly applied to the real estate lease record. (Tri-132070)	
Real Estate Lease	When doing a payment adjustment, if there is a partial first and partial last amount for the same month, the system now combines the amount and represents it as one PLI. (Tri-126827)	
Real Estate Lease	When terminating a real estate lease after an amendment, the straight-line value of Rent Expense column in the Schedule Straight Line section is now correct. (Tri-115637)	
Real Estate Lease Asset Lease	A lease with a Location Specific Quarter schedule now correctly moves out of Processing status. (Tri-124365)	
Real Estate Lease Asset Lease	Accounts receivable deposit payment schedules that are auto-generated through the lease clause setup now correctly change from Processing to Scheduled status when the lease is activated. (Tri-131376)	
Real Estate Lease Asset Lease	Corrected an issue where the Tenant Improvement Incentive was deducted from the Minimum Lease Payments (MLP), for example the rent, for Current Accounting Standards. (Tri-115633)	
Real Estate Lease Asset Lease	The residual value guarantee is now reflected for the schedule type A/type B from the history lease when a lease is extended through the amendment process. The residual value was being reflected only for the last period and not for the original period before extension. (Tri-115635)	

Area of Impact	Description	
Real Estate Lease Asset Lease	The security group TRIRIGA Contract Manager has been updated to not allow any form or application actions to display on the asset lease and real estate lease contracts. These forms are read only for this security group. (Tri-128681)	
Real Estate Lease Globalization	The following fields in a real estate lease can be translated: - triRealEstateContract business object - triFasbCapitalorOpLeaseTX field - triAssetLease business object - triFasbCapitalorOpLeaseTX and triFasbLeaseTreatmentTX fields  (Tri-109350)	
Real Estate Transactions	Payment schedules from an RE Project Lease are now created when creating schedules using the Generate payment schedules form. Issues related to the Create and Create Cash flows schedules action are also corrected. (Tri-130378)	
Real Estate Transactions	The BO Mapping for the triReceivingLineItemLog business object in the triInventoryTransaction module now uses the Topic field instead of the Name field. (Tri-107588)	
Real Estate Transactions	The Financial Analysis tab and Summary Metrics tab were removed from the following RE Transaction Term forms:  - RE Transaction Acquisition Terms - RE Transaction Current Terms - RE Transaction Sublease Terms - RE Transaction Lease Terms - RE Transaction Termination Terms - RE Transaction Disposition Terms - RE Transaction Expiration Terms - RE Transaction Expiration Terms	
Real Estate Transactions	The section actions on the Financial Terms tab of all RE Project forms are now visible for a user logged in as TRIRIGA RE Transaction Manager. (Tri-101734)	
Reporting	A formula indication has been added to the column heading of "Variance" in the following System Report, another column is added to the report to display variance in \$. In addition, the variance is renamed to "Budget Variance".  Title: Project Cost Summary - All Projects Name: triCapitalProject - BIRT - Project Cost Summary AllProjects  (Tri-128845)	

Area of Impact	Description
Reporting	A layout issue was corrected for the following reports:
	Active Transaction Plans (BIRT) Asset Invoice Summary Bulk Print (BIRT) RE Invoice Summary Bulk Print (BIRT) Contract Summary (BIRT) Daily Reservations Report (BIRT) Condition Assessment - Funding Analysis Summary Record (BIRT) LEED Checklist3 (BIRT) Space Rollup Summary Building (BIRT) Space Rollup Summary Floor (BIRT) Space Rollup Summary Property (BIRT) Vendor Performance (BIRT) Vendor Performance Portal (BIRT) Weekly Reservations Report (BIRT)
	(Tri-129734)
Reporting	Corrected an issue where the last day of the reporting period was not captured by the date-range based ETL job items. (Tri-84732)
Reporting	Sections of the Move Planner which contain the 'Bulk Print Move Items' action might not point to the correct report. To manually point to the correct BIRT report, you must complete the following steps after you upgrade to version 10.4.0:
	1. Log in as an admin user.
	2. Go to Tools > Document Manager > TRIRIGA > triltem.
	3. Point, but do not click, your mouse at the "Move Request Line Item Form Report (BIRT)" document. At the lower left corner of your browser, you may see "javascript:openDocument(XXXXXXX);". The XXXXXXX is the document ID. Make note of this ID.
	4. Go to Tools > Builder Tools > Form Builder.
	5. Click triPlanning and open triMovePlanner form.
	6. Click the "Move Line Items for Selected Request" query section.
	7. In the Properties window, click the "Bulk Print Move Items" action.
	8. In the URL of the action property, you will find "/html/en/default/common/RepBuilder.jsp?source=bulk&docId =XXXXXX&showFilters=false&queryName=triItem_triMoveRequestLineItem _triMoveRequestLineItem _MoveDesigner _BulkPrint _For _Request".
	9. If the document ID is different from step 3, replace the value in the URL path in step 8 with the document ID from step 3.
	10. Click the "Move Line Items for Selected Project" query section.
	11. In the Properties window, click the "Bulk Print Move Items" action.
	12. In the URL of the action property, you will find "/html/en/default/common/RepBuilder.jsp?source=bulk&docId =XXXXXX&showFilters=false&queryName=triItem_triMoveRequestLineItem _triMoveRequestLineItem _MoveDesigner _BulkPrint _For _Project".

	13. If the document ID is different from step 3, replace the value in the URL path in step 12 with the document ID from step 3.	
	14. Click the "Move Line Items for Selected Scenario" query section.	
	15. In the Properties window, click the "Bulk Print Move Items" action.	
	16. In the URL of the action property, you will find  "/html/en/default/common/RepBuilder.jsp?source=bulk&docId  =XXXXXX&showFilters=false&queryName=triItem_triMoveRequestLineItem _triMoveRequestLineItemMoveDesignerBulkPrintForScenario".	
	17. If the document ID is different from step 3, replace the value in the URL path in step 16 with the document ID from step 3.	
	(Tri-131360)	
Reporting	The BIRT report for Bulk Print Move Line Items is converted from form report to a query report. (Tri-129202)	
Reporting	The following queries were removed:	
	triEnvCarbonLog - REPORT - Grainger Emissions Report triEnvCarbonLog - REPORT - Grainger Environment Impact Report	
	These two queries can be manually removed if not used anywhere in the system. (Tri-113187)	
Reporting	The system BIRT report named triCapitalProject - BIRT - Project Cost Summary - Portal now displays the data correctly in languages other than US English. (Tri-131289)	
Reporting	The variance in the "Project Cost Summary - All Projects" BIRT report now shows the same display format as the format used in the Budget Variance (%) field in the Summary section in the Budget tab of Capital Project records. (Tri-128740)	
Requests	Inventory items from the On Hold transaction form now work correctly for consumable and assignable items. (Tri-127974-IV58938)	
Requests	Move Services for small move/group move now shows the correct spaces for the To Location based on the functional role of the person being moved. (Tri-126987-IV56863)	
Requests	Resources are now copied from the task template if a work task is created from a request or a planned maintenance schedule. (Tri-124701)	
Specifications	Labels in the specification forms were changed to improve clarity. (Tri-122761)	
System Setup	A list value for Design Change Request has been added to triLinkedForm list. The linked form value on the Contact Role Setup record for RE Project Sublease is reselected to display the correct value from the list. (Tri-129468)	
System Setup	The default value for a Planning Measure Type list in a new Space Class Current Classification record is changed to Occupancy. (Tri-129376)	
Workplace Operations	The Procedure Step was removed from the Add list of Safety Plans (Procedures) in the Floor record in an object migration environment. (Tri-114836)	

Area of Impact	Description	
Workplace Reservation Manager	An update iCAL attachment for each exception is now sent with the notification after a reservation is submitted. (Tri-128554)	
Workplace Reservation Manager	Corrected typographical errors in the Workflow Builder field labels 'Original Commencement Date' and 'Commitment Original for the original Commitment'. (Tri-121823)	
Workplace Reservation Manager	Resolved an issue that caused series reservations to not be declined when the reservation occurred outside the room's calendar. For example, a series occurrence showed as accepted on a weekend for a room having a Monday-Friday calendar. (Tri-118868)	
Workplace Reservation Manager	Resolved an issue where Reservations could only be opened by the delegate who created the reservation. (Tri-124208-IV56284)	
Workplace Reservation Manager	Resolved an issue where Vehicle and Equipment inventory items that were removed from a Primary Location were still displayed in the Location Reservation form as available to be reserved. (Tri-122028)	
Workplace Reservation Manager	Spaces that have the check box for "Do Not Allow Series Reservations" selected as part of a Reservation Space Group no longer show in the queries when the reservation is a recurring reservation. (Tri-124324)	
Workplace Reservation Manager	The Account Detail action is now available as appropriate for the state of the record. (Tri-113286)	
Workplace Reservation Manager	The detail information in the email notification that is sent from non-US English-language user now contains all information. (Tri-129936)	
Workplace Reservation Manager	The triCancellationChargesNU formula field is no longer recursive. This resolves an issue when running a year service window. (Tri-129094-IV59103)	
Workplace Reservation Manager	The update/exception iCAL now updates the correct date and time. (Tri-130482)	
Workplace Reservation Manager	Users that are not the Reservation Coordinator to any space record can no longer see private rooms. (Tri-120116-IV54302)	
Workplace Reservation Manager	When a recurring reservation with no end date or in which the end date is beyond the cut-off date time (reservation start date time + cut-off duration), the reservation is declined. The user must change the end date and re-book the room. (Tri-68981)	
Workplace Reservation Manager	When a reservation is changed, the food orders and equipment orders are now retired correctly. (Tri-126245)	
Workplace Reservation Manager	When creating a reservation, the logged in user must have time zone set. If the user's time zone is not set in the user's profile, a user message displays and the reservation is in read-only mode. (Tri-69376)	
Workplace Reservation Manager	When deleting a reservation space group with a space associated to it (using "Delete" in Location hierarchy), the Do Not Allow Series Reservations field on the associated spaces is now unchecked. (Tri-126159)	

Area of Impact	Description
Workplace Reservation Manager	When the Reserve Cut-Off Duration = 0 on a space, a user can now create a no end recurring reservation. The space shows up in the available spaces for the user to select. (Tri-125277)

### IBM TRIRIGA 10.4.0 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.

The following patch helper workflows are in this release:

Name	Description	
triPatchHelper - triCalculate - 10.4 - Application Setup Data	This workflow adds classifications, user messages, notifications, and the like for 10.4.	
triPatchHelper - triCalculate - 10.4 - Application Data - App Version	This workflow creates an Application Version record for 10.4	
triPatchHelper - triCalculate - 10.4 - Energy Optimization - Reset Rule Definition Form Meta-Data	This workflow updates Rule Definition Form meta-data based on Event Type. This workflow is created for INTERNAL USE only.	
triPatchHelper - triCalculate - 10.4 - Energy Optimization - Retro Main Meter & Utility Rate Plans Section on Utility Meter Assets	This workflow updates assets having a Spec Class of "Utility Meter" to display the new "Main Meter?" field on the General tab and the new "Utility Rate Plans" section on the Environmental tab.	
triPatchHelper - triCalculate - 10.4 - Energy Optimization - Retro DEFAULT Asset Analytic Process	This workflow updates "DEFAULT" Analytic Process with their appropriate Rule Definitions & Rule Parameters associations	
triPatchHelper - triCalculate - 10.4 - Energy Optimization - Retro Utility Rates Tab on External Company	This workflow updates "external company" organization records having an organization type of "Utility Supplier" to display the new Utility Rates tab.	
triPatchHelper - triCalculate - 10.4 - Energy Optimization - Fix Rule Parameter Published Name	This workflow updates All Rule Parameters with new Published Name to include Control Number. This workflow is created for INTERNAL USE only.	
triPatchHelper - triCalculate - 10.4 - Application Settings Defaults	This workflow sets the default values on "Application Settings" record	
triPatchHelper - triCalculate - 10.4 - Energy Optimization - Retro DEFAULT Asset Job Schedulers	This workflow updates DEFAULT Asset Job Schedulers to show associated ETL Job Item	

Name	Description
triPatchHelper - triCalculate - 10.4 - Energy Optimization - Retro Resource File Section on ETL Job Items	This workflow updates existing ETL Job Items that are ETL Transformations to display the new Resource File Query Section
triPatchHelper - triCalculate - 10.4 - Bidi - Retro DEFAULT Base Text Direction	This workflow sets the default value of the Direction of user-generated text field to Default in the Employee records
triPatchHelper - triCalculate - 10.4 - Update UOM_Value Records	This workflow is to update the Name on CAM classification record and Name on CAM Type Cash Flow Line Item records to "Common Area Maintenance"
triPatchHelper - triCalculate - 10.4 - Reserve - Remove Specs From Spaces	This workflow removes existing association from space to specification if association between the primary location of the space and specification does not exist.
triPatchHelper - triCalculate - 10.4 - Retro Federal Building with Real Property Use	This workflow corrects all Federal Building records with incorrect association selected for Real Property Use.
triPatchHelper - triCalculate - 10.4 - Retro Federal Land with Real Property Use	This workflow corrects all Federal Land records with incorrect association selected for Real Property Use.

# IBM TRIRIGA Application Platform 3.4.2

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 for this release:

Area of Impact	Description
Accessibility	Some of the links in a calendar, such as today, previous month, choose month, and next month, are not accessible. If the screen reader does not announce the month and year, type the date directly in the text field. (Tri-92422)
	The scroll left and scroll right buttons in a row of tabs are not accessible by using the Tab key. The user can access those buttons by using the mouse to scroll to them. The drop-down menu can be accessed by using the keyboard and pressing Ctrl+down arrow key. (Tri-92435)
	If the autocomplete feature is enabled for a locator field, users must specify the exact string in the input field so that a unique record can be automatically assigned after the user moves out of the input field.
	If a search returns multiple records, the user must move out of the input field and use the selector icon to select the record.
	If there is no matching record to a specified string, users cannot use the Tab key to move out of the input field. If the screen reader keeps saying the Tab key, users must press the Esc key to tab to the next element. (Tri-96117, Tri-92431)
	The Attention section is not accessible. If an application message is displayed, the message is not read by the screen reader. However, the application messages are accessible through section navigation and landmark navigation.
	For example, if a visually impaired user is typing a value in the Password field that does not follow the company's password rules, the attention section displays a warning, but the screen reader does not read it. So, the user does not receive the warning that the entered value is not valid. (Tri-100541, Tri-92816)
	In Internet Explorer, if a portal page display extends beyond the bottom of the window, and a user presses Ctrl+space to open a portal section button, the portal page display scrolls to the bottom of the window.
	The portal section button retains the focus. (Tri-92252)
	The focus box and the dashed lines are not visible in the portal for quick links of the type Large View.
	Workaround: The status bar at the bottom of the browser shows the target URL of the currently focused quick link. The name property in the URL is the label of the quick link, for example, name=Builder+-+Portal+Builder. (Tri-103893, Tri-109460)
	The focus box or dashed line is not visible when the current focus is on the column header of a hierarchical report.
	Look at the status bar where the column header label is displayed. (Tri-109452, Tri-107966)

Area of Impact	Description	
Browsers	Browser	Important Information
	Google Chrome	For Java applets to load, the use of NPAPI plugins must be enabled in Chrome. In order to enable these plug-ins, open Chrome and enter chrome://flags/#enable-npapi into the address bar. Click the Enable action under Enable NPAPI.
	Mozilla Firefox	Fixed-column queries do not remain fixed in place due to a Firefox limitation.
		Opening a new record in the popup view opens the new window behind the window that originated it. This is a known issue with Firefox / Adobe Flash. Disabling the plug-in corrects the issue. You can find more information in the following article: <a href="http://support.mozilla.org/en-US/questions/938033">http://support.mozilla.org/en-US/questions/938033</a> (Tri-78853)
		There is limited support for HTML5 charts.
		Firefox may not close all windows automatically when signing out of a single sign-on session. (Tri-84899)
		Firefox has a feature that blocks ALL Java plug-ins. Users see the following message: "Activate Java Deployment Toolkit. This plug-in has security violations." For more information on how to activate the plug-in for use with TRIRIGA applications, see <a href="https://support.mozilla.org/en-US/kb/how-allow-java-trusted-sites">https://support.mozilla.org/en-US/kb/how-allow-java-trusted-sites</a> . (Tri-130970)
		For Firefox, bidi users must configure the "layout.scrollbar.side" variable in order for the scroll bars to be displayed on the left as required by bidi languages:
		<ul> <li>Type "about:config" (without quotations) in the urlbar and hit Enter</li> <li>Search for "layout.scrollbar.side" (without quotations) variable</li> <li>Double-click</li> <li>Modify the value to the number 3</li> <li>Click Ok</li> <li>Restart Firefox</li> </ul>
		For reference, see <a href="https://support.mozilla.org/en-US/questions/758702">https://support.mozilla.org/en-US/questions/758702</a> (Tri-132054)
Business Objects		latform to 3.4.x but do not also upgrade the application to ss objects must be republished to support localization
	Option 1: To republi	sh all of the business objects, you can follow the instructions sh_all_BOs_For_localization_MSSS.sql or _For_localization_ORCL.sql scripts, which are found

