IBM TRIRIGA Application Platform
Version 3 Release 5.3.5

Readme

IBM

Contents

Readme file for 3.5.3.5 IBM TRIRIGA Application Platform

This fix pack updates the IBM® TRIRIGA® Application Platform product.

Prerequisites and supported products

To install this fix pack, you must have TRIRIGA Application Platform 3.5.3 installed.

What's new in this fix pack

The following enhancements were added to the IBM TRIRIGA Application Platform in this fix pack.

Area of Impact	Description
Administrator Console	In the Administrator Console, you can now grant access to the Admin Console to any active user. In addition, access is now controlled object by object, instead of the three configuration options available in prior releases. Select the Admin Users object and use options in the Admin Console User Manager to control the display. You can change the number of users shown per page from the default 25 and show next or previous pages. You can show all active users or only active admin users. You can filter by complete or partial user name, full name, or both; the filters are not case sensitive.
	To configure a user's access to Admin Console objects, you can select Full Access to give access to all objects, Read Only to give access to non-configurable objects, and No Access to deny access to all objects. Or you can select only the desired objects. Permissions can be copied and pasted from one user to another. You can reset a user's permissions to what is saved in the database. When the access for all users on the page is the way you want it, click Save Users to update the database. Note, after you click Save Users, a subsequent reset action shows the current permissions, not any prior values.
	If you are upgrading from a prior version of the TRIRIGA Application Platform, existing users retain the level of access to the Admin Console defined in the upgraded release. New users created after upgrade do not have access to the Admin Console. (Tri-56788-RFE 123578)
	In the Admin Users object, after you click Save Users, an INFO record is written to the security.log for each user record saved.
Administrator Console	The Administrator Console Platform Logging page now provides a Reserve SMTP category to help debug Exchange to TRIRIGA integration problems. (Tri-270624)
Administrator Console	The look and feel of the Administrator Console were updated to a more modern style. (Tri-173791)
Agents	Enhanced heartbeat and heartbeat event processing so they do not influence each other. At times it has been noted that servers/agents disappear for a time without reason; this should help prevent that. Added enhanced debug logging. (Tri-50314)

Area of Impact	Description
Agents	In the Workflow Agent Settings, you can now dedicate a workflow agent to a group that is defined in the Security Manager, in addition to the existing behavior of dedicating to individual users. Please note that this functionality is still being implemented and should not be used in production environments prior to future fix packs that complete full implementation. (Tri-46185)
Logging	SQL performance logging has been improved. The actual SQL was added to the key and an attempt has been made to indicate what processing initiated the SQL. (Tri-46627)
Object Label Manager	You now can re-label objects that have a non-IBM label applied to them. In prior releases, users were only able to apply object labels that had In Progress label applied. With this enhancement, users can now choose between re-labeling all revisions containing the given object label or only re-labeling the latest version of the object if the latest revision of the object has the given object label applied. (Tri-37056)
Object Labels	The object label is now displayed on the main page of the following builder tools so that you can see each object's label without drilling down into the tools: Report Manager, Form Builder, Workflow Builder, Portal Builder and Navigation Builder. (Tri-49417)
Object Labels and Revisions	The Labeled Objects tab in the Object Label Manager was enhanced to clarify the display of objects. It now displays two sections: one for objects that currently have the label and another for objects that had that label on a previous revision. (Tri-47234)
Time Format	A new time format is available for time fields in TRIRIGA applications. In addition to the current military format, there is also standard time. The new mask displays any new time field as "hours:minutes:seconds am/pm." When interacting with a time field in a form, a new time field picker helps the user choose hours, minutes, seconds, or period. The default value for time fields is set to "12:00:00 AM" which represents a day's zero hours. To control the time format, add the new TIME_FIELD_STANDARD_DISPLAY property to the TRIRIGAWEB.properties file. This property by default is set to TRUE, which displays time fields in standard time format. To set the time to military format, change this property to FALSE. (Tri-279800)
Object Migration	A new field tracks when an object migration package is modified. Now the Property pane in an object migration package displays the created date and the modified date. (Tri-238950)
Object Migration	Object migration export package Object Finder now has a Component Type filter when searching for web components. This comes in the form of two check boxes labeled Non-View and View. Web component Non-View types are Application, Building Block, Core, and Platform. Non-View Type is the default, even when both check boxes are not selected. (Tri-49597)

Area of Impact	Description
Object Migration	Object migration import packages now have an option to only import objects that do not have object label conflicts between the source package and the target environment. This feature is only intended to assist with merging changes and is not meant to import a valid working package. This option is available via the Import Non-Conflicting link. After the import, two new packages are created that contain the conflicting objects that were not imported. One package contains the conflicting object definitions from the source package and the other package contains the conflicting object definitions on the target environment. (Tri-39935)
Object Migration	Object migration import packages now indicate objects that have object label conflicts between the source package and the target environment. The indication shows on initial load of the import package and displays a caution icon next to the object in the Navigation pane and displays the object name in orange text. (Tri-39930)
Object Migration	When viewing object migration import packages within the Object Migration tool, users now can download web view file content by clicking the Download Content For Selected link within either the Web Component or Web View File object pane. The result is a zip file that contains the web view file content from both the target environment and the object migration package. This feature is intended to help users access the web view file content contained in the object migration package prior to importing the package, so the content can be analyzed for differences with the web view file content on the target environment. (Tri-39848)
Security	The TRIRIGA Application Platform is enhanced to make it easier for administrators to manage which reports a group can access. Before this enhancement, TRIRIGA treated all reports as executable by any user unless a group was specified on the Security tab of the report. Since TRIRIGA ships with 13,000+ reports, the burden of setting and managing the appropriate security group access for each report was significant. This enhancement provides levels of report access at the group level. There are two levels: Implicit Access, which is the default, and Explicit Access. Implicit Access: This is the legacy behavior. Consider a hypothetical security group A that by default is configured to have implicit access. Users in group A can view any report in the system that has either of the following configurations: No groups listed on the Security tab, or Group A listed on the Security tab. Explicit Access: This is the new behavior introduced by this enhancement. Consider a hypothetical security group B that is configured to have explicit access. Users in group B can view any report in the system that has the following configuration: Group B listed on the Security tab. To set the report security for a group, in the Access tab, in the Object tree, select Report Viewer, then in the Data Access section, select Implicit Access or Explicit Access. (Tri-49418)

Area of Impact	Description
Security	You can now configure TRIRIGA to use the geography and organization from the user's profile in addition to the user's geography and organization from the user's security groups to determine the user's geography and organization access. After connecting to the database as the TRIRIGA user, run and commit the following SQL statement to enable this functionality in the TRIRIGA Application Platform: insert into ENVIRONMENT_PROPERTIES (ENVIRONMENT, PROPERTY, VALUE) VALUES('Security','GEO_ORG_SECURITY_MODEL','1') (Tri-49426)
UX Framework	With the new triplat-document-download component, you can provide users with the option to download documents from the Document Manager. For more information, refer to the UX Framework documentation page. (Tri-49890)

Information resources

IBM Knowledge Center

http://www.ibm.com/support/knowledgecenter/SSHEB3_3.6.0/com.ibm.tap.doc/product_landing.html

Access the Knowledge Center to view the product documentation. Topics include product overviews; installation and configuration tasks; instructions for using, administering, and troubleshooting the product; and security information.

Real Estate and Facilities Management community

http://www.ibm.com/developerworks/community/groups/service/html/communityview?communityUuid=9e3a5b9d-6a06-4796-a6c1-5137b626e39c

Use the Real Estate and Facilities Management community to review information such as best practices, performance and tuning, and product integrations. You can also collaborate with IBM experts and the broader user community.

IBM TRIRIGA Application Platform support portal

https://www.ibm.com/support/home/product/B587581X76101M05/IBM_TRIRIGA_Application_Platform

The IBM support resources portal provides access to tools and resources to keep your systems, software, and applications running smoothly. From the support resources portal you can find fixes, service requests, useful links, and an enhanced search to help you find information quickly.

IBM TRIRIGA Application Platform Information and Support Resources

http://www.ibm.com/support/docview.wss?uid=swg21611356

The IBM TRIRIGA Information and Support Resources page is a collection of links and other resources that provides information and assistance for IBM TRIRIGA products.

