

IBM TRIRIGA Application Platform
Version 4 Release 2.1

Readme



Note

Before using this information and the product it supports, read the information in “Notices” on page 17.

This edition applies to version 4, release 2, modification 1 of IBM TRIRIGA Application Platform and to all subsequent releases and modifications until otherwise indicated in new editions.

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Readme File for IBM TRIRIGA Application Platform

4.2.1 Fix Pack

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

These release notes include the following:

- An overview of changes
- Many of the descriptions include an internal reference number (Tri-nnnnnn, IJnnnnn, IVnnnnn, and/or RFE-nnnnnn)



- **Note** – The IBM TRIRIGA wiki information, formerly on DeveloperWorks, is migrated to [IBM Docs for IBM TRIRIGA Application Platform 3.8](#). For more information, see the [IBM TRIRIGA Release Information](#) page on IBM Support.

What's New in This Release

IBM TRIRIGA Application Platform 4.2.1 continues to add valuable functionality, fix defects, and reduce the effort necessary for new and existing customers to implement the products.

Enhancements

The following enhancement to the IBM TRIRIGA Application Platform is in this release:

Area of Impact	Description
UX Perceptive Apps	TRIRIGA now handles permission errors caused due to OS level directory permissions at run time for UX view files that are in the userfiles or ux directory in filesystem. (Tri-89374-IJ44457)

Prerequisites and Supported Products

To install this fix pack, you must have IBM TRIRIGA Application Platform 4.2 installed.

IBM TRIRIGA Supported Versions and IBM TRIRIGA Application Platform Compatibility Matrix

The *IBM TRIRIGA Supported Versions* page lists information that is 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* might change over time. The *IBM TRIRIGA Supported Versions* and the *IBM TRIRIGA Application Platform Compatibility Matrix* can be found on IBM Support at <https://www.ibm.com/support/pages/node/1283650>.

IMPORTANT NOTICES: IBM no longer supports IBM Tivoli Directory Integrator (TDI). Migrate your TDI assemblies to a supported technology, such as Pentaho. As of version 3.6.1.2, the IBM TRIRIGA Application Platform is no longer included with or supports TDI assemblies.

As communicated in the IBM TRIRIGA Application Platform 3.6.1.2 Compatibility Matrix, IBM does not support Oracle WebLogic with IBM TRIRIGA Application Platform version 3.6.1.2 and later. See the Compatibility Matrix for the full listing of compatible products and versions.

Installing the IBM TRIRIGA Application Platform 4.2.1 Fix Pack

To install the TRIRIGA Application Platform 4.2.1 fix pack, refer to the following general instructions.

Procedure

1. Make sure 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 Core profile, stop all application servers before you continue the installation.
3. For IBM WebSphere Application Server, confirm that this server is started, and stop all other application servers.
4. 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.
5. Download the 4.2-TIV-TAP-FP001 file.
6. Extract the file. You can extract the fix pack file into any directory.
7. Run one of the following patch executable files: `fixpack_tririga_v4.2.1_Windows.exe`, `fixpack_tririga_v4.2.1_Linux.bin`, or `fixpack_tririga_v4.2.1_AIX.bin`.
8. In the Introduction pane, select **Next** or **Enter**.
9. In the license agreement, accept the terms and select **Next** or **Enter**.
10. Choose the directory where IBM TRIRIGA is installed. For example, the following directories:
`c:\ibm\tririga\` or `/opt/ibm/tririga/`.
11. Review the information and select **Next** or **Enter**.
12. The fix pack process patches the WAR file and runs any platform database fix pack scripts.



- **Note** – In the patch folder for the 4.2.1 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.

13. For WebSphere Application Server Liberty Core profile, the WAR file deploys and the cache directories are removed. Restart Liberty.
14. 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 TRIRIGA install root directories:
`c:\ibm\tririga\ibm-tririga.war` or `/opt/ibm/tririga/ibm-tririga.war`. Refer to IBM's instructions for deploying a `.war` application.

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 installed is listed.

Known Limitations

The following known limitation concerning the IBM TRIRIGA Application Platform is in this release.