Area of Impact	Description
Area of Impact	Description
	in the scripts directory of the Application Upgrade disk. You use the ORCL script for DB2.
	Option 2: You may 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:
	föllowing 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) triAnalyticFvocess (triAnalyticRule) triAnalyticRule (triAnalyticRule) triApplicationSettings (triSetup) triApproval(triRouting) triApproval(triRouting) triApprovalRule (triSetup) triAssetEvent (triAnalyticEvent) triBuildingSystem (triBuildingSystem) triBuildingSystem(triBuildingSystem) triBuildingSystem(triCatalog) triCatalogLink (triCatalog) triCiApplicationDefinition (triCiApplicationManager) triCiHierarchyNode (triCiHierarchyNode) triCiHierarchyNode (triCiHierarchyNode) triContractCtink (triContract) triContractLink (triContract) triCostCode (triContract) triCostCode (triCostCode) triCostSessment (triIntermediate) triDataAttributeltemIntermediate (triIntermediate)
	triDesignLink (triDesign) triEnergyRatingErrorLog (triLog) triEnergyStarValidationItem (triIntermediate) triExternalMailServer (System)
	triExternalMailServer (System) triGeographyLink (Geography) triInspectionLink (triInspection) triInventoryLocation (triInventoryLocation)
	triInventoryLocationLink (triInventoryLocation) triItemLink (triItem) triKeySecurity (triKeySecurity)
	triLeaseAbstract (triContract) triLeaseAbstractAction (triActionForm)

Area of Impact	Description
	triLocationEnergySpace (triIntermediate) triLocationLink (Location) triNotificationDetails (triRouting) triOSCREUtii (Data Utilities) triPeopleLink (triPeople) triPermitLink (triPeople) triPlan (triPlanning) triPlannedSpace (Location) triPlanning (triPlanning) triPlanningConflictItem (triPlanning) triPlanningEnvironment (triPlanning) triPlanningPeriodItem (triPlanningItem) triPlanningScopeltem (triPlanningItem) triPlanningScopeltem (triPlanningItem) triProductsAndServicesLink (triProductsAndServices) triProjectCalcItem (triCalculationItem) triProjectLink (triProject) triProjectUpdater (triActionForm) triProjectUpdater (triActionForm) triReContractLocations (triIntermediate) triRequest (triRequest) triRequestLink (triRequest) triReservationGroup (triSetup) triResource (triIntermediate) triReview (triActionForm) triScheduleTask (triTask) triSpaceForecastItem (triPlanningItem) triSpaceForecastSurvey (triPlanning) triSpaceForecastSurvey (triPlanning) triSpaceCenario (triPlanning) triSpaceScenario (triPlanning)
Data Modeler and Form Builder	Custom display masks in the Data Modeler and Form Builder now only specify decimal precision for currency UOM fields. In the custom display mask format, there is now no difference between a zero (0) and a hash sign (#). The format must follow Java format, with a period (.) as the decimal separator. For example, if the custom display masks for a currency field were ###,###.0000 or ###,###.0##, for the value 123,456.789, the output would be \$123,456.7890. (Tri-172343)
DB2	If you wish to support multi-byte characters with IBM DB2, you need to make sure your database is created with UTF-8 and string_units must be set to CODEUNITS32. You can use the TRIRIGA provided scripts to create your database with expected settings. Follow the instructions in the IBM Knowledge Center for TRIRIGA Application Platform 3 in the Installing IBM TRIRIGA Application Platform section to ensure your platform supports multi-byte characters properly.

Area of Impact	Description
Globalization	In the UOM_Values form, the UOM Delimiter field and UOM Decimal field must now agree with the Display Mask field. Specifically, the UOM Delimiter value must match the grouping separator in the Display Mask field, and the UOM Decimal value must match the decimal separator in the Display Mask field. For example, a French currency UOM might contain the following values: ### ###,00 as Display Mask, a space as UOM Delimiter, and a comma as UOM Decimal. If the user specifies a currency default, then the currency value is displayed with the currency default's display mask. But the value must use the grouping and decimal separators from the user's locale as defined in the user's profile. If the user enters a currency value with a grouping separator, then the value must use the grouping separator from the user's locale. If the user enters a currency value with a decimal separator, then the value must use the decimal separator from the user's locale. For example, a French user who creates a contract with US Dollars as the currency UOM can enter the value 12345.00 in one of the following ways: '12 345,00' or '12345,00' or '12345', and any of these values is displayed as '\$12 345,00'.  Because Japanese Yen currency does not contain decimal places, records created in the Japanese Yen currency UOM no longer display decimal places. The currency UOMs specified in records, and their respective currency symbols, did not change. What changed is the formatting of the number portion of a number field. In a currency UOM, the field "UOM" is searched for the phrase "yen", regardless of letter-casing. If it is found, the application omits the decimals during formatting of the currency value.  The as-delivered Euro currency UOM value has incorrect values in its display mask, delimiter and decimal separators. Update the values so they will be insync.  (Tri-146850, Tri-173628)
Globalization	The display mask for UOM values with type not set to Currency must be in the US English or Java-accepted format. For example, #.####
Globalization	The label for the existing builder navigation item, Builder - Label Manager, is automatically updated to the label "Globalization Manager" during platform upgrade if you have not changed the label prior to the upgrade. Otherwise, it is not automatically upgraded and remains "Label Manager". In this case you need to manually update the label to "Globalization Manager". If you are upgrading your application to 10.4.2, this navigation item also has its label updated to Globalization Manager after the application upgrade if the navigation item remains with the name Builder - Label Manager. Otherwise, a new navigation item is created and you have the option to either manually update the label of your renamed builder navigation item or use the newly created navigation item with the label of Globalization Manager. Even if you have updated its label to something else before the application upgrade, its label is updated to Globalization Manager after the application upgrade.  The Builder field under Target Details section of the Navigation Item Editor now has Globalization Manager instead of Label Manager. (Tri-134797 and Tri-134357)
Globalization	The records of the following business objects in the triPlatformDBTableManager are always excluded during data export: triIndex, triSparseColumn, triTable, triIndexedColumn. (Tri-169897)

Area of Impact	Description
Globalization	The system now recalculates all localized record paths for languages being imported even if there are few data language files being imported.
Globalization	When the Globalization Manager > Import action is selected, the Import Languages pop-up window no longer displays the Run Post Import Process action. The new post import process makes certain that no duplicated language offline content records are created. But duplicated records for a language might still exist from the pre-3.4.2 Run Post Import Process. Remove any duplicated records before you use the new post import process. The new post import process automatically starts whenever a label file for a non-US English language is imported. The new offline content process generates a language offline content record if one does not exist, or regenerates the offline content spreadsheet if the record exists. The new offline content process uses the ID of the offline content record to decide whether a language offline content record exists. It is in the form of: [ID in English]-[Language Name in English]. Do not change the ID of any generated language offline content record. When the offline content spreadsheet is regenerated, all manual changes by users are overwritten. Do not manually change the spreadsheets in offline content records and save back into them. (Tri-152621)
Graphics	Exporting very large graphics could require configuring your web server with a larger maximum post size. (Tri-28770)  Exporting from a graphics section does not work properly on WebSphere with SSL. By default, WebSphere adds additional caching headers to responses that already contain cache control, which causes issues in IE when trying to stream application data like PDF files back to the client. This can be disabled via a custom property for your application server in the WebSphere Integrated Solutions Console. Note that this change merely prevents WebSphere from automatically adding headers; you are then left with the cache control headers that IBM TRIRIGA intends to be there. Please reference the following guide: <a href="http://publib.boulder.ibm.com/infocenter/wasinfo/v6r1/index.jsp?topic=%2Fcom.ibm.websphere.express.doc%2Finfo%2Fexp%2Fae%2Frrun_chain_httpcustom.html">http://publib.boulder.ibm.com/infocenter/wasinfo/v6r1/index.jsp?topic=%2Fcom.ibm.websphere.express.doc%2Finfo%2Fexp%2Fae%2Frrun_chain_httpcustom.html</a> Following the steps in that guide, add a custom property named CookiesConfigureNoCache with a value of False to your secure HTTP transport channels.  After completion, restart the server, and the Export works properly. (Tri-34664)
Installation	For DB2 only, upgrade ensures that bufferpools use the automatic size instead of a static size. If a change is required and the TRIRIGA user does not have appropriate privileges, an error is displayed at system start-up in the server.log.  To resolve the error, either grant the TRIRIGA user DB2 admin group privileges or execute alter bufferpool TRIRIGABUFFERPOOL immediate size automatic as a user with sufficient privileges. (Tri-148404)
Installation	IBM TRIRIGA does not currently support container databases in Oracle 12c. When Installing and configuring your Oracle 12c database with 'dbca', do not choose the "Create As Container Database" option. (Tri-105909)

Area of Impact	Description
Installation	It is no longer possible to upgrade from IBM TRIRIGA Application Platform version 2.7.x or earlier. To upgrade from 2.7.x or earlier, you must first upgrade to version 3.3.1.0, and then upgrade to this platform version. (Tri-95335)
Installation	Only Java 7 (JDK 1.7) is supported for application servers. (Tri-66668)
Installation	Oracle Weblogic Server 12.1.3 is the only version of Weblogic that is supported. Make sure that the 64-bit version is installed by downloading a 64-bit 1.7 JDK from Oracle and installing wls by using the java -d64 -jar fmw_12.1.3.0.0_wls.jar file. (Tri-135316)
Installation	The default isolation level in WebSphere for MSSQL Server must be set to 2, rather than the default of 4. This is set by the installer.
Installation	You must make sure the entire Websphere server, profile, and commands run with the 1.7_64 Java version. Run these commands:
	/opt/IBM/WebSphere/AppServer/bin/managesdk.sh -setCommandDefault -sdkName 1.7_64
	/opt/IBM/WebSphere/AppServer/bin/managesdk.sh -enableProfileAll -sdkname 1.7_64 -enableServers
	(Tri-167427)
Integration Object	When setting a default value for a database scheme in the integration object, you must recreate your database table with the script provided. The scripts include the default value that you set in the DataMap tab to be the Default value used for the database column. (Tri-81322)
Locations	The data that is saved in the non-object id columns is not updated if the property name is updated on other records that include that name in the database. This issue does not occur in the database nor in the record runtime and TRIRIGA queries. (Tri-135622-IV61178)
Microsoft SQL Server	If the upgrade of an MSSQL database with MBCS enabled fails and you see in the ant.log that there were invalid views during the NVarchar Conversion process, use the following recovery steps:
	Review the ant.log to identify the invalid views.
	Run the upgrade with MBCS Support turned off.
	Log into IBM TRIRIGA and republish the business objects identified in the ant.log as having invalid views.
	Run upgrade with MBCS Support turned on. (Tri-32284)
	If you are upgrading an MSSQL database with MBCS enabled, before the upgrade to 3.4.x, you must (1) back up your database, and (2) republish the triRealEstateContract business object in the triContract module, the triBuilding business object in the Location module, the triLeaseAbstract business object in the triContract module, and the triREProject business object in the triProject module. This is to avoid a possible MSSQL error on the backing table of one of these business objects during

Area of Impact	Description
	the upgrade. The error that might occur if a business object is not republished is as follows: "Cannot create a row of size xxxx which is greater than the allowable maximum row size of 8060". If this error occurs, a table is not configured correctly for MBCS. In this case, restore the database. If you republished those four objects before upgrade, contact the IBM TRIRIGA team at IBM Software Support for instructions. If you did not, republish those objects and try the upgrade again. (Tri-31926, Tri-94270)
	If you have custom tables in the IBM TRIRIGA table space and you are upgrading to MBCS on Microsoft SQL Server, these tables may not convert correctly depending on the table definition (for example, if <code>IDENTITY_INSERT</code> is set). These tables need to be either deleted or converted manually before running the 3.4.x MBCS upgrade.
	To convert these tables manually, alter all varchar fields to be nvarchar and alter their collation to the collation used during the conversion during install. For example, for field XXX in table YYY when your desired collation is Japanese_CS_AS and the SIZE of the varchar field is 100, the script is as follows: alter table YYY alter column XXX nvarchar(100) collate Japanese_CS_AS (Tri-32702)
	Microsoft SQL Server has a row size limit of 8060 bytes. On MSS2008, there is an overflow mechanism that transparently enables a row to logically exceed 8060 bytes while physically overflowing some of the extra data into a separate part of the database. More information about the 8060 byte limit can be found at the following link: <a href="http://msdn2.microsoft.com/en-us/library/ms186981.aspx">http://msdn2.microsoft.com/en-us/library/ms186981.aspx</a> .
Move Planner	If you use Move Planner functionality to update project task schedules, and your application server is on a UNIX or Linux platform, you must setup a valid XWindows server (X.org, XVFB, or XVNC), set the DISPLAY environment variable, and set -Djava.awt.headless=false in order for the updating of project task dates to work properly. On Windows, you may need to make sure that -Djava.awt.headless=false. This is only for the Synchronous workflow "triMovePlanner - Synchronous - Update Project Task Schedules" that calls the custom workflow class "com.tririga.gantt.server.workflow.ScheduleProject" (Tri-169732)
Navigation	Pressing a key or key chord and the Access Key character navigates the user directly to the tab or triggers the action defined in the Form Builder. Different browsers use different keys or key chords, as follows:
	For Microsoft Internet Explorer -> Alt+AccessKey+Enter
	For Mozilla Firefox -> Alt+Shift+AccessKey
	For Google Chrome -> Alt+AccessKey
	For Apple Safari -> Alt+Control+AccessKey (Tri-71056)

Area of Impact	Description
Oracle	If you are installing a new Oracle database and wish to support multi-byte characters, make sure your instance character set is UTF-8 or UTF-16 and your NLS_LENGTH_SEMANTICS is set to CHAR, not BYTE. Follow the instructions in the IBM TRIRIGA Application Platform 3 Information Center in <i>Installing IBM TRIRIGA Application Platform</i> to ensure your platform supports multi-byte characters properly. (Tri-32998)  If you are upgrading an Oracle database and are considering changing the instance character set to UTF-8 or UTF-16 to support multi-byte characters, it is imperative that you carefully follow the instructions in the IBM TRIRIGA Application Platform 3 Information Center in <i>Installing IBM TRIRIGA Application Platform</i> . Failure to do so could compromise your data.
Reporting	Reports with blank titles show up first in the list if the database is Microsoft SQL Server and show up last in the list if the database is Oracle.
Security	Security is not applied when a PDF generated from an external report type (BIRT and Crystal) is emailed. (Tri-88536)
Security	Users with only the TRIRIGA Anywhere license can log into TRIRIGA only via the TRIRIGA Anywhere application, not the TRIRIGA application. (Tri-146576)
Security	You can find instructions for managing issues with applets such as the Gantt in which the applet console reports a security exception under CVE-2010-3560 at <a href="http://www.oracle.com/technetwork/java/javase/6u22releasenotes-176121.html">http://www.oracle.com/technetwork/java/javase/6u22releasenotes-176121.html</a> .
Software Licenses	Starting with IBM TRIRIGA Application Platform 3.2, IBM TRIRIGA distributes software licenses in a separate license file for each product. The license file names are in the format  LICENSE_IBM_TRIRIGA_{productname}.properties (for example, LICENSE_IBM_TRIRIGA_Application_Platform.properties).  You may continue to use your existing TRIRIGALICENSE.properties file if you have one. You do not need to replace your TRIRIGALICENSE.properties file until it expires or your software requirements change.  At the end of an install, your config\licenses directory should contain either your LICENSE_IBM_TRIRIGA_{productname}.properties files or your TRIRIGALICENSE.properties file, but not both.  After you start using the LICENSE_IBM_TRIRIGA_{productname}.properties files, do not revert to the TRIRIGALICENSE.properties file. (Tri-33449)  Attention - All application servers accessing a database must have the same license set. The only exception is the license for IBM TRIRIGA Connector for Business Applications since it may be licensed only on a limited number of servers and should only be placed on that number of servers to stay in compliance.
Syclo	Syclo has been removed from the IBM TRIRIGA Application Platform Compatibility Matrix. Customers should contact the vendor with any issues or concerns regarding Syclo and the IBM TRIRIGA Application Platform.

