Release Notes

TRIRIGA 9.7.1 / TRIRIGA Application Platform 2.7.1.3

July 2010

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1 RELEASE NOTES

Welcome to TRIRIGA's July 2010 release of TRIRIGA Enterprise Workplace Management 9.7.1 and TRIRIGA Application Platform 2.7.1.3.

This release includes a full installation of the platform and applications and a platform-only upgrade installation from 2.1.x or higher to TRIRIGA Application Platform 2.7.1.3. If upgrading from an 8.x version of TRIRIGA, you must upgrade to version 2.5.x first.

TRIRIGA delivers application Object Migration packages using two different methodologies:

- Incremental Package – Each application release is a separate file
- Cumulative Package – The entire suite of TRIRIGA Applications through the current release is in one file. Cumulative packages offer a substantial time savings for customers upgrading across several releases. This release includes a cumulative package for 9.7.1.

See "TRIRIGA Application Object Migration Packages" for more information.

What's New in This Release

These release notes relate to the Enterprise Workplace Management 9.7.1 applications and the TRIRIGA Application Platform 2.7.1.3. Specifically, the release notes include the following:

- An overview of changes and enhancements
- A list of known limitations
- A list of documentation changes in this release
- Contact details for TRIRIGA Support

Many of the descriptions include an internal reference number (Tri-nnnnn).

Important Installation and Upgrade Information

Please review the *TRIRIGA Application Platform Installation and Implementation Guide* before installing this product. Note the following in particular:

- All upgrades should be staged in a test environment and thoroughly reviewed before upgrading any production environment.
- A database backup should be performed before upgrading any environment.
- When you perform an upgrade, only start one application server. Do not bring up any other application servers until the upgrade to the first one is complete. Upgrades are often performed during the initial startup of an application server, and there may be conflicts if two application servers are started in parallel.

2   TRIRIGA 9.7 ENTERPRISE WORKPLACE MANAGEMENT

This chapter includes the important information and known limitations for TRIRIGA 9.7 Enterprise Workplace Management. Subsequent sections detail enhancements and changes for each TRIRIGA 9.7 Enterprise Workplace Management version, with the most current version listed first.

Important Information and Known Limitations

Important information and known limitations concerning TRIRIGA's Enterprise Workplace Management for this release include the following:

Area of Impact	Description
Application Settings Record Data	Due to the design of the publish name of several Application Setting Business Objects, delivery of the records for these objects via Object Migration results in duplicate entries. To avoid creating duplicate entries, the 9.7.1 cumulative package does not include the data records for these objects. If you have any difficulty with your application related to Contact Role Setup, Notification Content, or Notification Requirement data, you can either create the required data records in your application or contact TRIRIGA Support for assistance. (Tri-27662)
Application Upgrade Packages	Another option for application upgrading is now available. TRIRIGA delivers application Object Migration packages using two different methodologies: Incremental - Each application package is a separate file Cumulative - The entire suite of TRIRIGA Applications through the current release is in one file. Cumulative packages offer a substantial time savings for customers upgrading across several releases. Please see "TRIRIGA Application Object Migration Packages" for more information.
Checklist Manager	To retire a Checklist, Checklist Category, or Checklist Item record when the Retire action is not visible, first click Save to reveal the Retire action, then click Retire.
Checklist Template	The LEED for Commercial Interiors Checklist Template and the LEED for Existing Buildings: Operations & Maintenance Checklist Template are delivered in the 9.6.1 release along with the proper Checklist Category Template records and Checklist Item Template records. No further action is required for new installations of 9.6.1. However, the associations between these records are not performed during the upgrade to 9.6.1. The `triPatchHelper – triCalculate – 9.6.1 – Checklist_Data – LEED EB and NC Checklist Associate Records No GUI Change` workflow performs this operation (associations). This optional workflow can be triggered using the Patch Helper record with the name `9.6.1_Checklist_Data_Patch`. (Tri-21399)
Classification Manager	The TRIRIGA 9.5 (WPM) Application upgrade introduced three new GUIs for the Fiscal Period (`triFiscalPeriods`) business object. However, there was no process to convert any preexisting Classification data to this new structure. The `triPatchHelper – triCalculate – 9.6.2 – Retro Fiscal`

Area of Impact	Description
	`Period Record GUIs (from Fiscal Period to Fiscal Year/Quarter/Month)` Patch Helper workflow performs this operation. This optional workflow can be triggered using a Patch Helper record with the name `9.6.2.FP.` (Tri-21386)
Clause Type	Starting with 9.6.1, TRIRIGA uses the new Clause Category field to drive the show/hide logic on the Clause GUI. The Clause Type no longer performs this function. The Clause Category field is in the Clause Type classification. The values of the Clause Category field are: Allowance, Commission, Co-Tenancy, Covenant, Indices, Insurance, Other, Parking, Pass Through, Percentage Rent, Rent, Responsibilities, Security Deposit, and Tax.

> ❌ **Warning** - The Clause Category values are system defined. TRIRIGA strongly recommends not changing the as-delivered values.

One of the benefits of the Clause Category is how it simplifies adding new Clause Types. When you add additional Clause Type values in the Classification Manager and select a Clause Category, the clause shows/hides the appropriate sections based on the Clause Category. You do not have to build or adjust the workflow switch condition checks.

The structure of the Clause Type data in the Classification Manager hierarchy also has changed. Now values are grouped together under root nodes (folders) that are aligned with how clauses are abstracted on the Lease Abstract.

Section Category is another new field in Clause Type. Section Category is a field used for sorting/filtering query sections throughout the Lease Abstract. This field is user definable. Its initial values are similar to the Clause Category with additional values for the Other Clause type.

Each Clause Type shipped with 9.6.1 includes a Clause Category set by default. You need to update your existing Clause Types with a Clause Category. Do so after upgrading to 9.6.1 via the 9.6.1 object migration package and before running the 9.6.1 patch helper. There are two methods to accomplish this update:

Method 1:

Manually update your installation's Clause Type records in the Classification Manager. Specifically, open each record in the Classification Manager and set the Clause Category and Section Category.

You may change Clause Section Category values in the Classification Manager as it does not drive any system workflow logic. The same is not true of the Clause Category – do not change its values.

Once both the Clause Category and Section Category are set on a Clause Type record, use the Update Clause Category action to set the new Clause Category on all clauses in the system using that particular Clause Type. This also updates the Section Category. Also, you can reposition your company's Clause Types in the Classification Manager hierarchy structure so they are available in the Lease Abstract.

Method 2:

Use the Data Integrator file shipped with 9.6.1 to bulk update the Clause

Area of Impact	Description
	Category and Section Category on Clause Type records. This file contains the previous as-delivered Clause Type record and default Clause Category and Section Category values.
	You will need to add and remove rows from this file to align it with your company's Clause Type values before importing with Data Integrator.
	Importing the Data Integrator file does not update the Classification Manager hierarchy. Do this manually from the Classification Manager.
	It is important to import the Data Integrator file before running the 9.6.1 patch helper since the patch helper uses the Clause Category set on the Clause type to call the update Clause Category / Section Category logic on the clause instance data in the system.
	The following example shows the first few rows of the Clause Type/Clause Category Data Integrator file, which is named `Pre961_RetroClause_ClauseType_Data.txt` and is found on TRIRIGA's installation Disk 2.

```
triNameTX       Parent  triClauseCategoryLI     triClauseSectionCategoryCL
Acceptance of Premises  \Classifications\Clause Type\Real Estate Lease Clause Type
Acquisition     \Classifications\Clause Type\Real Estate Lease Clause Type
Admin Fee       \Classifications\Clause Type\Real Estate Lease Clause Type
Advance Rent    \Classifications\Clause Type\Real Estate Lease Clause Type
Air Conditioning        \Classifications\Clause Type\Real Estate Lease Clause Type
Alterations     \Classifications\Clause Type\Real Estate Lease Clause Type
Amendments      \Classifications\Clause Type\Real Estate Lease Clause Type
Annual Cap      \Classifications\Clause Type\Real Estate Lease Clause Type
Appraisal       \Classifications\Clause Type\Real Estate Lease Clause Type
Assignment      \Classifications\Clause Type\Real Estate Lease Clause Type
Audit   \Classifications\Clause Type\Real Estate Lease Clause Type
Base Year       \Classifications\Clause Type\Real Estate Lease Clause Type
Basement        \Classifications\Clause Type\Real Estate Lease Clause Type
Basement Rent   \Classifications\Clause Type\Real Estate Lease Clause Type
```

Area of Impact	Description
	For information about how to use Data Integrator, see the Data Integrator chapter in Application Building for the TRIRIGA Application Platform: Data Management.
	Once your Clause Type data is updated with the Clause Category and Section Category, run the 9.6.1 patch helper. In addition to other general 9.6.1 patch helper processes that run, it updates the instance data in all Clause Types in your system with the Clause Category and Section Category.
Data Modeler	Prior to 9.6.1, releases were shipped with unpublished business objects. Starting with 9.6.1, business objects ship published. (Tri-18571)
Document Management	In 9.1.1 installations and older, some documents in Document Management do not have their Record ID field set. If these are used in conjunction with the Notification engine, the tokens will not get replaced for a tokenized report. If you are experiencing this issue, please contact TRIRIGA Support for a script to set the Record ID field.
Environmental Manager	The Base UOM field becomes blank when an Energy Type is selected in an Energy Log, Travel Log, Emission Log, Waste Log, or Water Log. Choose a value for the Base UOM before proceeding to fill out the rest of the log. TRIRIGA plans to address this issue in a future release.
Externally Generated Lease Abstract Records	The Lease ID of a Lease Abstract record must be unique. The system rejects any imported Lease Abstract record with a Lease ID matching a Lease Abstract record already in the database.

Area of Impact	Description
Federal	The Federal XML Report is created with a custom task specifically designed for that purpose. Do not use that task, the XML, or the XLST for any other purpose. Any such use is not supported and may cause undesirable results.
Goal Type and Threshold Records	The TRIRIGA Strategic Facility Planning release includes new Goal Type and Threshold record data that is used in SFP. You can access these records from the Application Setup Manager, as described in the *TRIRIGA 9 Strategic Facility Planning User Guide*. The records include default data for Target Value and Ranges respectively. TRIRIGA encourages you to review and change the records as needed to match your company's business plan and evaluation criteria.
Manager	Upon completion of running the object migration import package that includes the SFP Planning Manager and the Move Manager, please execute the following SQL scripts located in the directory `/userfiles/upgrades`. This will ensure that delivered image icons are appropriately mapped to the imported managers: Oracle database: 1. `MANAGER_ICON_move_oracle.sql` 2. `MANAGER_ICON_planning_oracle.sql` MSSQL database: 1. `MANAGER_ICON_move_sqlserver.sql` 2. `MANAGER_ICON_planning_sqlserver.sql` (Tri-26918)
Object Migration	The Object Migration package for 9.1.3 security groups has row level security root values of \organizations and \geography. If your company's row level security root values are different or if you have implemented row level security beyond the root, you need to modify these settings after import.
OSCRE	The OSCRE integration process (export/import) is designed for implementation between disparate systems. Attempts to Export and Import data from/to the same system will not produce the expected results.
OSCRE	To support the Lease Abstract OSCRE integration, a set of Notification Requirement records are pre-packaged with the 9.6.1 release. These Notification Requirements are used by the Application Notification engine to send a System Notification/Email to users when the status of a record changes. Due to the way the status of the Lease Abstract records is kept in sync (between customer and third-party systems) during the OSCRE integration process, there may be times when the system over-notifies these status changes. To better manage this, the following Notification Requirement records can be retired: For customer systems: Accepted, Rejected, and Clarification Requested. For third-party systems: Clarification Provided. (Tri-20209)
Portfolio Plans, Sub Plans, Space Plans	Once check boxes for plan goals, objectives, and risks are checked and saved, they cannot be saved as unchecked on a subsequent save. This is important to note if the selection is being used for the Remove action, in which case the

Area of Impact	Description
	user should first uncheck the line items they do not wish to remove. (Tri-26042, Tri-20643).
Project Manager	Delivered approval rules for Capital Projects may not work with all customer-specific configurations. TRIRIGA highly recommends that you review the delivered approval rules and either modify them for your configuration or retire them.
Real Estate Contract Manager	In some installations the `triContract` / `triRealEstateContract` object has an issue with the published name. If your object throws a `java.lang.IndexOutOfBoundsException: Index: 6, Size: 6` error message, please contact TRIRIGA Support for a retro script to resolve this data issue.
Real Estate Contract Manager	Proposed Real Estate Lease is no longer used in the Transaction Management to Real Estate Lease process. The business object will remain in the product but will no longer be in the Real Estate Contract manager. It has been replaced by the Lease Abstract in the Transaction Management to Real Estate Lease process.
Real Estate Lease	The Adjust Payments action appears on the Payments Schedules sub-tab on Revise action of an Active RE Lease. If you close and then open the RE Lease, the Adjust Payments action disappears. You can make it reappear by activating and revising the RE Lease again. This is a known issue that we are addressing in an included OM package.
Real Estate Lease	The Adjust Payments action does not update the Payment Line Items. The Adjust Payments action disappears when the Lease is closed and opened again. Workflow does not appear to be triggered. This is a known issue that we are addressing in an included OM package.
Report Manager	Starting with 9.7.0, the Cost Type field on Cost Code records is a required field. The four cost code GUIs modified to make this a required field are `triLocationCostCode`, `triOrganizationCostCode`, `triProjectCostCode`, and `triServiceCostCode`. Update the values you have in the Cost Type field on your cost codes. If you have "null" stored in Cost Type, it will cause the following error, "Please contact your system administrator. The FTB control reported this error while trying to draw itself: There was an error in the database or the query definition." If you get this error, first make sure that all cost codes have their Cost Type field populated. Then clear the Capital Project Fact table so it is completely empty and re-run the Capital Project ETL job item to re-populate the fact table. (Tri-26562)
Report Manager	Users need to Restore Defaults on any metrics previously using the Project Group Classification filter and drill path since these have been replaced by Program Name from the new Program business object. After that, the Metric drill path and filter will correctly show the appropriate values. (Tri-22758)
Task Manager	As Late As Possible, Finish No Earlier Than, and Finish No Later Than constraints are not supported by the Gantt. They have been removed from the constraint options on the Advanced tab of Tasks. In addition, the

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Area of Impact	Description
	workflow that sets the Finish No Earlier Than constraint when the planned end date changed now sets a Start No Earlier Than constraint using the Planned Start date.
TRIRIGA Mobile	Syclo Agentry patch version 4.4.2.9 is required for a certified integration with TRIRIGA versions starting with 2.6.4 and 9.6.2.
TRIRIGA Mobile	TRIRIGA expects Syclo to release its corresponding 9.7 mobile application in early Q1 2010.
WPM / TREES / SFP	If you use WPM, TREES, or SFP and you have upgraded your TRIRIGA application to 9.7.1, please run your Fact Table metrics capture jobs soon after completing your upgrade. If you see "Error inserting/updating row" messages in the server.log, please contact TRIRIGA Support.
Year 2038	In TRIRIGA some data/time fields will be impacted by the year 2038 problem; some dates far into the future may have issues. For more information, please see http://en.wikipedia.org/wiki/Year_2038_problem.