Installing the IBM TRIRIGA Application Platform 3.5.3.5 fix pack

To install the TRIRIGA Application Platform 3.5.3.5 fix pack, refer to the following general instructions.

Procedure

1. Ensure that no database configuration changes are pending and there are no entries in the WF_EVENT or EF_QUEUE tables. You can check the status of these tables by running the following

SQL statements: `select count(*) from WF_EVENT` and `select count(*) from EF_QUEUE`.

2. For IBM WebSphere® Application Server Liberty profile, stop all application servers before continuing the installation.

   For IBM WebSphere Application Server and Oracle® WebLogic Server, confirm that this server is started and stop all other application servers.

3. Take a backup of the database and the existing TRIRIGA install directory for each server. If necessary, you can use the backups to revert the system.

4. Download the 3.5.3-TIV-TAP-FP005 file.

5. Extract the file. You can extract the fix pack file into any directory.

6. Run one of following patch executable files: fixpack_tririga_v3.5.3.52_Windows.exe, fixpack_tririga_v3.5.3.5_Linux.bin, or fixpack_tririga_v3.5.3.5_AIX.bin.

7. In the Introduction pane, select **Next** or **Enter**.

8. In the license agreement, accept the terms and select **Next** or **Enter**.

9. Choose the directory where IBM TRIRIGA is installed. For example, the following directories: `c:\ibm\tririga\` or `/opt/ibm/tririga/`.

10. Review the information and select **Next** or **Enter**.

11. The fix pack process patches the WAR file and runs any platform database fix pack scripts.

   (i) **Note** - In the patch folder for the 3.5.3.5 fix pack, when the fix pack installer backs up the ibm-tririga.war file, the backup .war file appears as the ibs-tririga.war.bak file.

12. For WebSphere Application Server Liberty Core profile, the WAR file deploys and the cache directories are removed. You must restart Liberty.

13. For WebSphere Application Server, the WAR file redeploys and starts automatically. If it fails, you need to manually redeploy the WAR file. The WAR file is located in one of the following root TRIRIGA install directories: `c:\ibm\tririga\ibm-tririga.war` or `/opt/ibm/tririga/ibm-tririga.war`. Refer to IBM's instructions for deploying a .war application.

14. For Oracle WebLogic Server, delete all of the cache, tmp, and .wlnotdelete directories under WebLogic's TRIRIGA domain after the fix pack installation is complete, as these directories might contain files that are left over from the previous application/ear installation. For example:

   `<weblogic>\user_projects\domains\tririga10domain\servers\tririgaServer\tmp`

   `<weblogic>\user_projects\domains\tririga10domain\servers\tririgaServer\cache`

15. For Oracle WebLogic Server, the fix pack process attempts to redeploy the WAR file into the managed server. However, because of conditions in the server environment outside of IBM TRIRIGA's control, you might need to manually redeploy the WAR file. Restart the application server when the fix pack completes and check the build number in the IBM TRIRIGA Administrator Console. If the old .war file still shows, redeploy the .war file. Refer to Oracle's instructions for deploying a .war application into the managed server.

What to do next

After the fix pack install completes, check the platform release in the IBM TRIRIGA Administrator Console. Verify that the fix pack you just installed is listed.

Important information

The following items are important information concerning the IBM TRIRIGA Application Platform 3.5.3.5 fix pack.

Issue Number	Description
APAR IJ00579	There is an Outlook Add-in issue where if you modify an occurrence of a recurring meeting and change the room resource from RoomA to RoomB, RoomA is still marked as busy in Outlook's Scheduling Assistant. This is due to a limitation in Microsoft Outlook where Outlook fails to send a cancellation message to a removed attendee of one occurrence of a recurring meeting if a Save As operation is done before the Send Update. (Tri-49785)
APAR IJ06013	All users are allowed to add a new calendar given that the user's security groups' access to the triSetup business object is set to either "Read, Update and Create" or "Full Access," but the Default Calendar can only be edited by admin users. (Tri-52214)
	After upgrade to IBM TRIRIGA Application Platform 3.5.3.5, your Administrator Console system status may state that your database version is not supported. If your database version is listed in the IBM TRIRIGA Application Platform 3.5.3 Compatibility Matrix, you can ignore that message. (Tri-57329)
	Effective April 30, 2019, IBM no longer supports IBM Tivoli Directory Integrator. While the TRIRIGA Application Platform version 3.5.3.5 will work with TDI, TDI is not supported after April 30, 2019. Migrate your TDI assemblies to a supported technology, such as Pentaho. In a future release, the IBM TRIRIGA Application Platform will no longer ship with, support, or execute TDI assemblies.
	There is a limitation with displaying the favicon when adding an UX application home screen shortcut on iOS Safari/macOS Safari or bookmark in Windows Microsoft Edge with an SSO enabled TRIRIGA environment. The TRIRIGA favicon is not displayed and instead a default general icon is generated specific to the browser. The shortcut can still be used to launch the UX application. (Tri-53388)
	There is an iOS Safari limitation when using UX applications that are launched from the home screen. The home screen shortcuts are added by using the "Add to Home Screen" feature in Safari. The logged in session does not persist if the application is no longer in focus (i.e., pressing the Home button or switching between running applications). Upon returning to the application via the home screen shortcut or running applications view, it brings you to the login page and loses your previous place in the application. As a workaround, launch the Safari application and then load the application instead. (Tri-52838)
	When creating object migration export packages, some drop-down lists, such as the Object selector, show a scroll bar. This is a browser limitation. (Tri-52481)

Known limitations

The following items are known limitations concerning the IBM TRIRIGA Application Platform 3.5.3.5 fix pack.

Issue Number	Description
APAR IJ02866	There are some known edge cases in Firefox where the cancel workflow can fail to fire when a user closes the browser window. The issues have been intermittent, rare, and difficult to replicate. We continue to investigate this browser-specific issue. (Tri-29692)
	For non-US English-language users, reports in Report Manager are not sorted on the Title column. (Tri-273899)
	If the application server is running on WebSphere 9, UX applications, such as Move Me, Group Move, Space Assessment, and Space Management, do not load for users who have a non-US English language set in their profile. (Tri-252859)
	If you make changes to the User List (add/delete/restrict/unrestrict) when using multiple workflow agents from the Administrator Console's Workflow Agent Info tab, you must reboot the server after saving the change to make sure the change is propagated to the other servers. (Tri-54514)
	In a Room Reservation in the perceptive app, you can only make room selections for exceptions that are within the same building as the original room. (Tri-269915)
	In either the classic TRIRIGA app or the perceptive Service Request app, when a service request is raised and the user languages are not the same in the user profiles of the originator, the person the request is for, and the person who completed the request, the notification e-mails sent upon request submission and request completion will most likely contain a mixture of languages. (Tri-273685)
	In the procedures step, the reading input field's UOM type and UOM are not editable due to a limitation of the UX framework. It displays the UOM that is defined at the procedure step definition. In addition, the display mask does not match the UOM value. The display mask defaults to #.####. (Tri-52059)
	In the Security Manager, in the TRIRIGA Request Central group, when the model access permission for Models > triServiceRequest is set to Read and Update, a user cannot update existing service requests. (Tri-48832)
	Invalid email addresses in TO or CC lines can impact the acceptance and delivery of the individual email messages. The Incoming Mail Agent attempts to process all emails sent to the inbox. If an email contains an invalid address, that message may be removed from the inbox, not processed, and the agent continues to process the other messages in the inbox. For outgoing mails, an invalid email in the TO or CC line may cause that individual message to not be sent and an error to be added to the server.log. Other outgoing notifications in the queue continue to be processed.