Area of Impact	Description
Logging	<p>There is a known issue with shipping TRIRIGA log4j2 configuration file that resides in the < ServerRoot>/config directory of every TRIRIGA application server. This is for any TRIRIGA release that has log4j2 and not log4j, which includes 3.6.1.4 and later versions, 3.7.0.1 and later versions, 3.8.0.1 and later versions, 4.0.2 and later versions, and any new releases. The planned fix will be available in version 4.6.</p> <p>Known limitation: In the event that a log file undergoes automatic rolling due to reaching its current default size limit of 10 MB, there exists a potential that the existing log file might be overwritten instead of a new file being generated. This issue can be resolved by updating the log4j2.xml on every application server.</p> <p>For every RollingRandomAccessFile in the log4j2.xml (currently, 12 files) :</p> <ol style="list-style-type: none">1. To ensure that the file is not overwritten, add <code>_HH-mm</code> to the filePattern.2. To increase the default file size limit, update the file size in Policies > SizeBasedTriggeringPolicy to 100 MB. <p>For example, update to the "SERVER" Rolling Random Access File entry looks as follows:</p> <pre><RollingRandomAccessFile name="SERVER" filename: "c: /TRIRIGA/log/server.log" filePattern="c: /TRIRIGA/log/server-id(yyYY-MM-dd_HH-mm) .log"> <PatternLayout> <pattern>od 6-5p [oc] (st) mon</pattern> </PatternLayout> <Policies> <TimeBasedTriggeringPolicy interval="1440" modulate="true" /> <SizeBasedTriggeringPolicy size="100 MB" /> </Policies> </RollingRandomAccessFile></pre> <p>(TRI-91799-IJ47591)</p>

Changes

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



Note

- The issues related to Hierarchy Objects that are listed in the following table have been resolved for Oracle environments only. DB2 and SQL Server environments are not affected by these issues.
- You must re-vulcanize Group Move Perceptive App or re-bundle Space Assessment Perceptive App or install IBM TRIRIGA 11.2.1 LAIFP06. To get this fix pack, contact IBM Support.

Area of Change	Description
Accessibility	In Reports, the screen reader now announces the checkboxes with the "Name" column value. (Tri-90854-IJ46145).
Accessibility	On the Request Central portal, you can now expand or collapse the links by pressing the Enter key while using a screen reader (NVDA/JAWS). (Tri-94665-IJ29383)
Accessibility	The screen reader now announces the "Loading" status for "Apply Filters" and "Clear Filters" links in the Report module. (Tri-96497)
Accessibility	On the Reports page, for the Run Report icons, the screen reader now reads the unique and informative alternative text that is provided. (Tri-95518)
Accessibility	On the My Reports tab, when you run the chart and print type reports, you can now close the modal windows by using the Esc key on your keyboard. (Tri-95506)
Accessibility	The expand folder icon is visible and meets the required contrast ratio. (Tri-95510)
Accessibility	Screen reader now announces the proper label for the "Display Type" column on the Reports page. (Tri-93949)
Accessibility	When you open "My Bookmarks", the focus now remains on the header panel if you access it through the keyboard. (Tri-96064)
Accessibility	An issue where side navigation elements had duplicate IDs named "icon" and "_Transparent_Rectangle_" is now resolved. (Tri-96052)
Accessibility	Non-interactive elements on the Reports page are not focusable for a keyboard. (Tri-95564)
Accessibility	On the Reports page, the "Show" list now complies with WCAG 2.1 standards. (Tri-96059)
Accessibility	The Form column on the Reports page now complies with WCAG 2.1 standards. (Tri-95577)
Accessibility	Focus now works properly in the bookmark pop-up window. If you press Enter when the focus is on the Cancel button, the focus moves to the next available item. (Tri-95568)
Accessibility	On the My Reports tab, all the required ARIA attributes are now defined for the 'Select report type' combination box. (Tri-95573)
Administrator Console	Platform maintenance schedule for Db2 environment does not produce any SQL errors. (Tri-94468-IJ46222)
Classifications	Parent classification now cannot be selected as a value edit subject. (Tri-94793-IJ47264).
Connector for BIM	Connector for BIM now uploads building floor plans successfully. (Tri-87196)