TRIRIGA 9.7.1 Enhancements

The enhancements to TRIRIGA Enterprise Workplace Management for this release include the following:

Area of Impact	Description
Application Setup Manager	On TRIRIGA Application Settings, moved the Integration Settings section from the General tab to a new Integration Settings tab. The Integration Settings tab also contains the Energy Rating Settings section. (Tri-27440)
Classification Manager	Classifications with 50+ records now have searchable queries. (Tri-25943)
ENERGY STAR	The new TRIRIGA ENERGY STAR Connector provides an interface between TRIRIGA and EPA ENERGY STAR's Automated Benchmarking System and incorporates metrics displaying building, structure, and retail location EPA ENERGY STAR ratings.
Move Manager	There is a new section action on the Move Designer for Bulk Updates. It supports bulk updating of Proposed Move Dates. (Tri-27295)
Move Manager	When creating Move Line Items (MLIs) for SFP move items, the user opens an action form from the SFP section within Move Designer. This action form allows the user to create Move Line Items for the selected Planning Move Item in the Scenario. After the user creates the MLIs, a query section appears to show the user the MLIs that the system just created. This query section has been enhanced to add an additional field that is editable: Proposed Move Date. A user now can enter a Proposed Move Date for these MLIs and click the Save action on the query section to save the new date. In addition, the user also will have the ability to enter a Proposed Move Date in the action form so that all newly created MLIs will have that Proposed Move Date. (Tri-27297)
Strategic Facility	Space Management enhancements allow for allocation of space occupancy

Area of Impact	Description
Planning	independent of space chargebacks. Occupancy can be established without the need for people (associated to spaces). Using Strategic Facility Planning (SFP), planners now forecast and plan space needs based on space occupancy organizations. For more information, please see the *TRIRIGA 9 Strategic Facility Planning User Guide*. (Tri-27334, Tri-27385)

TRIRIGA 9.7.1 Changes

The major changes to TRIRIGA Enterprise Workplace Management for this release include the following:

Area of Change	Description
Application Setup Manager	Changed manager actions to query actions for CTQ Dynamic Lists, ETL Job Item, Job Group, and Threshold. (Tri-14150)
Application Setup Manager	Copy action on Planning Period Template creates a copy of the record. (Tri-26605)
Application Setup Manager	Fixed a typo in the TRIRIGA Application Settings record, Service Management Setup tab. (Tri-24773)
Application Setup Manager	Fixed a typo in User Message `triApproval013`, "triApproval - Route to Reports To Error On Resolution of Reviewers". (Tri-12838)
Application Setup Manager	Fixed multiple issues with the Lease Abstract Offline Form. 1) Co-Tenancy - Rent Reduced By (Percent) now maps. 2) Options now map. 3) Responsibilities - Responsible Type removed from "clause" part of form. It is already in the Responsibility Service multi-record section of the form. 4) Lease Contacts now map. 5) Hid the Reference Data and Object Mapping tabs. (Tri-26853)
Application Setup Manager	Planning Period Config is the new name for the Planning Period Template. (Tri-25975)
Application Setup Manager	Rearranged actions on Goal Type records per TRIRIGA standards. (Tri-26968)
Application Setup Manager	Removed invalid non-working days from the Default Calendar record. (Tri-23576)
Application Setup Manager	Removed the Show More Filters runtime filter 'Notification Subject' in List view for Offline Content. (Tri-26742)
Application Setup Manager	Responsible Organization and Resource Organization flags now are mapped from the Service Contract to the Service Matrix records when using the Service Management Setup Wizard to generate service matrix records. (Tri-25388)

Area of Change	Description
Application Setup Manager	The Add action on the Job Scheduler List view opens a Job Scheduler record instead of displaying a drop-down list. (Tri-27437)
Application Setup Manager	The Date Created field on the Service Contract is now populated with today's date when using the Create Contract popup. (Tri-25391)
Application Setup Manager	The Headcount and Non-Headcount popups on the Forecast Standard now are identical. (Tri-26994)
Application Setup Manager	Updated field labels and tab descriptions in the Planning Settings tab of TRIRIGA Application Settings. (Tri-26741)
Application Setup Manager	Use the Patch Helper workflow `triPatchHelper - triCalculate - 9.7.1 - Retro DEFAULT Planning Period Configs` to fix previously-released default Planning Period Templates so they contain correct Period details. (Tri-27041)
Asset Manager	Associated locator queries to GUI locator fields that previously did not have a locator query. (Tri-26811)
Asset Manager	In Point of Sale Equipment, the sub-query for Retired records now returns data. (Tri-26832)
Asset Manager	Moved the Notes & Documents tab to be between the Notifications tab and the System tab for the Security Equipment and Point of Sale Equipment GUIs, making them consistent with the other Asset Manager GUIs. (Tri-27322)
Asset Manager	Relocated the Contacts tab on the Work Area Outlets GUI to be consistent with other Asset Manager GUIs. (Tri-27325)
Carbon Footprint Calculator	Link Record and Link Business Object now correctly map when creating a Carbon Log from a My Company record. (Tri-25508)
Classification Manager	Added a searchable query to the Find action on the Entitlements tab of the Roles > Contact Roles classification. (Tri-26561)
Classification Manager	Corrected the typo in the Classification Notes on the Emission Source GUI. (Tri-23599)
Classification Manager	Fixed the typo in the Specification Class "Telecom Otulet". (Tri-27315)
Classification Manager	In Classification Manager, the Classifications that displayed `tri` in the label next to the value in the tree now properly display the Label of the Classification. For example, PM Reading Class, PM Type, Reservation Class. (Tri-19734)
Classification Manager	Resized the Description field on the CTQ Scoring and Contract Type business objects in the Classification Manager to 1000 characters. The Copy action on the CTQ Scoring and Contract Type business objects in the Classification Manager creates a copy with the same hierarchy path as the original. Since the workflow performing the copy action is asynchronous, the

Area of Change	Description
	newly copied record's hierarchy path is not set immediately. To see the copy's hierarchy path, wait a few seconds and refresh the List view. (Tri-21354)
Classification Manager	The Find actions on the GUI sections listed in Appendix B now have an associated query. (Tri-26815)
Classification Manager	The Life Expectancy field on the Building Class now has a time UOM. (Tri-27265)
Classification Manager	The Space Class Current classification now defaults to the Default Space Standard field from its parent record in the classification hierarchy. (Tri-26120)
Classification Manager	The `triPatchHelper – triCalculate – 9.7 Update SetUp – Classification Manager – Building Class – Currency Field` patch helper updates the default value for the Currency field on Building Class records. (Tri-26911)
Condition Assessment Manager	All line items show when add cost estimate line items using a template. (Tri-23795)
Contact Center Manager	In the Contact Center Person Centric view, if the Requested By field and Requested For field are populated, the External Contact created using the Pencil icon next to the Requested By field now overwrites the Requested By field and does not overwrite the Requested For field. If the Requested By and Requested For fields are empty, the External Contact created using the Pencil icon next to the Requested By field now populates both fields. (Tri-23268, Tri-27318)
Contact Center Manager	Material Order Tasks now are filtered out of both sub-queries on the Tasks sub-tab in the Location Centric Contact Center view of the Contact Center form. (Tri-13004)
Contact Center Manager	Request History sub-tab sub-queries return records in appropriate statuses for Requests associated to the Requested Location. (Tri-12751)
Contract Manager	The size of the Description field on a Service Agreement has been increased to 1000 characters. (Tri-12809)
Environmental Manager	Rearranged the Save and Save & Close actions on the Energy, Emission, Water, Waste, and Travel Logs. (Tri-27533)
GUI Builder	Deleted the queries listed in Appendix A. (Tri-26585)
Inventory Manager	Corrected a typographical error in the Ship To Address on the Primary Location General tab. (Tri-22794)
Inventory Manager	Corrected the labels for Inventory Locations and Service Assignment Class in the Inventory Manager. (Tri-27308)
Key Security Manager	Corrected spelling errors in manager queries and sub-queries. (Tri-1848)

Area of Change	Description
Key Security Manager	Fixed Specialty Key typos. (Tri-27459)
Location Manager	Corrected typos in the Installation/Sub-Installation Identifier section header on the Federal tab of the Structure and Land GUIs. (Tri-25238)
Location Manager	Modified the Copy action workflow to copy the Related Documents from the original record to the copy of the record and to not copy the Comments. (Tri-23139)
Location Manager	No longer display multiple area overlay allocations where there should be only one per organization on the Allocations tab of the Floor. (Tri-24724)
Location Manager	Standardized the size of the Description field on all Location objects in the Data Modeler to 1000 characters. (Tri-16645)
Location Manager	The Area Units field in Space records with Prorated Area now inherits the default UOM set in the user's profile. (Tri-26940)
Location Manager	The data in the Outgrant field in the Real Property Status section of the Federal tab of a Structure is no longer displayed in bold font. (Tri-27313)
Location Manager	The Find action on the Accounting Organizations section of Building, Retail Location, and Structure records now returns My Company, Division, and Departments in the first query and no longer has sub-queries. (Tri-25423)
Move Manager	Corrected issue on Move Request Line Item where a Person's Primary Location (the From Location) was not being populated whenever the Person Section was populated by typing in the Person's Name (smart find) instead of using the section's Find action. (Tri-27376)
Move Manager	Fixed issue on Move Services Request where a Move Request Line Item was always being created for the Person referenced in the Requested For section whenever Move Type was either Group Move or Small Move. A Move Request Line Item for the Requested For person should only occur for these Move Types whenever the Include Requested For in the Move field is explicitly checked by the user, not implicitly (i.e., in the background) as was being done prior to the fix. (Tri-27430)
Move Manager	The section actions on the Move Planner, Move Project Planner tab, Move Project Tasks section now work correctly. (Tri-27211)
Object Migration	Fixed an issue preventing UOM Values from being imported. (Tri-27406)
Object Migration	Resolved an Object Migration issue where the import of UOM Types and UOM Values were updating with the UOM Type code from the package and not using the UOM Type sequencing mechanism on the target environment. (Tri-27630)
Organization Manager	The Linked Record and Linked Business Object now are set when creating Travel Log, Energy Log, Emission Log, Waste Log, or Water Log records from the My Company. (Tri-25449)

Area of Change	Description
Payment Manager	Removed the Reports tab on the Process Tenant Invoice form since there are no reports for this object. (Tri-21262)
Payment Manager	`triPurchaseOrder – Find – Active Purchase Orders` no longer filters out Completed purchase orders. It now displays both Issued and Completed purchase orders. (Tri-26281)
Planning Manager	Added Building Name to the query section of the RE Action Requests sub-tab of the Metrics tab of Space Scenario. (Tri-26514)
Planning Manager	Added runtime filters for the Default Threshold and Goal UOM columns in the Goals & Objectives tab of a Portfolio Plan. (Tri-27099)
Planning Manager	Added the Leased/Owned metric query as a sub-tab on the Analysis tab of a Space Scenario. (Tri-26661)
Planning Manager	Added the Occupancy Rate metric query as a sub-tab on the Metrics tab of a Portfolio Plan. (Tri-26662)
Planning Manager	An Objective that is manually added to a Space Plan (which propagates to Space Scenarios) no longer defaults a score on the Status Quo scenario for the propagated Objective. (Tri-27273)
Planning Manager	Changed the Revise and Unretire actions on Planning Environment to correctly show/hide the Clear action on the Planning Data tab/section. If Space Plans are referencing the Planning Environment, the Clear action is hidden; otherwise the Clear action is visible. (Tri-27181)
Planning Manager	Changes to the Carbon Units and/or Energy Units fields in a Portfolio Plan now auto-populate correctly to sub-plans. (Tri-27159)
Planning Manager	Check boxes on Plan Goals and Objectives in the Goals & Objectives tab of Space Plans now properly uncheck when saved. (Tri-26043) Check boxes on Portfolio Plans for Objectives and Risks now properly uncheck when saved. (Tri-26042)
Planning Manager	Contact Role, Comment, and Approval dependent records are read-only when the Portfolio Plan record is Active. (Tri-26555)
Planning Manager	Corrected a typo in the Update Forecast Data label on the Update Forecast Data GUI. (Tri-26906)
Planning Manager	Corrected the Space Forecast Survey locator query runtime filter. (Tri-27360)
Planning Manager	Data now displays in the Detail section on the General tab of a Data Capture log record in a Planning Environment, Planning Data tab, Data Capture Log section. (Tri-27236)
Planning Manager	Fixed an issue were the Retire of a Portfolio Plan did not retire its sub-plans and space plans when triggered from the Revision in Progress state. (Tri-27060)

Area of Change	Description
Planning Manager	Fixed propagation in the Objective and Risks workflows to allow for the Category to be properly mapped rather than being reset to the default `Customer` category each time. (Tri-26878)
Planning Manager	From the Add action in the Space Plan List view, the Portfolio Plan look up prompt Sub Queries Find Unanchored Portfolio Plans and Find All Parent Portfolio Plans now return the correct records. (Tri-27727)
Planning Manager	In the Portfolio Plans manager, select the Portfolio Plans - Review In Progress sub-query. Portfolio Plans now is available in the Sub Queries drop-down. Also, the Portfolio Plans - Review in Progress sub-query now retrieves the correct records. (Tri-26743)
Planning Manager	In the Space Plans manager query, records in Approved and Revision In Progress status have been filtered out of the result list since Delete of Space Plans in Approved and Revision In Progress is not allowed. (Tri-27145)
Planning Manager	Minor changes on the Space Scenario GUI such as Description field length increased to 1000 characters, position of Save and Save & Close actions reversed, and position of Currency and Area Units reversed. (Tri-26094)
Planning Manager	On a Portfolio Plan, when an Objective or Risk is removed, the system properly removes it from the Space Plan(s) and recalculates the rollup Category total that displays on the Scenario Evaluation grid. (Tri-27369)
Planning Manager	On the Portfolio Plan, Sub Portfolio Plans sub-tab, selecting and deleting a Space Plan now deletes/removes the Space Plan as expected. (Tri-26788)
Planning Manager	Renamed the Measure Type field on Space Class and Space Planning Data records to Planning Measure Type. (Tri-25973)
Planning Manager	Resolved an issue in SFP Objectives and Risks functionality where the Scenario Evaluation comparison grid score values and sequence were not updated for propagated Objectives and Risks. (Tri-27213)
Planning Manager	Should a user attempt to remove the Status Quo scenario from a Space Plan, the system now displays a message advising that the Status Quo scenario cannot be removed. (Tri-27030)
Planning Manager	The Admin group now has access to the Audit Actions tab on Space Plans. (Tri-27118)
Planning Manager	The default manager query for Space Forecast Surveys no longer displays Retired surveys. (Tri-27131)
Planning Manager	The phrase 'Planning Environment' is no longer truncated on the Contact Role GUI of a Planning Environment. (Tri-26865)
Planning Manager	The Reports tab no longer shows in the Planning Manager GUIs. (Tri-25858)
Planning Manager	The system now displays an appropriate user message when a user selects the Complete action on a Space Plan. (Tri-27444)

Area of Change	Description
Planning Manager	The system now displays confirmation messages when the user Applies or Resets Growth / Reduction or Demand Driver Factors. (Tri-26995)
Planning Manager	Various minor fixes in the functional area of SFP's Objectives and Risks were made to present labels and values in drop-downs, such as the Risk Importance classification. Also, added fields to query sections to make more consistent. (Tri-27119)
Portal Section Manager	The Key Metrics title bar on the WPM metrics portal section now displays correctly in the TRIRIGA Performance Management - Real Estate Executive - Graphic and TRIRIGA Performance Management - Real Estate Portfolio Manager - Graphic portals. (Tri-27707)
Portal Section Manager	The title of the My Forecast Survey section of the SFP portals has been changed. It is now either, "My Forecast Survey - My Forecast Surveys" or "My Forecast Survey - All Forecast Surveys". (Tri-27110)
Portals	Corrected the TRIRIGA Performance Management (US Govt) - Program Manager portal to display the Program Budget metric instead of the Contract Execution Crystal report. (Tri-23149)
Project Manager	Duplicate Project Tasks no longer are created from the Project Template specified on the Bulk Create process initiated from a Program. (Tri-27382)
Project Manager	In a Capital Project, removing a child project from its parent project or program now removes the parent to child association. (Tri-23676)
Project Manager	On the Capital Project, fixed the Checklist and Checklist Item Find queries to retrieve records correctly and associate the selected records back to the section. (Tri-27699)
Project Manager	Removed the Copy action on a Funding Transfer that was visible after the user clicked the Issue action. (Tri-23560)
Project Manager	The Status column now is the last column in Program Manager queries. (Tri-23596)
Project Manager	The Task ID field on a Work Task correctly maps with the record's Control Number. (Tri-27169)
Project Manager	Updated the security settings for TRIRIGA Project Executive and TRIRIGA Project Manager. These groups now have access to Add, Find, and Remove actions in child projects sections on both Capital Project and Facilities Project GUIs. (Tri-26861)
Project Manager	When Transferring Funds from a Sub-Program, the Transfer Fund Action Form correctly prepopulates the Funding Available fields from the Parent Program. (Tri-26959)
Real Estate Contract Manager	In Real Estate portals, the Quick Add has Lease Abstract instead of Proposed Real Estate Lease. And queries displaying Proposed Real Estate Lease records were replaced with queries displaying Lease Abstract records. (Tri-22887)