Issue Number	Description
	On an Android phone, when you log into any of the TRIRIGA perceptive applications, such as Workplace Services Portal, Service Request, Room Reservation or Move Request, if the login page is displaced upward either by the user or by the virtual keyboard, the title banner of the subsequent pages may remain outside of the screen until the user swipes the page down, at which point the banner is anchored. (Tri-263275)
	The Available column of the Availability chart in the Availability tab of a recurring reservation in the perceptive Room Reservation app is not mirrored correctly in a bi-directional language. (Tri-269988)
	The UX triplat-number-input component does not display a zero but instead displays nothing when the number is smaller than the number of decimal places specified in the display mask. For example, 0.001 is shown as blank instead of 0.00 when the display mask is set to two decimal places. You can change the display mask to increase the number of decimal places. One place you may experience this is in the Add Material pop-up in the perceptive Work Task Services application. (Tri-54061)
	TRIRIGA may not see your changes after you modify the default incoming mail server entry. The workaround is to navigate to Tools > System Setup > System > Incoming Mail Config, delete the as-delivered default entry of YourMailServer / YourUserName / INBOX / CREATE, and add a new entry that contains the incoming mail configuration values for your implementation. (Tri-57767)
	Users with read permission to Models > triServiceRequest in the TRIRIGA Request Central group can see existing requests when signed in on /p/web/serviceRequest but cannot see existing requests when signed in on /p/web/workplaceServices. Also, users with read permission to Models > triReservationManager in the TRIRIGA Request Central - Reserve group can see existing reservations when signed in on /p/web/roomReservation but cannot see existing requests when signed in on /p/web/workplaceServices. (Tri-275098)
	When TRIRIGA is installed to a managed node on WebSphere Network Deployment, the TRIRIGA install reports success, yet the JDBC Data Source may not be configured correctly. If TRIRIGA does not start, you need to log into the WebSphere Admin Console. Navigate to Resources- > JDBC ->Data sources. Select the "data" data source. When the data source opens, scroll down to the Security settings section. If the "Component-managed authentication alias" drop-down field is set to "(none)", change it to the appropriate "TRIRIGAData" setting. Save your changes and restart the WebSphere server. This has been reported on TRIRIGA installations involving Microsoft SQL Server databases, but may also affect TRIRIGA installations on Oracle and DB2. TRIRIGA installations to unmanaged nodes on WebSphere do not encounter this issue. (Tri-53031-IJ07701)

Issue Number	Description

	You may see errors similar to the following while importing object migration packages containing association objects. These errors can occur if the target environment contains an association that has the same name, source business object, and target business object as an association object contained in the package being imported. It does not affect the overall success of the package being imported.
	
	```com.tririga.platform.persistence.PersistenceException: Error executing sql: Sql[SQL= insert into module_association (company_id, source_module, source_bo_id, ass_module, ass_bo_id, association_verb, rev_association_verb, dependent_flag, PROJ_CONTAINMENT_DISABLED, association_type, created_by, created_date, updated_by, updated_date, cascade_read_only, assoc_id) values(208133,17,107324,7,106872,'Has','Has',false,false,0,1,2018-08-21 19:32:35.021,1,2018-08-21 19:32:35.021,false,46112) ,DB transaction ID=(None),Statement:= insert into module_association (company_id, source_module, source_bo_id, ass_module, ass_bo_id, association_verb, rev_association_verb, dependent_flag, PROJ_CONTAINMENT_DISABLED, association_type, created_by, created_date, updated_by, updated_date, cascade_read_only, assoc_id) values(?,?,?,?,?,?,?,?,?,?,?,?,?,?,?,?)] Caused by: PreparedStatementCallback; SQL [insert into module_association (company_id, source_module, source_bo_id, ass_module, ass_bo_id, association_verb, rev_association_verb, dependent_flag, PROJ_CONTAINMENT_DISABLED, association_type, created_by, created_date, updated_by, updated_date, cascade_read_only, assoc_id) values(?,?,?,?,?,?,?,?,?,?,?,?,?,?,?,?)]; ORA-00001: unique constraint (TRIDATA13.PK_MODULE_ASSOCIATION) violated```
	
	```; nested exception is java.sql.SQLIntegrityConstraintViolationException: ORA-00001: unique constraint (TRIDATA13.PK_MODULE_ASSOCIATION) violated```
	
	(Tri-54613)

	You may see errors such as the following appear several times in the server.log when importing the application upgrade object migration package. The error resolves itself by the time the package completes and does not affect the overall success of the application upgrade. ```com.tririga.platform.smartobject.dataaccess.SmartObjectNameConflictException: Another Object with same name exists. Name: 'Lease Journal Entry Setup Template - Input01'. Existing object: SmartObjectImpl[ID=SmartObjectId[ID=128243805,Business Object ID=10033691],Business Object=BoImpl[name=triJournalEntryCalculationVariable,id=10033691,module=ModuleImpl[name=triFinancial,id=25031]]] New object being saved: SmartObjectImpl[ID=SmartObjectId[ID=128243806,Business Object ID=10033691],Business Object=BoImpl[name=triJournalEntryCalculationVariable,id=10033691,module=ModuleImpl[name=triFinancial,id=25031]]]``` (Tri-49073)

Issue Number	Description
	You may see FieldNotFoundException errors in the server.log after you upgrade your TRIRIGA Application Platform to 3.5.3.5. The errors can occur during Integration Object upgrade processing. The Integration Object upgrade package loads successfully; however, what causes the errors is validation logic that runs against existing Integration Object records. It does not find an expected Integration Object field. The validation logic is intended to provide helpful logging; The Integration Object upgrade is not affected. (Tri-54588)

Resolved issues

The following issues were resolved in the IBM TRIRIGA Application Platform 3.5.3.5 fix pack.

Issue Number	Description
APAR IJ00121	Order buttons in Scorecard queries are now visible in all supported browsers. (Tri-283547)
APAR IJ00305 APAR IJ01316	Query sections no longer render under-width or not at all when forms are displayed in a portal section. (Tri-49652, Tri-50114)
APAR IJ00364	You can add the new AGENT_STALE_TIME_IN_SECONDS property to the TRIRIGAWEB.properties file to control workflow agents. The AGENT_STALE_TIME_IN_SECONDS property determines when an agent is stale or unresponsive and adds extra logging. You can use this property in environments where you notice that a running agent seems down when it is actually very busy and unresponsive. The default and minimum value is 60 seconds. (Tri-49564)
APAR IJ00434	When you do a platform upgrade, an upgrade class no longer writes an error to the server.log if there is a problem with a Hybrid Application/Platform table. (Tri-284837)
APAR IJ00504	Resolved a smart section issue with the "Find" action on non-pass through reference single row reference sections, where duplicate non-pass through reference records were being created if the "Find" action was used to select a value more than once. (Tri-49993)
APAR IJ00579	Resolved an issue in the IBM TRIRIGA Workplace Reservation Manager Add-in for Outlook. When a user changed the meeting time of an occurrence of a recurring meeting, the TRIRIGA room sent a decline message for the new occurrence time even if it was available. The Reservation Coordinator's Calendar view in TRIRIGA also showed duplicate reservations for the room. Now the TRIRIGA room accepts the modified occurrence if available and duplicate reservations are not created. (Tri-283853)
APAR IJ00580	When a summary report is displayed in a portal section, there is no decimal precision for the count values, and only a decimal precision of 2 for any number values. In addition, date, date time, and time values also display as they would if the report had been run from the Report Manager. (Tri-49299)
APAR IJ00608	In the Form Builder, using the Navigation pane under Task tabs to move from one sub-tab to another tab no longer freezes. (Tri-50082)