Area of Change	Description
Data Modeler	For the fields with the "Do not allow negative value" validation property opted, now the alert message is displayed only when you enter a wrong value. (Tri-87172-IJ43910)
Document Management	Documents can now be successfully uploaded to FileNet and TRIRIGA. (Tri-87193-IJ26868)
Document Management	In TRIRIGA Application, you can now see the content of published documents in the CMIS-enabled environment. (Tri-86608-IJ41219)
Forms	Resolved an issue where modal windows on smaller forms were unusable due to scroll and sizing limitations. Note: Users might have to drag the modal window to completely see the footer pagination controls on certain queries. (Tri-92916-IJ45129)
Global	When the side navigation menu is expanded, pressing Tab moves the focus from the hamburger icon to the options on the side navigation menu. (Tri-95768)
Group Move Perceptive App	The role for the 'Show More' and 'Back to All Results' links is now defined as a button. (Tri-93941).
Group Move Perceptive App	Unlabeled buttons are now conveyed as hidden buttons, which are located before 'Details' tab and after 'Comments' tab. (Tri-93943)
Group Move Perceptive App	Accessible name is defined for the elements that are defined as buttons before the 'Details' tab and after the 'Comments' tab. (Tri-93945)
Group Move Perceptive App	Screen reader is announcing the "X" button as "Close" button. (Tri-93934)
Group Move Perceptive App	The alternative text for images is now different from the adjacent text, and as a result, it is not repeated by screen readers. (Tri-93948)
Group Move Perceptive App	When you access the clear filter button, screen readers now announce it as a "clickable <item name> clear filter button." The "item name" reflects the specific value that you have selected. (Tri-93947)
Group Move Perceptive App	The button elements with appropriate child roles are associated with the parent node. (Tri-93944).
Group Move Perceptive App	Accessible names are defined for both the button element before the 'Details' tab and the one after the 'Comments' tab in the right flyout. (Tri-93946)
Group Move Perceptive App	The correct elements with appropriate child roles are associated with the parent node. (Tri-93931)
Group Move Perceptive App	Icons that are related to Active, Draft, and History tabs now are read as Active icon, Draft icon, and History icon respectively. (Tri-93925)
Group Move Perceptive App	The accessible name is defined for the list that contains the search name/SID suggestions under 'Name'. (Tri-93942)
Group Move Perceptive App	The button elements with appropriate child roles are associated with the parent node. (Tri-93929)

Area of Change	Description
Group Move Perceptive App	The tablist role is assigned for the Active, Draft, and History tabs. (Tri-93928)
Group Move Perceptive App	The elements with appropriate child roles are associated with the parent node. (Tri-93930)
Group Move Perceptive App	Zooming and scaling is not disabled now. (Tri-93936)
Group Move Perceptive App	When a user searches for employees by using the 'Search people by name, location or organization' field, the displayed results are announced to screen reader users. (Tri-94342)
Group Move Perceptive App	An updated accessibility feature on the Group Move list page enables the screen reader to read every cell in the table, indicating both the column header name and the row number. (Tri-94353)
Group Move Perceptive App	The aria-hidden attribute is added to the paper-item. (Tri-94354)
Group Move Perceptive App	The aria-hidden attribute is added to the paper-item. (Tri-94355)
Group Move Perceptive App	When screen reader users enter search criteria in the "search location by name, city, or address" field, search results are announced. When they select an option from the search results, the state is updated to reflect the selected option. This change is then announced for screen reader users. (Tri-94350)
Group Move Perceptive App	Changes are made to make pages compliant to the WCAG standards so that the pages contain level one headings. (Tri-94642)
Group Move Perceptive App	Horizontal scroll is now available for the table when you zoom in. (Tri-94700)
Group Move Perceptive App	In Group Move, when multiple users are selected on the Search page, the option selection state is now informed to the screen reader users. (Tri-94346)
Group Move Perceptive App	The issue with remove-row-focus-and-hover attribute for triblock-table where table data was not displayed and caused a console error is now resolved. (Tri-95776)
Group Move Perceptive App	When you search for people, assets, equipment, or rooms, the search results listed under 'Name' and 'Space' categories no longer display nested interactive elements. (Tri-93975)
Hierarchy Objects	The document hierarchy cache for Oracle does not make database calls to get child document nodes because there are no child documents. (Tri-92496-IJ47128)
Hierarchy Objects	Users can now reparent records irrespective of whether the records are part of the IBS_SPEC_TREE table or not. (Tri-93769)
Hierarchy Objects	When you reparent a record on one server, no warning message is displayed in the logs on other servers to rebuild the cache if the record is not in cache. (Tri-92623)
Hierarchy Objects	Users can now perform copy-paste operation under Document Manager irrespective of the node or parents are in cache limit or not. (Tri-93734)