Area of Change	Description
Real Estate Contract Manager	On the Guarantor section of the General tab of a Lease Abstract, the Create New Organization action now populates the Guarantor Organization Lookup field. (Tri-26381)
Real Estate Contract Manager	Previously the Find query on the Options section of a Lease Abstract's clause did not retrieve results. Now the Options that are created/saved on the Lease Abstract are retrieved and selectable on the Clause's Find Options. (Tri-26798)
Real Estate Contract Manager	The Reactivate action is no longer available for voided payment schedules on a real estate lease. (Tri-26973)
Real Estate Contract Manager	Updated the Real Estate Lease-Cost Allocation Setup Item descriptive / instructional text. (Tri-26402)
Real Estate Project Manager	Corrected a typographical error in the Search icon lookup for Spend Category on the Close-Out tab of an RE Project Disposition record. (Tri-27622)
Real Estate Project Manager	RE Project Lease Manager no longer has duplicate actions. (Tri-17651)
Report Manager	Space Level Allocations manager query has been corrected to replace a duplicate sub-query with the correct sub-query. (Tri-27201)
Report Manager	The Building Equipment report `triAsset - Asset records of Asset Inventory and Assignments Equipment Listing` no longer causes a stack trace. (Tri-24265)
Request Manager	Added the hierarchy path to the display columns in the Find query for a Disposition Request. (Tri-26831)
Request Manager	For Find Random Recipients on the General Evaluation Request form, the option `50` previously appeared to retrieve more than 50 records when pressed multiple times. (Tri-27640)
Request Manager	On the Design Change Request GUI, Design Change Options tab, Planned Spaces, List view query section, changed the action label from DeAssociate to Remove. On the Planned Space GUI, General tab, Space query section, changed the action label from DeAssociate to Remove. (Tri-27209)
Request Manager	The Funding Request GUI now reflects the total Objective rating score in the Estimated Cost and Rating Score section located on the General tab. The Objectives query section located in the multi-tab section at the bottom of the General tab now displays the sum of the Objective Rating Scores. (Tri-23595)
Request Manager	The Planned Work Request in the Work List and Quick Add sections has been replaced with Funding Request, for the TRIRIGA Performance Management - Environmental Manager/Planner Portal. (Tri-23796)
Request Manager	When creating a Move Request, the Move Type now defaults to Individual Move. (Tri-27152)

Area of Change	Description
Request Manager	When escalating a request, the workflow `triApproval - triEscalate - Escalate Reviewers` now runs in asynchronous mode. This resolves the error message that occurred on the User Action workflow task. Approval occurs after an escalation as originally intended for requests. (Tri-23740)
Security Manager	Changed security so that a Facilities Manager can no longer send a Space Forecast Survey. (Tri-27103)
Security Manager	Move Planner and Move Manager security groups now have access to the Find and Remove actions for Manage Move Locations and Manage Move Geographies sections on the Employee and Consultant GUIs. (Tri-27497)
Security Manager	The TRIRIGA Facility Manager security group now has Read, Update, Create, and Delete permission for Space Plans. (Tri-27105)
Task Manager	Corrected Task Invoice calculations on a Work Task. (Tri-25310)
Task Manager	The Maintenance Technician now can add and remove work analysis data from the Technician Task tab. (Tri-27155)
Task Manager	The Primary Work Location on the Maintenance Technician's Work Task tab now displays, and the Parts Find action displays the correct results. (Tri-27672)
Template Manager	Corrected a typographical error in the Survey Question Type List. (Tri-27639)
Template Manager	Corrected the runtime filters in Data Attribute Item Template. (Tri-23492)
Template Manager	Fixed typos in the sub-query names for the Reserve Work Task Template. (Tri-17070)
Template Manager	On the Resources tab of the Inspection Task Template, the DeAssociate action has been relabeled Remove and the Fnd action has been corrected to Find. (Tri-13393)
Template Manager	The 9.7.1 cumulative package and the 9.6.1 incremental package contain all necessary Checklist data for the LEEDS checklist implementation. A patch helper workflow makes all the necessary associations for the checklist data. To execute this patch helper workflow, import the 9.6.1_Checklist_Data_Patch patch helper Data Integrator file (this is the start condition for that Work flow). (Tri-21895)
Template Manager	The Copy action on a RE Transaction Plan Template now makes a copy in Template status. (Tri-27274)
Template Manager	The Portfolio Manager Evaluation Templates - Retired sub-query now returns only Status = Retired records. (Tri-23495)
Template Manager	The Reports tab no longer displays on Data Attribute Item Template records. (Tri-16455)
Utility Bill Invoice	On the Utility Invoice line item, the system populates the Energy Source field

Area of Change	Description
	on the Details section when the Energy Type field changes; at the same time the Energy Source field is made read-only. (Tri-25792)
Workflow	Escalated approvals without a Reports To now are assigned to the System Admin account. The `triApproval – triEscalate – Escalate Reviewers` workflow now is asynchronous. Users still click Escalate on the approval GUI. (Tri-20705)
Workflow	The following workflows have been retired: • `triSpace – triSave – Updates Space and Allocations` • `triSpace – triSaveAndClose – Updates Space and Allocations` • `triSpace – On Change – Update Space Allocations upon Name change` • `triPeople – Associate – triSpace sets Occupancy Status` • `triPeople – De-Associate – triSpace sets Occupancy Status`

TRIRIGA 9.7.0 Enhancements

The TRIRIGA Strategic Facility Planning™ (TRIRIGA SFP™) product delivers advanced facilities planning capabilities to accelerate understanding of core business demands, simplify complex planning analysis, and streamline implementation of facilities plans. TRIRIGA SFP helps facility planners increase the effectiveness of all types of facilities planning - strategic, master, and tactical - through advanced performance analytics, visual scenario modeling, and an automated workflow engine. To help organizations deliver effective strategies, TRIRIGA SFP delivers unique features that reveal gaps between business demands and space availability; analyze, rank, and recommend best fit facilities planning scenarios; and automate manual and time-consuming processes.

TRIRIGA SFP provides a portfolio planning framework, business unit forecasts, and predefined performance metrics to streamline the understanding of business demands and impacts on facility performance over time. The TRIRIGA SFP framework delivers a flexible planning hierarchy for facility planners to cascade top-down business objectives and performance goals from global through local plans. Automated data utilities populate the portfolio plans with aggregated space use information from within the plan's scope to provide planners with an accurate understanding of current business demands.

Space forecast surveys accelerate the data gathering of future business space needs with automated workflows that route forecast surveys to business unit managers and client relationship managers. Predefined performance scorecards evaluate business unit demands and facility performance characteristics to identify underperforming facilities.

Visual supply/demand modeling delivers interactive planning features that allow facility planners to match availability of space (supply) to forecasted business unit space needs (demand) across a planning time horizon.

Advanced stack planning provides interactive planning controls that allow facility planners to model business unit allocations within planning scenarios for a given planning period.

TRIRIGA SFP's comprehensive planning scorecard provides side-by-side comparison of the costs, space utilization, financial returns, and risks associated with each space planning scenario to facilitate selecting the best strategic plans.

Automated workflows transition details captured within strategic plans into actionable implementation plans. SFP planning data integrates with TRIRIGA's core Integrated Workplace Management Systems (IWMS) applications to streamline move planning, project management, and real estate actions.

In addition to the features and functionality described above, the enhancements to TRIRIGA Enterprise Workplace Management for this release include the following:

Area of Impact	Description
TRIRIGA Strategic Facility Planning	Delivers advanced planning focused on facilities space forecasting, space and move planning.
Move Planning	Enhancements include a simpler self-service move request process, an improved move design tool, and improved efficiency in the identification and execution of move projects.
Spend Plan	TRIRIGA Projects 9.7 Spend Plans provide the capability to forecast project cash flow by period and re-forecast cash flow based on critical path schedule updates, and offer additional forecasting and variance analysis using earned value calculations.
Maintenance Technician Work Task Tab	A new tab targeted for technicians, consolidating existing Work Task functions used by technicians in one place.
GIS	ESRI GIS ArcWeb Server replaces ESRI GIS ArcWeb Services as the underlying technology enabling TRIRIGA's mapping capabilities.

TRIRIGA 9.7.0 Changes

The major changes to TRIRIGA Enterprise Workplace Management for this release include the following:

Area of Change	Description
Application Setup Manager	The system no longer displays an extraneous message when a user enters the Service Management Setup Wizard from a Service Agreement or Blanket Purchase Order and clicks the Create Service Matrix tab. (Tri-23720)
Application Setup Manager	When entering the Service Management Setup Wizard from a Blanket Purchase Order or Service Agreement, the Modify Service Matrix tab is pre-populated with the selected Service Matrix records from the Contract. (Tri-23721)
Carbon Footprint Calculator	Added a filter to the following workflows to filter by the calendar period: `triEnvCarbonLog - Synchronous - Calculate Travel Carbon Footprint For Org` and `triEnvCarbonLog - Synchronous - Calculate Waste Carbon Footprint for Org`. Corrected an issue in the calculation of the UOM for the travel portion of the carbon footprint calculation. (Tri-24154)
Carbon Footprint Calculator	The Energy Log now has an editable Base UOM field, with both list type and value drop-downs. Now the UOM maps correctly if the Energy Type changes. (Tri-23642)

Area of Change	Description
Classification Manager	A name change in a Classification Cost Index name now reflects in the associated Cost Index Value name. (Tri-23539)
Contact Center Manager	Replaced the Move Request GUI with the Move Services GUI that supports the new 9.7.0 move features. (Tri-26953)
Contact Center Manager	When the user selects Next Call, the General section is no longer read-only. (Tri-26709)
Facility Assessment	The Component Renewals sub-tab now shows a running total of Component Renewals in the Component Renewals Amount column. Also, if a user opens one of the Component Renewal records and selects an opportunity in the Detail Items section, the Planned Action Year matches the Component Renewal Year. (Tri-23678)
Gantt	Modified the Resource Manager GUI Schedule tab so that the Organization and Assignment sections are viewable and useable on lower screen resolutions. (Tri-22027)
Inventory Manager	Inventory cycle count adjustments now take decimal fractions. The system does not round the values. (Tri-24026)
Inventory Manager	The Inventory Count Item Formula field now calculates correctly. (Tri-24963)
Job Manager	Added a new RE Implementation Plan ETL for Microsoft SQL Server database users. For an MSS user there is a new Job Schedule record. (Tri-23852)
Lease Abstract	In a Lease Abstract, on the OPEX/CAM tab, the Services Included sub-tab, the wizard now pre-populates the Proportionate Share values based on fields from the General tab, Location Summary section. If the value of Proportionate Share (contractual) is zero, the wizard uses the value of Proportionate Share (calculated). If the value of Proportionate Share (contractual) is other than zero, the wizard uses that value. (Tri-22891)
Location Manager	Updated the Environmental Log GUIs to allow the Base UOM to be editable. This allows properly setting the UOM on the fields, especially when switching the UOM type. (Tri-23055)
Meter Data / Incoming Log Data	After the Energy Log offline form is imported, a workflow now fires to hide or show the appropriate Scope 1 or Scope 2 fields and set the proper UOM. (Tri-23702)
Meter Data / Incoming Log Data	Updated the Waste offline form to correct an issue when rows were inserted into the form. (Tri-23640)
Organization Manager	The Copy action on an Organization (Department, External Company, and Workgroup) now copies the Provider Type field. (Tri-26384)
Organizations	The Copy action on Organization government records now copies the contact detail information from the original record. (Tri-23534)

Area of Change	Description
Planning Manager	Added a new Location object, `triPlannedSpace`, that can have CAD labels. Use `triPlannedSpace` to create CAD Labels that can be transported via Object Migration, much like can be done with `triSpace` objects. (Tri-25601)
Planning Manager	The Visual Queries on the Move Planner GUI only work correctly if they are invoked from a Move Planner record that has been saved. The user has to open an existing Move Planner record from the Planning Manager, as opposed to clicking Add or using the Quick Add from the Move Planner's portal, in order for the Visual Queries to function. (Tri-26930)
Project Manager	Fixed issue with filters on query `triContactRole – Filter – Associated to current user as Program Manager` that prevented the My Programs and Project hierarchical grid query from rendering data. (Tri-23511)
Project Manager	The Opportunity Analysis action on the Facility Assessment Manager now points to the new Funding Analysis GUI. Also, the Quick Add menu on Environmental portals now has the new Funding Analysis menu item in place of the Opportunity Analysis menu item. (Tri-23604)
Query and Reporting	Tooltip text in queries displays the field label instead of the field name. (Tri-26093)
Real Estate Contract Manager	If there is a cost code in the Accounting Cost Center field on the Accounting section of a Lease Abstract's General tab, the system populates the Account Cost Center field into payment schedules and makes the child cost codes available on payment schedules for Cash Cost Code, Accrual Cost Code, and Expense Cost Code. This applies to all tabs in the record that contain payment schedules (e.g., Rent, OPEX/CAM). (Tri-24316)
Request Manager	A new Inspection Request's Request Class field now maps to the Inspection Request classification. (Tri-26372)
Request Manager	Opportunity costs now roll up to the Funding Request. (Tri-26638)
Request Manager	The Move With smart section on a Move Request Line Item record has been phased out in this release and replaced with the Parent Item locator field. The parent/child relationship between move line items now shows in a hierarchical grid. Although the Move With smart section still exists on the Move Line Item business object, it has been removed from the GUI and TRIRIGA recommends discontinuing its use. (Tri-25707)
Security Manager	Updated the security groups to include the enhancements in TRIRIGA 9.7. (Tri-26337)

Area of Change	Description
Site Style Manager	The standard color for ALL Attention sections now is yellow (#FFCC33).
	Note – For the object migration release package, the new color will be reflected in the GUIs contained within the package. However, there may be some overlap between 9.6.2, where GUIs in 9.6.2 were configured as red (previous standard), and if those same GUIs were not included in 9.7, the red color will not be updated. TRIRIGA recommends running the SQL script (`STYLE_SHEET_updates_trees_oracle.sql`, `STYLE_SHEET_updates_trees_sqlserver.sql`) provided in the `userfiles/upgrades` folder before or after loading the package to make sure all GUIs are updated.
	(Tri-23477)
Survey Manager	When completing a task that was created from a request, the associated request class must have a survey template associated to it in order for a survey to be sent out. Prior to this, workflows were sending a default survey template. (Tri-23092)
Task Manager	To improve performance, the user is prompted to provide filter information when using the Work Task, Resource tab, Add People action. (Tri-26037)
TREES® Metrics	Added the following four missing ETL Record Data to the object migration package: `Record Data_triJobItem_EnergyLogFact-Clear`, `Record Data_triJobItem_EnergyLogFact`, `Record Data_triJobItem_WasteLogFact-Clear`, and `Record Data_triJobItem_WasteLogFact`. (Tri-23641)

3 TRIRIGA APPLICATION PLATFORM 2.7

This chapter includes the important information and known limitations for TRIRIGA Application Platform 2.7. Subsequent sections detail enhancements, changes, and properties files changes for each TRIRIGA Application Platform 2.7 version, with the most current version listed first.
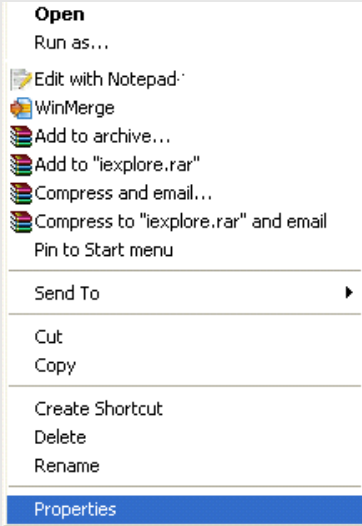
> **Warning** – If you are upgrading from a TRIRIGA Application Platform version prior to 2.5, be sure to refer to the upgrade instructions in the *TRIRIGA Application Platform Installation and Implementation Guide* before beginning your upgrade to TRIRIGA Application Platform 2.7. Combining the schemas includes manual steps and is a longer process than a normal platform upgrade. It will require additional disk space for some of the steps, but this space can be reclaimed after completion. It is a good idea to have your DBA involved throughout the process.

## Important Information and Known Limitations

Important information and known limitations concerning the TRIRIGA Application Platform for this release include the following:

Area of Impact	Description
Brava!	Page 65 of the *Brava! Client/Brava! Server/Net-It Enterprise Installation and User Guide* on TRIRIGA's installation Disk 3 in the `Brava` folder is <u>very</u> important if you wish to use Microsoft Word documents; it shows the nine steps to publish Word documents. **Caution** – TRIRIGA does not recommend using Brava! to view or publish Microsoft Office documents. There are known memory leaks that cause the Brava! Server to become unstable over time. Please refer to section 3.4.5 in the *Brava! Client/Brava! Server/Net-It Enterprise Installation and User Guide* on TRIRIGA's installation Disk 3 for steps to restart the server on a periodic basis.
Excel	According to Microsoft's Web site on http://technet.microsoft.com/en-us/library/cc178954.aspx, the OWC library that TRIRIGA uses for Excel sections is not available in Office 2007. That article has a link to where you can download the OWC library and install it as a separate component. If you upgrade Office 2003 or Office 2000 to Office 2007, the OWC library is available. If you have a clean install of Office 2007, the library is missing and will need to be installed for Excel sections to work.
Installation and Upgrade Information	Starting with version 2.6.4, the installer no longer supports an upgrade from version 8.4.x. If you are upgrading from version 8.4.x, first upgrade to version 2.5.x, and then upgrade to version 2.6.x. (Tri-22296)
Installation Directory Name	If you use WPM, TREES, TRIRIGA's OSCRE features, or ETL Job Items, the name of your TRIRIGA installation directory cannot contain spaces. These applications use Pentaho to run ETLs. Pentaho is a third-party application that has a startup issue when the installation directory name has a space in it. For more information, see the Pentaho issue database for PDI 2689 at http://jira.pentaho.com/browse/PDI-2689.