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Issue Number	Description
APAR IJ00683	When a project is imported into the Gantt, if the TRIRIGA project has no Planned Start date (or Planned End date based on the Calculate direction), the imported tasks are no longer planned against today's date or 1969 depending upon whether a calendar is used or not. Either the earliest Planned Start date or the latest Planned End date is now used to schedule the imported project. (Tri-49768)
APAR IJ00756	The current user's time zone is now displayed in a metric query chart with Group By Day and Group By Hour charts for DateAndTime field groupings. (Tri-50123)
APAR IJ00797	The application form in classic TRIRIGA maintains its focus and the user can tab to the next field after selecting a value from the drop-down list using the keyboard and JAWS 18. (Tri-50138)
APAR IJ00798	A JAWS user can now navigate on related reports lists. (Tri-50154)
APAR IJ00802	The application form in classic TRIRIGA maintains its focus and the user can tab to the next field after selecting a value from the auto complete list. (Tri-50139)
APAR IJ00805	A new checkbox labeled "Resolve Column Label Spaces?" was added to the Outbound Bound Query section of the Database Outbound Scheme for Integration Object records. When selected, spaces are replaced by underscores in the column names for the generated create table and insert SQL of the outbound table. This is necessary because TRIRIGA query column labels are used for generating column names of outbound tables, and TRIRIGA query column labels can have spaces. When selected, this checkbox also resolves an issue for any column names, such as those for UOM fields, which are automatically added to the generated outbound SQL, in that any spaces in those are replaced with an underscore. (Tri-50152)
APAR IJ00839	You can add the EXPORT_EXCEL_BATCH_PROCESS_SIZE property to the TRIRIGAWEB.properties file. You use this property to tune your system to balance memory consumption by controlling the size of the batch of records returned when exporting to Excel. The default is 128000. (Tri-50148)
APAR IJ00974	When a user enters an invalid value for an 'In' query filter or a 'Not In' query filter, the user now sees a message describing the correct input format instead of an error. (Tri-50121)
APAR IJ00986	The value of the number of action items that is displayed in a portal is now the same as the number of action items records. (Tri-285871)
APAR IJ00988	UX WebView Metadata cache is now automatically cleared after importing a package. After object migration import, users no longer need to clear Object Metadata cache in the TRIRIGA Administrator Console in order prevent resource not found issues for imported UX WebViewFiles. (Tri-285735)

Issue Number	Description

APAR IJ01088	An empty date/datetime value of variables in an extended formula variable no longer cause the calculation of the formula to fail and return default value of the target field. This ensures that the built-in HasValue() function always returns the proper value when the parameter is date or datetime. To check if a date/datetime field has value, use this statement:
	
	``
	if(HasValue(aDate),...)
	Do not use
	if(aDate="",...)
	``
	
	(Tri-50282)

APAR IJ01094	You can add the new BIRT_ALLOW_XLSX property to the TRIRIGAWEB.properties file. When set to false, which is the default, BIRT reports cannot be exported with the .xlsx file extension. When set to true, BIRT reports can be exported as .xlsx files. Only use the .xlsx file extension on BIRT reports that have a direct connection to the database. Export all as-delivered BIRT reports with the .xls file extension. It is a known limitation that some as-delivered BIRT reports do not export to the .xlsx file extension correctly. This is a known third-party limitation. If you experience this issue, export using the .xls file extension. (Tri-50047)
APAR IJ01514	Action buttons in Notification emails are now translated into the language of the TRIRIGA user who is receiving the notification. (Tri-50193)
APAR IJ01542	When Performance Timings and Query categories are both enabled in Platform Logging, the user no longer sees a MID error and an exception no longer shows in the server.log. (Tri-5884)
APAR IJ01579	The PlatformMaintenanceScheduler agent no longer runs after the user requests it to stop in the Administrator Console. The agent is now terminated when user requests stop. Also, changed the Administrator Console so that when the user stops the PlatformMaintenanceScheduler agent, the agent status displays as "Stopping" until the agent is terminated, at which time the status changes to "Stopped" and the Start action is available. (Tri-5879)
APAR IJ01596	After exporting reports to Excel, the column widths are appropriate to the column values and ID field wraps properly. (Tri-50926)
APAR IJ01596	The floorplan of certain floors no longer groups several spaces together when viewed in the Space Assessment UX app. (Tri-49307)
APAR IJ01609	Running a report with a defined Group By no longer causes a platform error. (Tri-5883)
APAR IJ01969	The Group Move UX Perceptive application should no longer contain syntax errors and the search feature should work now. Customers who run into this issue on previous app versions can vulcanize the application following the steps outlined on the following wiki page: https://www.ibm.com/developerworks/community/wikis/home/wiki/IBM%20TRIRIGA1/page/How%20to%20vulcanize%20your%20UX%20application (Tri-5886)

Issue Number	Description
APAR IJ01974 APAR IJ03324	You can add the GEO_ORG_SECURITY_CONTRIBUTE_BEHAVIOR property to the TRIRIGAWEB.properties file. This property controls the SQL generated that contributes geography and organization security to queries. The generated SQL is less expensive and may perform better depending on your org/geo hierarchy structure. Values are COALESCE (default), PATH, or OR. OR and COALESCE are similar in that they use the IBS_SPEC_STRUCTURE table to determine which organizations and geographies a user has access to. OR is the original / legacy implementation. OR has degraded performance in Oracle but OK performance in DB2 and Microsoft SQL Server. COALESCE is an improvement on OR and is the recommended option unless you are noticing performance issues when running queries and reports as non-admin users. Setting the property to PATH has been shown to alleviate performance issues for large organizations/geographies that are using org/geo security. Before using PATH, you must make sure the hierarchies are in sync with triPathSY. See the TRIRIGA Performance Best Practices for information on how to check triPathSY consistency and for more information on the PATH option. Analysis MUST be done before using the PATH option as it has the following limitations: . The triPathSY field must be part of the organization and of all geography business objects. . The values of triPathSY fields on organizations and all geography records must be consistent with the hierarchy structure. . The organization and geography used within any security group must contain fewer characters than the size of triPathSY on the organization and geography business objects. If this is a multi-server environment, ALL servers must use the same setting. If the TRIRIGAWEB.properties file does not include a value for GEO_ORG_SECURITY_CONTRIBUTE_BEHAVIOR, the resulting behavior is COALESCE. If the value of GEO_ORG_SECURITY_CONTRIBUTE_BEHAVIOR is invalid, the resulting behavior is OR. (Tri-5817, Tri-29817)
APAR IJ01980	When you rename a Form and publish it, the triFormNameSY field on the existing records that were created from the form and that have the old form name are now updated to reflect the new form name. A similar update is done for triFormLabelSY field if you modify a Form label and publish the form. (Tri-5868)

Issue Number	Description
APAR IJ02024	In the File to DC scheme, blank number fields included in the import file no longer cause SQL errors when the integration runs on either a Microsoft SQL Server database or a DB2 database.

Also, the Data Map type column for the Integration Object File to DC scheme no longer defaults to 'Text', for all database types. The type column now shows the actual database field type for the staging table. This change will be applied automatically to existing Integration Object File to DC records the first time the TRIRIGA application server is started after platform upgrade, as long as the Integration Object record has the correct database connectivity configuration. If the database connectivity is not configured correctly on the Integration Object record, you will see warnings in the server.log file the first time the TRIRIGA application server is brought up after platform upgrade. This can be corrected after upgrade, by opening the Integration Object record, correcting the database connectivity configuration, and selecting More> ReMap.

When the TRIRIGA application server is brought up the first time after upgrade, the server.log file may indicate warnings related to the validation of Data Maps portion of the Integration Object upgrade. In general, these are OK, as they indicate issues with existing Integration Object records, and these issues are ones that existed with these Integration Object records prior to upgrade. (Tri-5928) |
APAR IJ02169	Various error messages were eliminated by upgrading to Prototype 1.6.1. (Tri-5309; 50992; 51506; 51519; 51607; 51608; 51611; 51687; 51688; 51689; 51690; 51738; 51745; 51844; 51854)
APAR IJ02237	The date 01/01/1970 can now be entered or reported when the time zone of the system is set to (UTC) Coordinated Universal Time. (Tri-29732)
APAR IJ02238	The message "This chart has no data" now displays correctly when a graph report in a form does not contain any data. (Tri-29746)
APAR IJ02239	Query sections no longer render under-width. (Tri-29743)
APAR IJ02424	In the Data Modeler, the Where Used report for a field now includes instances where the field's business object is a secondary business object in a report. (Tri-29798).
APAR IJ02452	Integration Object File Outbound scheme now correctly exports record field values containing UTF-8 characters. The Integration Object File Outbound scheme now uses UTF-8 encoding for exporting record field values. (Tri-29814)
APAR IJ02454	Resolved an Object Label issue where if the "Generated from" field on an Object Label definition referenced itself, it caused properties not to show for any object that had that object label applied, and it would also give the appearance of hanging threads on the TRIRIGA application server. An example of an object label "Generated from" field referencing itself would be if you have an object label definition named MY_COMPANY:1.0 and its "Generated from" field is set to "MY_COMPANY:1.0. (Tri-50153)
APAR IJ02526	Performance Analyzer now displays properly on WebLogic and WebSphere Liberty profile servers. (Tri-29804)

