

IBM TRIRIGA Application Platform 5.0

Product Overview



Note

Before using this information and the product it supports, read the information in [“Notices” on page 13.](#)

This edition applies to version 5, release 0, of IBM TRIRIGA Application Platform and to all subsequent releases and modifications until otherwise indicated in new editions.

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Contents

- Chapter 1. Product overview..... 1**
 - New features..... 1
 - Release notes..... 1
 - PDF documentation..... 2
 - Wiki documentation..... 6
 - Process flow diagrams..... 7
 - Accessibility..... 8
 - Keystrokes in IBM TRIRIGA..... 10
- Notices..... 13**
 - Trademarks..... 14
 - Terms and conditions for product documentation..... 14
 - IBM Online Privacy Statement..... 15

Chapter 1. Overview of IBM TRIRIGA Application Platform

The IBM TRIRIGA Application Platform solution provides organizations with graphical and configuration tools to rapidly configure applications and extend the use and value of the IBM TRIRIGA applications. The use of standards-based technology and interfaces and a high-performance workflow process engine drive interoperability with critical business systems.

The IBM TRIRIGA Application Platform is a runtime environment for the rapid processing of transactions. The platform provides the underlying technology for the IBM TRIRIGA applications and includes the Administrator Console, Document Manager, IBM TRIRIGA Connector for Business Applications for integration with external systems, and linkage to computer-aided design (CAD) applications. The IBM TRIRIGA Application Platform also provides set of browser-based tools that are used to create and modify the applications that IBM TRIRIGA delivers.

The IBM TRIRIGA Application Platform includes an MVC-based UX framework for building UX applications. The model-view-controller (MVC) approach separates the application into three components or layers: the model, view, and controller. The view layer is built upon the Polymer library of reusable web components. With a modular and flexible architecture, the UX framework enables organizations to more easily meet business requirements with an intuitive user interface, compatibility with touch interfaces, and improved performance.

With the IBM TRIRIGA comprehensive solution, you can:

- Configure IBM TRIRIGA applications without changing source code.
- Create regulatory reports in the same environment as daily work processes.
- Reduce time and costs to implement and maintain IBM TRIRIGA applications.
- Deliver applications through consistent portals.
- Protect unique configurations through application upgrades.
- Modify an existing business object along with relevant data field definitions, lifecycle states, and workflows.

New features

For a summary of what's new in this release and detailed information about the enhancements and changes, see the release notes.

You can download the release notes for this version from the [Release Notes for IBM® TRIRIGA® Products](#) page.

Learn more about features introduced in TRIRIGA with [New Release Technical Enablement videos](#).

Release notes

The release notes provide an overview of enhancements, changes, known limitations, and important information. Additionally, you can view important installation and upgrade steps to be performed in addition to your company upgrade practices. You can view release notes for this release and for previously released supported versions at the following link.

Go to [Release Notes for IBM TRIRIGA Products](#) to view and download the release notes.

PDF documentation

You can read the IBM TRIRIGA Application Platform documentation in PDF format or access the corresponding TRIRIGA Application Platform or Maximo® Real Estate and Facilities online documentation.

Table 1. IBM TRIRIGA Application Platform documentation and Maximo Real Estate and Facilities documentation.

Title of PDF file	Description	Corresponding online TRIRIGA documentation	Corresponding online Maximo Real Estate and Facilities documentation
IBM TRIRIGA Application Platform: Product Overview	Provides a product overview of the IBM TRIRIGA Application Platform, including where to find the release notes, PDF documentation, and process flow diagrams.	Overview of IBM TRIRIGA Application Platform	Overview
IBM TRIRIGA Application Platform: Installation and Implementation Guide	Provides information about installing the IBM TRIRIGA Application Platform.	Installing IBM TRIRIGA Application Platform	Installing
IBM TRIRIGA Application Platform: Application Upgrade User Guide	Provides best-practice instructions for how to manage future upgrades of your IBM TRIRIGA application objects with object labels and object revisions.	Upgrading applications	Upgrading
IBM TRIRIGA Application Platform: UX Framework User Guide	Provides information about the tools to build and customize UX apps that run on the IBM TRIRIGA UX Framework.	UX Framework	Application building with the UX framework
Application Building for the IBM TRIRIGA Application Platform: Performance Framework	Provides information about performance management, data structures, metrics, and the hierarchy flattener tool on the IBM TRIRIGA Application Platform.	Performance framework	Performance framework
IBM TRIRIGA Application Platform: User Experience User Guide	Provides information about customizing the appearance and organization of the IBM TRIRIGA environment.	Configuring the user experience	Configuring the user experience