Area of Impact	Description
Installer	The 2.7.0 TRIRIGA Application Platform, like prior releases, integrates to SAP BusinessObject's Crystal product for its complex reporting needs. For the 2.7.0 release, TRIRIGA certified the Crystal Reports Server Embedded 2008 release, also commonly referred to as Crystal Report Application Server (RAS) 2008, and requires it for Crystal report execution. The Crystal XI R2 Embedded version is not compatible with the 2.7.0 release and any customers currently using Crystal RAS 9 or Crystal XI R2 Embedded must upgrade to Crystal Embedded 2008. Crystal Embedded 2008 (RAS) has been certified and can be used with the 2.7.0 release. Also, Business Object Enterprise (BOE) XI 3.0 has been certified for the 2.7.1 release and can be used.

You will find them on DVD5 of the release.

Please contact TRIRIGA Support to exchange your existing RAS XI keycode for Crystal Embedded 2008.

Please see the *TRIRIGA Application Platform Installation and Implementation Guide* and the *TRIRIGA Application Platform Reporting User Guide* for more information.

(Tri-21435, Tri-23647) |
| Internet Explorer | Using TRIRIGA over an extended period of time can cause the memory required by Internet Explorer to increase to the point that IE slows down and becomes unresponsive. To prevent this condition, TRIRIGA recommends that users close all of their browser windows from time to time. Later versions of Internet Explorer manage memory more efficiently. |
| Internet Explorer 8 | If you want to be able to login to multiple sessions from the same machine using IE 8.0, you need to disable session sharing. Below are two methods to do this:

Method 1:

Modify the IE shortcut to include the `-nomerge` flag, which specifies that the session is not shared between separate browser windows.

To do this, right click on the shortcut and select Properties:

 |

Area of Impact	Description
	In the Properties window, select the Shortcut tab and modify the Target text box by adding the –nomerge switch.
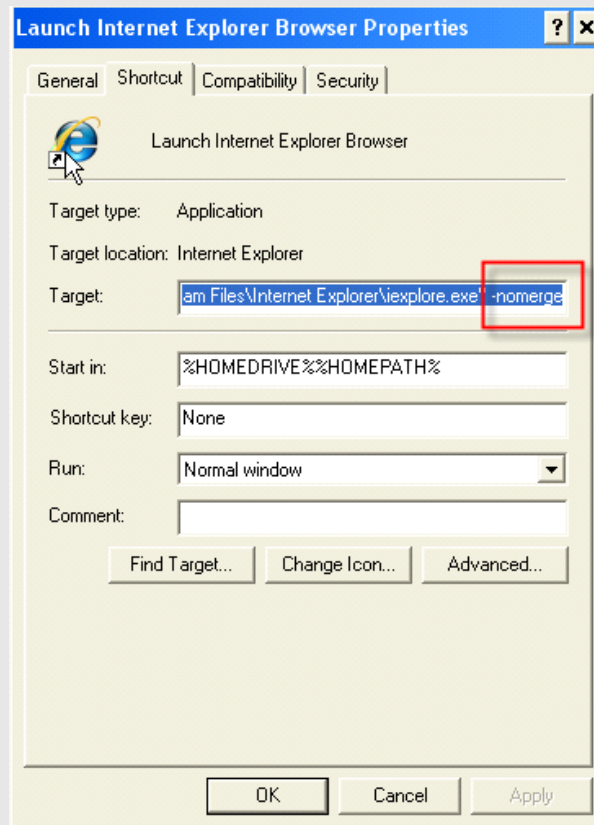
Click OK.

Now all IE windows that are opened using that shortcut are opened in a new session.

Method 2:

Each time a new IE window is opened when another IE window is already open, a user can open it in a new session by navigating to File > New Session.

Internet Explorer 8	Internet Explorer 8 introduces a new "Preserve Favorites website data" option. This property is selected (on) by default in IE 8. This property retains temporary Internet files from sites that are in your Favorites even if you have set the flag to delete all temporary files. TRIRIGA recommends clearing this property. If left on and a user's TRIRIGA server is in their favorites, the cache is not cleared, which can cause js, jsp, and style sheet issues after an upgrade.
Managers	When changes are made to objects used in a manager, the Object MetaData cache may need to be refreshed in order for the changes to be reflected in the manager. Refreshing the Object MetaData cache is done in the Cache Manager panel in the Administrator Console; see the *TRIRIGA Application Platform Administrator Console User Guide*. (Tri-27125).

Area of Impact	Description
Microsoft SQL Server	Microsoft SQL Server has a row size limit of 8060 bytes. On MSS2005 and MSS2008, there is an overflow mechanism that transparently enables a row to logically exceed 8060 bytes while physically overflowing some of the extra data into a separate part of the database. More information about the 8060 byte limit can be found at the following link: http://msdn2.microsoft.com/en-us/library/ms186981.aspx.
Object Migration	If an association in a GUI is not in the target environment's Association Types list, the association is blank after the Import.
Object Migration	TRIRIGA strongly advises re-exporting packages generated with versions of Object Migration prior to 2.6.0 in order to take advantage of the significant enhancements made to the Object Migration tool.
Query Section	Having the same select association type on multiple query sections in the same GUI may result in an undesired select behavior as those sections are sharing the same select associated records. TRIRIGA recommends using a different select association type for each query section to properly maintain each select association. (Tri-23771, Tri-23850)
Record Runtime	When a user running Internet Explorer 8 with "Smart Screen Filters" turned ON tries to load more than 1000 records on a manager page, IE8 verifies the response it is getting back and, since the response is too large, IE8 crashes. To avoid this circumstance, turn off the "Smart Screen Filters". For more information refer to http://www.microsoft.com/security/filters/smartscreen.aspx (Tri-27698)
Security	Modified Group security permissions are not applied to the Group members if they log in immediately after the permissions are changed. To see the correct permissions set in the Security Manager, refresh the Object MetaData cache from the Cache Manager in the Administrator Console; see the *TRIRIGA Application Platform Administrator Console User Guide*. (Tri-27125)
Single Sign-On	If you are using SSO through IIS, you can use any combination of authentication options (Basic, Digest, and Windows Integrated), provided that both Digest and Windows Integrated are not selected at the same time. (Tri-21349)
TRIRIGA BusinessConnect	With TRIRIGA Application Platform 2.6, the definition for the Field integration `dto` object changed. Due to this, using stubs from an older version of the WSDL can cause a `java.lang.NoSuchMethod` error. This commonly occurs when an existing interface is run that calls the TRIRIGA BusinessConnect methods `getGUIs`, `getHierarchyMetadata`, `getHierarchyMetadataByModuleId`, or `getObjectTypeByName`. If you are upgrading to 2.6.x or higher from a previous platform version, TRIRIGA recommends that you update your stubs with the latest WSDL definition to avoid this issue. (Tri-25637).
TRIRIGA Java Applets	For the TRIRIGA Java Applets to load, the Java Virtual Machine on the client side has to be started. The initial loading of the viewer can take time and the Internet Explorer window should not be closed while the JVM is loading.

Area of Impact	Description
	The following components are impacted: - SVG Viewer - Gantt - Stacking - Expression Editor - Document Upload - Availability Sections - Brava! (Tri-22232)
TRIRIGA SVG Viewer	The TRIRIGA SVG Viewer is not recommended for design-time work and not supported for working on very large workflows. TRIRIGA recommends using the Adobe SVG Viewer Plug-In for design-time work. (Tri-20731)
Year 2038	In TRIRIGA some data/time fields will be impacted by the year 2038 problem; some dates far into the future may have issues. For more information, please see http://en.wikipedia.org/wiki/Year_2038_problem.

TRIRIGA Application Platform 2.7.1.3 Changes

The major changes to the TRIRIGA Application Platform for this release include the following:

Area of Change	Description
Query and Reporting	Resolved a Crystal Reports issue where the User Id of the person who ran a queued report was not appearing on the report when it was viewed. This was specific to reports that contained the $$USERID$$ filter. (Tri-28515)

TRIRIGA Application Platform 2.7.1.3 Properties Files

The properties files did not change with this release.

TRIRIGA Application Platform 2.7.1.2 Changes

The major changes to the TRIRIGA Application Platform for this release include the following:

Area of Change	Description
Agents	Resolved an issue with the Cleanup Agent that prevented it from automatically running after the first run. (Tri-28227)

Area of Change	Description
Login	The platform now can be configured to allow for case insensitive logins. Setting `USERNAME_CASE_SENSITIVE=N` in `TRIRIGAWEB.properties` causes logins to be authenticated in a case insensitive fashion. CAD Integrator with IIS SSO requires the use of Basic Authentication. SSL can be used to ensure the security of the login credentials. ⓘ **Note** – CAD Integrator users may be prompted for their Network Credentials twice, once for TRIRIGA, and once for IIS. Enter the same Network username/password for each. (Tri-28333, Tri-28463)
Portal Manager	Resolved an issue with bulk user activation that caused groups to become out of sync when workflows activated the individual users. Now, when you are doing bulk user activation, you must have only one process server running the Workflow Agent to ensure accuracy of the user group data. (Tri-28330)
Security	Fixed an issue that caused security access for system application objects to not be migrated using Object Migration. (Tri-28331)

TRIRIGA Application Platform 2.7.1.2 Properties Files

The following property in the `TRIRIGAWEB.properties` file changed with this release:

Area of Change	Description
`USERNAME_CASE_SENSITIVE`	The platform can be configured to allow for case insensitive logins. Setting `USERNAME_CASE_SENSITIVE=N` in `TRIRIGAWEB.properties` causes logins to be authenticated in a case insensitive fashion. (Tri-28333, Tri-28463)

TRIRIGA Application Platform 2.7.1.1 Changes

The major changes to the TRIRIGA Application Platform for this release include the following:

Area of Change	Description
GUI Runtime	Fixed an issue causing an error when cancelling the creation of a record. (Tri-23816)
Security	If a user has full access to a hierarchy manager, the user now can create records in the hierarchy. (Tri-28076)

Area of Change	Description
TRIRIGA BusinessConnect	Resolved an issue with the `getGui` method. When a `recordId` of -1 and a valid `GuiId` were passed into `getGui`, the `guiRootClassificationId` and `guiRootClassificationName` values in the response were incorrect. The response incorrectly contained the `rootClassification` value from the business object and not the GUI. The fix makes this consistent with the GUI Designer in that the `guiRootClassificationName` and `guiRootClassificationId` only will contain values if it is a `guiRootClassification` field, and in this scenario always will contain the correct `guiRootClassificationId` and `guiRootClassification` values. These elements never will contain the `rootClassification` values from the business object. Included in this fix, `getGui`'s response now also contains a value for `rootClassificationId` element, where previously no value was contained in the response. (Tri-28086)
TRIRIGA BusinessConnect	`runDynamicQuery` now looks up the associated business object display columns for the associated business object. Previously it was looking up the primary display columns, which lead to metadata related exceptions in some circumstances. (Tri-28078)
TRIRIGA BusinessConnect	The "WWW-Authenticate" header now is part of the `HttpResponse` if authentication fails with "401 Unauthorized" status. (Tri-28084)

TRIRIGA Application Platform 2.7.1.1 Properties Files

The properties files did not change with this release.

TRIRIGA Application Platform 2.7.1 Changes

The major changes to the TRIRIGA Application Platform for this release include the following:

Area of Change	Description
Formula Engine	When using Microsoft SQL Server, changing an extended formula or something it relied on no longer causes a SQL error when the Extended Formula Graph cache updates. (Tri-27490)
Gantt	Java Web Start (Open Gantt in New Window) can be accessed when outside the network where the Application Server is located and there is a Web Server in front of the Application Server. (Tri-27627)
Gantt	JRE 6 update 18 can be used to open Java Web Start Gantt (Open Gantt in New Window). (Tri-27597)
GIS	To display an image in the bubble marker for ArcGIS maps you must include an image field in your query results as a column labeled, "Image". The column will not display in the table section, but will render in the bubble marker. If the query being used is a metric query, the system uses the Image field for the Location and you do not need to include it in the query results. (Tri-27503)

Area of Change	Description
GIS	To use a TRIRIGA query to have ArcGIS maps display any item onto the map, you must geotag your item and be sure to include two fields labeled, "Latitude" and "Longitude". The Flex Viewer will look for these two values to know where to place the bubble marker for your item. To specify the query to use, pass the query name as a query string parameter in the external link. For example, if you have a query called, "My GeoTagged Locations", when setting up a tab or portal to display the ArcGIS map as an external link, you would specify, "/html/en/default/rest/ArcGIS?queryname=My GeoTagged Locations". (Tri-27504)
Installer	Users can upgrade to 2.7.1 even if the same GUI is used with two different managers and the same manager actions. (Tri-27253)
Manager Builder	Accessible hierarchies now display when viewed in a manager when the definition for the navigator group they are contained in only contains hierarchies. (Tri-27239)
Managers	Resolved an issue causing extra GUIs to appear in managers after an upgrade to 2.7.0. (Tri-27259)
Object Migration	Fixed an issue preventing UOM values from being imported. (Tri-27406)
Object Migration	Managers now export when they have special characters in their labels. (Tri-27410)
Object Migration	Resolved an Object Migration issue where the import of UOM Types and UOM Values were updating with the UOM Type code from the package and not using the UOM Type sequencing mechanism on the target environment. (Tri-27630)
Query and Reporting	Fixed an issue where child rows of a hierarchical query set to suppress headers would not expand when the expand '+' icon was selected and the child query contained columns from certain data types such as Control Number. (Tri-27428)
Query and Reporting	Multiple Crystal Reports can be run one after another without freezing Internet Explorer. (Tri-27696)
Query and Reporting	Resolved a Crystal issue that could occur when a Crystal sub-report is represented by multiple query sections. This caused a SQL error when the user viewed the report. An example scenario where this issue occurred was with the standard Work Task report. The `triWorkTask` business object has multiple GUIs each with a Query Section named `triResources`. For the different GUIs, the `triResources` query section points to different queries. Having these different query definitions on like-named query sections was the root cause of the defect. (Tri-27485)
Query and Reporting	Resolved an issue where queries failed to honor runtime filter values when run from a custom portlet. (Tri-27221)

Area of Change	Description
Query and Reporting	Resolved an issue where the user context was not available while running a Crystal report. This caused any `$$USERID$$` variables to resolve incorrectly in the underlying query. (Tri-27706)
Query and Reporting	TRIRIGA's WebLogic installation now includes `xercesImpl-2.9.1.jar`. During installation, the path to this file has been included in the existing classpath string that the person doing the installation uses to copy and paste to the front of WebLogic's classpath. Note that the location of this jar file is `[TRIRIGA Install Home]/tools/lib/xercesImpl-2.9.1.jar`. (Tri-27711)
Record Runtime	Values in fields that are hidden on a record's form now are parsed through an HTML filter to avoid exposure to XSS. (Tri-27222)
TRIRIGA BusinessConnect	Resolved a TRIRIGA BusinessConnect issue where the `start` argument was being ignored in both the `runNamedQuery` and `runDynamicQuery` methods. The `start` argument has a base of 1. Any value entered in for the `start` argument of less than 1 resolves to 1. Please note that the value entered for the `maximumResultCount` argument cannot exceed the Max Integer Value of 2147483647, minus the start value. For example, if the `start` argument is 3, then the `maximumResultCount` argument cannot exceed 2147483644. Since the `start` argument has a base of 1, the value for the `maximumResultCount` argument cannot exceed 2147483646. (Tri-27243)
TRIRIGA BusinessConnect	Resolved a TRIRIGA BusinessConnect issue with the `getGui` method. When a `recordId` of -1 and a valid `GuiId` were passed into `getGui`, the `guiRootClassificationId` and `guiRootClassificationName` values in the response were incorrect. The response incorrectly contained the `rootClassification` value from the business object and not the GUI. The fix makes this consistent with the GUI Designer in that the `guiRootClassificationName` and `guiRootClassificationId` only will contain values if it is a `guiRootClassification` field, and in this scenario always will contain the correct `guiRootClassificationId` and `guiRootClassification` values. These elements never will contain the `rootClassification` values from the business object. Included in this fix, `getGui`'s response now also contains a value for `rootClassificationId` element, where previously no value was contained in the response. (Tri-27346)
TRIRIGA Graphics Editor	TRIRIGA announces an end of life for TRIRIGA Graphics Editor in a future release. Please see the TRIRIGA Support Matrix for 2.7.1 for additional details. The most recent version of the TRIRIGA Support Matrix can be found at http://elite.tririga.com.
Workflow	Filtering a query using an empty static filter now works for both Microsoft SQL Server and Oracle. (Tri-27014)

TRIRIGA Application Platform 2.7.1 Properties Files

The properties files did not change with this release.