Issue Number	Description
APAR IJ02530	The height of query sections within portals no longer grow continuously when a related report is selected and the browser's vertical scrollbar is clicked. (Tri-29776)
APAR IJ02731	Extra icons and characters are no longer displayed next to editable fields in editable queries. (Tri-29799)
APAR IJ02866	Resolved an issue that could result in the cancel workflows not firing when a user closes the browser window before saving state. This is fixed in all the browsers other than Firefox. (Tri-29692)
APAR IJ02907	All fields that should be editable in editable queries are now working correctly. (Tri-50483)
APAR IJ02914	Boolean fields now display in reports as check boxes instead of TRUE/FALSE values. (Tri-50739)
APAR IJ02955	When the percentage complete is provided and the ALLOW_GANTT_SCHEDULER_UPDATE_ACTUALS property is set to True, the Total Actual Working Hours now updates correctly. When the percentage complete is provided and the ALLOW_GANTT_SCHEDULER_UPDATE_ACTUALS property is set to False and the Actual Date is set, the Total Actual Working Hours do not update. (Tri-50454)
APAR IJ03000	In Portfolio > Locations > Property, when a non-US English-language user filters a query and exports the filtered data, the exported Excel file now contains the appropriate data. The exported Excel file also contains the appropriate data when a non-US English-language user does not filter the query before exporting. (Tri-50704)
APAR IJ03123	Adding a task to a workflow no longer fails and corrupts the workflow due to a duplicated task ID that can be introduced by an object migration import. (Tri-50726)
APAR IJ03143	Record lookup no longer returns an empty screen when ENFORCE_GUI_LEVEL_QUERY_SECURITY is set to true. (Tri-50951)
APAR IJ03340	When a user connects to a UX application by using an SSO URL, the application now loads without waiting for a browser refresh. (Tri-50714)
APAR IJ03350	An unsafe character ":" (colon) that was passed on the URL when you switched between form tabs that contained queries with runtime filters was replaced with an "_" (underscore). (Tri-51024)
APAR IJ03414	Clicking a workflow on the Workflow Instance tab now opens only a single window. (Tri-50899)
APAR IJ03511	The fix pack installer now runs properly on clients using Windows Server 2016. The TRIRIGA fix pack installer and clean installer are updated to InstallAnywhere 2017 SP1, which is compatible with the latest Windows OS as well as previous versions. A known issue with the clean installer will be addressed in a future release: the detected JVMs on the JVM selection panel are not 64-bit. For this, you must manually select the location of the 64-bit JVM. (Tri-50962)

Issue Number	Description
APAR IJ03596	The sum row in a form query section now displays without a vertical scroll bar when the section contains a small number of query results. (Tri-51003)
APAR IJ03619	Gantt and Availability sections now show the twelve-hour clock when set as the user's date time format preference. (Tri-51041)
APAR IJ03836	Autocomplete drop-downs for locator fields no longer display extraneous or repeated columns that are not displayed in the underlying query. (Tri-51161)
APAR IJ04278	The Apply Record and Apply Template actions no longer have an issue when the project's time zone makes the stored date fall on the previous or next day. The issue occurred when the tasks start dates were calculated when the record or template was applied. (Tri-51309)
APAR IJ04396	Currency fields no longer display incorrect values when viewed from within a query. (Tri-51446)
APAR IJ04397	The width of the combo box in a graphic section toolbar for location path was increased. (Tri-51289)
APAR IJ04745	IBM TRIRIGA Connector for Business Applications (CBA) security improvements: If calls to CBA operations now throw unexpected exceptions, check the user's security group access. This includes any unexpected exceptions with all integrations using CBA, Integration Object, and any delivered TRIRIGA integrations, such as but not limited, to Data Load Manager, Esri Connector, and Energy Star. Note that CBA query operations always check record security access regardless of the ENFORCE_GUI_LEVEL_QUERY_SECURITY setting in the TRIRIGAWEB.properties file. See the *IBM TRIRIGA Application Platform 3 Connector for Business Applications Technical Specification* for details regarding each CBA operation. (Tri-51151)
APAR IJ04952	Currency is now correctly converted when creating a program and adding a fund. (Tri-51319)
APAR IJ05074	When you use an incoming mail agent, email message bodies generated by certain mail clients are no longer added to the email record as an attachment. Also, the notes field in the email message now displays the message in HTML if it is available; otherwise, it displays the plain text version. (Tri-51789)
APAR IJ05149	Selecting Admin Summary in the Administrator Console no longer causes an error when using IBM Java 8. (Tri-51572)
APAR IJ05156	In Performance Metrics, the label for 'Workflow Events Queue' and 'Throughput per minute' count was updated to clarify that the number of Events in the queue are counted, not the total number of workflows executed for a given event. (Tri-51830)
APAR IJ05343	The check for valid licenses is refactored to avoid causing a race condition where integrations received an "Insufficient License" message when the server had valid licenses. (Tri-51140)

Issue Number	Description
APAR IJ05364	An .html file that is downloaded from the Document Manager no longer contains escaped characters that were not escaped when the file was uploaded. Now all files uploaded to the Document Manager are downloaded in the format in which they were uploaded. (Tri-51785)
APAR IJ05647	Resolved an Integration Object issue, where the File Inbound scheme was not correctly handling rows in import files when a parent record did exist on the target system. Prior to this fix, if a row in the import file had an invalid parent record name, the child record would be created under the last valid parent record name from a previous row in the file. This issue is fixed in that the child record will not import in this situation. An error message will be logged to both server.log and an Integration Failure record. This failure does not stop the remainder of the import file from being processed. (Tri-51900)
APAR IJ05781	The Integration Object File Outbound scheme has a new checkbox named "Resolve Line Breaks?". When selected, all line breaks detected for field values being exported are replaced with a space in the exported file. (Tri-51903)
APAR IJ05843	When a Duration field that contains both weeks and months or contains weeks and years is multiplied in a formula, the resulting value is now correct and no longer ignores the number of weeks. (Tri-52187)
APAR IJ05924	If a workflow agent is marked as restricted to a set of users, after new users or groups are added, those users are no longer marked as non-restricted. They are now marked as restricted and their processing happens exclusively on the current workflow agent. (Tri-52088)
APAR IJ06060	An export no longer fails when the package contains navigation collections with navigation items that contain group overrides for groups that were deleted. (Tri-52126)
APAR IJ06107	MS Project import does not automatically schedule the imported project plan if the server is using GANTT_STRICT_MODE=MINIMAL or FALSE. The Gantt scheduler will do the scheduling. (Tri-51612)
APAR IJ06314	When designing metric reports, filters for the triModifiedSY and triCreatedSY system fields now show operators relevant to date fields. (Tri-52353)
APAR IJ06414	Systems with SSO enabled now honor the hidden USERCOUNT field in My Profile records. (Tri-52540)
APAR IJ06457	The Incoming Mail Agent attempts to process all emails sent to the inbox. If an email contains an invalid address, that message may be removed from the inbox and not be processed. The agent continues processing the other messages in the inbox. For outgoing emails, an invalid email address in the TO or CC line may cause that message to not be sent, in which case an error is added to the log. Other outgoing emails in the queue are processed. (Tri-52954)
APAR IJ06531	Notification content was displaying '{n}' for a parameter when its mapped field did not have a value. Now, an empty string displays for the parameter in this situation. (Tri-52053)
APAR IJ06638	Records now load correctly when you select the Inventory tab in the quick find portal. (Tri-54139)