Table 1. IBM TRIRIGA Application Platform documentation and Maximo Real Estate and Facilities documentation. (continued)

Title of PDF file	Description	Corresponding online TRIRIGA documentation	Corresponding online Maximo Real Estate and Facilities documentation
IBM TRIRIGA Application Platform: Upgrade Installation Guide	Provides information about upgrading the IBM TRIRIGA Application Platform.	Upgrading IBM TRIRIGA Application Platform	Upgrading
IBM TRIRIGA Application Platform: Administrator Console User Guide	Describes procedures for operating and administering the IBM TRIRIGA system through the Administrator Console.	Administering with the Administrator Console	Administering with the Administrator Console
IBM TRIRIGA Application Suite: Compatibility Matrix	Provides a list of container platforms, database servers, web servers, third-party servers, third-party components and operating systems with which the IBM TRIRIGA Application Suite (TAS) is currently certified.	Compatibility Matrix for IBM TRIRIGA Application Suite	Compatibility matrix for Maximo Real Estate and Facilities
IBM TRIRIGA Application Platform: Compatibility Matrix	Provides a list of application servers, database servers, web servers, third-party servers, third-party components and operating systems with which the IBM TRIRIGA Application Platform is currently certified.	Compatibility Matrix for IBM TRIRIGA Application Platform	Compatibility matrix for Maximo Real Estate and Facilities
IBM TRIRIGA Application Platform: Best Practices for System Performance	Provides information and best-practice instructions for improving the performance of applications on the IBM TRIRIGA Application Platform.	Optimizing performance	Best practices for optimizing performance

Table 1. IBM TRIRIGA Application Platform documentation and Maximo Real Estate and Facilities documentation. (continued)

Title of PDF file	Description	Corresponding online TRIRIGA documentation	Corresponding online Maximo Real Estate and Facilities documentation
IBM TRIRIGA Application Platform: Getting Started with UX	Provides tips for getting started with the new UX Framework for Perceptive Applications in the IBM TRIRIGA Application Platform.	Getting Started with UX	Application building with the UX framework
Application Building for the IBM TRIRIGA Application Platform	Provides information about the tools to build and customize applications that run on the IBM TRIRIGA Application Platform.	Application building for the IBM TRIRIGA Application Platform	Application building for IBM Maximo Real Estate and Facilities
Application Building for the IBM TRIRIGA Application Platform: Calculations	Provides information about extended formulas and financial transactions and rollups on the IBM TRIRIGA Application Platform.		Application building: Calculations
Application Building for the IBM TRIRIGA Application Platform: Data Management	Provides overview information and instructions about the IBM TRIRIGA DataConnect tool, the IBM TRIRIGA Data Integrator tool, and the Data Load Manager.	Integrating data with external applications	Integrating data with external applications
IBM TRIRIGA Application Platform: Connector for Business Applications Technical Specification	Describes the process of using IBM TRIRIGA Connector for Business Applications to integrate with external systems.	Integrating data with the TRIRIGA Connector for Business Applications	Integrating data with the Maximo Real Estate and Facilities Connector for Business Applications

Table 1. IBM TRIRIGA Application Platform documentation and Maximo Real Estate and Facilities documentation. (continued)