TRIRIGA Application Platform 2.7.0 Enhancements

TRIRIGA Application Platform 2.7.0 brings a new look to the managers, grid sorting, new features to support TRIRIGA Strategic Facility Planning, reporting improvements, new agent architecture and administration, enhanced number precision and masking, and certification of Internet Explorer 8, Windows Vista, AutoCAD 2010, and WebLogic 11. Defect fixes span the entire TRIRIGA Application Platform.

New GUI Controls

The new GUI controls include group by sections, comparison sections, and stacking sections.

Example of Group By Section

Example of Comparison Section

Example of Stacking Section

New Report Type

The new line/bar combo report is used in SFP to show supply vs. demand.

Example of Line/Bar Combo Report Type

Managers

Managers have a new look that reduces pop ups, provides panel resizing enhancements, and supports navigation label configuration.

Example of Manager

The manager has two main regions, Navigator and Master/Detail, as shown below.
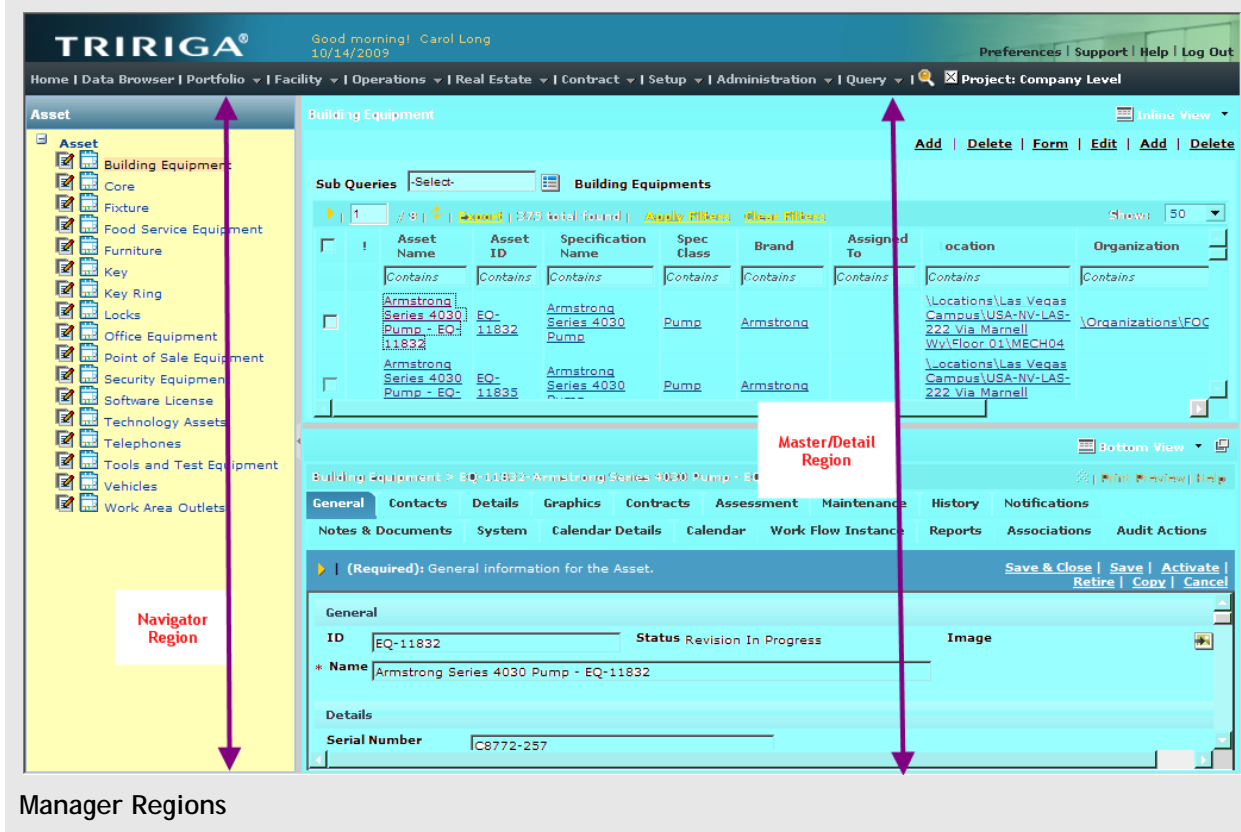
Manager Regions

The Navigator region lies on the left side of the manager. This region contains panels or views of data that help guide or navigate users to their targeted tasks or data. The Navigator panel drives the content to the right side of the manager, the Master/Detail region. At least one panel is visible in this region.

The Master/Detail region lies on the right side of the manager. This region contains at most two panels, a List View on the top and a Details View on the bottom. Depending on the application, the Master and/or the Details panels may be shown or hidden. At least one panel is visible in this region.

There is a one-click collapse/expand arrow on the splitter bar between the two regions. Other panels can be resized by clicking and dragging the bar between the panels. The platform increases or decreases the neighboring panel(s) to fill up the entire manager container, giving the user control of the dimensions of the content they are viewing.

For more information, please see *Application Building for the TRIRIGA Application Platform*.

Grid Sort

GUI sections sort with one click on the heading.

Grid Sort

Print Preview

Clicking Print Preview on a record produces a printable image of all information on all tabs.

Print Preview

In addition to the features and functionality described above, the enhancements to TRIRIGA Application Platform for this release include the following:

Area of Impact	Description
Administrator Console	A new option called "Run Workflows Triggered By Scheduled Events As" has been added to the Workflow Agent Manager page in the administrator console. This is defaulted to a non-existent user id of "Default User" to maintain backwards compatibility with current applications. Changing this option allows workflows that are triggered by scheduled events to run with a user in the system, so that any custom TRIRIGA BusinessConnect tasks can use that user to authenticate. Prior to this change, workflows that contained custom BusinessConnect tasks and were triggered by scheduled events would fail because there was no valid user to authenticate with. (Tri-23779)
Administrator Console	A new report in the Administrator Console's Metadata Analysis page runs all Crystal Reports and generates a report on any errors that occur. (Tri-26931)
Administrator Console	Added information to the Admin Summary page in the Administrator Console showing the name of the Crystal Report server as it is specified in the `TRIRIGACRYSTAL.properties` file. It also now shows the listening port for the internal Crystal Request Server. (Tri-25239)

Area of Impact	Description
Agents	Extended Formulas now support multi-hop Query and Association tokens. For a detailed explanation on this feature, refer to *Application Building for the TRIRIGA Application Platform: Calculations*. (Tri-19743)
Associations	A new Cascade Read-Only property is available for dependent association definitions. When this flag is set, any matching parent record associations to the dependant child records cause those children to inherit their parent record's GUI state if the GUI state is read-only. This was previously done with workflows and caused performance problems. TRIRIGA recommends replacing any workflows written to cascade parent record read-only GUI states to associated children with the use of this property. (Tri-21314)
Data Modeler	A precreate workflow can be set for an embedded business object. Previously precreate workflows only were available for stand-alone business objects. (Tri-22280)
Financial Tokens	Enhanced the Financial Rollup posting/refreshing process so multiple records can be associated to a particular Cost Code via the "Rollup Associated Object" association. (Tri-25435)
Gantt	Locator fields now can be used for dependencies, which allows the Gantt to display, create, update, and delete dependencies for records that are not `triTask` module-related records. (Tri-25370)
Graphics	Section actions now can be added to a graphic section. (Tri-23772)
Graphics	The current DWF graphic displayed in a graphic section and its CAD label and visual query currently applied now are persisted across the user's session on a GUI of a record. When the tab is refreshed these states are saved in the session per graphic section. If there are two graphic sections on a page and both are displaying the same graphic, each graphic has its own CAD label saved in the session. For a graphic section with multiple graphics, the last run visual query is applied to any of the graphics contained in that graphic section. If the user toggles from one graphic to another in that graphic section, the same visual query runs automatically upon display of the graphic. (Tri-24662)
Graphics	The current SVG graphic displayed in a graphic section and its zoom ratio, pan position, and CAD label currently applied now persist across the user's session on a GUI of a record. When tab is refreshed these states are saved in the session per graphic section. If there are two graphic sections in a page and both are displaying the same graphic, each graphic has its own last zoom ratio, pan position, and CAD label saved in the session. When the GUI of a record is first loaded, it renders the default zoom ratio, pan position, and CAD label of the graphic section. Moreover, this is applicable to an SVG graphic in a graphic section that is standalone or associated to a query section. (Tri-23846)

Area of Impact	Description
Graphics	The Selection Filter Query property of a Graphic section is no longer supported. When a graphic section is associated to a query section, the only items that can be selected from the graphic section are those assigned items that are derived from the query results. Unassigned items that are records outside of the query result set are no longer selectable, and the Selected Unassigned color will not be applied to those items. The system disregards the selection filter query previously defined in the existing graphic sections. The selectable items are no longer highlighted with thicker border line. (Tri-23838)
Installer	Cache refresh is no longer needed on application upgrades. The browser cache expires every 15 minutes. The system keeps track of the build number of the resources currently cached in the browser and does not resend resource files. (Tri-21562)
Installer	TRIRIGA Application Platform now supports WebLogic 11. (Tri-25453)
Installer	TRIRIGA has tested Adobe SVG Viewer v3.0.3 and found that TRIRIGA applications using this version of the Adobe SVG Viewer work correctly in a Windows Vista + Internet Explorer 8 environment. Because Adobe is discontinuing support for its SVG Viewer, TRIRIGA cannot guarantee that it will continue to work correctly as Microsoft updates Internet Explorer or that Adobe SVG Viewer v3.0.3 will work under Windows 7 or other future Windows releases. (Tri-15737)
List Manager	Dynamic lists now display alphabetically (case-insensitve) in the List Manager and in list type field drop-downs in records. (Tri-14996)
List Manager	Translation support has been added for lists. A non-US English language user now can see the translated values in any list, and English values for those list values that do not have a translation. The US English user also can type in a match string in a list value field and hit tab to match the value against the list. The value will be matched against an English value if there is no translation for that value in the database and non-US English values otherwise. (Tri-18655)
Manager	The system shows the Display link in a hierarchical manager only when there are multiple associated hierarchical queries defined in the Manager Builder, in which case the user sees all associated hierarchical queries. The tabs from a record are not shown in Display menu; instead the user can take advantage of the new "sticky" tab behavior in the Inline view of a record. In the Inline view, as the user selects different records, the system remembers which tab the user was viewing on the prior record and displays the newly selected record on that tab. (Tri-26497)
Metric Reports	Boolean fields can be selected as runtime or static filters in metric queries. (Tri-25675)
Query and Reporting	Locator fields are now supported in Editable Queries. (Tri-9800)

Area of Impact	Description
Query and Reporting	New enhancements to the TRIRIGA Application Platform's Crystal integration have been introduced, namely: ▪ **Print Preview** - Provides a printer friendly page of the GUI providing an alternative to building Form Reports with Crystal. ▪ **Multi-BO Support in ADO XML** - A new ADO XML v2 format now supports Queries that have more than one Associated Business Object to be used in Crystal. ▪ **Java Data Source** - A new Data Source mechanism that allows the Platform to stream data across to the Crystal RAS server. ▪ **Java Reporting Component (JRC)** - The JRC is also known as Crystal Reports for Eclipse. This is a self-contained set of reporting libraries that runs inside a TRIRIGA application server. For reports run using the JRC, the report is executed and rendered without making any calls out to the report server, either RAS or BOE. Because of the JRC architecture, it can execute and render reports faster than the traditional report server. It is, however, best suited for smaller data sets. Larger data sets are still best suited to be run on a dedicated report server. By default, all form reports are run using through JRC. Given their typical structure of having multiple subreports and small data sets, form reports run using JRC typically render much faster than they would have on RAS or BOE. There are some differences in the JRC and RAS behaviors which are outlined in the JRC release notes: http://www.sdn.sap.com/irj/boc/crystalreports-java?rid=/library/uuid/c0c813d1-cec4-2b10-1780-e9b26e85bbc8. If, for whatever reason, a particular report should be run via the report server (RAS or BOE) as opposed to JRC, a report can be configured to use the report server by putting the `::DISABLE_CRYSTAL_EMBEDDED_ENGINE::` tag in the Report comments. (Tri-23712)
Query and Reporting	Text displayed in a text field in an editable query did not wrap when the number of characters became large. To resolve this, TRIRIGA enabled multi-row text fields. Now, if a text field's Row Span property is greater than 1, the system uses a multi-row text field to display the field in an editable query. The field's Row Span property also determines the multi-row text field's height. This property applies to this field across all records displayed in the query. (Tri-19968)
Record Runtime	A query section retains the previously-selected sub-query after the page is refreshed due to locator field value change, field onChange event, workflow execution, and or similar event. The currently executed query is persisted across the user's current session of the record page. The main query is run by default when the record page is first opened. When a query section is associated to a graphic section, the graphic section is updated with the last executed sub-query results when the tab is refreshed. (Tri-23756)

Area of Impact	Description
TRIRIGA BusinessConnect	Duration formatted strings now can be used as the field value in a TRIRIGA BusinessConnect or TRIRIGA API 1 save request. Duration formatted strings also can be used as a constant field map value in a workflow. As an example of a duration formatted string, `3y7M6w3d5h33m42s` is 3 years, 7 months, 6 weeks, 3 days, 5 hours, 33 minutes and 42 seconds. (Tri-13079)
Workflow	Added an Associated To operator to the filters available on a Query task. The Associated To filter acts the same as if an association filter were added in the Report Builder. (Tri-23931)

TRIRIGA Application Platform 2.7.0 Changes

The major changes to TRIRIGA Application Platform for this release include the following:

Area of Change	Description
Administrator Console	Fixed an issue with WebSphere where `CustomLogCategories.xml` was not loading when trying to view it from the Platform Logging tab of the Administrator Console. The change requires a new JNDI entry to be added to the WebSphere installation, which is documented in the *TRIRIGA Application Platform Installation and Implementation Guide*. (Tri-22500)
Administrator Console	Resolved an issue that would sometimes cause the Cleanup Agent to run twice when set to specifically run at a certain hour. For example, if set to run at 2 am, it would sometimes also run again at 3 am. Now it will run once at the hour specified in `TRIRIGAWEB.properties`. (Tri-15531)
Administrator Console	Resolved issues with agent status display and the starting and stopping of agents on WebSphere application servers. (Tri-12259)
Agents	Enhanced the Record Data Cleanup Agent to improve performance, prevent deadlock issues, and provide a more efficient interrupt process. (Tri-9968, Tri-13420, Tri-20284, Tri-20833, Tri-23577)
Agents	Fixed a Document Management issue where deleted documents were not being correctly cleaned by the Cleanup Agent. (Tri-25556)
Agents	Forwarding the notification e-mail no longer distorts the links. (Tri-25242)
Agents	If an IMAP main server fails to respond to a connection and retrieve request, the current attempt will time out and another attempt will be initiated after a delay. (Tri-22755)
Agents	The Extended Formula Agent ignores a recalculation if it already has been processed for a particular batch of changes in the Extended Formula Queue. This is an indication that it is part of a circular formula reference. (Tri-25577)
Application Server	Approvals in TRIRIGA 9 applications that used the 8.4 approval mechanism were causing a database exception because the process was trying to make a null association to the approval history smart section. This has been resolved. (Tri-24104)