Area of Change	Description
Hierarchy Objects	Users can now perform cut-and-paste operations under Document Manager for the nodes that are not in cache. This issue was observed only in the Oracle environment. (Tri-93906)
Hierarchy Objects	When you create a hierarchy record under a parent record that is not in cache, the parent-child relationship is now created properly for the new record. (Tri-93540)
Hierarchy Objects	In a multi-server environment, on the System tab, while updating the Geography/Organization value of a hierarchy record that is in cache of one server but not in the cache of other servers, the warning to rebuild the tree is no longer displayed in the server logs and the operation is successful. (Tri-94142)
Hierarchy Objects	Non-admin users are now able to access all records including the records that are not present in the hierarchy tree. (Tri-92273-IJ46403)
Hierarchy Objects	In a multi-server environment, cut-and-paste operations on hierarchy records, which are in the cache of one server but not on other servers, are now successful. No warning message is displayed in the server logs. (Tri-92629)
Hierarchy Objects	Improvements are made in terms of minimizing hierarchy rebuilds after creating or updating hierarchy nodes. (Tri-92593-IJ46321)
Hierarchy Objects	Users can see child records under the Includes tab for parent records that are beyond tree paging size. (Tri-92281-IJ46706)
Hierarchy Objects	The new CACHE_LOAD_SIZE_FOR_ORACLE property must be added in TRIRIGAWEB.properties and must be set to the value of TREE_PAGING_SIZE. It must be consistent across all your servers. After all servers are upgraded with the fix pack, the CACHE_LOAD_SIZE_FOR_ORACLE property can be changed but must always be the same across all your servers and must be larger than the TREE_PAGING_SIZE. (Tri-94520)
Integration Object	Any invalid API request returns HTTP 404 response and does not cause StackOverflowException. (Tri-89340-IJ34683)
Login Page	Resolved an issue where a delay occurred between the loading of the login page image and the loading of the username and password fields. (Tri-89368-IJ44251)
Object Label Processing	An upgrade issue involving a NullPointerException that occurred during Object Label processing is now resolved. The issue occurred when the full name value for a User ID set as the 'Modified By' field for an object was null. In this situation, the Object Label processing now updates the user's full name to the default name 'System System'. (Tri-96335-IJ49070)
Object Migration	Object Migration export no longer fails to export objects updated by a 'People' or 'My Profile' user who was retired or deleted from the system. (Tri-96328-IJ49526)
Object Migration	The processing of the object label cache is modified to no longer use the subquery of the My Profile table. This was causing Object Migration issues in environments with many users. (Tri-91681)

Area of Change	Description
OSLC	Resolved an issue that is related to OSLC date formatting. Formatting OslcString to Date and Date to OslcString are now thread safe. (Tri-88012-IJ37029)
Outlook Reservations	Daylight Saving Time (DST) now does not apply to the America or Mexico City time zone. (Tri-91660-IJ46856)
Portals	Resolved an issue where personalization changes to the Home portal were not picked up until the browser was refreshed. (Tri-96789)
Perceptive Apps	Only one 'JSESSIONID' is created when you attempt to log in the request through OSLC sign-on. (Tri-92911-IJ45523)
Record Runtime	If you enter a number with trailing spaces in a number field, a pop-up warning message is displayed. (Tri-87199-IJ43832)
Record Runtime	You can now switch between tab sections in a multi-tab window. Tri-92923-IJ44389)
Record Runtime	Items in the hierarchy tree are displayed according to the count specified in the TREE_PAGING_SIZE property. (Tri-88667-IJ30504)
Record Runtime	On the Audit Actions tab, actions for a record now capture all the details such as last name and first name - ID. (Tri-87183-IJ43423)
Record Runtime	TRIRIGA no longer accepts date or datetime values with year greater than 9999. (Tri-85813)
Report Scheduler	Saving and clearing of date values for the Adhoc recurrence type in the Report Scheduler works as expected. (Tri-85289)
Reporting	In the system reports, the 'Where used' tab now works correctly after a BO with a name that has an underscore was created in the triIntegration module. (Tri-88664-IJ38038)
Reporting	After you apply Secondary Group By Properties, you are able to run the reports successfully. (Tri-91260-IJ40289)
Reporting	Radio buttons are no longer displayed on the sum footer in the form query and modals. (Tri-90250-IJ41196)
Reporting	An issue where reports that run with the enhanced query grids were not accepting the result size setting in Report Manager is resolved. (Tri-89357)
Reporting	The issue with exporting the query in Excel format is now resolved. Now, the "One moment please." message is displayed until the Excel document is downloaded. (Tri-90568-IJ40349)
Reports	You can use singular possessive nouns or any special characters in column labels when you sort records. (Tri-87203-IJ44379)
Reserve	Set Working Hours now works correctly when the Microsoft Graph API is used. (Tri-87176)