Title of PDF file	Description	Corresponding online TRIRIGA documentation	Corresponding online Maximo Real Estate and Facilities documentation
IBM TRIRIGA Application Platform: Connector User Guide	Provides overview information and instructions for implementing the IBM TRIRIGA Connector for Esri Geographic Information System (GIS) and the IBM TRIRIGA Integration Object utility.	Integrating data with external applications	Integrating data with external applications
IBM TRIRIGA Application Platform: Graphics User Guide	Provides information about managing computer-aided design (CAD) drawings as web graphics in the IBM TRIRIGA Application Platform.	Web graphics in IBM TRIRIGA Application Platform graphics sections	Web graphics in IBM Maximo Real Estate and Facilities graphics sections
IBM TRIRIGA Application Platform: Object Migration User Guide	Provides information about moving customized applications into IBM TRIRIGA Application Platform environments.	Migrating objects	Migrating objects
IBM TRIRIGA Application Platform: OSLC REST API Integration Guide	Describes the process of using Open Services for Lifecycle Collaboration to integrate with external systems.	Integrating data by using the OSLC REST API	Integrating data by using the OSLC REST API
IBM TRIRIGA Application Platform: Post Upgrade Maintenance Specification	Contains scripts to remove unused columns from tables in the IBM TRIRIGA database.	Converting IBS_SPEC_ASSIGNMENTS to Module Level Associations	
IBM TRIRIGA Application Platform: Reporting User Guide	Provides overview information and instructions for using the reporting capabilities of the IBM TRIRIGA Application Platform.	Reporting in IBM TRIRIGA	Reporting in Maximo Real Estate and Facilities

Table 1. IBM TRIRIGA Application Platform documentation and Maximo Real Estate and Facilities documentation. (continued)

Title of PDF file	Description	Corresponding online TRIRIGA documentation	Corresponding online Maximo Real Estate and Facilities documentation
IBM TRIRIGA Application Platform: Globalization User Guide	Provides information about using IBM TRIRIGA Application Platform to customize the IBM TRIRIGA applications for your local environment, including supported languages.	Globalizing applications	Globalizing applications
IBM TRIRIGA Application Platform: Gantt Scheduler User Guide	Provides information about using the graphical representation of tasks to create and manage your project schedules in IBM TRIRIGA.	Managing Gantt scheduler	Managing Gantt scheduler
IBM TRIRIGA Application Platform: Single Sign-On Setup User Guide	Provides information about how to set up single sign-on security for IBM TRIRIGA environments.	Authenticating users by using SSO	Authentication

Wiki documentation

Additional information that was previously found on our external IBM TRIRIGA wiki on developerWorks® has been relocated.

Links to the current locations of the supplemental information are provided in the following table.

<i>Table 2. IBM TRIRIGA additional documentation</i>		
Product area	Title with link	Description
TRIRIGA Application Platform	Compatibility Matrix for IBM TRIRIGA Products	Provides supplemental information about the IBM TRIRIGA compatibility matrix.
TRIRIGA Application Platform	Supported Versions for IBM TRIRIGA Products	Provides supplemental information about the IBM TRIRIGA supported versions.
TRIRIGA Application Platform	Object Labels and Revisions	Provides documentation and best practices for tracking your object modifications and preserving your object modifications when you upgrade your IBM TRIRIGA applications.

Table 2. IBM TRIRIGA additional documentation (continued)

Product area	Title with link	Description
TRIRIGA Application Platform	OSLC: Getting Started with OSLC integration	Provides supplemental information about getting started with Open Services for Lifecycle Collaboration (OSLC) components that integrate with IBM TRIRIGA.
TRIRIGA Application Platform	Performance: IBM TRIRIGA Best Practices for System Performance	Provides supplemental information about best practices for IBM TRIRIGA performance.
TRIRIGA Application Platform	Performance: Additional Performance content	Provides supplemental information about best practices, performance summaries for specific database environments, and other issues that can affect IBM TRIRIGA performance.
TRIRIGA Application Platform	Reserve: Managing reservations and reservable resources	Provides supplemental information about integrating, configuring, and troubleshooting Microsoft Exchange and Microsoft Outlook.
TRIRIGA Application Platform	SSO: Examples of configuring SSO	Provides supplemental information about configuring and troubleshooting single sign-on (SSO) with IBM TRIRIGA.
TRIRIGA Application Platform	Workflow	Provides supplemental information about workflow status codes, workflow task type IDs, workflow processing, and workflow performance in IBM TRIRIGA.
Release Notes	Release Notes for IBM TRIRIGA Products	Provides links to the IBM TRIRIGA Release Notes for the current release and previous releases.
Best Practices	Best Practices: IBM TRIRIGA Best Practices for System Performance	Provides supplemental information about best practices for IBM TRIRIGA performance.
Best Practices	Best Practices: Additional Best Practices content	Provides links to the IBM TRIRIGA best practices for system performance, and configuring and upgrading IBM TRIRIGA applications.
Upgrading	Upgrading	Provides important information about upgrading the IBM TRIRIGA Application Platform.
UX Framework	UX Framework	Provides links for getting started, building apps, and looking for help with our MVC-based user experience (UX) framework for Polymer-based applications.