Area of Change	Description
Application Server	Improved performance when inserting association data into the TRIRIGA database. (Tri-25404)
Application Server	Only HTTP methods Post and Get are accepted by the Web server. This prevents the use of unsafe methods (Put, delete, Head, Options and Trace) and increases the security of the Web application, preventing potential attacks. (Tri-25946)
Application Server	Resolved an issue where users in environments with multiple application servers at times could not access Work task records, requiring caches to be cleared. (Tri-25745)
Application Server	The JBoss server packaged with the application has been upgraded to version 4.2.1. (Tri-23650)
Application Server	When a user logged out and logged back in they saw a message that the user name was already active. This has been resolved. (Tri-25549)
Application Server	When locator fields and classification fields are cleared, the `objectID` of the referenced object is set to null. Previously the value was set to 0. Now the `objectID` of the referenced object is consistent when the record is initially created and a value was never set and when the record is cleared. (Tri-17040)
Availability Section	The Availability section date value now honors the date format in the user's My Profile record for hourly format. (Tri-9857)
Brava!	Brava! 5.4 on Vista: If Brava! documents fail to render, it is possible the Brava! DLLs need to be reloaded on the client machine. On the client machine, remove all contents in the directory: `C:\Users\USER_NAME\BEJ5.4.0.5` and attempt to open documents via Brava! again. (Tri-26386)
Cache Manager	Improved error handling in the process that keeps hierarchy tree caches current in environments with more than one application server. (Tri-25874)
CAD Labels	Resolved an issue where the platform CAD labels were not correctly displaying data when two label lines referred to the same object by a different association. For example, one line to `triPeople` using Primary Location For, and another line to `triPeople` using Secondary Location For. (Tri-23762)
Data Integrator	The Data Integrator page displays based on a user's security access for that module. (Tri-14155)
Data Modeler	A module name containing special characters displays properly in the List Manager drop-down list. (Tri-10097)
Data Modeler	Fixed an issue causing records to fail to save when the spec name contains special Chinese characters. (Tri-23758)

Area of Change	Description
Data Modeler	Revising a business object now refreshes the field list frame so that the fields become editable. (Tri-11416)
Data Modeler	The URL field when launched was prefixing the `http://` protocol to the value if it did not already contain `http://` or `https://`. Modified this check to also accept values of `file://` and `ftp://`. This will allow, for example, access of network file paths by using a value such as `file://my/network/path`. If none of the previously mentioned protocols (`http://, https://, file://, ftp://`) exist in the value, then `http://` will be prefixed when launched as the default protocol. (Tri-14552)
Data Warehouse	TRIRIGA announces an end of life for Data Warehouse in a future release. Please see the TRIRIGA Support Matrix for 2.7 for additional details. The most recent version of the TRIRIGA Support Matrix can be found at http://elite.tririga.com.
Document Management	Resolved an issue preventing Chinese characters from showing in the Document Manager Upload and Download MultiFile applets. (Tri-23737)
Document Management	The Brava download button now displays only if the user has a permission level of View or higher for the document being viewed. (Tri-16102)
Document Manager	When a document record is closed the document tree no longer resets to the top level folder. (Tri-3254)
Extended Formula Engine	Extended formula processing now recalculates affected formulas when a record is deleted. (Tri-25518)
Extended Formula Engine	If an object's base business object is not named the same as the module, and the object is used in an extended query token, and the query is not directed at a business object, an extended formula with a query token now calculates correctly. (Tri-21488)
Extended Formula Engine	Resolved an issue where the Extended Formula Agent would not accurately calculate Query Tokens that relied on queries with sub-queries. (Tri-23605)
Extended Formula Engine	Text and List fields are available from the extended formula field picker in Data Modeler. (Tri-16452)
Extended Formula Engine	When a very large number that has more than 20 digits to the left of the decimal is entered into a number field, the value is not changed. (Tri-24937)
Extended Formulas	Resolved issue where a record state change would not cause recalculation of an affected extended formula. With the enhancements to extended formulas in this release, field filters on a query will not be honored by the extended formula system, meaning that a change to the field value triggers recalculation of the extended formula on the associated record. Please see *Application Building for the TRIRIGA Application Platform: Calculations* for more information. (Tri-23506)

Area of Change	Description
Financial Tokens	Financial Rollup fields with a hierarchy field specified use that solely as the rollup criteria on the `BUDGET_CODES.CODE_REF_ID` column. Prior behavior had that hierarchy record used in conjunction with the `OBJECT_ID` and `OBJECT_REF_ID` columns from the `BUDGET_TRANSACTION` table. (Tri-24094)
Financial Tokens	Fixed an issue where Start Date and End Date values set in the Financial Token were not taken into consideration when rolling up the Financial Rollup field value. (Tri-26288)
Financial Tokens	Updating Budget Token values was resulting in an error and not saving the changes. This issue has been fixed. (Tri-25700)
Financial Tokens	When a financial token uses the system date, a financial transaction posted on the end date is included in the rollup. (Tri-25859)
Financial Tokens	When modifications are made to financial tokens, the metadata cache no longer needs to be refreshed. (Tri-20905)
Gantt	The dates in the Gantt now display using the Date Time format from the user's My Profile record. The timescale in the hourly view displays using the Date Format. For the daily, weekly view only the month and year display and for the monthly view only the year. (Tri-22572)
Gantt	The Gantt loads even if the start date is not set and the calculation direction is from end. The Gantt will perform better (load faster) if the start date and end date are set. For example, if calculating from start (then the start date is set) also set the end date to an approximate date that will be close to the actual end date. (Tri-26600)
Gantt	The Gantt now takes into account the case of entity changed events firing before entity created events, which was previously causing newly created tasks to be both created and updated in the server-side save. (Tri-25184)
Gantt	When the calculated end or calculated start is changed after saving the Gantt, the value is persisted so that on a tab refresh or after a workflow executes that refreshes the pages those values are maintained. (Tri-25356)
Graphics	A graphic section that is associated to query section now renders the first item in the context list when a record is first opened. (Tri-25551)
Graphics	A graphic section/query section link is now supported properly when two different graphic sections are linked to two different query sections and both are displayed in the same GUI. (Tri-24230)
Graphics	An SVG graphic now renders completely when it is larger than the first graphic displayed in the graphic section. (Tri-25552)
Graphics	DWF Server and SVG now work in a consistent manner. Unhighlighted items now are non-selectable in DWFs. Hyperlinks are still functional for all spaces, highlighted or unhighlighted. (Tri-25268)

Area of Change	Description
Graphics	Graphic section assigned items now match the query section query results when a filter is applied to an associated business object field in the query section. (Tri-26245)
Graphics	Graphics section now is refreshed and updated when the data in the associated query section changes. (Tri-23742, Tri-24657)
Graphics	Single-select is now in-sync for associated query and graphic sections when more than one graphic section is associated to the query section and one is visible through a Modify Metadata task of a workflow. (Tri-23847)
Graphics	Single-select query sections now display and persist a newly selected item even when the previously selected item was not in the first page of the query result. The system removes the select association of the previously selected item so that a Retrieve Records task in a workflow event will have only one select associated record retrieved. A Retrieve Records task in a workflow now correctly gets the current select associated record from the query section after a user selects a new item without switching tabs. (Tri-23771, Tri-23850)
Graphics	The full CAD label list is now displayed in a graphic section when the Floor graphic has an area overlay attached. (Tri-26004)
GUI Builder	Fixed an issue that changed property values when the user clicked the Apply before the section or field property page loaded completely. (Tri-20338)
GUI Builder	It is now a requirement to specify a query when creating a query section in the GUI Builder. (Tri-25629)
GUI Builder	Selecting a query for the query section no longer deletes the name and label of the section, if specified. (Tri-25360)
GUI Builder	The Display Default action works in conjunction with the include/exclude actions defined in the business object's state transition family. It may happen that a transition marks an action as included so that action is still displayed even if that action has the Default Display not checked in the GUI Builder. Similarly, if a transition sets an action as excluded, that action will not be displayed even if in the GUI Builder it is set as Default Display. (Tri-12292)
GUI Builder	The GUI Builder now has a Description field for each GUI. This allows a developer to include comments for the GUI. (Tri-23778)
Hierarchy Structures	Fixed an issue that occurred during object migration of hierarchy roots. When importing a hierarchy using object migration when a hierarchy root already exists in that module but was renamed to a different name, the object migration creates the new record and changes all existing manager hierarchies to point to the new root. This caused consistency issues because the hierarchy was looking for the original root and not the new root created by object migration. Object migration now checks for the existence of a root record for a specific module before migrating a new hierarchy root into that module. If the root already exists, it will be updated instead of a new record being created. (Tri-25602)

Area of Change	Description
Installer	A command line installation on Microsoft SQL Server now properly sets to MS SQL when setting a previous installation directory. (Tri-22610)
Installer	During an installation the TRIRIGA database, upgrade scripts may alter any custom defined STATISTICS on Microsoft SQL Server databases. The TRIRIGA installer cannot alter any table columns that have defined STATISTICS on them, so it drops them and attempts to recreate them after the alter. However, the TRIRIGA installer's recreation method is imprecise due to Microsoft SQL Server limitations. If you have defined any custom STATISTICS against your database tables, please validate that they are correct after any upgrade. (Tri-26010)
Installer	In Unix system command line installs, if the installer is forced to extract to the current directory because the temporary directory is full, it will not perform a JVM search properly. There are 2 workarounds to this issue: 1.) Press 1 and then Enter on the JVM selection screen, and manually type in the path to your JVM java.exe executable. 2.) Before launching the installer, set the IATEMPDIR environment variable to a directory with enough space, for example `export IATEMPDIR=/home/tririga`. This is a known issue with InstallAnywhere. (Tri-26703)
Installer	Removed extraneous "Script not found" error messages from the `ant.log` on platform upgrades. These errors were normal and did not interfere with the upgrade; however, they were confusing and caused undue alarm for users. (Tri-21976)
Installer	Support for Opta as the MSSQL JDBC driver has been removed. The screens to configure Opta when installing on MSSQL have been removed. (Tri-23874)
Installer	The installer defaults to the previously set context root on upgrade installations and to `/` on new installations. (Tri-22609)
Installer	The installer now explicitly states that only Java 1.5 is supported to run the installer. It displays a warning if the user selects an invalid Java version. The user will not be able to continue installation with a Java version other than 1.5. (Tri-23864)
Installer	The WebSphere script that created data sources automatically has been removed from the installer. Along with this change, the `installWebSphere.sh, installWebSphere.bat, InstallTririga.py` files have been removed from the WebSphere folder in a new WebSphere installation as well as the folder itself. The following properties in `build.properties` have been removed: `websphere.cell, websphere.node, websphere.server,` and `websphere.wsadmin.` The page in the installer that asks for this information has been removed. (Tri-11401)
Installer	WebSphere is configured to compile all JSP using JDK 1.5. (Tri-25786, Tri-25799)
Installer	When installing in a WebLogic environment, the installer prompts the user to select between WebLogic 10 and WebLogic 11g. (Tri-25956, Tri-25695)

Area of Change	Description
Label Manager	A user with a language different than English can see any report with labels translated in his/her own language. (Tri-23891)
Label Manager	If a user with a language different from English publishes a business object, he will see the notification message internationalized in the notification section on the main portal. (Tri-22385, Tri-25371)
Label Manager	Label Manager displays values correctly for the selected secondary language. (Tri-25501)
Label Manager	Language drop-down is no longer incorrectly translated in the Label Manager. (Tri-20552)
Label Manager	Tab tooltips and Tab information are translated correctly through the export/import functionality. (Tri-25876)
Label Manager	The following are translatable: • System actions (Tri-21646) • Flexible menu definitions from the portal (Tri-26584) • Manager actions (Tri-25802) • Metric chart headings and error messages (Tri-26637) • Performance Managers (Tri-26650) • Smart section labels and vertical section labels (Tri-25491) • Audit Actions page (Tri-21553) • My Calendar page (Tri-16284) • The yearly view, the monthly view, the quarterly view, and the weekly view from the Calendar tab of a person or a building (Tri-16284) • The portal's Preferences label (Tri-14581) • The query header (For queries that do not have a header, the query name displays and is translatable) (Tri-25348) • The query header on the page that displays the Crystal filters. (Tri-21550) • The query list in a portal's flexible menu (Tri-26586) • Application action GUI fields (Tri-22443)
Label Manager	The Label Manager Import uses batches. If there is an issue with the row in a batch, it is logged in the feedback window and the row is removed from the batch so that the batch will import successfully. (Tri-23664)
Label Manager	The report window that displays the results of a language import in the Label Manager now sorts errors to the top, followed by warnings, and then by information messages. (Tri-23665)
Label Manager	The Scheduling Gantt, whether displayed by the "Open Gantt In New Window" or "Show Gantt Chart" actions, now supports internationalization via the Label Manager. (Tri-22382)

Area of Change	Description
Label Manager	The translation of dates now is done based on the locale defined for each TRIRIGA language. A new Language Manager page in the Administrator Console allows an admin user to map each language defined in TRIRIGA to a locale. A locale is a string defined as: two letter language code _ (underscore) two letter country code (e.g., en_US - for American English, en_GB for British English). The resource bundle for a specific language must exist for the translation to happen. For example: TRIRIGA German Language is mapped to the de_DE locale. But if the resource bundle for the German language is not installed on the JRE, then the system displays values in English. Otherwise the values will be shown in German. (Tri-21552)
Label Manager	Translated tab names no longer display showing Unicode characters. (Tri-25781)
Licensing	A Real Estate license now includes access to Specifications. (Tri-25909)
Licensing	Users in the Admin Group are subject to the same license checks as other users. If a user does not have a license that allows viewing a record, the platform displays a message indicating that access is not allowed. (Tri-23806)
Manager Builder	Functionality has changed in report lists viewed through any manager. The Name column now shows the Header/Title field from the Report Builder instead of the report name. Since the Header/Title property in the Report Builder is optional, if this field is blank the system uses the report name. (Tri-8816)
Metric Reports	In metric charts with a large number of items in the legend, scrollbars appear around the legend instead of scrollbars around the entire chart. (Tri-25442)
Metric Reports	Tabular sub-reports based on a query without a locator field are now handled correctly. (Tri-23732)
My Calendar	In the My Calendar page, clicking the Hierarchy action in the Location Calendar section displays the spaces as a hierarchy. Clicking the Search action displays the spaces in a query format. (Tri-25459)
Object Migration	A workflow that calls another workflow with parameters now can be imported with object migration. (Tri-25673)
Object Migration	Fixed an issue that prevented the scrollbar from showing when accessing the Object Migration Manager page from a portal toolbar icon. (Tri-25228)
Object Migration	Fixed an issue where special characters such as & in section names were causing object migration export to fail. (Tri-21780)
Object Migration	Fixed an object migration issue when importing and exporting reports with multi-business object functionality. If All is selected on the report for associated business objects in the source environment, the target environment correctly selects All for the associated business objects on the imported report. Note that imports done on XML from a prior release do not select All but instead highlight each individual business object. (Tri-25247)

Area of Change	Description
Object Migration	Fixed an object migration issue where import packages containing portals with invalid portal sections were not failing during validation. (Tri-22208)
Object Migration	Fixed an object migration issue where new Security Groups were not importing correctly, due to an invalid column reference on the `T_GROUPMEMBER` table. (Tri-21842)
Object Migration	If workflow fails to publish (for example, because it is calling another workflow that is in the Retired state) it does not cause the object migration to fail. (Tri-25521)
Object Migration	Importing a document that already exists as a published document on the target environment now updates that document. (Tri-22799)
Object Migration	Object migration can import/export record data for two records with the same name and same module but different business objects. (Tri-25963)
Object Migration	Resolved an issue causing the 9.6.2.1 cumulative object migration package to fail to import on MSS2005. (Tri-23883)
Object Migration	Resolved an object migration issue causing portal section Quick Add links to not import correctly. (Tri-21401)
Object Migration	Resolved an object migration issue where files with an extension of .xls were not being correctly imported. This mainly affected the viewing of Offlining forms, in that they were not being correctly displayed when opening a record. (Tri-21334)
Object Migration	Tab labels, information, and instructions are translatable through the Label Manager and export/import. MultiTab sections and fields within them also are translatable. (Tri-12388)
Performance	Improved performance of record-saving in the event that a query is used repeatedly across many extended formulas in that record's business object. In some cases, this can significantly reduce the number of complex queries run against the database during the save of a record. (Tri-23592)
Performance	The platform builds a hierarchy tree once when requested by multiple users simultaneously instead of multiple times. (Tri-26991)
Portal	Concurrent requests to access documents from Document Management no longer result in some of the requests failing. This was most visible when loading a portal where multiple portal sections had Crystal Reports. In this case, concurrent requests would be made to access the reports from the Document Management system. (Tri-24950, Tri-25680)
Portal	Improved the error message displayed when a user tries to log into TRIRIGA when the system has somehow lost connection. The new message is, "Database connection has been lost. Please contact your system administrator." (Tri-26072)
Portal	Improved the performance of accessing the Help page. (Tri-25571)