Area of Impact	Description
Upgrade	IBM TRIRIGA Applications that are upgraded to IBM TRIRIGA Application Platform 3.4.2 may display sections differently from previous platform versions. Please see the following URL that explains the impact of upgrading existing IBM TRIRIGA Applications to IBM TRIRIGA Platform Application 3.4.2: <a href="https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/IBM%20TRIRIGA1/page/Upgrading%20existing%20Applications%20to%20IBM%20TRIRIGA%20Application%20Platform%203.4.2">https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/IBM%20TRIRIGA1/page/Upgrading%20existing%20Applications%20to%20IBM%20TRIRIGA%20Application%20Platform%203.4.2</a>
WebLogic Installation	The TRIRIGA installer sets enforce-valid-basic-auth-credentials in WebLogic to false by default. If your company's security policy dictates that the setting cannot be set to false, then you are to setup the usernames that connect from TRIRIGA CAD Integrator/Publisher one by one in the WebLogic Security Repository.  Please consult the WebLogic documentation to setup the users individually in the WebLogic console. If your company has no rules regarding the enforce-valid-basic-auth-credentials setting in WebLogic, do not change the value to true. (Tri-169464)
WebSphere	The automated installation of TRIRIGA with WebSphere may fail if the com.ibm.SOAP.requestTimeout parameter value is not increased. The parameter can be found in the soap.client.props file within the Application Server properties directory of WebSphere. Setting this value to 0 makes it unlimited.
	When using WebSphere, an additional MIME Type is required for certain pages in the application to display properly. You must add a new extension, phtml, as $text/html$ . For more information, go to the IBM TRIRIGA Application Platform 3 Information Center and select Installing IBM TRIRIGA Application Platform. (Tri-29060)
	Use the correct JDK for your WebSphere installation.
	If you have two WebSphere installations, one at
	/[pathToWebsphere]/IBM/WebSphere/AppServer1
	and one at
	/[pathToWebsphere]/IBM/WebSphere/AppServer2,
	using java in the first installation causes the installation to fail. (Tri-89328)
Workflow	It is IBM best practice to set WF_INSTANCE_SAVE to ERRORS_ONLY. If you must record workflow instances to debug an issue, do so in a non-production environment, and set it to PER_WORKFLOW_ALWAYS. By doing this, the workflow instances that are saved will be isolated to those you set in the Workflow Builder, and you won't have to worry about other interactions. You should only set it to ALWAYS for a limited time only, and only at the direction of IBM Support. Do not run with ALWAYS for more than 24 hours. (Tri-174458)

### **Known Limitations**

The following items are known limitations concerning the IBM TRIRIGA Application Platform for this release:

Area of Impact	Description
Accessibility	Internet Explorer is the supported browser for accessibility.
	In Internet Explorer, section action links do not retain focus after a link's action page is opened and closed. (Tri-93030)
	On the Personalize page, only the Save and Cancel buttons are accessible. If a user tabs past the Save and Cancel buttons, the only way to close the Personalize page is to press Shift+Tab to return to the Save and Cancel buttons. (Tri-93069)
	The focus may be lost when users add, rename, delete, or move a bookmark or bookmark folder.
	With keyboard navigation, users can press Shift+Tab until they get to the actions at the bottom of the bookmark window. For JAWS users, a landmark region can be used if the focus goes out of the bookmark window. (Tri-92461)
Applets	Chrome requires NPAPI Plugins to be enabled to render Applets. (Tri-171327)
Document Management	Double-byte characters do not display when you preview Unicode or UTF-8 .txt files. You must download the file to see the content. (Tri-36352)
Document Management	When uploading documents to Document Manager using drag and drop, the hierarchy structure of multiple nested files will not be maintained. This is due to limitations in what the browsers is allowed to access on the local file system. An alternative approach is to zip the files with the structure intact.
Excel Sections	Excel Sections are no longer supported with IBM TRIRIGA Application Platform 3.4.2. Office Web Components (OWC), which the Excel sections relied on, is no longer a supported Microsoft technology in the latest versions of Internet Explorer that platform version 3.4.2 works with. Applications can be designed to leverage distill and populate tasks to perform Excel calculations where previously required. (Tri-171479)
Extract, Transform, and Load (ETL)	The as-shipped ETL scripts are written against the standard IBM TRIRIGA database and its database columns, but after an upgrade, a small number of your implementation's database column names that were auto-generated during the upgrade may be slightly different and not match the names in the released ETL scripts. Review your ETL scripts and change them as needed to ensure the column names match the generated column names in your database. (Tri-27625, Tri-27705)
	If you use any of the IBM TRIRIGA Workplace Performance Management products, any of the IBM TRIRIGA Real Estate Environmental Sustainability products, the OSCRE features, or ETL Job Items, the name of your IBM TRIRIGA installation directory and the location of the application server cannot contain spaces. These applications use Pentaho to run ETLs. Pentaho is a third-party application that has a startup issue when the name of the directory where the application resides has a space in it. For more information, see the Pentaho issue database for PDI 2689 at <a href="http://jira.pentaho.com/browse/PDI-2689">http://jira.pentaho.com/browse/PDI-2689</a> .
Gantt	When you use the Gantt with SSO, you must respond to some login prompts to use the Gantt chart. When you open Gantt in a new window, you must respond to

Area of Impact	Description
	login prompts as the local Java Web Start downloads the resources from the SSO protected server, and to another login prompt as the Gantt application connects to the SSO protected server.
GIS	Some labels may not be translated in the GIS map. To resolve this issue, remove the "TRIRIGA_Locales.properties" from the Resource Files section of the "EsriJS" Class Loader record. (Tri-174691)
Globalization	If you change values in the List Manager, the changes will only be exported for label translation if you clear the Object Metadata Cache in the Administrator Console after adding or changing the list value. (Tri-126541)
Globalization	Tabs are incorrectly aligned in Hebrew environments. (Tri-158133-IV68218)
Globalization	The following areas are not fully globalized and translated:
	Application builder pages are only available in US English, including Form Builder, Data Modeler, Workflow Builder, and Label Manager. Application builder pages may show mixed translations if the user's preference is set to a language other than US English and the language packs are applied.
	The installer is only available in US English. Installing to a path under Program Files may not work on a non-US English-language version of Windows.
	Some pages to which only an administrative user has access are only available in US English. This includes Application Setup pages, the Administrator Console, data utilities, and the System, Associations, and Work Flow Instance tabs.
	Brava! Viewer labels are available in US English only.
	Document paths in BIRT reports are available in US English only.
Globalization	You must restart the TRIRIGA server after you import a language pack or the hierarchy pages do not display translated action labels such as Open, New, Delete, and Cut. Users also can clear browser cache. (Tri-171710)
Graphics	When using graphics sections in Internet Explorer 11, text elements in a graphic may flicker or disappear from the view when zooming or panning using the toolbar icons or the context menu controls (not using the mouse scroll zoom). This can occur if the source drawing's coordinates are extremely distant from the origin point (0,0). If you observe this issue, the original drawing should be modified in the CAD application so that all entities are selected and moved closer to the origin point. The drawing would then need to be republished to TRIRIGA using CAD Integrator.
Installation	Oracle Weblogic Server 12.1.3 only supports installation to a managed server. Please see the installation guide for more information. (Tri-135316)
Integration Object	Integration Object Data Map does not render when using a DB2 data source in the DC to File scheme. An Object Migration package can be requested through IBM Support and imported to resolve this issue. (Tri-176082)
Language Packs	When you import a language pack for the first time, you may see exception messages in the LabelManager.log file. To eliminate the exception messages, repeat the import of the language pack.

Area of Impact	Description
	You may see persistence errors in the Translation.log file when a language pack is imported into an environment that is upgraded to 3.3 or later with the 10.3 or later object migration package applied. These errors are displayed because the field that is referenced has been removed from the application. You do not need to repeat the import of the language pack to correct this issue.
Mail	You must be logged in as a US English user when creating or modifying Incoming Mail Config records in order for Incoming Mail Agent to pick up the changes. (Tri-173638)
Microsoft Exchange	Microsoft Exchange (SMTP) does not support yearly recurrences when day, weekday, and weekend day are specified for the weekly option. (Tri-39663)
Object Migration	Comparison Associations are only included in OM Comparison Reports as different if the association is truly different. (Tri-135803-IV61181)
Object Migration	Importing records with many associations might take a long time to import. (Tri-144723)
Object Migration	Searching for objects using the 'Modified By User' criteria in Object Migration will not return results.
Offline	Microsoft Exchange converts a sent Microsoft Outlook message (.msg file) and any attached messages (.msg files) into Multipurpose Internet Mail Extensions (MIME) format. However, the IBM TRIRIGA Incoming Mail Agent is not designed to recognize attachments in MIME format. Instead of attaching Microsoft Outlook .msg messages to another .msg message, you have two options. To attach the file, either (1) From Microsoft Outlook, save the .msg attachment as a Microsoft Outlook file template (.oft file). Then, attach the .oft file to the main .msg message that you are delivering in Microsoft Outlook, or (2) From Microsoft Outlook Web App (OWA), attach the .msg file to the main email that you are delivering, in the OWA. After attaching the file, send the message or email. (Tri-67117)
Reporting	Data changes cannot be made via editable query fields if the editable query contains Group By clauses and if the query is either Query or Report report type. (Tri-123757-IV55557)
Reporting	The Prompt Before Query option is not supported in Chart reports. (Tri-148111-IV65177)
Single Sign On	IBM TRIRIGA is compatible with Single Sign On (SSO) when SSO has been configured properly. After TRIRIGA properties are enabled for SSO, TRIRIGA authentication trusts tokens that are provided by properly configured Application Servers with SSO. TRIRIGA Support can assist with configuring TRIRIGA properties for SSO, but, due to the number of possible configurations and supported products/technologies, TRIRIGA Support cannot assist in the configuration of SSO with application servers. For more information refer to Requirements for single sign-on requests in the TRIRIGA Application Platform.
Support	For Internet Explorer only, a minimum version of IE 11.0.9 is required for graphics sections to display. (Tri-151690)

Area of Impact	Description
Support	Internet Explorer is no longer supported if Compatibility View Settings are enabled.
Support	The IBM TRIRIGA Application Platform no longer supports Solaris or Solaris Intel operating systems.
Upgrade	IBM TRIRIGA Applications that are upgraded to IBM TRIRIGA Application Platform 3.4.2 may display sections differently from previous platform versions. Please see the following URL that explains the impact of upgrading existing IBM TRIRIGA Applications to IBM TRIRIGA Platform Application 3.4.2: <a href="https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/IBM%20TRIRIGA1/page/Upgrading%20existing%20Applications%20to%20IBM%20TRIRIGA%20Application%20Platform%203.4.2">https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/IBM%20TRIRIGA1/page/Upgrading%20existing%20Applications%20to%20IBM%20TRIRIGA%20Application%20Platform%203.4.2</a>
Workflow	Running multiple workflow servers should be done to allow workflow processing to be fair to all users, not necessarily to increase the throughput of the number of workflows done. Adding more workflow agents to an environment can slow down processing, and cause undesirable results, if workflows are not written with multi-threading in mind.
	It is a best practice to assign secondary workflow agents to specific power users that tend to run more workflows than a normal user. If the secondary workflow agents are left wide open, a set of workflow instances are picked up in parallel, and some can be processed out of order. It is important to know that increasing the number of threads on a single process server results in higher throughput than splitting the threads across two servers. Typically, the bottleneck of performance in an environment is the database server, and not the process servers.
	If you already have a system that is deployed with multiple workflow agents, consider either:  * stopping the secondary agents, and increasing the threads on the primary workflow agent server to be the sum of the threads across the other servers  * or restricting the secondary agents so that they are exclusive for the set of power users. (Tri-142706-IV72994)

# IBM TRIRIGA Application Platform 3.4.2 Changes

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

Area of Change	Description
Administrator Console	Event entries from the HEARTBEAT_EVENT queue are automatically deleted when the events are greater than a day old. (Tri-147804)
Administrator Console	Group By works for queries in the Database Query Tool in the Administrator Console. (Tri-123429)
Administrator Console	If an Administrator Console user has read-only access, the user does not see the Platform Maintenance Scheduler tab or the Scheduler Manager tab. (Tri-144144)
Administrator Console	Resolved an issue that occurred when a database script with double quotation marks in the name would not load the script list. (Tri-136455)
Administrator Console	The cache is flushed on other servers only after the Platform Maintenance Agent has completed its work. Before the change, each of the servers would receive a notification to rebuild the whole cache, rather than just flushing it. (Tri-169890-IV72394)
Administrator Console	The Data Pool row was removed from the Database Manager tab. (Tri-149886)
Administrator Console	The Database Query tool now saves queries that contain special characters. (Tri-151578-IV66152)
Administrator Console	The Language Manager is no longer part of the Administrator Console. The Language Manager features are now merged into the Globalization Manager. Go to Tools > Administration > Globalization Manager. (Tri-134383)
Administrator Console	The Scheduler Manager now resets Daily, Weekly, Monthly, and Yearly values for no end date scheduled events that are set too low or too high to the lowest allowable value. (Tri-166451)
Browser	In multiple browsers, when you go to Employee Records > Profile > Group Details, a gray bar no longer hides data. (Tri-151574)
Calendar	An issue was resolved where the This Month filter would not find dates that were set to relative on the first day of the month. Also, an issue was resolved where the This Month filter would pull too many records from the last day of the previous month. (Tri-162847-IV69871)
DataConnect	DataConnect staging tables no longer contain the unused OBJID field for Classifications and Locator fields. (Tri-160132)
Document Management	Document revision dates now follow the same date format that is specified within the user's profile. (Tri-136999)
Document Management	ESS and Reserve Manager licenses now have Read access to the Document Manager. (Tri-161958)

Area of Change	Description
Document Management	In the Document Management tool, when Toggle MultiFile > Select Multiple Files for Upload is selected, attempting to upload a folder now displays an alert message that only file uploads are allowed. (Tri-166085)
Document Management	In the TRIRIGAWEB.properties file, the Exclude File Extension list now works when you upload a file. If you specify an extension, a file of that file type is not uploaded. (Tri-148586-IV65053)
Document Management	Internet Explorer now uses HTML5 to render the document upload widget. (Tri-160613)
Document Management	The DM_History business object has been updated to have a triSystemIdSY field, the published name has been updated to refer to the new field, and the records have been updated to refer to the new published name. (Tri-141342-IV63233)
Dynamic Fields	When Dynamic fields are blank, a message displays stating that required fields are missing. (Tri-67368)
Form Builder	Non-admin users are now directed to the last main page upon completion of a main page form. (Tri-145903-IV64584)
Form Builder	Resolved an issue for System fields that included a "Source Details" link where there was no source available. (Tri-146138-IV64609)
Form Builder	When a form section is copied in Form Builder, the Name field for the copied section no longer allows a name that is longer than 30 characters. This field requirement resolves an SQL exception that is generated when the name is longer than 30 characters. (Tri-99400)
Gantt	Gantt functionality is now upgraded to use Netronics JGantt 3.1. There was no change in functionality with this upgrade. (Tri-150188, Tri-167856)
Gantt	The login prompt will no longer be shown for the inline schedule applet. Launching for the first time will bring up a login prompt through the Java Web Start system as it connects to retrieve the code from the server. (Tri-117207)
GIS	ArcGIS JavaScript API version 3.11 is now the supported API. Note that when connecting to the Esri Online ArcGIS Server, the resource file <code>EsriJS_arcgis.js</code> no longer needs to be uploaded to the EsriJS Class Loader. Also note that the resource file used for internally hosted Esri ArcGIS Server environments still needs to be uploaded to the EsriJS Class Loader. The file name has changed to <code>Esri_API_3.11.zip</code> , and the configuration steps for this file have been updated. For more details please see <a href="Integrating data with external applications">Integrations</a> in the IBM Knowledge Center. (Tri-152813)
GIS	In the GIS Map form, the Options tab now displays a Geometry Service field where the user can specify a service to process the transformation of projections in the EsriJS viewer. The user can reference that service in widgets and use that service for point projection. (Tri-100286)

Area of Change	Description
GIS	On a building record or other records that are found in the Location module, in order for a Geocode Address link to correctly retrieve and store Latitude and Longitude values, Esri OAuth Credentials need to be provided in the User Name and Password fields of the Geocode Address - Esri - Authentication Integration Object (Tools > System Setup > Integration Object). The following link provides details on retrieving your Esri OAuth Credentials: <a href="https://developers.arcgis.com/rest/geocode/api-reference/geocoding-authenticate-a-request.htm">https://developers.arcgis.com/rest/geocode/api-reference/geocoding-authenticate-a-request.htm</a> (Tri-140182)
GIS	Removed the debug information from the EsriJS GIS Map Details section, unless the map is being viewed from the Preview tab of a GIS Map Record. Also renamed the details tab from 'Hide/Show Details' to 'Hide/Show Options'. (Tri-165156)
GIS	Resolved an EsriJS issue where non-admin users were not able to access widgets on a GIS Map, regardless of if the Add Security check box for a particular widget was selected. (Tri-144776)
GIS	Resolved an EsriJS issue where the opacity property on layers was ignored. (Tri-164995)
GIS	Resolved an EsriJS issue where the results for the query export utility on the GIS Map did not contain the translated report labels. Additionally resolved an issue where multi-byte characters were not being correctly displayed in the query export results. (Tri-130846)
GIS	Resolved an IBM TRIRIGA Class Loader issue where the server.log was reporting that there were too many open files when loading the EsriJS_3.11.zip file from the EsriJS Class Loader. (Tri-167850)
GIS	Resolved an issue where the GIS Widget was not loading for both admin and non-admin users. Now, non-admin users must be part of the TRIRIGA GIS Widget View Mode security group in order to load GIS Widgets, regardless of whether any Widget Security Groups are specified in the GIS Map Record. (Tri-164589-IV70350)
Globalization	A bidirectional logo was added. (Tri-158152-IV68301)
Globalization	A localized field in a smart section reference with modify can now be assigned with the localized value of its source field in the smart section of the form. (Tri-152148)
Globalization	A translated tool tip for a Form Action button now displays on the Image icon. (Tri-96030)
Globalization	Business objects that are marked as deleted are now excluded from the data export for translation. Related warnings should no longer appear in the TranslationData.log. (Tri-134792)
Globalization	Column headers of a vertical smart section now show the translated value of their corresponding record data. For example, the Scenario Evaluation section of a space plan. (Tri-103657)
Globalization	Field level auditing now tracks the localized values of a text field. (Tri-160970-IV69079)