Process flow diagrams

You can use this page as a reference list of all of the process flow diagrams that exist in the IBM TRIRIGA Application Platform documentation.

Building applications: Performance framework

- [Architecture overview](#)
- [Example fact table and associated dimensions](#)
- [Metrics structure](#)

- [ETL integration architecture](#)
- [ETL integration process](#)
- [Moving ETL Scripts into TRIRIGA from Kettle](#)

Integrating data with external applications

- [Integrating data with the TRIRIGA Data Load Manager](#)
- [Integrating as an OSLC consumer](#)
- [Custom class loaders](#)
- [Servlet proxies](#)

Administering IBM TRIRIGA Application Platform

- [Publication of language tables](#)
- [Importing localizable data by using DataConnect](#)
- [Runtime usage of globalized data in workflow mappings](#)

Accessibility

Accessibility features help users who have a disability, such as restricted mobility or limited vision, to use information technology products successfully.

By using the accessibility features in the product, users can take the following actions:

- Use assistive technologies, such as screen reader software and digital speech synthesizers to hear what is displayed on the screen. For details on using the technologies with this product, consult the product documentation for the assistive technology.
- Move through all levels of the menus by using only the keyboard.
- Perform tasks with the software by using only the keyboard.
- Use JAWS screen reader software to move through the tabular data in a report by using the standard JAWS screen reader keystrokes.

Enabling accessibility mode

To activate the accessibility feature, in the Accessibility section of the **My Profile** page in an employee record, select **Enable Accessibility Mode**. When the accessibility mode is enabled, metric reports are displayed in tabular format by default. The user can switch to chart format. In the Schedule tab of a capital project record, the Schedule Assumptions section is not displayed, but the same information is available in a Schedule Assumptions tab.

Enabling skip navigation

To enable the Skip Navigation link for portals and forms, in the Accessibility section of the **My Profile** page in an employee record, select **Enable Skip Navigation**. When Skip Navigation is enabled, pressing **Enter** at the Skip Navigation link takes the user directly to the main content area of the page without the need to tab through all the remaining links and menu items first.

Page content elements

Pages can contain any of the following content elements:

- Portals
- Portal sections
- Menus
- Forms
- Form sections

Portal landmarks

Each portal has ARIA landmarks that are used by screen reader software to provide a navigation hierarchy. Users can move to different areas in the open portal by using the hierarchy. In a portal, the landmarks are grouped into the following main regions:

Banner

Includes site map navigation and project navigation:

Site Map Navigation includes the Welcome *user*, Skip Navigation, Sign Out, Support, and Help links.

Project Navigation includes the **Company** and **Project** toggle buttons and the project selector button, which is a magnifying glass. Project navigation areas also include the Home, Company Data, and Project links.

Navigation

Includes the menu levels, breadcrumbs, and portal toolbar. The navigation landmarks vary depending on where the user is in IBM TRIRIGA.

Main

Includes the sections in the open portal. Can also include the My Bookmarks region, which includes the Bookmark Folders region and the Bookmarks region. The navigation landmarks vary depending on where the user is in IBM TRIRIGA.

Add Bookmark

Includes the Actions Navigation region.

Move Bookmark

Includes the Actions Navigation region.

Form landmarks

Each form has ARIA landmarks that are used by screen reader software to provide a navigation hierarchy. Users can move through different areas in the open form by using the hierarchy. In a form, the landmarks are grouped into the following main regions:

Toolbar

Includes the Skip Navigation, Add To Bookmarks, Print, and Help links.

Tabs

Includes the tabs that are available in the open form, such as General, Scope, Schedule, and Budget.

Top Actions

Includes the actions that can be used in the open form, such as Activate, Calculate, and Save.

Tab Content

Includes the sections in the open form. This region typically includes an Instruction area that describes the purpose of the form.