Issue Number	Description
APAR IJ07018	A privilege escalation vulnerability is resolved. (Tri-53087)
APAR IJ07094	Date field values that are part of an associated business object in a multi-business object metric tabular report now display correctly when the report is exported to Excel. Before this change, the date field values in the Excel spreadsheet used the date the spreadsheet was exported. (Tri-52829)
APAR IJ07117	When downloading log files from the TRIRIGA Administrator Console, two additional white space (0x0a [\n]) characters are no longer added to the beginning of the file. (Tri-53209)
APAR IJ07140	Document uploads now correctly use the file location chosen by the user. (Tri-53247)
APAR IJ07164	The installation documentation was updated to clarify that UTF8 in the context of Oracle means AL32UTF8. (Tri-53239)
APAR IJ07273	Object migration comparison reports and object 'Compare' actions no longer flag 'Allow Delete' on non-Gantt form sections (Tri-53314)
APAR IJ07348	The installation instructions in the fix pack installer and the readme are consistent and more accurate regarding required web server state during installation. (Tri-53339)
APAR IJ07689	The query header height is corrected for reports. (Tri-53517)
APAR IJ07695	In a query section, you no longer need to scroll the list of results to the top of the section to select from the drop-down list of Related Reports. (Tri-54919)
APAR IJ07698	An SQL injection vulnerability is resolved (Tri-53646)
APAR IJ07704	Users can no longer copy a reserve legacy, reserve, or external report to My Reports. (Tri-53622)
APAR IJ07753	Users no longer have to scroll to see hierarchical query data after expanding a query row. This issue affected queries that returned fewer results than the default max height of the query section. (Tri-53631)
APAR IJ07878	Column headers for queries displayed in a portal section now correctly display on the initial page load. (Tri-53732)
APAR IJ07935	A privilege escalation vulnerability was resolved. (Tri-54942)
APAR IJ09145	Multi-byte characters in the title of an asynchronous BIRT report now display correctly to non-US English-language users. (Tri-55437)
APAR IJ09202	Users no longer have to clear browser cache after a platform upgrade. (Tri-55937)

Issue Number	Description
APAR IJ09613	Performance logging for extended formulas no longer causes calculations with in-memory records to have unexpected results or to write com.tririga.platform.smartobject.util.formula.FormulaEvaluationException warnings in the log file. Prior to this fix, without performance logging on, the calculations worked as expected. Now, with this fix, the calculations work as expected with or without performance logging on. (Tri-55436)
APAR IJ09777	BIRT reports in the Reports tab of records now render with a larger height, making each report easier to read and work with when viewing records through the main TRIRIGA window, as bookmarked pages, or as pop-up views. (Tri-56336)
APAR IJ10910	Improved the performance of the Cleanup Agent. It no longer performs a full table scan when finding unlinked reference objects to delete. (Tri-56381)
APAR IJ10978	The Platform Maintenance Agent removes records marked for deletion in batches. A new property named CLEANUP_AGENT_RECORD_BATCH_SIZE can be added to the TRIRIGAWEB.properties file to override the default of 10000. This property controls the maximum number of records in a batch to be deleted at one time. For example, if there are 35000 records to clean, and this setting is at 10000, there will be 4 batches of around 10000 each. If there are 1000 records to clean, at a batch size of 10000, there will be 1 batch. The default value is 10000. (Tri-56180, Tri-56181)

A new property named CLEANUP_AGENT_ADD_MISSING_ASSOCIATIONS_FOR_SMART_SECTIONS needs to be added to the TRIRIGAWEB.properties file to override the default behavior. When set to the default (true), the legacy behavior runs, and the cleanup agent performs a very time- and resource-consuming statement to add back removed associations for smart sections. This is typically caused by a workflow removing an association used in a smart section without clearing/delinking the record used in the smart section. Changing the value to false is only recommended if you are sure there are no deassociation tasks that would remove associations from smart sections. (Tri-56180)

If there are remaining tasks when the Platform Maintenance Agent stops because the number of minutes in the CLEAN_TIMEOUT TRIRIGAWEB.property is reached, the next run of the Platform Maintenance Agent starts with the next task after it stopped. Other sections not previously processed when the timeout occurred are processed and cleaned up. (Tri-56182) |
APAR IJ12222	When SSO is enabled, users logged into TRIRIGA that have access to the Admin Console are no longer required to reauthenticate when switching to the Admin Console. (Tri-57036)
APAR IV97769	For Query Reports that have filters enabled, a check is added whenever a user attempts to use an invalid filter in a date or date-time field. If an invalid string is used in this filter, then a "No data to display" message is shown to the user in the body of the query results table, and zero results are returned. (Tri-275587)
APAR IV97888	Resolved an issue in upgraded platform environments where the server.log indicated a NullPointerException on the REP_TRACK_HISTORY column of the REP_TEMPLATE_HDR table when running any TRIRIGA query that existed prior to Platform 3.5.2 and the query was not first saved on the upgraded platform. (Tri-49103)

Issue Number	Description
APAR IV97981	System actions and custom actions are now enabled on system reports with group by fields. (Tri-49100)
APAR IV98028	Project Schedule Tasks no longer result in incorrect values in the Planned Start Date or Planned End Date fields after clearing them. (Tri-273970)

APAR IV98101	The way Document Manager handles the paths of documents that are uploaded to records was changed. Previously any document uploaded to a record would be assigned a path of:
	`Object Attachments/<User name>/<bo name>/<doc_name>.<extension>`
	
	When a given user owned two leases and uploaded two unique documents that had the same name to each lease (one document to each lease), the first uploaded document would be overwritten because both document records shared the exact same path.
	
	The way paths are represented for documents that are uploaded to a record was changed from:
	`Object Attachments/<User name>/<bo name>/<doc_name>.<extension>`
	to:
	`Object Attachments/<User name>/<bo name> - <spec_id>/<doc_name>.<extension>`
	
	Now, each record has a unique path for its child documents that does not conflict with other records of the same type owned by the same user. (Tri-49198)

APAR IV98382	To exclude cross-frame scripting, add the following to the TRIRIGAWEB.properties file: `httpheader.X-Frame-Options=SAMEORIGIN` (Tri-276768)
APAR IV98399	In group by reports with sums, in which there are multiple groups, the sum of the last sub-group now displays. For example, if a report was to sum the area, and was grouped by building and floor, the final floor in the report for a particular building used to omit the sum for that particular floor and would display only the sum area for the entire building. Now, the sum for that floor is displayed first, followed by the entire building sum. (Tri-277160)
APAR IV98495	Import packages now can change the encryption type for a password field on the target environment when the encryption type for that field on the target environment is set to Do Not Encrypt prior to import. If the encryption type is set to something other than Do Not Encrypt, then it cannot be changed by an object migration import package. (Tri-276836)
APAR IV98506	Improved the efficiency of queries with geo/org security and that previously used large amounts of database resources. (Tri-273744)
APAR IV98730	When you open a Gantt task from a Gantt section and edit schedule values such as planned start, end, or total working hours, the Gantt correctly updates when the user's time zone and the system time zone were out of sync, and in some other scenarios that involve different time zones between users and tasks. (Tri-279029, Tri-277449)

Issue Number	Description
APAR IV98929	Gantt scheduler properly handles MS Project Import, where planned start, planned end, planned calculated start, and planned calculated end dates and times now correctly adjust for the project resource time zone. (Tri-278415, Tri-279247)
APAR IV98949	Accessibility improvements include: • When navigating through radio buttons via keyboard, the user can select the correct radio button without using the up/down key more than once. • User now can focus/trigger form section actions, refresh, and select result size in a query section when navigating via the keyboard. • User now can trigger form actions such as create draft and save via keyboard when a form is displayed in portal sections and as a separate window. • When using a keyboard, when a form section action triggers a pop-up layer, the user can cycle through various elements on the pop-up layer until the pop up is closed. • When using the Chrome browser, user now can navigate an alert message and trigger an action via keyboard. (Tri-278908)
APAR IV98954	To make tables accessible, header cells are marked with <th> and data cells are marked with <td>. (Tri-278909)
APAR IV98956	Images that have no meaning have the text alternative attribute set to null. (Tri-278910)
APAR IV98960	JAWS now can announce the following descriptions: • Collapsible buttons description • Table size and content description • Quick links description • X button description (Tri-278917)
APAR IV98962	The visual presentation of text and images of text has a contrast ratio of 4.5:1 for normal text and a 3:1 ratio for large-scale text. (Level AA). (Tri-49385)
APAR IV98970	External-email bcc notifications created through workflows in TRIRIGA are now working as expected. (Tri-278598)
APAR IV98972 APAR IJ00484	Made some minor changes to the SetVarcharColsToNumeric_ORCL.sql script, while at the same time enhancing the script to improve performance. (Tri-49395, Tri-50027)
APAR IV99291	In the Gantt, Calculated Start/End date now properly calculates in scenarios where the project time zone is ahead of the server time zone. (Tri-49492)
APAR IV99331	Editable query columns now honor the width percentage specified in the report template on the Columns tab. (Tri-280327)
APAR IV99409	Activating or deactivating users no longer causes a failure when the action includes a lookup to a Group Members record that does not exist. (Tri-277538)