Area of Change	Description
Globalization	Form labels are now translated in the Report Manager. (Tri-173246)
Globalization	If there is no value in the user's language, the internal value of a security group name displays. (Tri-168535)
Globalization	In the Work Task form, the Task Name field is now translated for non-US English-language users. After the Work Task is generated from the submitted request, both concatenated field values in the Task Name are now translated: "Work Task Template Name" + "Request Class Name". The translated value of a classification field is now calculated in the extended formula in the workflow. (Tri-146688-IV64610)
Globalization	Label and data export moved from the Administrator Console to the Globalization Manager. Go to Tools > Administration > Globalization Manager > Export action. (Tri-134352)
Globalization	Label style with list field is now rendering properly and translated in the graphic section. (Tri-154750)
Globalization	Non-US English-language users can now filter reports by title. (Tri-165557-IV72359)
Globalization	Resolved an issue where language values of classification fields are not showing in some areas like the "Pro Rata Basis" field of the "Generate Payment Schedule" form. (Tri-148611)
Globalization	Resolved issues with Polish currency formatting. (Tri-160096-IV68929)
Globalization	The "old - DM_UserContainer" and "zCleaning Request" business objects, if marked as deleted, may not have been properly removed from the environment. These are now removed during server start up after you upgrade the platform. (Tri-134913, Tri-134914)
Globalization	The action items in the Action Items Portal section now show translated data. (Tri-157377-IV67978)
Globalization	The Builder field in the Target Details section of the Navigation Item Editor now contains "Globalization Manager" instead of "Label Manager". (Tri-134797)
Globalization	The display mask for UOM values with type not set to Currency must be in the US English or Java-accepted format. For example, #.### (Tri-170673)
Globalization	The Export action in the Globalization Manager now exports all existing translations for labels. (Tri-125579)
Globalization	The label for the Builder - Label Manager navigation item is now Globalization Manager. If you previously modified the label of that navigation item, the change was not made. You can change the label from Label Manager to Globalization Manager. (Tri-156581)
Globalization	The rules for the display of the "No Conversion exists" popup message have changed.  1. No popup message appears when a conversion does exist. The user can change

Area of Change	Description
	the UOM.  2. When there is a value in the field and no currency conversion exists, the message appears.  3. If the value is zero (SHOW_ZEROS_IN_NUMBER_FIELDS=Y) or empty (SHOW_ZEROS_IN_NUMBER_FIELDS=N), the existence of a conversion is not checked. There is no popup message. The user can change the UOM.  (Tri-168912)
Globalization	The standard display of negative currency values now shows the UOM abbreviation, followed by a minus sign (-), followed by the number. For example, \$-1,000.00. To display negative currency values in a different format, you must add a second display mask to the UOM Values record for the currency. For example, ###,###.00;(###,###.00). Note that the positive display mask must be the first in the list of display masks and that there is a semicolon (;) between the two values. (Tri-166822)
Globalization	The subject of an equipment reservation record is no longer translated after the US English value "Equipment" is entered by a non-US English-language user. (Tri-132413)
Globalization	The translated record names or paths of classification records now display in the label part of metric graphs. (Tri-152158)
Globalization	The translated value of the system read-only field that is named Business Object is now translated in the Payment Terms form. (Tri-148839)
Globalization	The Unit of Measure (UOM) values in Currency fields and other UOM-type fields are now correctly sorted in alphabetical order for non-English users. (Tri-130388)
Globalization	The US English tooltips now have a new file structure. They are now in XLIFF file format and packaged in a compressed file that is named GUITooltips_US_English_20150421.zip. The file can be found in the guitooltips folder of the language packs file that is named tririga_342_20150510_language_packs.zip. (Tri-156596)
Globalization	Translated messages display while processes are in progress in metric charts for non-US English-language users. (Tri-128942)
Globalization	Updating the internal value of the project name (of a project record) does not automatically update the internal value of the system read only project name field which in turn does not trigger recalculation of the formula in the project name. However, updating the language value of the project name will trigger recalculation of the language values in the project name formula. (Tri-93063, Tri-93064, Tri-158159)
Globalization	When a decimal value from the database is formatted, TRIRIGA is no longer incorrectly using the application server's system locale. To ensure proper decimal support, the database decimal separator must be a period (.). TRIRIGA is not certified on any database where the decimal separator is a comma (,). (Tri-153185-IV66842)
Globalization	When a lease record is activated for review, the value of the Action Item in the notification record for the manual approver is now translated. (Tri-158010)

Area of Change	Description
Globalization	When a report created by a non-US English-language user has security groups, the names of the groups now display in the user's language in the report's Security tab and in the My Reports list. (Tri-165905)
Globalization	When the reference file for a delta export has a US-English language pack source from the installer, the most recent language pack file in the User Files/ Language Packs folder is now used. The file selection is based on the modified date of the file. If there are multiple language pack files in the User Files/ Language Packs folder and the files were not modified, the language pack from the installer of the most recent upgrade or new installation is used. (Tri-152623)
Globalization	When you export labels and data for translation, the corresponding language tag of the selected target TRIRIGA language is properly set to the target-language property of the exported XLIFF files. (Tri-166401-IV70966)
Globalization	When you go to Tools > UOM > Values, the new dialogs are no longer too small to display field values. (Tri-143092)
Globalization	When you import a language data file, a smart object error message no longer displays. (Tri-130826).
Globalization	When you run a delta export of data with differences that are determined by the US-English language pack from the installer and with the target language set to Internal Values, errors no longer occur in the TranslationData.log for records that are linked. Errors now indicate records with null spec names or records in the T_table that do not also appear in the IBS_SPEC table. (Tri-134785)
Globalization	You can use the Base Language action to swap to a different base language for data. You will no longer need to import the data language pack at the same time that you are swapping the base language for data, but the data language pack needs to be imported before changing the base language. The translated data for the new base language are automatically selected. (Tri-154870)
Graphics	Improved the performance of the Graphics Section when running several reports in one session. (Tri-167820)
Graphics	Resolved an issue where the application server's system Locale was incorrectly used when formatting numeric values in graphics. Graphics with numeric values can now display correctly and be used in reports. (Tri-160045-IV69278)
Graphics	Resolved an issue where the Special View link was not displayed for non-admin users. (Tri-141750-IV63061)
Graphics	Small drawings, such as drawings scaled in meters, now render line widths correctly. (Tri-135679-IV61446)
Graphics	The label style font height or size is now correctly applied to the hover label in the web graphics. (Tri-143087-IV63337)

Area of Change	Description
IBM TRIRIGA Connector for Business Applications	Uploading .docx, .xlsx and .pptx files by using IBM TRIRIGA Connector for Business Applications is now updated to set the relevant mime type for these files types. (Tri-147941-IV65024)
IBM TRIRIGA Connector for Business Applications (CBA)	Resolved a CBA issue where hidden tabs were not returned in the getGUI operation. The visible element for hidden tabs in the soap response now has the value 'false'. (Tri-166740)
Installation	A session timeout is added for IBM WebSphere Application Server Liberty Profile. To change the session timeout, edit server.xml in the tririga/wlp/usr/server/tririgaServer directory and change the httpSession invalidationTimeout value. The setting is in seconds. (Tri-155116)
Installation	At installation time, a front end application server must be specified. It cannot be blank. Example: appserverURL:8001 (Tri-165762)
Installation	IBM TRIRIGA now works with JTDS 1.3.1 for Microsoft SQL database connections. (Tri-153637)
Installation	Invalid secondary language entries are removed from the DB2 database on upgrade. (Tri-170992)
Installation	Production Mode is no longer needed in the platform. The system now refreshes the cache automatically when working in builder tools, removing the need for repeatedly loading metadata from the database. This eliminated a huge overhead on the database. (Tri-142286)
Installation	Resolved a IBM TRIRIGA Connector for Business Applications (CBA) logging issue when there is no content found for the passed in content record id and the content field name in the CBA download content operations. The log now shows a warning with a description of the issue. (Tri-160942)
Installation	Resolved an issue where cleaning of imported OM package was not cleaning the xml content properly. (Tri-132759)
Installation	Resolved WebLogic TRIRIGA Installation issue where Axis.jar was showing up as a file to add to the classpath in setDomainEnv.sh and setDomainEnv.cmd. Also resolved an issue where a JSTL library reference in weblogic.xml was unnecessarily causing WebLogic administrators to manually deploy a WebLogic JSTL library. (Tri-141061-IV62882)
Installation	The configuration of WebLogic Managed Server is now scripted via the IBM TRIRIGA Installer. The data-source and .war file are automatically configured to IBM TRIRIGA specifications. The installation of the .war file can only be done to a Managed Server, configured to be managed by an Admin Server. Installing into the WebLogic Admin Server is not supported and will not work. Please refer to <a href="Installing IBM TRIRIGA Application Platform">Installing IBM TRIRIGA Application Platform</a> in the IBM Knowledge Center for full information about installing into WebLogic. It is not possible to install into an existing older WebLogic version with existing TRIRIGA, since older versions of TRIRIGA do not support version 12.1.3. It is also required to run the 64 bit version of WebLogic. This

Area of Change	Description
	should be installed with the "Generic" WebLogic installation, and an existing 64-bit version 1.7 Oracle/Sun. (Tri-104056)
Installation	The default Min Memory and Max Memory for WebSphere Liberty Profile Java Settings are carried over from the existing installation file, if provided. (Tri-165234)
Installation	The IBM TRIRIGA Installer now supports two options, installation with an existing database, or installation with a new database. The database only install and process server install options are no longer available.
	Typically, you choose the option to install with an existing database, for example, when you do a platform upgrade or a process server installation.
	You choose the option to install with a new database when you have no existing database, and it is the very first time you are installing TRIRIGA into an environment that doesn't have an existing database. (Tri-154830)
Installation	The server.log file now rolls nightly and contains the current date in the file name. (Tri-153611-IV66603)
Installation	The ServerEnvironment property is no longer used and has been removed from new installations. (Tri-134114)
Installation	The steps to set com.ibm.ws.webcontainer.maxParamPerRequest in the WebContainer in WebSphere have been automated in the installer. (Tri-153993)
Installation	The TRIRIGA Application is now a WAR file rather than an EAR file. (Tri-127582)
Installation	The TRIRIGA installer sets enforce-valid-basic-auth-credentials in WebLogic to false by default. If your company's security policy dictates that the setting cannot be set to false, then you are to set up the usernames that connect from CAD Integrator one by one in the WebLogic Security Repository. Please consult the WebLogic documentation to set up the users individually in the WebLogic console. If your company has no rules regarding the enforce-valid-basic-auth-credentials setting in WebLogic, do not change the value to true. (Tri-169464)
Installation	Updated the db2createinst script to check that the DB2 command line processor is set. (Tri-138716)
Installation	WebSphere can now be configured when installed to "Program Files". (Tri-141876)
Installation	WebSphere Liberty Profile user files from a specified old installation directory are now transferred to the new WebSphere Liberty user file. Any custom login images are carried over to the new installation's user file. (Tri-154747)
Installation	When the installer prompts for the WebLogic directories, the defaults are now set for the specific operating system (Windows vs. Linux/Unix). (Tri-145797)
Installation	When you upgrade IBM TRIRIGA, the installer now sets the default Java Memory Setting for Max PermGen to the previous environment's value. (Tri-150330)

Area of Change	Description
Integration Object	A fix was made to set unrecognized mime types to "application/octet-stream", instead of "text/plain" for content handled in IBM TRIRIGA Connector for Business Applications (CBA). As a best practice, any integrations expecting content to be handled as a "text/plain" mime type should include the appropriate file extension, such as ".txt". (Tri-159167)
Integration Object	Added enhanced logging to the integration object File scheme to assist users with any errors with their integration configuration. If the file or directory is not accessible when you click Execute, the File Section displays a red border with text indicating that the file is not accessible. (Tri-150211-IV65618)
Integration Object	During the integration object execute process, binary data is no longer processed multiple times with each inbound record. (Tri-151177-IV65891)
Integration Object	In the integration object form, when the Scheme is HTTP Post and the Post Type is PARAMETER, a new Parameters field is now displayed. In this new field, the user can specify name-value pairs in name:value format with one entry per line. This new Parameters field also supports the {token} format when a query is specified in the Query For Outbound section. The default parameters are also properly overwriting non-default parameters in the Data Map tab. Also, when the Post Type is PARAMETER, the default Request Method is POST. When the Post Type is QUERY_STRING, the default Request Method is GET. (Tri-107671)
Integration Object	Integration Object now contains a DB2 data source. (Tri-157292)
Integration Object	Resolved an integration object issue when choosing to use an uploaded file for the File Import scheme where the failed file access error message would always display when testing file access. It would also incorrectly display when clicking Execute. The testing file access feature is now disabled when using the uploaded file for the File Import scheme. (Tri-153517)
Integration Object	Resolved an integration object issue where two fields were incorrectly displaying in the File Inbound Scheme after clicking Execute. (Tri-155810)
Integration Object	The Integration Object form is now updated so that alternative forms are not returned for selection, as described in the getGuis() and getGuisByName() methods in the IBM TRIRIGA Application Platform 3 Connector for Business Applications Technical Specification. (Tri-81527)
Licensing	Added an index on the LICENSE_METRIC table column TOME_SNAPSHOT. (Tri-141430-IV63057)
Licensing	An IBM TRIRIGA Facility Management Enterprise license was added back into the license table. (Tri-141933-IV62946)
Licensing	In the user's My Profile form, if the User Count field value is greater than 1, then the License Metric table no longer counts the distinct users. Instead, the table allows active-session user counts up to the maximum user count that is set by the User Count field. (Tri-147803)

Area of Change	Description
Logging	The BUILD NUMBER and other important server info will now also be printed at the start of the Platform Maintenance Agent, as well as at the start-up of the Application Server. (Tri-138708)
Mail	Support now included for Incoming Mail Configuration records to work with Microsoft Outlook 365, where the MailServerType is "pop3s" and the port number is "995". This support is automatically included in IBM TRIRIGA 10.4.2. (Tri-147332)
Mobile - Work Task Management	The OSLC application now properly converts values that are sent as non-US Dollars. (Tri-150689)
Notifications	Resolved an issue with mail servers which use IPv4 addresses, but not IPv6 addresses. The option -Djava.net.preferIPv4Stack=true must be added to the jvm.options if the application server uses IPv6 addresses, but the mail server uses IPv4 addresses.  To be fully IPv6 compliant, you must ensure that all of the mail servers that are
	used with the TRIRIGA application are IPv6 compatible. If so, you must navigate to the TRIRIGA installation directory, then navigate to: wlp/etc, open jvm.options and remove the line -Djava.net.preferIPv4Stack=true (Tri-174214)
Object Migration	A new list import policy is added which prioritizes the import list. Any additional list values added by the client before the import are pushed to the bottom of the list and their sequence numbers are updated accordingly. (Tri-141359)
Object Migration	An option to not include association information for any records when creating an OM package is now available. Open the panel for the Record Data included in the package, select one or more records, and click the Do Not Include Associations link. (Tri-144765)
Object Migration	Resolved an issue that caused the Base Currency field to be omitted when an existing field was migrated into a target environment. (Tri-149497-IV65287)
Object Migration	Resolved an Object Migration issue where the Data Map and the Response Maps for imported Integration Object records often had module IDs, business object IDs, and form IDs that were out of sync with the actual IDs on the target environment. This required a re-save of the maps after import. Re-saving the Integration Object Data Map and Response Maps is no longer necessary, as the IDs should now be correct after the Object Migration import. (Tri-144610)
Object Migration	The Object Migration "Modified After (Date)" function for Create Package (By Date) and Object Finder now support date formats other than MM/dd/yyyy. (Tri-102114)
Object Migration	When you use the Wait option to validate large import objects, the validation status is updated when complete. (Tri-135972)
Offline	Corrected the logic that controls the populating of cells in selector/section elements that were not accurately handling formula cells. (Tri-154767-IV66954)
Offline	Offline processing no longer stops when invalid Excel mappings are found. Sheet name, Cell row, Cell column, mapping section name, and field name for the invalid mappings are now written to the server.log file. (Tri-146102)

Area of Change	Description
Offline	Resolved an Offline populate issue where an ArrayIndexOutOfBoundsException appeared in the server.log causing the populate process to fail when empty columns were encountered on the data Excel worksheet for the referenced Selector section. (Tri-138107-IV65454)
Offline	The IBM TRIRIGA Offlining framework is now upgraded to use Apache POI version 3.11. (Tri-151197)
Offline	The TRIRIGAWEB.properties property mail.imaps.ssl.port now functions for IMAP mail servers when the incoming mail config record was created before 3.4.2 release with no port list field present. (Tri-173840)
Performance	Some internal SQL calls in Oracle were refactored to be more efficient. (Tri-138023-IV62170)
Portals	The window size of smaller portal section popups is increased to display all data upon loading. (Tri-164368)
Portals	When a record is selected in a query that triggers a selection workflow, the query no longer refreshes to the first page of results. (Tri-117361)
Record Runtime	Added security against cross-site scripting in name fields. (Tri-147177)
Record Runtime	After you type into a list field to autocomplete a value, list and classification drop-down fields close when you click outside of the field. (Tri-92186)
Record Runtime	Autocomplete on a classification field no longer allows the root to be selected. (Tri-91682)
Record Runtime	Fixed an issue where data does not save in text area fields in the Apple Safari browser if the characters entered exceed the allowable limit. (Tri-160501)
Record Runtime	If a locator points to a record where the indicated text field is null but the locator is pointing to a valid record, the form now shows the link. (Tri-171342)
Record Runtime	In a query section, the Currency UOM in the Total row is displayed when enabled with the SHOW_TOTAL_CURRENCY_INDICATOR property in TRIRIGAWEB.properties. (Tri-92889)
Record Runtime	In record tabs and in the Security Manager, "Work Flow Instance" is changed to "Workflow Instance". (Tri-171835)
Record Runtime	In TRIRIGAWEB.properties, with the SHOW_ZEROS_IN_NUMBER_FIELDS=N property, you can now enter 0 as a valid value. (Tri-166435-IV70959)
Record Runtime	Resolved an issue where a record would not change to a previous state when you returned a record from an approval request. (Tri-157646-IV68126)
Record Runtime	Resolved an issue where an unnecessary horizontal scroll bar displayed in a vertical smart comparison section. (Tri-111166)