Report landmarks

Each report has ARIA landmarks that are used by screen reader software to provide a navigation hierarchy. Users can move to different areas in the open report by using the hierarchy. In a report, the landmarks are grouped into the following main regions:

Actions

Includes the common actions that the user can take for the report, such as OK, Export, or Cancel.

Pagination

Includes page information and page and report actions. This region can include the previous and next arrows, current page, total number of pages, and number of records on a page. This region can also include the Export action, Apply Filters action, and Clear Filters action.

Search

Includes the columns that the report results can be filtered by, such as ID, Date, Name, and Status.

Results

Includes the rows of report results.

Known limitations

Accessibility is not supported in our application builder tools, such as Data Modeler, Form Builder, and Workflow Builder.

IBM and accessibility

For more information about the commitment that IBM has to accessibility, see the IBM Human Ability and Accessibility Center at the following web address:

www.ibm.com/able

Keystrokes in IBM TRIRIGA

When you use IBM TRIRIGA in an Internet Explorer browser, you can use a combination of keyboard keys for navigation.

Move through record forms

The following keystrokes can be used to move through form sections and records.

The following keystrokes can be used to move through sections and records:

Action	Keyboard keys
Open a drop-down list	Enter
Select an option	Enter
Move through the list of options	Tab or arrow keys
In a Tab Content region, move from one section to the next section	Alt+s+down arrow
In a Tab Content region, move from one section to the previous section	Alt+s+up arrow
In a Tab Content region, open a drop-down menu of all tabs	Ctrl+down arrow
Move through tabs	Tab or Shift+Tab
Activate a tab	Enter
Move through a drop-down menu	Tab or arrow keys

Move through portals

The following keystrokes can be used to move through portal sections.

The following keystrokes can be used to move through portal sections:

Action	Keyboard keys
Move through a main menu	Tab
Activate a menu	Enter
Move through a drop-down toolbar menu in a portal section toolbar	Tab or up/down arrow
Close a drop-down toolbar menu in a portal section when the focus is on the drop-down icon or on the drop-down menu	Esc
Activate a collapse/expand toggle button in a portal section toolbar	Enter
Activate a maximize/restore toggle button in a portal section toolbar	Enter

Move through a date or datetime picker

After you open the picker and the calendar is displayed, press right arrow+Tab to activate the following keyboard keys:

The following keystrokes can be used to move through a date or datetime picker.

Action	Keyboard keys
Move between date cells	Arrow keys
Go to the same day in the next month	Page Down
Go to the same day in the previous month	Page Up
Go to the same day in the next year	Ctrl+Page Down
Go to the same day in the previous year	Ctrl+Page Up
Go to the first day in the month	Home
Go to the last day in the month	End
Select the date	Enter or space bar

Move through a Notes section

The following keystrokes can be used to move through a Notes section:

The following keystrokes can be used to move through a Notes section.

Action	Keyboard keys
Open the help page for a Notes section from inside a Notes section	Alt+0
Move to the rich text content area	Esc
Move from the rich text area to the formatting toolbar	Alt+F10
Move through the toolbar buttons	Arrow keys or Tab
Activate a toolbar button and return focus to the rich text content editor	Enter
Select an element	Enter or space bar
Activate the context menu	Shift+F10
Move between the menu items	Arrow keys
Open submenus	Right arrow key
Close submenus	Left arrow key
Close the menu	Esc
From the rich text content area, return to the previous area of focus outside the Notes field	Alt+F10, then Shift+tab
From the toolbar area, return to the previous area of focus outside the Notes field	Shift+tab

Move through bookmarks and bookmark folders

The following keystrokes can be used to move through a Bookmarks window. To expand or collapse the list of bookmark folders, the focus must be on the expand (down arrow) or collapse (up arrow) button.

The following keystrokes can be used to move through a Bookmarks window. To expand or collapse the list of bookmark folders, the focus must be on the expand (down arrow) or collapse (up arrow) button.

Action	Keyboard keys
Expand the list of bookmark folders	Enter
Move through a list of bookmarks	Tab
Select a folder for the bookmark	Enter
Rename the selected folder	Enter
Return focus to a folder after adding or renaming the folder	Shift+Tab
Collapse the bookmark folder list	Enter
Close a drop-down toolbar menu in a bookmark section when the focus is on the drop-down icon or on the drop-down menu	Esc

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