Issue Number	Description
APAR IV99462	When a record consists of multiple summary report sections, an Excel export from one of the summary reports now exports without error and only contains data from that summary report section. (Tri-281252)
APAR IV99523	If you enter "%%" or some other invalid combination of special characters in a query filter, you no longer see a Java exception. Instead, the page now refreshes. Note: Entering any special characters other than a single "%", "-", "_", or "/" might not properly save, but you do not see an exception or error message. (Tri-281473)
APAR IV99556	The deletion of users from a very large group is now done immediately. (Tri-49657)
APAR IV99573	The actual records shown to the user in the Notifications Portal now match the count shown in the Tools menu for Notifications.
	Also, an upgrade class has been created to resolve an issue with users not receiving notifications. You can add the following properties to the TRIRIGAWEB.properties file: NOTIFICATIONS_RECOVERY_FROM_DATE and NOTIFICATIONS_RECOVERY_AGE_DAYS. You use these properties to recover notifications based on a specific time and to display previously lost notifications for users. All newly created notifications are displayed as expected.
	To recover missing notifications based on the notification date or age, update only one of these parameters and enter a valid value.
	NOTIFICATIONS_RECOVERY_FROM_DATE accepts a date format value. The valid format is MM/dd/yyyy (month/day/year). For example, to recover notifications from January 15, 2018 until today, enter the value of 01/15/2018.
	NOTIFICATIONS_RECOVERY_AGE_DAYS accepts a number value. This value represents the number of days from which the recovery starts. For example, to recover notifications from 12 days ago until today, enter the value of 12.
	If both parameters have valid values, then the value of NOTIFICATIONS_RECOVERY_FROM_DATE is used.
	If both parameters have blank values, or if an invalid or unexpected value is entered for either parameter, all missing notifications found in the database are recovered.
	NOTIFICATIONS_RECOVERY_FROM_DATE=<BLANK>
	NOTIFICATIONS_RECOVERY_AGE_DAYS=<BLANK>
	Note: This upgrade class should only be run once. (Tri-49649)
APAR IV99841	Warning messages that were caused by workflow issues no longer show in the Object Migration log. (Tri-49720)
APAR IV99863	Date and DateTime values populated to Excel using TRIRIGA Offline Forms are now displayed using the Date and DateTime formats defined in the TRIRIGA user's profile and can be used as a part of Excel-based Date calculations. (Tri-49696)
RFE 123578	You can now grant access to the Administrator Console to any active user and that access can be restricted to specific managed objects. (Tri-56788)
	24-hour calendars can now be used with the Gantt scheduler. (Tri-49549)

Issue Number	Description
	A default report is now required when you create a scorecard navigation item. (Tri-48655)
	A Form Builder issue that caused fields in multi-tab sections to not properly highlight when selected from the navigation pane is resolved. (Tri-51763)
	A new field tracks when an object migration package is modified. Now the Property pane in an object migration package displays the created date and the modified date. (Tri-238950)
	A new workflow revision is created whenever a workflow is retired or when a retired workflow is published and the retired workflow is the latest revision. Previously both scenarios did not create a new revision, making it challenging to track the history of a workflow via the workflow's revision list. This also resolves an issue where workflows retired from a revised state still had the object label ObjectLabelPending. The object label for this scenario is now In Progress. (Tri-52154)
	A permission warning is now written to the security.log when a user that does not have access to an Administrator Console object attempts to access the object. (Tri-57172)
	A portal section that displays a hierarchy report now has a horizontal slider so you can see the data that is not initially displayed in the portal section. (Tri-55936)
	A user without access to My Reports no longer gets an unauthorized error when the user views chart reports. (Tri-279218)
	Added a new confirmation prompt when performing Security Group revision compare and Security Group object compare. The prompt message reads: "This process may take several minutes. Do you want to proceed?" (Tri-49450)
	Added checks when loading Gantt/Availability translation files to make sure they have data and are accessible by the TRIRIGA user. If no data or not accessible, Gantt/Availability uses internal strings and no translations are available. Warnings are logged. (Tri-51231)
	Added documentation for triblock-image-info-card and triblock-search-loading-no-matches, both part of triblock-search-popup. (Tri-282764)
	After a restart or after clearing security cache, UX applications no longer have intermittent login issues where users see a message that the application does not exist. (Tri-54921)
	An implicit conversion issue where a number was converted to a string on a comparison in a Retrieve task in workflow is resolved. (Tri-5816)
	Column headers now display when a query is rendered in a portal section. (Tri-52180)

Issue Number	Description
	During an object label object migration import, when the object label tied to an object exists in the object migration import package and does not exist in the target environment, the first revision of the two revisions that are created for an object during import is no longer given the Revision Suspended object label instead of the object label tied to the object in the import package. (Tri-49933)
	Email attachments that are of type .eml are now handled more efficiently. (Tri-55935)
	Files included in a UX web viewer now use their appropriate MIME type instead of defaulting to text/html. (Tri-29832)
	For the triplat-geo component, the disable property now properly enables or disables retrieving coordinates if it is externally set by another component. (Tri-47539)
	Gantt section date-time picker now returns the value the user selected in cases where the time zone set on the user profile is different from the browser time zone. (Tri-49008)
	If you are logged in as a mirrored language user, for example Arabic, the triplat-scroll-container scroll arrows now mirror correctly for Firefox (desktop), Safari (desktop, iOS), Edge (desktop), and Chrome (iOS, Android). (Tri-47281)
	If you select to open a portal section in a new window, the portal section now renders full height. (Tri-55494)
	In response to a reported vulnerability, Apache CXF is updated to version 3.1.16. (Tri-55335)
	In response to a reported vulnerability, Apache CXF is updated to version 3.1.14. (Tri-50706)
	In task and task template forms, after you click the Find action, the Add action is now present in the popup query. (Tri-52955)
	In the Report Manager, when you add a business object, the names of business objects in the module are now sorted in alphabetical order and existing business objects are also displayed in alphabetical order. (Tri-50311)
	In the triplat-datetime-picker component, the underline for hour, minute, second inputs is visible when the component is in a popup dialog. (Tri-48256)
	In the Web View Metadata form, Deleted Files section, a Delete action was added to enable deleting records. Note to upgrading customers: The Deleted Files section will be removed in a future release. Instead, revisioning will be the method to access previous versions of files. (Tri-53564)
	In triplat-select-input, added a padding-right in the input field so the X clear button does not overwrite the text content. For bidi RTL, added a padding-left because the clear button is on left side. (Tri-260502)

Issue Number	Description
	Integration Object's Apache POI library is upgraded to version 3.17 to keep current with the platform's version of Apache POI. With this change, Data Load Manager's 'Create Data Load Spreadsheet' functionality now uses the latest Apache POI Excel spreadsheet styling functionality. (Tri-54097)
	Intermittent changes of Models group permissions to No Access no longer occur when ENFORCE_GUI_LEVEL_QUERY_SECURITY=Y in the TRIRIGAWEB.properties file and a user signs in to a UX app. (Tri-51553)
	Large object migration packages that contain UX component objects and that were created by clicking 'Copy Package' no longer take an extremely long time to open and export. Now, after doing a 'Copy Package' of an object migration package containing UX components, only the application and web component objects for the UX components appear, but the package is, in fact, complete. When the copied package is exported, all other dependent UX component objects, such as models, data sources, and data source fields, are added automatically to the object migration export package. (Tri-55162)
	Made a few minor display/filtering improvements with the Performance Analyzer. (Tri-48689)
	Objects in the Object pane for import packages now show the expected objects after running a compare and then clicking an Object Type node link in the Navigation pane. (Tri-61727)
	Performance Analyzer now properly handles double quotes in export of the Summary page. (Tri-49947)
	Performance Logging was updated to properly handle batch SQL logging. (Tri-48603)
	Records now load correctly when you select the 'Inventory' tab in the quick find portal. (Tri-52723)
	Resolved a clean install issue with revision tables where they were populated out of the box with unnecessary data for the TRIRIGA environment. (Tri-52015)
	Resolved a module revision issue, where the initial revision was not being generated for newly created modules. (Tri-52291)
	Security token is no longer exposed on the UX URLs. (Tri-51522)

Issue Number	Description

	Support for user-defined HTTP response headers can be added to the TRIRIGAWEB.properties file.
	