Area of Change	Description
Record Runtime	Resolved an issue where print preview would not show data in query sections if performance logging or business object debugging was enabled. (Tri-155252-IV67170)
Record Runtime	Resolved an issue where tab out of a field caused the metadata changes to not be honored. (Tri-160069-IV68914)
Record Runtime	Resolved an issue where the date column would display today's date during autocomplete if the value in the database was zero. (Tri-143445-IV63427)
Record Runtime	The platform now renders forms in Standards mode in Internet Explorer. Some sections may display a scroll bar after a platform upgrade. The column span of the sections can be modified to eliminate the need of a scroll bar. (Tri-167660)
Record Runtime	When you populate a query filter within a form and then go to another tab, a server error no longer occurs. (Tri-152462-IV66422)
Reporting	A privilege escalation on editing reports has been mitigated. If a user that should not have access to a particular report somehow receives the report ID, the user still should not be able to access the record. (Tri-171002-IV72628)
Reporting	AnyChart is now upgraded to version 6.2.0. The default CHART_RENDERING_TYPE in the TRIRIGAWEB.properties file is now SVG_PREFERRED. Microsoft Internet Explorer now displays charts in SVG mode, when the rendering type is SVG_PREFERRED or SVG_ONLY. In previous releases, Microsoft Internet Explorer only displayed charts in Flash mode, regardless of the CHART_RENDERING_TYPE setting.  When charts are rendered in SVG mode, there is an AnyChart limitation involving chart legends not displaying all data, if the size of the legend exceeds the size of the chart. There is also an AnyChart limitation with certain mouse-over capabilities in chart legends. Additionally in SVG mode, x axis labels are displayed at a 90 degree angle, as opposed to the 45 degree angle that was used in previous releases. These issues do not apply to charts that are rendered in Flash mode. To render charts in Flash mode, set the CHART_RENDERING_TYPE in the
	TRIRIGAWEB.properties file to either FLASH_PREFERRED or FLASH_ONLY. (Tri-160230)
Reporting	Column sorting is now disabled for Reserve type reports. (Tri-143071)
Reporting	Exporting a secondary tabular metric report to an Excel spreadsheet now includes only this result set, not the result set of the entire metric chart. (Tri-155515-IV67244)
Reporting	In a query with the Localization box selected, an issue was resolved that occurred when the In and Not In operators were used for a Classification Field filter. (Tri-158484-IV68497)
Reporting	In a report with an 'In' user filter or a 'Not In' user filter, when the user types a value that is not surrounded by single quotes, the user sees a message. When the user clicks OK on the message, the user is now returned to the report so they can put single quotes around the filter. (Tri-161722)

Area of Change	Description
Reporting	In a report with many filters, the Show More Filters link now scrolls. (Tri-151869-IV66373)
Reporting	In Real Estate Leases, the translated value of the Business Object Label is now also displayed when included in a report. (Tri-159394)
Reporting	Metric charts now correctly display when the Primary Group By value is null. (Tri-139265-IV62245)
Reporting	Report filters are now updated to ensure that numeric fields default to numeric-relevant filter operators. (Tri-137002)
Reporting	Reports by default now have the "Show as Community Report" flag unchecked so that all system reports are not set to be a community report. (Tri-170688)
Reporting	Resized the drop-down box next to the Module field. (Tri-151638)
Reporting	Resolved a Crystal Form Report issue, where users were unable to drill into sub-reports. (Tri-143695-IV64909)
Reporting	Resolved a Crystal issue that occurred when the VerifyDatabaseOnSetDataSource property on clientSDKOptions.xml is set to false where certain reports did not show data and only showed the data bindings. (Tri-173644)
Reporting	Resolved a metric tabular query issue where the business object field's source UOM currency symbol was not considered, and instead the field's default UOM currency symbol was displayed. The UOM source currency is now displayed as expected. Note: Metric chart queries do not display currency symbols. (Tri-66684)
Reporting	Resolved an issue where query data would not export if a record had a < or > in the display value. (Tri-137087-IV61539)
Reporting	Several IBM TRIRIGA licenses were given access to My Reports. (Tri-170532)
Reporting	Some query reports do not show the runtime filter under the column header. You must click the Show More Filters link for the filters to be displayed. There is no issue with the functioning of the filter. To resolve the issue, open the report, click the Columns tab and then click the Filters tab. Running the report now displays the runtime filters under the column header if runtime filters have been defined for the report. (Tri-172344)
Reporting	The Export option no longer displays if the metric report is not a tabular report. (Tri-138364-IV62314)
Reporting	The Shared Groups column in My Reports now shows for all rows that have a group specified within the security access. (Tri-144903-IV63756)
Reporting	The supported version of Crystal is now Crystal 2013. The Version property was removed from TRIRIGACRYSTAL.properties. (Tri-166297)

Area of Change	Description
Reporting	There is now added security against unauthorized report views in My Reports. (Tri-147175)
Reporting	To ensure the proper encoding of multi-byte characters on form reports, the file.encoding Java option must be set to UTF-8. On Liberty, WebSphere, and WebLogic, this option is now set automatically. See <a href="Installing IBM TRIRIGA">Installing IBM TRIRIGA</a> <a href="Application Platform">Application Platform</a> in the IBM Knowledge Center for more information. (Tri-148242-IV65974)
Reporting	When a BIRT report is run by a non-US English-language user, the correct data are now retrieved when it involves two data sets using Full Outer Join between the System Organization (OrgName) field and the locator field referencing a localized System Hierarchy Path (triPathSY) field of an Organization business object. (Tri-157072-IV68911)
Reporting	When a non-US English-language user selects a document in the Options tab, the internal value of the document record name is now saved in the database instead of the translated value. (Tri-129505)
Reporting	When you copy a report or query in Report Manager, the reverse association flag in the association filter is no longer carried over into the new report. Reverse Associations should not be used, and are being phased out. If your report is not returning the data expected when the reverse association flag is set to No, then you need to revisit the Association Manager, and make sure that the correct forward and reverse associations are set.  Also, make sure that any workflow that creates an association does so with the correct association string so that the forward and reverse associations are always created. (Tri-163980)
Scheduling	In records with scheduled events, the table T_ScheduledEvents is now using a new numeric Event ID field (triEventIdNU) instead of the string Event ID field (Event Id). The numeric field resolves performance issues that were caused by implicit conversions of the string. (Tri-103035)
Scheduling	Resolved an issue where scheduled events did not regenerate properly when using monthly recurrence patterns of Every x day of the month, with no end date. (Tri-163954-IV70751)
Scheduling	When you import a schedule, the dependency now considers the Working Hours Per Day value in decimals. (Tri-141520-IV62881)
Security	Added security against cross-site scripting when displaying uploaded images. (Tri-147183)
Security	Added security to avoid potential cross-site scripting in Document Manager. (Tri-142710)
Security	Cross-site scripting attacks in My Reports are mitigated. Entering script code in a new report's Name, ID, Header, or Tag name no longer causes the scripts to execute after accessing the report within the application. (Tri-171004-IV72630)
Security	Eliminated Command Injection risks. (Tri-135723)

Area of Change	Description
Security	Fixed an issue when a security group has full access to the Report Manager and users in that security group are not able to create query actions. (Tri-140144-IV62532)
Security	If the Association tab is set to read only access, the user cannot create or change an association. (Tri-172666-IV72982)
Security	Improved performance when security groups are removed from a person. (Tri-168205)
Security	Improved security against possible malicious attacks within URL paths passed from a web browser when a page forwards within TRIRIGA. (Tri-135720)
Security	Increased redirect URL security. Now, scripts or any other malicious content passed within redirect parameters are not processed or recognized by the server. (Tri-135729)
Security	Removed main methods for added security. (Tri-135728)
Security	Removed SQL Injections risks. (Tri-135724)
Security	Resolved an issue where multiple calls to the method UPDATEACCESS would cause a user to be removed from a security group. (Tri-154594)
Security	Resolved an issue with a ccoss-site scripting. (Tri-135721)
Security	Resolved issue with Source Scan cross-site scripting reflection error. (Tri-135722)
Security	Security is now included to prevent malicious users from accessing certain server files. (Tri-142715)
Security	Security now included to prevent Data Integrator files that contain two dots in the file name (for example, MyFileUpload.txt) from being uploaded. (Tri-132036)
Security	Security now included to prevent open redirect vulnerability. (Tri-147178)
Security	Security now included to prevent possible cross-site scripting during the HTML rendering of certain files. (Tri-142713)
Security	Security scope cache refresh now also clears the security group cache to ensure that the group cache is up to date. (Tri-160909)
Security	The access permissions for users in a security group with Inherit from Parent set inherit their data access permissions directly from the security group parent, not from the collection of security groups that the users belong to. (Tri-155772-IV67758)
Security	The Attention Message sections in the Password Change and Password Reset forms are now enabled on a clean installation. (Tri-150062)

Area of Change	Description
Security	The unauthorized access message in portal and main pages has been updated from "You do not have permission to access this page" to "Due to either a session timeout or unauthorized access, you do not have permission to access this page." (Tri-154198-IV66715)
Security	User profile security data has been removed from the system. (Tri-154338-IV67762)
State Family Manager	Resolved an issue where a null value was shown if no value was specified in the State Family Manager. (Tri-154872)
System Setup	Resolved an issue where connections would drop when using IBM TRIRIGA Connector for Business Applications in MSSQL. (Tri-149029-IV66511)
Web Graphics	Resolved an error for foreign language users with Asset Type reports. (Tri-131961)
Web Graphics	When an unattached block shares the same layer as an attached layer, the graphic loading now loads correctly. (Tri-138308-IV62287)
Work Task Management	After you enter work task descriptions with more than 1000 characters, an error message displays stating that the text will be truncated. (Tri-128870)
Work Task Management	Scheduling a work task with a Start Plan Date after 12/01/2037, and with a default calendar, now correctly calculates the Planned End Date. (Tri-130706)
Workflow	Added support to Workflow Builder to sync Modify Metadata tasks to form metadata. Synchronize metadata action removes non-existent Modify Metadata mappings that are no longer part of the form. (Tri-126742)
Workflow	Custom tasks can now be added to turn on and off data load mode, as well as rebuild the hierarchy cache. Please refer to the <i>Application Building for the IBM TRIRIGA Application Platform 3</i> book for the specific classes to call. (Tri-144957)
Workflow	Memory Smart Objects now support defaults on Date, Date Time, Number, Text, Time, and Duration field types. (Tri-122032)
Workflow	Object Migration Import now supports the following workflow properties for User Action and Approval Tasks: sendReminder, reminderEstimatedTimeToComplete, and note. (Tri-126525)
Workflow	Resolved a Data Modeler issue in Internet Explorer 10 where the separation field was not displayed on the Workflow list when where were no workflows to display. (Tri-147870)
Workflow	Resolved an Object Migration issue when importing workflows, where a warning message about an invalid task user id would appear in the log if the id of the user who created the workflow in the Object Migration source environment could not be found in the Object Migration target environment. (Tri-67145)
Workflow	The expression editor now includes enhanced data validation. When an invalid numeric value is input, it is validated when the Enter key is pressed. A warning message displays, the invalid numeric value is ignored and original value is restored. (Tri-166836)

Area of Change	Description
Workflow	The GetDays workflow function now calculates the number of days properly. (Tri-138967)
Workflow	When you add a workflow to a sub action, there is now a scroll bar for easier selection. (Tri-148980)
Workflow	When you export text from a workflow, an invalid Map ID no longer causes an error. (Tri-165759-IV70831)
Workflow	When you publish a workflow, invisible mappings are now removed from formula fields that are found in the create and modify tasks. (Tri-154920-IV67243)
Workplace Reservation Manager	Added support for installing the Outlook 2013 Add-in. Removed support for Outlook 2007. When neither Outlook 2010 nor Outlook 2013 is detected, a message displays stating that only Outlook 2010 and 2013 are supported. (Tri-136993, Tri-131001)
Workplace Reservation Manager	Error messages are now included to provide details about failed SMTP requests in relation to licensing and invalid senders. (Tri-159959)
Workplace Reservation Manager	Events with the end dates that are set to 0 AM now display correctly and the More link no longer appears for the day after an event. (Tri-157156-IV67962)
Workplace Reservation Manager	Resolved a Powershell script creation issue where UTF-8 characters were not correctly being displayed when the Powershell script was downloaded from the triRoomResourcePowershellBI binary field. (Tri-91531)
Workplace Reservation Manager	Resolved an issue where the Reserve Add-in gave connection errors when there was no network connectivity. (Tri-141232-IV62880)
Workplace Reservation Manager	Resolved issue where the sent by information of a reservation was not processed in the reservation agent. (Tri-141212-IV63051)
Workplace Reservation Manager	The installer for the TRIRIGA Reserve Outlook Add-in was changed from an Install Anywhere based installer to a Windows Installer file (.msi). Some of the benefits of this new installer are:
	-No JRE requirementFacilitates bulk deployment of the add-inAbility to choose to install the add-in for the current user only or all users on the machine.
	With the TRIRIGA Reserve Outlook Add-in installer you can specify the TRIRIGA server URL at install time, either in a GUI installation panel or by using a command line option during silent installation. This value is used to populate the URL field in the Outlook Add-in options so that an end user of Outlook does not have to configure this value.
	Note that this value is used only as an initial value to populate the add-in properties file if it does not already exist. If the add-in properties file has already been created, the initial value will be ignored. (Tri-161226; RFE-58515)

Area of Change	Description
Workplace Reservation Manager	The Outlook Add-in is now properly signed. Users no longer see an unverified publisher message. (Tri-126727)
Workplace Reservation Manager	The TRIRIGA Reserve Outlook Add-in and SMTP integration should now work if the requester has an IBM TRIRIGA Workplace Reservation Manager for Small Installations (3044) license or an IBM TRIRIGA Workplace Reservation Coordinator (3045) license. The Reserve Outlook Add-in and SMTP integration also continue to work if the system license, IBM TRIRIGA Workplace Reservation Manager (3023) exists on the server.  Note that defining a Default Reserve User Email in the Reservation Application Settings is supported only if the IBM TRIRIGA Workplace Reservation Manager (3023) license exists on the server. (Tri-158727)
Workplace Reservation Manager	The TRIRIGA Reserve Outlook Add-in now handles extra trailing forward slashes in the URL specified in Outlook Add-in options. (Tri-138515)
Workplace Reservation Manager	The TRIRIGA Reserve Outlook Add-in now handles password changes that might occur to a user's SSO login. (Tri-142617-IV63215; RFE-58529)
Workplace Reservation Manager	The TRIRIGA Reserve Outlook Add-in now supports multiple Outlook users on the same machine. When the Add-in is installed with the option 'Install this application for anyone who uses this computer', each user that runs Outlook has access to the TRIRIGA Outlook Add-in and can configure their own add-in options. (Tri-152136)
Workplace Reservation Manager	You can now configure the TRIRIGA Reserve Outlook Add-in to go into an offline mode when it is unable to communicate with the IBM TRIRIGA server. In the Offline mode duration field of the Outlook Add-in Options, specify a length of time in minutes. You can also set an offline mode duration during silent installation of the add-in by using the parameter, OFFLINETIME=n, where n is a length of time in minutes. When in offline mode, the add-in does not attempt to connect to TRIRIGA and therefore does not function. If the offline duration expires and the add-in still cannot contact TRIRIGA, it goes into offline mode again. If the user wants to get out of offline mode, for example, if the connection to TRIRIGA is returned within the duration, they need to restart Outlook. (Tri-164812)

#### IBM TRIRIGA Application Platform 3.4.2 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
build.properties	The property production.mode in the build.properties file is now excluded after running the TRIRIGA installer. It is no longer needed. (Tri-165235)
TRIRIGACRYSTAL.properties	The supported version of Crystal is now Crystal 2013. The Version property was removed from TRIRIGACRYSTAL.properties. (Tri-166297)

Area of Change	Description
TRIRIGAWEB. properties	Added a new property SYSTEM_SECTION_ADD_ACTION_STYLE to TRIRIGAWEB.properties to determine what style the form section action Show Add should use. (Tri-170811)
TRIRIGAWEB. properties	AnyChart is now upgraded to version 6.2.0. The default CHART_RENDERING_TYPE in the TRIRIGAWEB.properties file is now SVG_PREFERRED. Microsoft Internet Explorer now displays charts in SVG mode, when the rendering type is SVG_PREFERRED or SVG_ONLY. In previous releases, Microsoft Internet Explorer only displayed charts in Flash mode, regardless of the CHART_RENDERING_TYPE setting.
	When charts are rendered in SVG mode, there is an AnyChart limitation involving chart legends not displaying all data, if the size of the legend exceeds the size of the chart. There is also an AnyChart limitation with certain mouse-over capabilities in chart legends. These issues do not apply to charts that are rendered in Flash mode. To render charts in Flash mode, set the CHART_RENDERING_TYPE in the TRIRIGAWEB.properties file to either FLASH_PREFERRED or FLASH_ONLY.  (Tri-160230)
TRIRIGAWEB.properties	If the DATACONNECT_SLEEP_TIME is negative, then the sleep value is in seconds. Otherwise, the sleep value is in minutes.
TRIRIGAWEB. properties	If the value of the CancelLabel property in the TRIRIGAWEB.properties file is 'Cancel', an attempt to translate 'Cancel' is made for non-US Englishlanguage users on the record form and in the Report Manager pages. If the value is 'x', the value is shown regardless of the user's language. If the value is empty or the property is not in the file, the cancel button is not shown on the page. (Tri-158878-IV68706)
TRIRIGAWEB. properties	In a query section, the Currency UOM in the Total row is displayed when enabled with the SHOW_TOTAL_CURRENCY_INDICATOR property in TRIRIGAWEB.properties. (Tri-92889)
TRIRIGAWEB.properties	In TRIRIGAWEB.properties, with the SHOW_ZEROS_IN_NUMBER_FIELDS=N property, you can now enter 0 as a valid value. (Tri-166435-IV70959)
TRIRIGAWEB. properties	The following properties have been removed from TRIRIGAWEB. properties: 3ptMajor, 3ptMinor, 3ptVersion, classId for Java Applets. These properties can be added back if there is a specific Java version your workstations must support. With the properties removed in the file, Java Applets default to the latest 1.7 JDK or better.
TRIRIGAWEB. properties	The SVG_VIEW_TYPE property in the TRIRIGAWEB.properties file is no longer used. TRIRIGA no longer uses Adobe SVG or Applets to render SVG content. SVG rendering is now native to TRIRIGA. (Tri-158526-IV68514)
TRIRIGAWEB.properties	The SVG_VIEW_TYPE=APPLET property was removed from the TRIRIGAWEB.properties file. (Tri-158670)
TRIRIGAWEB.properties	To set the sleep time for DataConnect to less than one minute, in TRIRIGAWEB.properties, set DATACONNECT_SLEEP_TIME to a negative