Area of Change	Description
Portal	Object migration now can be opened from a user's My Favorites section on the portal. (Tri-21903)
Portal	The Last Visited portal section now displays the last visited records that the user has opened. (Tri-24697)
Portal	The Portal Menu Bar cannot be scrolled. (Tri-21853)
Portal	Tooltips for date fields in query portal sections display the formatted date and not the system date. (Tri-23773)
Portal	When expanding a portal section that contains a Crystal query report, the new window now has scrollbars. (Tri-21927)
Portal Manager	A manager has GUIs and hierarchies. If the user does not have access to the GUIs in the manager, the manager is considered inaccessible regardless of whether or not the user has access to the hierarchies in that manager. If a manager has no GUIs and only hierarchies, the manager is considered accessible if the user has access to any of the hierarchies. (Tri-21560)
Portal Manager	Resolved an issue that allowed a user to remove a system error message from the Label Manager. (Tri-15250)
Query and Reporting	A hierarchical grid where the top-level query has query actions should no longer display the child columns shifted to the right. (Tri-25254)
Query and Reporting	Crystal Reports now runs correctly from TRIRIGA applications running on a physical machine that has VMware installations running on it as well. (Tri-26398)
Query and Reporting	Date, Date and Time, and Time fields were displayed as pure numbers in Summary reports. They now format correctly and display in the user's Date, and Date and Time formats. The Time fields display in h:m:s format. (Tri-26233)
Query and Reporting	Enhanced Crystal runtime filters so a user can enter $$ variables at runtime. This is similar to the existing support for this type of entry for runtime filters on a query section. (Tri-25514)
Query and Reporting	Entries in a URL field should include the protocol (i.e., `http`, `ftp`, `https`, `file`). If the protocol is missing, the system will use `http`. For example, if a URL field contains www.tririga.com, the URL that will be opened will be http://www.tririga.com. (Tri-23588)
Query and Reporting	Filters now are correctly applied to a Crystal report that spans multiple pages. Resolved an issue where only the first page returned filtered results and succeeding pages returned all results. (Tri-23739)
Query and Reporting	Hierarchical queries with column alignment set will render correctly in situations where the result set may contain records with similar IDs one after another. (Tri-25460)

Area of Change	Description
Query and Reporting	If an alpha character is entered in a numeric field runtime filter, that filter will be ignored. If a numeric value is entered, then the filter is applied. (Tri-21763)
Query and Reporting	In a query with associated business objects, the `$$RUNTIME$$` filters now display properly when defined against associated business object fields even if no filter is defined against the primary business object. (Tri-24086)
Query and Reporting	In the GUI Builder, clicking the Apply action before the section or field property page loads no longer changes the property values. (Tri-25359)
Query and Reporting	On a graph, clicking on the graph area will open the Source. Right clicking the Context Menu's View Source option also opens the source. (Tri-21559)
Query and Reporting	Query sorting uses the database ORDER BY clause for sorting. This means that null values are not considered as 0 even though the display mask for a null number field value is 0. (Tri-25589)
Query and Reporting	Resolved an issue allowing a record to show up in queries after the record had been deleted. (Tri-25331)
Query and Reporting	Resolved an issue causing the classification selector in editable queries to appear beyond the display area when there were only a few items in the editable query. (Tri-25848)
Query and Reporting	Resolved an issue where financial rollup fields did not show currency formatting in queries. (Tri-8726)
Query and Reporting	Selections in the Group By section of the Order By / Sum Columns tab in the Report Manager are ignored in hierarchical queries. (Tri-23442)
Query and Reporting	Setting the column width in the Display Columns tab in a Report now retains the value set. (Tri-23693)
Query and Reporting	Sometimes when editing data using editable queries small scrollbars would appear near the top. This was because of the initial position of one of the layers in the queries. This has been resolved and the scrollbars will not appear when editing data. (Tri-25967)
Query and Reporting	Sorting on text fields uses the database's ORDER BY clause to sort, so for text fields with number values in them the sort order will appear to be wrong even though it is actually correct. If you want to have number values sorted correctly, use a number field. (Tri-25591)
Query and Reporting	Special characters are correctly displayed in Excel spreadsheets exported from a graph report. Additionally, number field values in the Excel report do not have extra space which makes them usable for number manipulations. (Tri-20170)
Query and Reporting	Sum total formatting is applied when a Group By is specified in a Query. (Tri-23130)

Area of Change	Description
Query and Reporting	Summary Reports no longer displaying a large white space at the top. (Tri-25449)
Query and Reporting	The primary associated business object indicator has been changed from a red asterisk to a purple square in order to avoid confusion with the required field indicator. (Tri-23623)
Query and Reporting	The query field filter against `$$USERID::SectionName::FieldName$$` is now working. (Tri-21491)
Query and Reporting	The sort order for queries for text fields is not case sensitive. (Tri-25590)
Query and Reporting	Tooltip text in queries displays the field label instead of the field name. (Tri-26093)
Query and Reporting	Two of the Metric Chart default colors have been changed to be darker so that chart items display more clearly. (Tri-25353)
Query and Reporting	Updated the way Crystal report connections to the RAS Server are closed to ensure that the closure does not occur so early that filtering capabilities are affected. (Tri-23845)
Query and Reporting	Viewing a report that returns more than 30000 rows no longer causes an error. (Tri-25372)
Query and Reporting	When executing Summary Reports that do not contain a Group By, an error message is shown informing the user that a Group By Field needs to be added. (Tri-22152)
Query and Reporting	When the user clicks the Select icon of a dependent list when the parent list is not editable, the system displays options based on the parent list's value. (Tri-26114)
Query Manager	Non-numeric text fields in an editable query section no longer blend into the table cell border. (Tri-20804)
Record Runtime	A query section now renders in a GUI when its query is against a module that does not have a base business object. (Tri-25323)
Record Runtime	Added the Temp Select Association property for GUI query sections. When selected, the query selection association is temporary; when not selected, the query selection association is permanent. (Tri-21594)
Record Runtime	An issue has been resolved where Smart Section select associations were not being made when the section action created a popup GUI. (Tri-23787)
Record Runtime	Auditing now detects changes to the smart section associations. Associations added or deleted are appearing in the audit log. (Tri-21669)
Record Runtime	Clearing a locator field when the page has not fully loaded starts the onChange workflow and no longer causes an error. (Tri-27150)

Area of Change	Description
Record Runtime	Fixed a JavaScript error when loading the Association tab in a record. (Tri-25223)
Record Runtime	In queries, columns of editable number fields did not align properly if each number field used a different UOM. Now, editable number fields are aligned to the left and the value inside the number field remains aligned to the right. Alignment of read-only number fields did not change; they continue to be aligned to the right. (Tri-26027)
Record Runtime	Queries containing a summary/total row do not have the show results size feature enabled on the navigation bar. (Tri-26774)
Record Runtime	Resolved an issue that caused the record state action to become disabled when clicking it right after tabbing out on a locator field with an onChange workflow attached to it. This generally happened in high network latency situations. (Tri-23848)
Record Runtime	Resolved an issue that could occur during number conversion when an 'Edit UOM List' UOM is used as the UOM source for a number field. (Tri-27035)
Record Runtime	Resolved an issue where clicking the Clear action on a Smart Section would not remove all data associated with the section. At times this caused multiple rows to appear in a query that was joined to display that Smart Section data. (Tri-23885)
Record Runtime	Resolved an issue where newly modified data on a record was not being taken into account when a query for a locator field was being run. (Tri-22241)
Record Runtime	Resolved issue where a sub-query drop-down layer was overlapped by another frame having a drop-down menu. (Tri-26582)
Record Runtime	Security enhancement that restricted access to a project record when the user did not have project security permissions for that project and USE_PROJECT_SECURITY was enabled has been backed out. This resolves an issue that when a non-admin user attempted to create a new project when using project security, the system threw an error and locked the user out of a record he was trying to create. (Tri-23686)
Record Runtime	The Populate File workflow task correctly maps geography, duration, and time fields in a mapped offline Excel document. Duration fields display in the following format: x Year(s) y Month(s) z Week(s) t Day(s) u Hour(s) v Minute(s) w Second(s). Time fields display in the following format: u Hour(s) v Minute(s) w Second(s). A geography field shows the path to the field instead of the ID of the geography. (Tri-23371)
Record Runtime	The Populate File workflow task now correctly displays Note field values in a mapped offline Excel document. (Tri-23387)
Record Runtime	When editing data in an editable query, any actions that cause the section to refresh save the changes to the session before refreshing. This prevents edits from being lost between refreshes. (Tri-22272)

Area of Change	Description
Record Runtime	When tabbing through fields if you select a value for a list field, the focus remains on the field list. (Tri-21984)
Record Runtime	When the Prefix property is used as the label for a field in a GUI instead of the Label property, the label now is translated. (Tri-22467)
Reserve	Updated the style of the Complete action that occurs during a reservation to match standard section action buttons. This helps the visibility of the button when using the green TRIRIGA skin. (Tri-21591)
Scheduler	Tasks created with PM Schedule now have the end date of the task after the start date. (Tri-26680)
Security	A user was given inappropriate access when a record was at the root Organization or Geography. Now the user has the appropriate access. For example, if a user had two groups, one granting read-only access at the root Geography level and the other group granting edit access at a lower-level Geography, the record rendered as editable. The record should be read-only. (Tri-23776)
Security	A user was given inappropriate access when all security groups specified access for a particular GUI component. Now the user has the appropriate access. For example, if a user was in two groups and both groups specified that a tab had no access. The tab incorrectly rendered as accessible if either of the groups had higher access at the GUI or module level. The tab should be inaccessible. (Tri-23775, Tri-23879)
Security	An instance when GUI access was set to No Access and tab and section access allowed access erroneously provided GUI access to users in the security group. Now GUI is not displayed to users. (Tri-23898)
Security	If a user belongs to more than one security group, the group with higher access takes precedence when the system decides which GUIs to display in the manager. (Tri-23877)
Security	License security is now applied to manager query navigator objects, queries that appear in the manager's navigation panel. If a query has group security defined, the query is accessible if any module or business object that the query runs against is license accessible. If a query does not have group security defined, the query is accessible: (1) if any GUI is both group and license accessible, or (2) if any module on the query does not have defined business objects or GUIs that the query runs against that are both group and license accessible. (Tri-25966)
Security	Module level security application access will not be created at the time of module creation. Data is loaded when the user clicks the module level in the security group by reading the application access for all the GUIs in the module. (Tri-22607)
Security	Resolved an issue allowing unauthorized access to uploaded files. (Tri-14154)

Area of Change	Description
Security	The actions available to a user on the hierarchy tree are based on the access level of the user for the selected node in the hierarchy. (Tri-22157)
Security	When an unauthorized user tries to add comments to a `triProject` record in draft state in an environment where Project Security is enforced, the user now sees a message that he does not have access to the record. (Tri-25275)
Site Style Manager	The Site Style Manager now has the ability to view the GIF-based banner configuration introduced in the TRIRIGA Real Estate Environmental Sustainability (TREES) release, including the ability to set the background color of the greeting. (Tri-24774)
Site Style Manager	The Site Style Manager page no longer shifts an item when the user clicks it. (Tri-10159)
Style Sheet Editor	Once a style name and style type are created, they cannot be changed. (Tri-25513)
System Manager	When creating Offline forms, be sure to always create and save the forms in .xls format and ensure no format warnings exist. Offlining does not support the .xlsx format. Forms created in the .xlsx format, and later changed to .xls may not retain certain format elements such as color, font, text decoration, and the like. (Tri-25350)
TRIRIGA BusinessConnect	A saveRecord request with an associative filter using over a thousand records no longer returns occasional null values for the associative data. (Tri-22394)
TRIRIGA BusinessConnect	In some instances code generated from the BusinessConnect WSDL file also was generating Exception classes from the core java.* packages. Modified the WSDL to contain the classes to the `com.tririga.ws` package. (Tri-26442)
TRIRIGA BusinessConnect	When a saveRecord request is made with a batch of records that have varying GUI types, BusinessConnect no longer changes the GUIs of the existing records to a single GUI. (Tri-26702)
TRIRIGA BusinessConnect	When uploading content attachments via BusinessConnect's Upload method, the TRIRIGA server's temporary file directory will be populated with a cached file if the uploaded content is greater than 100K. This directory should be manually monitored and cleaned. You can identify the cached file by the following format: `attXXXXXtmp`, for example `att23434234tmp`. This is due to an XFire limitation: XFIRE-723. See the following XFire link for more information: http://jira.codehaus.org/browse/XFIRE-723. (Tri-25955)
TRIRIGA DataConnect	DataConnect no longer updates the state of an object during an update. In the past DataConnect updated the state to the initialState set in the DataConnect task. (Tri-25897)
TRIRIGA SOAP API 1	TRIRIGA announces an end of life for TRIRIGA SOAP API 1 in a future release. Please see the TRIRIGA Support Matrix for 2.7 for additional details. The most recent version of the TRIRIGA Support Matrix can be found at http://elite.tririga.com.

Area of Change	Description
Windows Vista Certification	When loading any workflow designer, an error may occur warning that the publisher could not be verified in a Vista environment. This is safe to ignore the first time; press OK to continue to the workflow designer. (Tri-25528)
Workflow	Added a new workflow status of "Not Responding". If a running workflow has not updated its status in five minutes, it will be marked as Not Responding. This can happen when a WF Agent dies while running a workflow or when a long running workflow takes more than five minutes for a particular step. (Tri-23857)
Workflow	If a workflow event is queued for a record, and before the workflow for the event is executed the record is deleted, the workflow will not be executed and the status will be set to Skipped. Previously the results were unpredictable. (Tri-24235)
Workflow	The `com.tririga.architecture.web.process.gantt.workflow.CopyProject` Custom task was assuming that the predecessor and successor tasks for dependencies were associated to the project passed into the task. Now an error will be logged if this is the case but processing will not fail. (Tri-25218)
Workflow	The workflow Retrieve task now properly handles a filter condition that used `$$TODAY$$`, `$$THISWEEK$$`, or `$$THISMONTH$$`. (Tri-11409)
Workflow	When opening a workflow instance you should no longer receive JavaScript errors. (Tri-23429)
Workflow	When server issues like a network outage occurred and the workflow agent was running on a single host, workflows sometimes would be stuck and never finish. With this release, when the workflow agent is restarted it resets any stuck entries so that they can be picked back up by the agent for processing. Each unstuck entry is a new instance of the workflow and tasks that were executed in the previous workflow will run again. (Tri-22717)
Workflow	When using the Attach Format File task to attach a document to a Notification, documents that are not supported form report formats would not attach properly (a Word document or image file, for example). The Attach Format File task now checks if the file type supplied is a supported format, and if not, it attaches the file as-is (note that this does not work if Embed File is checked). The supported report formats are HTML documents and RPT files. (Tri-15512)
Workflow	When viewing a published workflow template, it is no longer possible to select a new file in an Attach Format File task or to select a new query in a Query task. These select links are now disabled when in a published state. (Tri-23107)

TRIRIGA Application Platform 2.7.0 Properties Files

The following properties in the `TRIRIGAWEB.properties` file changed with this release:

Area of Change	Description
AGENTS_NOT_ALLOWED	A comma-delimited list of agents not allowed to run on this server. A blank value allows any agent to be started on this server but does not start any agent automatically.
	☑ **Tip** – Manage agent settings for this server and all other TRIRIGA servers on the Agent Manager page of the Administrator Console. See the *TRIRIGA Application Platform Administrator Console User Guide* for more information.
INSTANCE_ID	Overrides the default machine ID. Leave blank if you are running a single instance per physical machine. When two or more TRIRIGA servers are running on the same physical machine, INSTANCE_ID must be unique for independent agent management. When present, INSTANCE_ID must be a number less than 10000.
INSTANCE_NAME	Overrides the default machine name. Leave blank if you are running a single instance per physical machine. When two or more TRIRIGA servers are running on the same physical machine, INSTANCE_NAME must be unique for independent agent management. When present, INSTANCE_NAME can be any alphanumeric value.
Property Deletions	The WFAgent, DataImportAgent, WFNotificationAgent, SchedulerAgent, ObjectMigrationAgent, ObjectPublishAgent, CleanupAgent, WarehouseAgent, FormulaRecalcAgent, CrystalQueueAgent, IncomingMainAgent, ExtendedFormulaAgent, DataWarehouseQueueAgent, and DataConnectAgent properties no longer appear (replaced by AGENTS_NOT_ALLOWED).
SMARTQUERY_RESULT_SIZE_LIMIT	The maximum number of query results that can be used in a smart query section. This sets a threshold so a query's results do not get so large that the query section is unable to render. The default value is 500.