Area of Change	Description
Reserve	In the Availability section, hovering over the recurrence meeting shows the correct date for the recurrence meeting created. (Tri-88506-IJ36869)
Reserve Perceptive App	Resolved an issue where on searching for an instance of a recurring meeting, under certain circumstances, the next meeting was returned instead of the search target. (Tri-82965)
Reserve Perceptive App	The triplat-query-reserve-context component is added to Polymer V1 to support room search pagination in the Foundation Reserve app. (Tri-90565)
Security	Security vulnerability for double slashes ("/") is resolved. (Tri-94462)
Security	The TinyMCE unit test link (debug or test link) cannot be accessed or exposed without logging in to TRIRIGA. (Tri-87177-IJ41532)
Security	Security issues related to reflected cross-site scripting are fixed. (Tri-88840)
Security	Security improvements are made to the 'Database Query Tool' on the 'Admin Console'. (Tri-88836-IJ45028)
Security	Manually remove the common-text-1.9.jar file from the following location: {INSTALL_DIR}/tools/apache-ant-1.9.4/lib/dependency-check-ant/lib/commons-text-1.9.jar. If you don't remove the file, it might be flagged as a vulnerability; TRIRIGA platform does not use it. (Tri-87004)
Security	Platform is upgraded to the latest available version of the Spring framework. (Tri-89217)
Security	Spring-expression, spring-core, and spring-beans are upgraded. (Tri-89422)
Security	The server.xml file is updated to use servlet-3.1 for WebSphere Liberty profile. (Tri-94226)
Security	cxfr-core and its child JAR file are upgraded. (Tri-93741)
Security	The server.xml file is updated to use servlet-3.1 for the WebSphere Liberty profile. (Tri-94224)
Security Document Management	After propagating the permissions to all child folders, documents, and publications in the parent folders, the changes now reflect for all child objects without saving each one of them manually. Also, action buttons on document forms are now displayed based on the permissions set on the Permissions tab of the document. (Tri-88509-IJ37917).
SoapUI	If a TRIRIGA user exceeds the maximum number of unsuccessful login attempts that are allowed (specified in the Admin Console), the user's account is locked out. (Tri-88018-IJ43749)
Space Assessment Perceptive App	If you open the date picker dialog, now the focus does not go out of the date picker dialog. (Tri-96547)
Space Assessment Perceptive App	The fields that are marked with an asterisk symbol (*) are announced as "Required" by the screen reader. (Tri-95552)

Area of Change	Description
UX Framework	Accessible name is defined for all the dropdown lists that are displayed under the 'Assets' tab. (Tri-94637)
UX Framework	Accessibility now works for the Polymer 3 triplat-select-input component. This component is used in Space Assessment, Stacking, Work Task, and Work Task Services Perceptive Apps, which must be re-bundled and deployed. (Tri-92101-IJ47276)

Related Documentation

The IBM TRIRIGA Application Suite documentation is at <https://www.ibm.com/docs/en/tas>. The IBM TRIRIGA documentation is at <https://www.ibm.com/docs/en/tririga>. The IBM TRIRIGA Application Platform documentation is at <https://www.ibm.com/docs/en/tap>. The documentation is available online in topics or as downloadable PDF files.

Additional documentation, previously available in the IBM TRIRIGA wiki, is available on [IBM TRIRIGA Application Platform 3.8](#). For more information, see the [IBM TRIRIGA Release Information](#) page on IBM Support.

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