Area of Change	Description
	number to indicate that the value should be in seconds instead of minutes. (Tri-149569)
TRIRIGAWEB.properties	You can enable virus scanning on files as they are uploaded to the TRIRIGA system. TRIRIGA supports virus scanners that communicate with the Internet Content Adaptation Protocol (ICAP). This feature is disabled by default. You enable virus scanning with the VIRSU_SCAN_ENABLED, VIRUS_SCANNER_IP_ADDRESS, and VIRUS_SCANNER_IP_PORT properties. (Tri-147160)

#### IBM TRIRIGA Application Platform 3.4.1 Enhancements

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

Area of Impact	Description
Compatibility	Compatibility with IBM DB2 is now included. The minimum supported version is IBM DB2 Workgroup Server Edition 10.5.0.4. DB2 is supported on Red Hat Enterprise Linux, SUSE Linux Enterprise Server, and Windows Server.
	Limited use licenses of IBM DB2 Workgroup Edition and IBM WebSphere Application Server are included for use with IBM TRIRIGA Application Platform.
Document Management	Documents and folders in the Document Manager can now be searched. The search does not consider what folder you are starting on; it searches the entire document tree from the root. (Tri-143113-IV62761)
Mobile Support	Enhancements are included for working with IBM TRIRIGA Anywhere Workplace Operations.

#### IBM TRIRIGA Application Platform 3.4.1 Changes

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

Area of Change	Description
Administrator Console	Resolved an issue where a user with read-only access did not see the Platform Maintenance Scheduler managed object and the Scheduler Manager managed object. (Tri-144149)
Brava	Brava 7.2 viewer now works in Internet Explorer 11 browser with compatibility mode turned on. (Tri-140905)
CAD Integrator/Publisher	Resolved issues with the TRIRIGA CAD Integrator/Publisher Application Definition cache not working correctly. (Tri-136280)
Document Management	Added the triSystemIDSY field to the DM_History business object. The published name now refers to the new field, and the records now refer to the new published name. (Tri-143123-IV63233)

Area of Change	Description
Gantt	Dependency now considers the Working Hours Per Day value in decimals. (Tri-143121-IV62881)
Gantt	Importing from Microsoft Project no longer calculates actual end date if percent complete is less than 100. (Tri-143101-IV61367)
Gantt	Resolved an issue within Gantt sections where a task could lose its dependencies to tasks when the task is minimized and the Gantt applet is saved. (Tri-140716-IV62519)
GIS	Resolved an EsriJS issue where non-Admin users were not able to access widgets on the GIS Map, regardless of whether the "Add Security" check box for a particular widget was selected. (Tri-144718-IV63741)
Globalization	Resolved a currency formatting issue for a non-US English-language user who enters values in a currency field in a different format than the user's locale. (Tri-140169)
Graphics	Resolved an issue where if an unattached block shares the same layer as an attached layer (for example triGrossAreaLayer in the default application definition), the graphic loading now loads correctly. (Tri-143114-IV62287)
Graphics	Small drawings, such as drawings scaled in meters, now correctly render line widths. The line width minimum was required to render lines in certain small drawings that were extremely far from the origin. Now the system detects this case, logs a warning about it (since moving the drawing closer to the original and republishing fixes this), and only applies a minimum line thickness for this corner case. The minimum thickness workaround works for Internet Explorer and Chrome but does not work reliably in Firefox. (Tri-143118-IV61446)
Licensing	A legacy IBM TRIRIGA Facility Management Enterprise license was added back into the license table. (Tri-143104-IV62946)
Licensing	Updated the license table for IBM TRIRIGA Workplace Performance Management licenses. (Tri-144458)
OSCRE	Corrected an issue where an OSCRE XML Import failed with the error "No field named 'triJobItemTypeLI' exists". (Tri-142821)
Performance	Re-factored some internal SQL calls for Oracle to improve efficiency. (Tri-143116-IV62170)
Reporting	Resolved a Crystal 2011 issue in which Crystal Report PDF attachments on Workflow Notification emails were corrupt if the report attached to the Workflow Notification was Crystal Query Report. (Tri-144614)
Reporting	Resolved a Metric Chart issue where errors occurred when the primary Group By value was null. (Tri-143119-IV62245)
Reporting	Resolved an issue where the export of query results did not export all of the data. (Tri-143106-IV61539)
Reporting	The "Export" link now shows only when a report is tabular. (Tri-143120-IV62314)

Area of Change	Description
Reporting	The "shared groups" column in My Reports now shows for all rows that have a group specified within its security access. An error was fixed where removing group security access from at most the second to last row would remove the view of shared groups from all rows below it. (Tri-145817-IV63756)
Security	Resolved an issue where even though a security group had full access to the Report Manager, users in that security group were not able to create query actions.  (Tri-143105-IV62532)
Security	Resolved an issue where the "Special View" link was not displayed for users that were not in the Admin group. (Tri-143109-IV63061)
WebLogic	Resolved a WebLogic TRIRIGA Installation issue where Axis.jar was showing up as a file to add to the classpath in setDomainEnv.sh and setDomainEnv.cmd. Also resolved an issue where a JSTL library reference in weblogic.xml was unnecessarily causing WebLogic administrators to manually deploy a WebLogic JSTL library. (Tri-142511-IV62882)
Workplace Reservation Manager	An issue has been resolved where the Reserve Outlook Add-in would give the user connection errors when there was no network connectivity. (Tri-143110-IV62880)
Workplace Reservation Manager	Resolved an issue where the "sent by" information of a reservation was not processed in the reservation agent. (Tri-143108-IV63051)
Workplace Reservation Manager	The Outlook Add-in is now properly signed. Users no longer see an unverified publisher message. (Tri-126727)

#### IBM TRIRIGA Application Platform 3.4.1 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
OSLC_MYPROFILE_RES OURCE	The default value of the property OSLC_MYPROFILE_RESOURCE in the TRIRIGAWEB.properties file is now triMyProfileRS. (Tri-134474)
SHOW_ZEROS_IN_NUM BER_FIELDS	The new SHOW_ZEROS_IN_NUMBER_FIELDS property in TRIRIGAWEB.properties is used at record runtime to determine whether number fields render 0 for null value or show empty field.
	When the value is Y, a number field renders zero in a form when the value in the database is null.
	When the value is N, a number field renders empty in a form when the value in the database is null.
	The default value of this property is Y. (Tri-140284)
TRIRIGAMIDDLEWARE DATABASE_TYPE	The value for TRIRIGAMIDDLEWARE DATABASE_TYPE can now be db2.

## IBM TRIRIGA Application Platform 3.4.0 Enhancements

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

Area of Impact	Description
Admin Console	The hierarchy tree cache can be configured to include additional hierarchies in the TRIRIGAWEB.properties. (Tri-132226)
Application Server	Linux and Unix application servers no longer require X-windows to run the IBM TRIRIGA Application Platform.
Document Manager	An HTML5 upload feature is included in this release for Document Manager to remove the Applet dependency.
Getting Started	The getting started information is updated with default user roles, typical user role tasks, home page, group details, and license details.
GIS	An upgrade to the 3.4 platform will switch any As Delivered GIS portal sections and tabs from using the old ArcGIS classloader technology to using the new EsriJS classloader technology. It wlll also import and use the As Delivered EsriJS maps which are configured similar to the ArcGIS As Delivered configuration, and update the geocode actions (e.g. Buildings) to use EsriJS. (Tri-125321)
Globalization	Arabic and Hebrew now have support and mirroring capabilities as bidirectional languages.  In Label Manager import, you now can choose whether or not to update existing labels. (Tri-93062)  Label export was moved to the Language Manager in the Administrator Console from the Label Manager in the application. You can now choose whether to remove blank tooltips by running a label export for GUI Tooltips or All. (Tri-101829)  Query results now display internal_value data when translated data does not exist. Previously, blank values displayed. (Tri-115530)  You now use the Language Manager in the Administrator Console to export changes to labels. A best practice is to clear Object Metadata Cache in the Cache Manager of the Administrator Console before exporting labels or data.  When you choose to do a delta export and compare the values with the US English language pack from installer, the comparison is made with the first file in the userfiles/LanguagePacks folder. (Tri-92978 and Tri-124098)
Graphics	Added a new Auto Zoom feature that allows a graphics view to automatically zoom in to a target record after the graphic loads. Three properties have been added to the graphics section of forms to control how the zoom behaves:  Auto Zoom - When checked, and there is exactly one associated record in the graphics section (for example, the space graphic), the view zooms to that record when the graphic is first rendered. (Tri-119060)  Zoom % - Defaults to 100 percent, but can be used to change the scale factor of the zoom. For example, 50% is twice as far, and 200% is twice as close. The value must be 1 - 400. (Tri-119060)  Zoom Delay - Specifies the amount of time in seconds to wait before Auto Zoom happens. This allows you to configure the time to see the full context of the graphic before the zoom occurs. This must be between 0 and 99. Note that the

Area of Impact	Description
	Zoom Delay will recognize how long a graphic has taken to load and count that time as part of the delay. For example, if Zoom Delay = 3 and graphic takes 10 seconds to load, the Auto Zoom will happen immediately after load completes. (Tri-123872)
Notifications	Email notifications can now be configured to send a single email to all recipients by adding a boolean field named triSendSingleEmailBL to the mail notification object. If this boolean is set to 'TRUE' when the notification is sent, it will include all recipients in a single email to allow the user to use a 'Reply To All' functionality. (Tri-121918-IV55127)
OSLC Enablement	This release includes an Open Source for Lifecycle Collaboration (OSLC)-compliant implementation that will be used for future mobile releases.
Portal	The row limits on the Notifications and Action Items portal sections are increased from 50 to 500. (Tri-128520-IV59864)
Query	Text wrapping for editable queries provides better wrapping and usability for text fields.  Opening records in the Master Detail navigation target has changed. The records can be viewed either in a popup window or inline in the current window. Previously this property would default to inline. A change has been made to make this default configurable in TRIRIGAWEB.properties and the default value for MASTER_DETAIL_RECORD_VIEW_TYPE is Popup. (Tri-133256) Reserve query performance includes the following improvements:  Curtailed search - A field can be added to a Reserve Query that allows you to configure the number of records to be returned from a greater result set.  Reserve thread modeling - This release added new capabilities to enable a total Reserve Query Thread Pool and another property to specify how many threads each reserve query request can use. This feature is scalable with hardware and can be tuned to meet specific use cases and scenarios. (Tri-120227)
Real Estate Environmental Sustainability	The platform includes the following enhancements related to TRIRIGA Real Estate Environmental Sustainability Impact Manager: Integration with IBM Tivoli Directory Integrator Improved metric reports Generic staging tables were created as a new type of staging table
Reporting	BIRT libraries are updated in this release to support the latest version of BIRT.
Upgrade	This release includes the following improvements to Object Migration (OM) and platform builders to ease application upgrades:  • Date-based OM package creation • Improved updated_date management on all OM supported metadata types
	<ul> <li>Accurate updated_date searches for all OM supported metadata types</li> <li>Associated data migration</li> </ul>

Area of Impact	Description
	<ul> <li>Ability to export and import associated record data by using OM</li> <li>Support for migration of association metadata</li> <li>Workflow export text format</li> <li>Ability to export a workflow to a formatted text file that includes all task types, task properties, flow control structures, and conditions</li> <li>Export available for all versions of a workflow</li> <li>Workflow export available from OM packages in addition to Workflow Builder</li> </ul>

#### IBM TRIRIGA Application Platform 3.4.0 Changes

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

Area of Change	Description
Administrator Console	Added an index on wf_event_history to improve performance on lookups of completed events. (Tri-132315-IV59981)
Administrator Console	In the Workflow Agent Manager, the per user workflow count can now be updated dynamically. The dynamically updating thread configuration can be changed, and the number of total threads on the server can be updated. (Tri-114875)
Administrator Console	Resolved an issue with the Workflow Events tab in the Admin Console in Firefox. (Tri-111749)
Application Server	Resolved an issue where a large number of events in the queue caused an error with an SQL statement. (Tri-125572-IV56228)
Application Server	The HTTP header Cache-Control can now be configured in the TRIRIGAWEB.properties file. By default, there is no property in the file; however, you can override the default values of 15 minutes (900 seconds) for non-production mode, or 1 week (604800 seconds) for production mode, by adding CACHE_CONTROL_SECONDS=XXXX where XXXX is a value greater than 900. (Tri-132531)
Application Server	The unused TRIRIGACONVERSION properties file has been removed from the config directory. (Tri-110499)
Application Server	The X Window System is no longer necessary to provide graphical services to the IBM TRIRIGA Application Platform. (Tri-115136)
Connector for Business Applications	Text values that are entered for the saveRecord operation are now localized for non-US English-language users. (Tri-90830)
Connector for Business Applications	You no longer can request the Connector for Business Applications wsdl and send a SOAP request in the same HTTP request without authenticating. (Tri-133622)
Data Modeler	Details of financial tokens can now be viewed even when the business object is published. (Tri-123483)

Area of Change	Description
Database	The Oracle driver has been updated to the latest to resolve some issues with connectivity to 11r2.
	Please see the following URL for a list of corrections to the driver:
	http://download.oracle.com/otn/utilities_drivers/jdbc/121010/JDBC-Readme.txt?AuthParam=1378853111_da0bd109a8cc47b9ab0a7423515977b7
	(Tri-105914)
Document Manager	Resolved an issue in Document Manager that caused a unique constraint error if you double-clicked the Check-In action. (Tri-113176-IV51696)
Document Manager	Uploading a document into the Related Documents section on the Notes & Documents tab is now possible if the project name includes a single quote. (Tri-120424-IV55020)
Form Builder	Resolved an issue where Form Builder was not able to switch to a different tab in a multi-tab section. (Tri-118832)
Formula Engine	A new expression function, replaceCRLF, can be used to replace existing CRLF (carriage return, line feed, or line break) characters with another tag. For example, to replace a non-functioning line break with the br/> syntax, which is used by the text editor in 10.4, use the following new expression:
	replaceCRLF(A, " ")
	Where ${\tt A}$ is the variable to specify where the input string comes from. (Tri-117359-IV53545)
Gantt	Resolved an issue that caused only the top of the last task that was listed in a Gantt chart to display. (Tri-90820)
Gantt	Resolved an issue where tasks from the selected project were not rendering in the Projects Gantt section. (Tri-113581)
Gantt	Resolved an issue with launching the Gantt scheduler applet when running with an Apache and LDAP SSO configured environment. The login prompt will no longer be shown for the inline schedule applet. Launching for the first time will bring up a login prompt through the Java Web Start system, as it connects to retrieve the code from the server. (Tri-111293-IV52377)
Gantt	The FRONT_END_SERVER no longer needs to be set for Gantt, as Gantt Web Start was replaced by opening the traditional Gantt Applet in a new window. (Tri-129103)
Gantt	The Gantt Schedule section in a new window is refactored to use a standard browser window and to remove the web start download/popup. This resolves an issue where the section would fail because of XSS protections. (Tri-122320)
GIS	An upgrade to the 3.4 platform switches any As Delivered GIS portal sections and tabs from using the old ArcGIS classloader technology to using the new EsriJS classloader technology. It also imports and uses the As Delivered EsriJS maps