	``
	USER DEFINED HTTP RESPONSE HEADERS
	This property enables an HTTP response header on ALL HTTP
	responses that originate from this server.
	    1. Each header must be placed on its own line.
	    2. The header name must be prefixed with the value
	'httpheader.'
	    3. The header name and header value must be separated by
	an '='.
	httpheader.<first_header_name>=<first_header_value>
	httpheader.<second_header_name>=<second_header_value>
	        . . .
	        . . .
	        . . .
	httpheader.<nth_header_name>=<nth_header_value>
	``
	
	Example 1: To add the "X-Frame-Options: SAMEORIGIN" response header to all TRIRIGA server responses, add the following value to the TRIRIGAWEB.properties file.
	`    httpheader.X-Frame-Options=SAMEORIGIN`
	
	Example 2: To add the "Strict-Transport-Security: max-age=31536000; includeSubDomains" response header to all TRIRIGA server responses, add the following value to the TRIRIGAWEB.properties file.
	`    httpheader.Strict-Transport-Security= max-age=31536000; includeSubDomains`
	
	(Tri-49222, Tri-49223, Tri-270641)

	System licenses are now also considered when determining whether a user has access to a portal. (Tri-284419)
	The "IBM TRIRIGA Field Services Named" license provides all functionality of the "IBM TRIRIGA Field Services Authorized" license. At a future date, the name of the "IBM TRIRIGA Field Services Named" license will be changed to "IBM TRIRIGA Field Services Authorized". (Tri-54567)
	The Add action that was missing in a popup query is now there. (Tri-53451)
	The Available column of the Availability chart in the Availability tab of a recurring reservation in the perceptive Room Reservation app is now sorted correctly as numbers. Previously, for example, the following result might be seen if the Available column was sorted in ascending order -- 13 of 13 followed by 7 of 13, then 8 of 13, then 9 of 13. (Tri-270552)
	The cleanup agent no longer fails when a user is deleted and the user is set in the SYSKEY_COLUMN. (Tri-5819)
	The Current Object Label column on the Object Label Manager Labeled Objects tab now correctly indicates the current object label for workflows. (Tri-51758)
	The DB2 JDBC driver that is delivered with TRIRIGA was updated to the latest available version, 11.1.3 FP3. (Tri-55438)

Issue Number	Description
	The default colors for the triblock-side-nav component now match the header. This change affects the Group Move app. Added a new triblock-tabs-icon mixin to the triblock-tabs component to provide more styling options. (Tri-49725)
	The Gantt consistently handles umbrella tasks when their dates are recalculated because of child task date changes in the Gantt Scheduler. (Tri-280351)
	The IBM TRIRIGA Workplace Services and IBM Facilities and Real Estate Management on Cloud Workplace Services User licenses have full access to the Locate app. (Tri-281416)
	The Include Dependents check box no longer appears when you create an export package and search for web components. The Include Dependents check box is only relevant for applications. (Tri-52341)
	The notification email that is sent after an import completes no longer contains an invalid hyperlink to "Click here to Open Package". (Tri-49548)
	The perceptive Room Reservation app now displays display the occupant's name on the floor plan when reserving workspace rooms. (Tri-47758)
	The server APIs used by the UX triplat-ds and triplat-login components no longer return detailed error messages that expose internal server structures to the UX applications. (Tri-278800)
	The triblock-nav-behavior component that is used in triblock-tabs and triblock-side-nav was modified to navigate to the specified route when the route is not active. This is helpful for multiple levels of routing. (Tri-283606)
	The triplat-ds UX component was changed to fix a problem in the refresh method that caused it to return no records if the 'manual' property of the triplat-ds was set to true, and to prevent the triplat-ds from requesting data whenever the query filters change. (Tri-50293)
	The TRIRIGA server.log no longer logs duplicate messages about false positive and invalid sessions. (Tri-278387)
	The values displayed in a field's UOM Source Attribute property now include the section name as a suffix. (Tri-48506)
	This release includes updated translation files for Gantt. You do not need to take any action. The files are automatically deployed in <your server>/userfiles/Translations/TreeGrid/3.5.3. (Tri-55000)
	Translations of the new labels and instance data in IBM TRIRIGA Application Platform 3.5.3.5 are available in the IBM TRIRIGA 10.6.0/3.6.0 language packs .zip file. The file is within part number CNYG4ML on Passport Advantage.
	Triggering an email action from a report no longer causes an error. (Tri-5939)

Issue Number	Description
	Two new TRIRIGAWEB.properties can be added to configure your Gantt Scheduler for your specific business needs.
	GANTT_STRICT_MODE has an additional value (MINIMAL). When the value is MINIMAL, all first tasks (tasks without incoming dependencies) are moved left as little as possible. Planned Task Start Date/End Date are honored and determine where the task instead of the as soon as possible constraint. All next tasks are moved left or right to be as close as possible to their ancestors and to not violate any dependency or constraints.
	GANTT_LOCK_STARTED_TASKS controls whether the Gantt Scheduler changes the Planned Start/Planned End for a task that has dependencies and constraints. The default is FALSE, which prevents tasks that are already started from being changed. TRUE locks started tasks when fixing dependencies and constraints. (Tri-279340)
	UX framework components triplat-image and triplat-file are now case insensitive while checking the extension of the upload file. The triplat-image component now checks the file extension on the client side. (Tri-51852)
	UX metadata and groups in clean environment installs now correctly indicate with an object label the version that the respective UX metadata or group changed. This is now consistent with all other platform objects that support object labels for clean environment installs. On previous platform versions, the object label for UX metadata and groups on clean environment installs reflected the latest application version. (Tri-48782)
	When creating an object migration export package, a descriptive message to the right of the Include Dependents check box appears after searching for applications in the Object Finder pane. The message is, "It is not recommended to clear this option because removing automatically-included dependent objects, such as workflows, queries, and business objects, might lead to incomplete UX applications. By default, all dependents are included in the export package." (Tri-52342)
	When sending or receiving emails with invalid email addresses or blank emails, the processing continues and no longer fails.
	When the GEO_ORG_SECURITY_CONTRIBUTE_BEHAVIOR=PATH is in the TRIRIGAWEB.properties file, you can determine if your organization and geography hierarchies are in sync before using the PATH setting in production. In the Administrator Console, Database Info, Database Admin Tasks, select "Check Organization Hierarchy" or "Check Geography Hierarchy". Read the popup and click OK to confirm. This tool may take a long time to run depending on the size of your organization or geography hierarchy. Monitor the server.log for feedback regarding out of sync entries and completion. (Tri-53243, Tri-53244)
	When using OSLC with a user that does not have a language set, the server.log no longer contains an entry about trying to determine language. (Tri-49802)

Issue Number	Description
	When using the Parameter custom task to trigger the Integration Object and the result set is more than 1000 records, the server.log no longer displays an error. The 1000 record limitation is still valid when using the custom task in a workflow; now you no longer see the error. The 1000 record limitation is not present if you execute the integration object directly from the integration object record.
	When you delete a group in the Security Manager, the group is also deleted from each user's profile. (Tri-29695)
	Workflow query tasks now have a property that enforces security on the records retrieved. It acts the same as if the report/query was run through the application. (Tri-50189)
	Working hours and end dates now properly calculate when the other was updated in the Gantt Scheduler. This also ensures that umbrella task values are also properly calculated and updated. (Tri-280845)
	You can add the new WEB_DEV_CONFIG_ENABLED property to the TRIRIGAWEB.properties file. This property enables access to the UX Developer Console when set to TRUE. The default value for this property is FALSE. (Tri-51004)

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