Area of Change	Description
	which are configured similar to the ArcGIS As Delivered configuration, and update the geocode actions (e.g. Buildings) to use EsriJS. (Tri-125321)
GIS	GIS now displays the translated report title that is defined in the GIS query object in the query list. Previously it displayed the GIS query object name, which was not translatable. (Tri-122702)
GIS	GIS will now translate report headers in the "Show Table" view and "View Record" when selecting a pin on the map. (Tri-122813)
GIS	Removed the extents from the default gray basemap to improve its appearance when the user switches back to it from another basemap. (Tri-130295)
GIS	Resolved an EsriJS editor widget issue that caused a drawing offset when either the Details tab, or the Table tab, or both, were open. You no longer must close the tabs before editing. (Tri-116252)
GIS	Resolved an EsriJS issue where locator pins were not displaying for non-US English-language users when the latitude and longitude coordinates were comma delimited. (Tri-122816)
GIS	Resolved an issue where the new ErsiJS was not honoring the \$\$RECORDID\$\$ or \$\$PARENTRECORDID\$\$ filters in run reports as ArcGIS did. (Tri-113795-IV53755)
GIS	Resolved issues with loading labels from the language pack which happens on environments using SSO and/or SSL (HTTPS). This is corrected by implementing and using a direct API instead of relying on a self-post for resources. (Tri-114381)
GIS	The geocode search no longer zooms too much into locations, which caused the map display to be blurry. (Tri-114497)
GIS	Two new fields, "Proxy Host" and "Proxy Port", are added to the Integration Object form that can be used to configure a proxy when using the HttpPost function. If the Proxy Host is blank, it will not be used. (Tri-109576-IV53465)
Globalization	Autocomplete now shows localized values in the drop-down lists. (Tri-129130)
Globalization	L_ tables are now deleted when the business object is deleted. (Tri-132814)
Globalization	Language values can now be mapped to localized smart section fields of embedded records. (Tri-131963)
Globalization	Localized values from the updated smart section row are now calculated properly in the parent record formulas. Formulas involving list field values now calculate the label translation of the field into the localized calculated value of the formula if the target field or formula field is localized. (Tri-112821)
Globalization	Locator fields can now be localized when the source is a localized system read- only record name. (Tri-89545)
Globalization	Mapping a Classification field to a text field is now fully localizable (short and full path). (Tri-103771)

Area of Change	Description
Globalization	Record name values that include a List, System BO Label, System Form Label, or Classification field (given the record name of the root classification is localized) can now be exported for translation and show translation in the form. (Tri-113883)
Globalization	Resolved an issue that caused localized values to not be displayed for Summary reports. (Tri-122467)
Globalization	Resolved an issue with currency formatting when the default language is set to anything other than US English. (Tri-116260-IV53470)
Globalization	The Subject column of the Notifications portal section now renders translated values. (Tri-125499)
Globalization	The translation of a static string is now mapped in the workflow even if the workflow template id is not the same as the one in the as-delivered language pack. This occurs when the workflow was created in the environment through an object migration import rather than from clean installation. In order for this mapping to work, you must either import the label language pack again or import only the WFSTATICMAPPINGLABEL.xliff file again. (Tri-127286)
Globalization	Tooltips can now be translated for the Report Manager. (Tri-87558)
Globalization	When the display of the full tab list cannot fit on the page, the tab list is partially rendered. To scroll the tabs, click either the upper or lower empty cells. (Tri-129389)
Globalization	When you run an Excel export, system read-only fields (of GUILABEL subtype) are now translated. (Tri-119934)
Globalization	You can now add a space before a colon in a language pack for linguistic reasons so that your users can see a space before a colon at run time. For example, if French users are to see a space before a colon. (Tri-111938)
Globalization	You now export labels from the Language Manager in the Administrator Console instead of from the Label Manager. (Tri-127032)
Graphics	A graphics section was overriding all of the layers in a block to the inserted layer, which is inconsistent with AutoCAD and MicroStation. Updated the dxf processing to preserve all of the entity's original layers. The user can turn individual block entities on or off by layer, similar to how AutoCAD and MicroStation work. Also resolved an issue with layer filters by count, which appeared to not work correctly because all entities within a block were counted as one entity for the block. (Tri-115013)
Graphics	The Label Styles in the Graphic Section are updated to handle bad data in association label elements more robustly. (Tri-118836-IV57432)
Graphics	The Zoom window button now functions in IE 10 and Windows 8. (Tri-113165)
Help	An issue has been resolved where the FULL_HELP_OBJECT=N caused just the note data in the help records not to be displayed. (Tri-134286-IV60607)

Area of Change	Description
Installation	Due to a locator field localization dependency between the triCiHierarchyNode and triCiMapping business objects, a SQL Persistence Error may be written to server.log during the automatic import of the CIAppManagerMetaUpgrade upgrade package. This happens the first time an application server is brought up with IBM TRIRIGA Application Platform 3.4. This log message is normal for the CIAppManagerMetaUpgrade upgrade package, and the issue is resolved automatically. The triCiHierarchyNode and triCiMapping business objects are published correctly. (Tri-133406)
Installation	It is now possible to do a platform upgrade from JBoss 5.1.0 GA (Community) to WebSphere directly by choosing the old TRIRIGA directory in the installer. (Tri-124086)
Installation	WebSphere now updates the JDBC driver class, pointing to the new TRIRIGA Install directory. WebSphere now installs into a secondary WebSphere profile. When the WebSphere connection fails, the installer no longer allows you to continue installation. The installation can continue when the WebSphere information is correct. (Tri-12322)
Installation	When the installer attempts to connect to determine whether WebSphere is running, the full command is shown if the connection fails. The command can be copied and pasted into a command line to help troubleshoot the reason for the failure to connect. (Tri-125924)
Integration Object	Resolved an Integration Object file data import issue where the following error would occur if the file contained a mixture of new and existing data: "A valid record id must be specified when using a blank value for actionName". (Tri-124231-IV55986)
Integration Object	Resolved an Integration Object HTTP Post issue, where if the request method type was PUT, null request errors occurred. (Tri-133213)
Integration Object	Resolved an Integration Object issue where, if the user triggering the Integration Workflow does not have the appropriate access, under certain circumstances an inaccurate error would be displayed in the log indicating "The context you are attempting to finalize is not the current context". Now it displays a no access error instead. (Tri-114251-IV51854)
Integration Object	Resolved an issue where Integration Object error instance records that were generated for failures were displaying the same resubmit data rather than data related to the actual record that failed. The issue made it difficult to resubmit failed requests. (Tri-116191-IV52941)
Integration Object	Reversible encrypted passwords that are used in the IBM TRIRIGA Connector for Business Applications now unencrypt for the applications to work correctly. (Tri-103817)
License	Updated the license table to give WPME access to run the ETLs through the Job Scheduler. (Tri-117465)
License and Security	Resolved an issue where ETL job items ran without the required license installed. (Tri-119565)

Area of Change	Description
Localization	An onChange workflow in a field that concatenates a localized locator field with a localized text field to display in a non-localized field now works appropriately in a non-US English-language environment. (Tri-115069-IV52581)
Navigation Builder	An issue has been resolved in the Navigation Builder. Now a navigation collection cannot be configured for a collection type where the number of levels is not valid. (Tri-130524-IV59394)
Navigation Builder	Resolved an issue where multiple spaces would appear when typing a space while filtering columns in the Navigation or Portal builders. (Tri-118830-IV53743)
Notifications	Approval Escalation is now working correctly, as based on the duration defined in the Product Request Template. (Tri-128892-IV57384)
Object Migration	In a record data export, if the record data path name exceeds the 255 character Linux file name limit, the record data XML no longer fails to create in the package. Packaged record data XML files no longer contain the entire name as the file name, but instead use a hash value for part of the file name. (Tri-122301)
Object Migration	Newly created budget tokens, lists, hierarchy structures, and styles are now added to an object migration export package when you use the By Date create mode. (Tri-122881)
Object Migration	On import, duplicate queries are no longer created in the same module in the target environment when the primary business object for the query changed in the source environment. (Tri-114596)
Object Migration	The Create Package By Date option no longer automatically adds dependencies. To automatically add first-level dependencies, select the check box. (Tri-125821)
Object Migration	The export process no longer exports invalid Group module level security access when an invalid form ID is found on the source environment. (Tri-128990)
Object Migration	The Search Results section and the Find Dependents section now have a Reset Search action that clears the section. (Tri-126546)
Performance	A performance improvement has been made when activating users. In the previous version, if multiple workflows executing to activate users, the workflows would bottleneck at the processUserAccess state transition. This bottleneck has been removed to improve performance. (Tri-118431-IV53583)
Performance	Because of known performance issues when not running in production mode, the Sign-In screen now prominently displays if a system is not in production mode and that performance will be negatively impacted. (Tri-131279)
Real Estate Lease	The currency formatting for Indian Rupees now groups correctly. (Tri-124392-IV56245)
Record Runtime	An issue has been resolved when printing forms where some tabs that are visible did not render. (Tri-133079-IV60233)

Area of Change	Description
Record Runtime	Availability sections are not available for printing, as is the case with other special sections types like Availability Legacy and Gantt. (Tri-103988)
Record Runtime	Corrected an issue where text area locator field with maximum length set to 0 will not allow user to enter any value and do the auto-search. (Tri-117344-IV53915)
Record Runtime	Query sections in forms now can display a loading indicator when a user action is taken. (Tri-117208)
Record Runtime	Resolved an issue where, in some cases, image fields were rendering with a "-1" in a query output. (Tri-132246)
Record Runtime	There is no longer extra white space on the bottom of the tab in a record view of a Navigation target. (Tri-81359-IV54141)
Record Runtime	Users can now create Capital Project records even when JRE is not installed on the client. (Tri-87994)
Reporting	An issue has been resolved with off-loaded BIRT reports with multi-select parameter values. (Tri-130313-IV59397)
Reporting	Corrected an issue where the Summary Report header name display escaped characters such as x20. (Tri-126196-IV56543)
Reporting	Corrected an issue where using the System Readonly Created DateTime (Number) field or the System Readonly Modified DateTime (Number) field as static filters in report would throw a stack trace. (Tri-120226-IV54273)
Reporting	Form names are now translated when they appear in query results. (Tri-112998)
Reporting	Number fields in an Excel file that was exported from a TRIRIGA report are now correctly formatted when the user has a European region and language setting. (Tri-119231-IV54050)
Reporting	Ordering now works correctly when a field in the Summary Report is part of both Group By and Order By. (Tri-126518-IV56549)
Reporting	Resolved an issue where exported values were not exported with translated values when users with a default language other than US English exported a report containing a classification field. (Tri-116869-IV53481)
Reporting	Resolved an issue with the display of incorrect results in groupings when exporting to Excel from reports when the grouping was not configured in the report. (Tri-122298-IV54944)
Reporting	Results now display when a non-US English language user enters key words in the Excel Template search. (Tri-110333)
Reporting	The BIRT report engine version has been upgraded to 4.3.1. (Tri-119284)

Area of Change	Description
Reporting	The JSTL 1.2 library is now automatically deployed. This corrects an issue where metric reports would not run on Weblogic 11. (Tri-117761)
Reporting	The Order & Group tab now displays correctly when rendered in the Chrome browser. (Tri-124219)
Reporting	The save action on an editable query with an associated BO now works correctly. (Tri-117461-IV53544)
Reporting	The thousand separator is now displayed in number fields that are exported to Excel, based on the regional settings set in the operating system. (Tri-122228)
Security	A security issue was resolved in data integrator so that it is no longer possible to upload a data integrator file with two dots in the name, such as MyFileUpload.txt. (Tri-131778)
Security	Document Manager now enforces read-only licensing. If your license grants you read-only access to the Document module, you can no longer make changes in the Document Manager. (Tri-115605)
Security	Resolved an issue when attempting to send an error report to IBM's PMR system with non alpha-numeric values in the PMR or Customer fields. (Tri-133737)
Security	The 'system' user now has access to all the licensed functionality on the server. (Tri-115343)
Security	The IBM TRIRIGA Workplace Reservation Manager license now has access to run ETLs and the job logs. The IBM TRIRIGA Real Estate Environmental Sustainability Impact Manager license no longer has access to either. (Tri-123746)
Security	The Reserve Location Request functionality requires a Self-Service, Facilities, or Operations license.
	The functions for triMaintenance > triJobPlansPMs and triMetricFact > triStandardHoursDetails are now licensed correctly. (Tri-133517)
Security	Two new licenses are now available for IBM TRIRIGA: - IBM TRIRIGA Workplace Reservation Manager for Small Installations (3044) - IBM TRIRIGA Workplace Reservation Coordinator (3045) (Tri-129220)
Security	Updated the license table to remove the invalid settings that gave the WPME access to some Builders/Managers. (Tri-115346)
System Setup	Updated the installation and upgrade documentation for Weblogic. (Tri-116421-IV53472)
Workflow	Resolved an issue for Schedule tasks where values for a recurrence were not saved. (Tri-127779)
Workflow	Resolved an issue in Schedule tasks that caused the End By date for a recurrence to increment by one day each time the task was opened. (Tri-127781)

Area of Change	Description
Workflow	Resolved an issue that prevented formula field mapping from being cleared when the Clear All action was clicked during workflow mapping. (Tri-80268)
Workflow	Resolved an issue where forms with a multi-tab section that is marked as visible but has no visible sub tabs would become unresponsive after an onchange workflow. (Tri-115710)
Workflow	When a record with a dependent association is created, the System Record ID now updates properly. (Tri-106501)
Workplace Reservation Manager	Exchange integration now works with Jboss EAP. (Tri-115231)
Workplace Reservation Manager	Resolved an issue that caused a canceled occurrence in Outlook to cancel the wrong event. (Tri-114055)
Workplace Reservation Manager	Resolved an issue where an internal library within the IBM TRIRIGA Platform could not find new Time Zone IDs. The library has been updated and contains the new time zones. (Tri-115990-IV52424)
Workplace Reservation Manager	The IBM TRIRIGA Workplace Reservation Manager Outlook no longer communicates with IBM TRIRIGA when Outlook is offline. (Tri-128965-IV59312)
Workplace Reservation Manager	The Reserve Outlook add-in now supports Siteminder SSO. (Tri-124583)
Workplace Reservation Manager	The Workplace Reservation Manager Outlook add-in installer can now be run in silent operation. Create a silent install.properties file with the responses for the graphical installer's prompts. Run the add-in installer as follows: install.exe -i silent -f install.properties. Be sure that all prerequisites are met before installation. (Tri-118073)

#### IBM TRIRIGA Application Platform 3.4.0 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
Brava	Brava 5.5j support has been replaced with Brava Enterprise 7.2 Server support. Please see Developer Works for additional information on how to obtain Brava 7.2 Enterprise and license. (Tri-115581)
Brava	Properties in the TRIRIGAWEB.properties file that were related to Brava 5.5j have been removed. (Tri-129612)
ENFORCE_REQUIRED_V ALIDATION	OSLC ignores the value of the ENFORCE_REQUIRED_VALIDATION property in the TRIRIGAWEB.properties file. (Tri-106622)

Area of Change	Description
UNSUCCESSFUL_LOGIN _ATTEMPT	A new property is added to TRIRIGAWEB.properties file named "UNSUCCESSFUL_LOGIN_ATTEMPT". Default value is -1.  # # This property is to determine how many number of unsuccessful login attempts are allowed  # before the account gets locked. Default is -1 which means functionality is turned off.  # Any positive value will mean only that many unsuccessful login attempts are allowed.  # Once reached that account will be locked and can only be unlocked by a system administrator  # from the Admin Console -> User Manager page.  # UNSUCCESSFUL_LOGIN_ATTEMPT=-1  (Tri-119066)

## IBM TRIRIGA CAD Integrator/Publisher 12.1.2

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 IBM TRIRIGA CAD Integrator/Publisher for this release:

Area of Impact	Description
AutoCAD	If you are using AutoCAD 2012 64-bit, you must be on SP1 or later. (Tri-37066)
Hover Help	If the hover help you are reading closes before you can finish, move your mouse away and then back to redisplay the hover help.
IBM TRIRIGA Application Platform	To use IBM TRIRIGA CAD Integrator/Publisher 12.1, you must be on IBM TRIRIGA Application Platform 3.4. To use IBM TRIRIGA CAD Integrator/Publisher 12.1.1, you must be on IBM TRIRIGA Application Platform 3.4.1.
Single Sign-On	If you are using SSO through IIS, you must have the Basic authentication option selected in order for IBM TRIRIGA CAD Integrator/Publisher to sign in properly. You can use any other combination of authentication options (Basic, Digest, and Windows Integrated), provided that both Digest and Windows Integrated are not selected at the same time. (Tri-21349)

#### **Known Limitations**

The following items are known limitations concerning IBM TRIRIGA CAD Integrator/Publisher for this release:

Area of Impact	Description
Data	IBM TRIRIGA CAD Integrator/Publisher for AutoCAD supports multi-byte characters in drawings, windows, and records. IBM TRIRIGA CAD Integrator/Publisher for MicroStation supports multi-byte characters in IBM TRIRIGA CAD Integrator/Publisher windows and in IBM TRIRIGA records.
Globalization	IBM TRIRIGA CAD Integrator/Publisher is only translated to languages to which AutoCAD is translated.
Graphics	For graphics sections, in Internet Explorer 11, text elements in a graphic may flicker or disappear from the view when zooming or panning using the toolbar icons or the context menu controls (not using the mouse scroll zoom). This can occur if the source drawing's coordinate are extremely distant from the origin point (0,0). If you observe this issue, the original drawing should be modified in the CAD application so that all entities are selected and moved closer to the origin point. The drawing would then need to be republished to TRIRIGA using CAD Integrator/Publisher. (Tri-167653)
Installer	The installer is only available in US English. By default Install Anywhere installs to a folder with the literal value Program Files. On non-US English-language

Area of Impact	Description
	versions of Microsoft Windows, this folder has a translated name and an install to a folder named Program Files may not work. If you are installing IBM TRIRIGA CAD Integrator/Publisher on a non-US English-language version of Windows, install to a folder with a different name. For example, C:\CI.
MicroStation	For MicroStation users of IBM TRIRIGA CAD Integrator/Publisher, the areapat.cel file is required in order for fills to work properly. TRIRIGA CAD Integrator/Publisher expects the areapat.cel file to be in the C:\ProgramData\Bentley\MicroStation V8i (SELECTseries)\WorkSpace\System\Cell folder. If you do not have a C:\ProgramData\Bentley\MicroStation V8i (SELECTseries)\WorkSpace\System\Cell folder installed, you can resolve the problem by taking the following steps:
	<ol> <li>Create the C:\ProgramData\Bentley\MicroStation V8i (SELECTseries)\WorkSpace\System\Cell folder.</li> </ol>
	2. Copy the areapat.cel file in the C:\ProgramData\Bentley\MicroStation V8i\WorkSpace\System\Cell folder to the C:\ProgramData\Bentley\MicroStation V8i (SELECTseries)\WorkSpace\System\Cell folder.
	As a result, the areapat.cel file is in both of the folders:
	C:\ProgramData\Bentley\MicroStation V8i\WorkSpace\System\Cell
	C:\ProgramData\Bentley\MicroStation V8i (SELECTseries)\WorkSpace\System\Cell
	(Tri-143115)
Publish	A graphics section does not render entities output to the DXF paper-space. (Tri-32950)

#### IBM TRIRIGA CAD Integrator/Publisher 12.1.2 Changes

The following changes to IBM TRIRIGA CAD Integrator/Publisher are in this release:

Area of Change	Description
Attach Object	Resolved an issue in Microstation, where attaching a cell with elements on different levels would cause all elements to move to the attached layer. After, detaching the cell would incorrectly move the elements back to the original layer. The TRIRIGA CAD Integrator/Publisher now changes the main Microstation layer and correctly restores the layers when you detach the cell. (Tri-130974)
Batch Edit	The Batch, Edit, OK, and Apply actions are disabled while the records are being updated. There is now a progress bar while the records are updating. (Tri-130517)
Batch Process	In the Batch Process function, the Select Records button is disabled when it is not needed. (Tri-109602)
Command Line API	Added the API Command line, ciSyncFull, to run a full sync. (Tri-155896)

Area of Change	Description
DataConnect	An issue during DataConnect insert/upsert has been fixed where the new record is placed under the wrong parent. This would occur if you have more than one record with the same object_path. (Tri-171893)
Detach Object	In Microstation, when you detach, blocks that were originally inserted are now removed. (Tri-139797-IV62526)
General	Resolved an issue that occurred if you applied labels and left the dialog open, and tried to run another command. (Tri-157445)
General	Resolved an issue where the TRIRIGA CAD Integrator/Publisher Application Definition cache was not working correctly. (Tri-131067)
General	TRIRIGA CAD Integrator/Publisher was updated to work correctly with entities on locked layers. (Tri-111473)
Installation	The TRIRIGA CAD Integrator/Publisher installer now supports Java 8. (Tri-130166)
Installation	Updated the installer to detect and prevent the user from installing on a 64-bit machine without a 64-bit JVM, displaying a message instead. (Tri-114484)
Installation	Updated the uninstaller to correctly remove the Windows Start > All Programs > IBM CAD Integrator Publisher folder. (Tri-110532)
Label Style	In AutoCAD, when there is a default floor label style that is configured, labels no longer is duplicated when you attach a drawing, gross area, or measured gross area. (Tri-165555-IV70754)
Login	When you load a TRIRIGA CAD Integrator/Publisher application definition, if there is an invalid configuration for a special field on a mapping, that field is skipped and the mapping still loads.(Tri-163041)
Menu	The TRIRIGA CAD Integrator/Publisher was updated to disable the attach object, insert object, and find object commands when a drawing is not fully attached. (Tri-130376)
Reporting	Updated TRIRIGA CAD Integrator/Publisher to support hatching complex regions. The updates include full support for normal polylines and circles, but only partial support for complex regions with arcs or ellipsis. TRIRIGA CAD Integrator/Publisher does not support hatching open polylines, but the presence of these entities will no longer cause normal boundaries to fail to hatch. (Tri-136462-IV61530)
Smart Attach	In Microstation, you can now upload child links of existing linked spaces as subspaces. (Tri-125195)
Smart Attach	Resolved an issue where a Microstation drawing with large Element IDs failed to attach gross, attach measured gross, attach object, or upload areas. (Tri-142045-IV63152)

Area of Change	Description
Smart Attach	Resolved an issue where an upload scan failed if there were 3D polylines in the layers. Unsupported entity types are now skipped. (Tri-148655-IV65128)
Spaces	Resolved an issue where running the Smart Attach or Batch process to create many spaces failed to create some of the spaces. (Tri-145178)
Upgrade	Resolved a stack trace error that occurs on some environments when you upgrade from pre-3.3 platform version for the first time. (Tri-135409)
Upgrade	Resolved an issue that occurred when you upgraded to any new 3.4 platform version from any 10.3 version new installation. If you upgraded the environment to 3.4.1, an Object Migration package failed to run, an error in the TRIRIGA CAD Integrator/Publisher occurred, and the Space Class report would not render. (Tri-161988)
Upgrade	Updated the attachment state for legacy CI-10 drawings that were upgraded. Drawings will now show in correct state in the Open Drawing From record and the various attachment dialogs in TRIRIGA CAD Integrator/Publisher.
	Updated TRIRIGA CAD Integrator/Publisher to upgrade the Measured Gross area correctly in CI-10 drawings. The drawing upgrade process will now automatically run a full sync to complete an upgrade. Improved the messages for upgrades. (Tri-140978-IV63235)
Upgrade	Upgraded the TRIRIGA CAD Integrator/Publisher to skip processing bad data in order to complete the upgrade process. (Tri-145537)
Upload	Resolved an issue where the Smart Attach and Batch process did not link spaces on large drawings. (Tri-114037)

# IBM TRIRIGA CAD Integrator/Publisher 12.1.2 Properties Files

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

## IBM TRIRIGA CAD Integrator/Publisher 12.1.1 Enhancements

The following enhancements to IBM TRIRIGA CAD Integrator/Publisher are included in this release:

Area of Impact	Description
Installer	TRIRIGA CAD Integrator/Publisher now supports AutoCAD 2015 and AutoCAD Architecture 2015. (Tri-139800)

#### IBM TRIRIGA CAD Integrator/Publisher 12.1.1 Changes

The following changes to IBM TRIRIGA CAD Integrator/Publisher are in this release:

Area of Change	Description
Detach Object	MicroStation now removes blocks that were inserted originally when detaching them. (Tri-143107-IV62526)
Drawings	Resolved an issue that caused an error when opening a version 10 upgraded drawing in version 12.1.x. (Tri-145538)
Reporting	Resolved an issue where applying hatches did not work correctly when there were any open attached polylines or complex regions, i.e., more than one boundary loop or includes "holes" involved. Updated to support hatching complex regions, which, due to limitations in AutoCAD, includes full support for normal polylines and circles, but only partial support for complex regions with arcs or ellipses. TRIRIGA CAD Integrator/Publisher does not support hatching open polylines, but the presence of these entities no longer causes normal boundaries to fail to hatch. (Tri-143117-IV61530)
Smart Attach	Resolved an issue in which running the Smart Attach or Batch Process on a drawing with a large number of spaces did not link all of the spaces on the first upload. (Tri-136599)
Smart Attach	Resolved an issue where a MicroStation drawing with large Element IDs (for example, greater than 4,000,000,000) failed to attach gross, attach measured gross, attach object, or upload areas. (Tri-143111-IV63152)
Upgrade	TRIRIGA now updates the attachment state for legacy TRIRIGA CAD Integrator/Publisher version 10 drawings that have been upgraded. These drawings now appear with the correct state in the "Open Drawing from Record" and the various attachment dialogs. TRIRIGA CAD Integrator/Publisher now upgrades the Measured Gross area correctly on version 10 drawings. Also the drawing upgrade process now automatically runs Sync Full to complete the upgrade. Improved the messages for upgrade. (Tri-143122-IV63235)

# IBM TRIRIGA CAD Integrator/Publisher 12.1.1 Properties Files

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

# IBM TRIRIGA CAD Integrator/Publisher 12.1.0 Enhancements

The following enhancements to IBM TRIRIGA CAD Integrator/Publisher are included in this release:

Area of Impact	Description
Authentication	The authentication type can be basic, preemptive basic, or NTLMv2.
Certifications	IBM TRIRIGA CAD Integrator/Publisher is now certified for MicroStation V8i Select Series 3 with Microsoft Windows 8.
Graphics	Inserted blocks with multiple layers now retain the individual layers in IBM TRIRIGA Graphics sections.
Java	The IBM TRIRIGA CAD Integrator/Publisher 12.1.0 installation supports Java 7. Support for Java 6 is deprecated.
Mappings	Added a field to the Mapping form to specify a detach action to run a specified state transition when detaching a drawing or object. This includes detaching from the context menu. If the detach action transition is blank, or is not a valid transition for the state a record is in, no transition will occur.
	Situations that detach children entities along with the parent entity, like detach drawing (detach all entities) and detaching a space with child items, will call the detach transition, if applicable, on all children. (Tri-92976)
	The display of the full hierarchy path for mappable smart section fields can be configured in CAD mappings and enabled in the Smart Attach, Batch Process, and Batch Edit forms.
	In the Space Mapping, Current Use Space Class Mappable Special Field, set the new Associated Mapping locator to point to the Space Class Mapping. In the Space Class Mapping, add a "Path" Special field and configure it on the triPathTX field on the Space Class business object. You can choose any field to represent the "path".
	This can be similarly applied to any Smart Section-based mappable special field.
	When this is done, the full path is available as tooltips in the list selector. In addition, there is a check box to allow the user to show the full path. A search field has also been added. (Tri-114048-IV51850)

## IBM TRIRIGA CAD Integrator/Publisher 12.1.0 Changes

The following changes to IBM TRIRIGA CAD Integrator/Publisher are in this release:

Area of Change	Description
Attach Gross Area	Updated Attach Gross and Attach Measured Gross to display a message when cancelling out of the command, rather than logging an error. (Tri-110947)
Batch Edit	Added a Show By Path check box to Batch Edit to allow the user to see the full path of a smart section text field record. This check box will only be enabled if the field is configured in the application definition by a mappable special field that is associated mapping and path field. (Tri-126870)
Detach	Detaching a drawing and all drawing data now remove the legend. (Tri-88286)
Detach	Resolved an issue where detaching a space in MicroStation did not unlink child block elements, such as inserted/attached people or assets, as AutoCAD does. (Tri-109211)
Detach	Resolved an issue where you could not detach an object from the context menu in MicroStation. Also resolved an issue in both AutoCAD and MicroStation where using context menu detach object on a boundary detached child items on the plug-in but did not detach them on the server. (Tri-109322)
Detach	Resolved performance issues when detaching a space in drawings with a large number of spaces and a large number of attached items. (Tri-125549-IV56620)
Globalization	Resolved an issue where the CAD Integrator/Publisher installer did not set the correct language settings for Polish. (Tri-130106)
Labels	CAD Integrator/Publisher labels now maintain the correct justification when the user syncs, publishes, or changes the label style in AutoCAD. (Tri-114880-IV52348)
Login	CAD Integrator/Publisher works with Siteminder using basic authentication when you enable "Support non-browser clients" in the Siteminder configuration. (Tri-125600)
Menu	Resolved an issue where the Drawing Properties menu item was incorrectly set to active for an unattached design file. (Tri-89367)
Preferences	Server environments no longer save the "/" at the end of URL string so that functions that open the TRIRIGA application or a record in a browser window open correctly. (Tri-112358)
Publish	In the Graphics section, the polyline to arc transformation now correctly displays a non-positive unit Z normal. This corrects an issue on certain MicroStation drawings where doors appeared to be flipped on publish. (Tri-113522-IV51712)

Area of Change	Description
Publish	Resolved an issue that could cause a crash when publishing design files using MicroStation SS3 on Windows 8. (Tri-115744)
Reporting	Resolved issues with the alignment of the color in the legend of AutoCAD when there are multiple results and updated the color graphic to have a border. (Tri-109773)
Single Sign-On	CAD Integrator/Publisher log-in now supports NTLMv2 authentication through IIS. Fields were added for configuring a proxy host and port for an environment. The SSO type selector was renamed Authentication, and the options were renamed to Basic, Preemptive Basic, and NTLMv2. (Tri-67173)
Smart Attach	In AutoCAD, the upload candidates now correctly process children of existing linked spaces as subspaces. (Tri-90230)
Smart Attach	Resolved an issue where spaces were not created in CAD Integrator/Publisher if the parent floor had a reference to a renamed or deleted organization in the system organization field. Now, CAD Integrator/Publisher logs an error for a misconfigured sys org field but still creates a space. Some users do not use the system organization field for security, and, if they frequently change their organization structure, then CAD Integrator/Publisher will no longer be affected by this issue. (Tri-121667-IV56564)
Smart Attach	Updated the CAD Integrator/Publisher application metadata to be able to configure a query to control the results for Space Class Current: In the Space Mapping, Current Use Space Class Mappable Special Field, set the new Associated Mapping locator to point to the Space Class Mapping. Now you can change or update the query on the Space Class Mapping in order to control the results that show up in the selector in CAD Integrator/Publisher.
	This can be similarly applied to any Smart Section based Mappable Special Field. (Tri-113848)

# IBM TRIRIGA CAD Integrator/Publisher 12.1.0 Properties Files

The following changes to the ci.properties file are in this release:

Area of Change	Description
AUTO_UPGRADE	The AUTO_UPGRADE property applies to AutoCAD only. It controls the automatic upgrade of IBM TRIRIGA CAD Integrator/Publisher (CI) version 10 drawings. When set to Y, the default, CI version 12 upgrades any drawing from version 10 when it is opened. When set to N, version 10 drawings appear as unattached in version 12. You can use the TRGA_UpgradeXData command or set the AUTO_UPGRADE property to Y to upgrade drawings. If you run TRGA_UpgradeXData, you must first save the drawing and then reopen the drawing to refresh the CI menu state. (Tri-114329)
FLATTEN_Z_ON_TEXT_ ENTITIES_WHEN_UPLO ADING ACCEPT_UNCLOSED_B	In AutoCAD, drawing entities are usually represented in three dimensions and the geometry of the vertices typically has $(x,y,z)$ coordinates. However, CAD Integrator expects that the floor plans are in only two dimensions, with $(x,y)$ vertices and $z=0$ .
OUNDARIES_WHEN_UP LOADING	Two new properties in the ci.properties file control how CAD Integrator behaves in AutoCAD when you upload floor plans. The
	FLATTEN_Z_ON_TEXT_ENTITIES_WHEN_UPLOADING property assumes Z=0 for uploading, which is the default behavior. The
	ACCEPT_UNCLOSED_BOUNDARIES_WHEN_UPLOADING property, which defaults to N, can be set to Y to treat unclosed boundaries as valid for uploading candidates. When set to N, CI ignores unclosed boundaries, which was the behavior in previous CI releases. (Tri-92362)

# 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 <a href="https://www.ibm.com/developerworks/community/wikis/home?lang=en#/wiki/IBM+TRIRIGA1/page/Support+Matrix">https://www.ibm.com/developerworks/community/wikis/home?lang=en#/wiki/IBM+TRIRIGA1/page/Support+Matrix</a>.

#### **Related Documentation**

You will find the documentation for this release in the IBM TRIRIGA 10 Knowledge Center at <a href="http://www.ibm.com/support/knowledgecenter/SSFCZ3\_10.4.2/com.ibm.tri.doc/product\_landing.html">http://www.ibm.com/support/knowledgecenter/SSFCZ3\_10.4.2/com.ibm.tri.doc/product\_landing.html</a> and in the IBM TRIRIGA Application Platform 3 Knowledge Center at <a href="http://www.ibm.com/support/knowledgecenter/SSHEB3\_3.4.2/com.ibm.tap.doc/product\_landing.html">http://www.ibm.com/support/knowledgecenter/SSHEB3\_3.4.2/com.ibm.tap.doc/product\_landing.html</a>. The documentation can be found in online IBM Knowledge Center topics, or in PDF files, or both.

This release introduces the following new documentation.

An IBM TRIRIGA Real Estate Environmental Sustainability Impact Manager toolkit is available on the IBM Integrated Service Management Library. The toolkit assists customers and service providers in developing integrations that periodically load energy usage and energy sensor data into IBM TRIRIGA. The data is used by analytics and for reporting. This toolkit can be found at http://www.ibm.com/software/ismlibrary?NavCode=1TW10IB09.

The following videos that demonstrate how IBM TRIRIGA self-service users can request services and reserve company resources for themselves or for others are available:

IBM TRIRIGA Self-Service Users - Requesting Services - Includes information about how to use Request Central to make online requests for services, repairs, or products and to manage and track each request

IBM TRIRIGA Self-Service Users - Reserving Company Resources - Includes information about how to use Request Central to reserve resources like meeting rooms, workspaces, food services, vehicles, and equipment

IBM TRIRIGA Self-Service Users - Reserving Company Resources from Outlook - Includes information about how to use the IBM TRIRIGA reservation add-in for Outlook® messaging software to create appointments in Outlook and connect to IBM TRIRIGA to reserve company resources

The videos are located in the Media Library at

https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/IBM+TRIRIGA1/page/Media+Library.

The IBM TRIRIGA Inventory Management User Guide is now available as part of the IBM Knowledge Center, rather than only as PDF. (Tri-109355-IV50672)

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)
- "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)
- "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 Object Migration User Guide (PDF)
- IBM TRIRIGA Application Platform 3 Reporting User Guide (PDF)

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

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 <a href="https://www.ibm.com/support">www.ibm.com/support</a>.

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