The following properties in the `TRIRIGACRYSTAL.properties` file changed with this release:

Area of Change	Description
CRYSTAL_MEMORY_USAGE_LIMIT	The maximum percentage of available server memory that can be used while assembling a Crystal Report's query results. If this percentage is exceeded, the query errors out due to insufficient memory. If this is caused by an interactive Crystal report, the user sees the following message: "Error Occurred. There are not enough resources available to run the report at this time. – [MID-xxxxx]", where xxxxx is the message ID of the log entry in the server log.
	Before the report actually fails, the platform attempts to reclaim unused memory by doing a garbage collection. A garbage collection has the potential to momentarily show other activity on the system. Any attempt to reclaim unused memory will have an INFO-level log entry in the server log.
	If you see a "There are not enough resources available to run the report" error for a query, it is likely that the query was the cause of the error; however, it also is possible that other concurrent processes could have consumed memory while the query was assembling its results.

Area of Change	Description
	Valid values are between 0 and 100. Values of 0 and 100 essentially disable any limit being enforced; these values are not recommended because a single query initiated by a single user could run the server out of memory. An empty value or an invalid value is treated as a default value. Valid values are 0 – 100 and blank. The default value is 35.
CRYSTAL_REQUEST_SERVER_PORT	A Crystal Request Server resides within the TRIRIGA Application Server. When present, this property specifies the listening port on the TRIRIGA server that handles Crystal RAS Query Requests. If no port is specified, the system selects an available port.
DrillDownTabs	If set to true, drill down tabs are displayed. The default value is `true`.
ParameterPanelToggle	If set to true, the parameter panel toggle button is displayed.
Property Deletions	The CrystalVersion, OwnForm, BooleanSearch, BooleanSearchButton, BottomToolbar, DisplayHeader, GroupTree, HelpButton, PageNumbers, ViewList, PageTreeRatio, and PageLogoLocation properties no longer appear.
ToolPanelWidth	The width of the tool panel in the units specified in ToolPanelWidthUnit. The default value is `200`.
ToolPanelWidthUnit	The unit of measure for the tool panel width. The default value is `pixel`.
TRIRIGAIBS_ODBC	Any Crystal report that runs direct SQL against a TRIRIGA database must have a data source named `TRIRIGAIBS`. This refers to an ODBC entry that resides on the Crystal RAS server. A single RAS server can service any number of TRIRIGA database servers. This is not recommended for a production RAS server, but can be useful in a development or quality assurance environment. The `TRIRIGAIBS_ODBC` property configures which ODBC entry on the Crystal RAS server the reports will use. Begin by creating ODBC entries on the RAS server, one for each database hosting a TRIRIGA instance to be supported by the RAS server. In the TRIRIGA application server, configure the `TRIRIGAIBS_ODBC` property to indicate which ODBC entry should be used for reports run from that server. At runtime, the `TRIRIGAIBS` data source is replaced in the report with the name of the ODBC entry specified in the `TRIRIGAIBS_ODBC` property. If a value is specified in the `TRIRIGAIBS_ODBC` property, the `TRIRIGAIBS` value in a Crystal report will be replaced with that value. If the property is left blank, the `TRIRIGAIBS` data source will remain in the report.

4   TRIRIGA CAD INTEGRATOR/PUBLISHER 2010 AND DWF SERVER 2009

This chapter includes the important information and known limitations for TRIRIGA CAD Integrator / Publisher 2010 and DWF Server 2009, version 4. Subsequent sections detail enhancements and changes for each TRIRIGA CAD Integrator / Publisher 2010 and DWF Server 2009 version, with the most current version listed first.

Important Information and Known Limitations

Important information and known limitations concerning the TRIRIGA Application Platform for this release include the following:

Area of Change	Description
AutoCAD Design Review 2010	Customers using Microsoft Internet Explorer 6.0 may experience intermittent error messages when using AutoCAD Design Review 2010. Upgrading to IE 7.0 resolves this issue. (Tri-21810).
DWF Server	DWF Server does not support rendering CAD labels on attached entities that were drawn using AutoCAD's "2D Polyline" element. The 2D polyline entities need to be updated to the LWPOLYLINE standard in order for CAD labels to process properly.
	Follow these steps to resolve this issue:
	1) Open the problem drawing in AutoCAD.
	2) Type Convert in the command line.
	3) Enter P for polyline.
	4) Enter ALL to process all polylines; it should return a message with the number of 2D polyline objects that were converted.
	5) Republish the drawing.
	(Tri-26912)
Installation	The CAD Integrator installer for AutoCAD 2008 and prior occasionally fails to correctly install CAD Integrator. If this happens, install CAD Integrator manually, as described in the "Troubleshooting CAD Integrator Configuration" section of the *TRIRIGA 9 CAD Integrator for AutoCAD User Guide*. (Tri-21538)
Publish	DWF will not publish under a Publish on Close scenario. On July 4, 2006, Autodesk determined that this is an AutoCAD issue. TRIRIGA submitted a change request with Autodesk.

TRIRIGA CAD Integrator 2010, Version 1 Changes

The major changes to TRIRIGA CAD Integrator for this release include the following:

Area of Change	Description
Publish	CAD Integrator failed to correctly publish SVG drawings when a published layer included the character '#'. These drawings now publish correctly. (Tri-24028)
Publish	Some drawings in which block references did not publish in SVG now publish correctly. Select the Keep AutoCAD layers option in the publish form for block references to publish. (Tri-27479)
Publish	Some drawings in which XREFs did not publish in SVG now publish correctly. (Tri-21880, Tri-22354, Tri-22623)

5   TRIRIGA APPLICATION OBJECT MIGRATION PACKAGES

TRIRIGA delivers application object migration packages using two different methodologies:

- Incremental Package - Each application release is a separate file named `TRIRIGA_<version>.zip`.

- Cumulative Package – The entire suite of TRIRIGA Applications through the current release is in one file named `TRIRIGA_<version>_Cumulative.zip`. Cumulative packages offer a substantial time savings for customers upgrading across several releases. This release includes a cumulative package for 9.7.1.

Use the method that best fits your needs. Incremental package files may be best if you only have to upgrade one or two releases. The cumulative file may be better when you need to update from an earlier version of the application (more than three releases old). Be aware, however, that the cumulative file is large and will take a long time to download, load, and import.

Once you have the package file(s) downloaded, follow the rest of the steps in this chapter to accomplish your application update(s).

Applying the Application Object Migration Package

The 9.7.1 release includes two application packages that include enhancements, fixes, and corrections for the TRIRIGA 9 applications, as described earlier in the "TRIRIGA Enterprise Workplace Management" chapter. The two application packages for 9.7.1 are the 9.7.1 incremental package and the 9.7.1 cumulative package. For the 9.7.1 incremental package, depending on your current application version, you may need to apply the 9.0.1, 9.0.2, 9.0.3, 9.0.4, 9.0.5, 9.0.6, 9.1, 9.1.1, 9.1.2, 9.1.3, 9.5.0, 9.5.1, 9.5.1Supp, 9.6.0, 9.6.0_Gantt, 9.6.1, 9.6.2, 9.6.2.1, and 9.7.0 packages before applying the 9.7.1 package. To upgrade to the 9.7.1 application version, you must load each object migration package that is later than your current application version, in order, through to the 9.7.1 object migration package. See the *TRIRIGA 9 1 Release Notes* for information about applying the 9.1 package. Perform each package sequentially, in the order listed above. Wait for one to complete all of the steps below before beginning the next.

The older object migration packages do not need to be imported if you use the 9.7.1 cumulative package.

A second patch helper file is delivered with TRIRIGA 9.7.0. This patch helper file is named `PatchHelper.9.7.FISCALPERIODNAMES.txt` and is used to change the Name fields on the Fiscal Periods Classification. This patch helper will change the name of the Fiscal Periods from "Qq - YYYY" to "YYYY - Qq" or for example from "Q1– 2009" to "2009 - Q1". This name change allows for a more appropriate order of the periods in metric queries.

> ☒ **Warning** – You need to update your existing Clause Types with a Clause Category. Do so after upgrading to 9.6.1 via the 9.6.1 object migration package and before running the 9.6.1 patch helper. There are two methods to accomplish this update (see the Clause Type information above).

> ☒ **Warning** – Object Migration changed significantly in the 2.6.0 platform release. Be sure to read the *TRIRIGA Application Platform Object Migration User Guide* before importing an Object Migration package into a 2.6 platform environment.

Please read and follow "Importing Objects" in the *TRIRIGA Application Platform Object Migration User Guide* for a description of how to import application packages.

The following summarizes a few Import features you will find especially helpful:

Summary

To see all warnings and errors found during validation, click the Summary action on the top of the Object Migration screen. The Package Summary report appears.

The Object Summary at the top of the Package Summary report lists statistics for each Object Type, with the Warnings and Errors hyperlinked to the corresponding summary section further down in the report.

The body of the Package Summary report contains a separate section for each Object Type with warnings and/or errors. Within these sections, you will see the Object Name, Module and Business Object if appropriate for the Object Type, and the corresponding warning or error message(s).

Comparison

Object Migration offers two comparison methods to find out more information about the differences between uploaded items and existing items in the system. You can compare the entire upload with the Comparison Report action or compare individual items with the Compare action in the Objects panel. The comparison logic is the same for the Comparison Report and an individual Compare, with the main difference being that one compiles the result into a file and the other displays the result in the user interface.

Comparison Report

A Comparison Report compares every object in the uploaded package with objects in the target system. The result is a tab-delimited .txt file.

Each row in the Comparison Report represents one difference or conflict between the uploaded package and the target system. For example, if a Business Object has 10 differences, there will be 10 lines in the Comparison Report, one for each.

Compare

The Compare action looks at just one object and compares what is in the uploaded package to what is in the target system. To compare one of the objects in the upload with its counterpart in the target system, select the object in the Navigation panel. The object displays in the Objects panel. Select an item in the Objects panel and click Compare.

Logging

The import process in Object Migration generates informational messages when an object's dependent object names cannot be determined or verified. The message identifies the name of the object that has an issue and lists its invalid references by type and where they have been referenced. These messages are sent to a log file named `ObjectMigration.log`. This file is located in the `log` directory of your TRIRIGA installation, for example at `C:\Tririga\log\ObjectMigration.log`.

The `ObjectMigration.log` is configured in the `log4j.xml` file located in the `config` directory of your TRIRIGA installation, for example at `C:\Tririga\config\log4j.xml`. Be sure to review these settings and edit as desired before performing Object Migration.

Also, it is very important to review the `ObjectMigration.log` after each Object Migration event.

> **Note** – To help resolve any circular dependencies/references, the system automatically imports the package two times. After each pass, the system refreshes the system cache.

Import Patch Helper Record

Whether you use the cumulative Object Migration package or a set of version-specific Object Migration packages, you must run the Patch Helper for each application version between your current application version and 9.7.0, including 9.7.0. Use the steps below to import the patch helper file for each of the versions, in order of the version number. The Patch Helper record triggers workflows to fix the items listed below.

- Adds User Message records
- Adds Application Version record

How To Import the Patch Helper Record

Step 1 - From the destination system, select **Data Integrator** from the *Administration* menu.

How To Import the Patch Helper Record

Step 2 - Select

> *Module*: triHelper
> *Business Object*: triPatchHelper
> *GUI*: triPatchHelper
> *Import Type*: Add
> *Action*: triCalculate

Step 3 - Click **Browse**.

The system displays a file selection window.

Step 4 - Select the Import file from a local disk.

Step 5 - Click **Save**.

The system displays a window indicating the file is processing.

Step 6 - Click **OK**.

When the import process is complete, you will receive a notification in your Home portal.

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6 TRIRIGA SUPPORT MATRIX

The TRIRIGA Support Matrix lists supported operating systems, databases, and related details for and about the TRIRIGA Application Platform and relays information about End of Life processes for such software. The TRIRIGA Support Matrix may change over time. The most recent version of the TRIRIGA Support Matrix can be found at http://elite.tririga.com.

7 RELATED DOCUMENTATION

You will find copies of all current documentation in http://elite.tririga.com.

8 CONTACTING TRIRIGA SUPPORT

For further information and assistance with this release and the TRIRIGA Application Platform or TRIRIGA Enterprise Workplace Management applications in general, contact TRIRIGA Support.

Address: TRIRIGA
                6720 Via Austi Parkway, Suite 500
                Las Vegas, NV 89119

Support: (866) TRIRIGA (866.874.7442)

Corporate: (888) TRIRIGA

Facsimile: 702.932.4445

E-Mail: support@tririga.com

APPENDIX A

Deleted the following queries: (Tri-26585)

MODULE NAME	GUI NAME	GUI TAB NAME	GUI SECTION NAME	SOURCE NAME
triActionForm	tirAssetLeaseTemplatePopUp	triGeneral	triAssetLeaseTemplate	triAssetLeaseTemplate - Find
triActionForm	triAssetOffline	triGeneral	triAsset	AF - AST Assets
triActionForm	triCloseServiceOrders	triGeneral	triServiceOrdersToClose	triServiceOrder - Console - Close AF - Selected Service Orders
triActionForm	triDuplicateRequests	triGeneral	triDuplicateRequests	CC Duplicate Requests
triActionForm	triInventoryMaterialTransaction	triGeneral	triInventoryTransactions	triInventoryManagerTransaction - triInventoryMaterialTransaction - Display Query in Action Form
triActionForm	triNotificationRequirementsForm	triGeneral	triNotificationRequirements	ND Notification Requirement List
triActionForm	triPWServiceManagerEditServiceAgreement	triGeneral	triServiceGeographyQuery	triGeography - PW Service Geography -Display - PW Service Manager
triActionForm	triSendNotice	triGeneral	triPeopleAssignTo	triPeople - Console AF - Selected Team Members
triBudget	triBudget	triGeneral	triCostCodeAmountItems	PM Cost Code Amount Items List
triCatalog	triCatalog	triCustomers	triOrganizationCustomers	CTLG Customers
triCatalog	triCatalog	triCustomers	triRoleEntitlements	Entitlement Roles
triCatalog	triCatalog	triGeneral	triContactRoleCatalogManager	Vendor Details
triCatalog	triCatalog	triProducts	triProducts	Products
triContract	triContract	triLine Items	triPurchaseOrderChangeOrder	triPurchaseOrderChangeOrder - For Purchase Order
triContract	triProposedAmendment	triHistory	triAmendments	triRealEstateContract - List of all Proposed Amendment records in the state of history
triIssue	triIssue	triGeneral	triContactRole	PM Contact Role List
triIssue	triResolutionOption	triImpact	triPeopleTeam	triPeople - People Team
triItem	triFoodServiceLineItem	triAdministration	triServiceOrder	triServiceOrder - Service Orders - Location Reservation Quer
triNotificationAction	triContractNotificationAssetLease	triGeneral	triOptions	RE Options List
triPermit	triPermitApplication	triResponse	triSupplementalDesignDocuments	triSupplementalDesignDocumentAmin - Supplemental Design Document List for Permit Application

APPENDIX B

The Find actions on the following GUI sections now have an associated query. (Tri-26815)

MODULE NAME	GUI NAME	GUI TAB NAME	GUI SECTION NAME	QUERY
Classification	triRequestClass	triGeneral	triPriority	triMaintenancePriority - Display - All Priorities
Classification	triRoles	triEntitlements	triEntitlements	triSpecification - Find - Contact Roles Entitlements
Classification	triTimeCategory	triEntitlements	triEntitlements	triSpecification - Find - Contact Roles Entitlements
Data Utilities	Grant Security Access	General	triUsers	triPeople - Filter - People - Not Retired
Document	Document	Permissions	Group Permissions	Group - Security Group List
Geography	triGeography	triReference	triDocument	Document - Find - All Documents
Locator Directions	Locator Directions	General	FromLocation	Location - Find - All Locations with Sub-reports
Locator Directions	Locator Directions	General	ToLocation	Location - Find - All Locations with Sub-reports
Mail	EmailMessage	EmailMessage	Attachments	Document - Find - All Documents
Mail	EmailMessage	EmailMessage	To	triEmployee - Find - subreport with Consultant and External Contact
Mail	EmailMessage	EmailMessage	BCC	triEmployee - Find - subreport with Consultant and External Contact
Mail	EmailMessage	EmailMessage	ReplyTo	triEmployee - Find - subreport with Consultant and External Contact
Mail	EmailMessage	EmailMessage	From	triEmployee - Find - subreport with Consultant and External Contact
Mail	EmailMessage	EmailMessage	CC	triEmployee - Find - subreport with Consultant and External Contact
Mail	Notification	Description	Notification Documents	Document - Find - All Documents
Mail	Notification	Description	External Mail To	triExternalContact - Find - subreport with Consultant and Employee
Mail	Notification	Description	External Mail CC	triExternalContact - Find - subreport with Consultant and Employee
Mail	Notification	Description	External Mail BCC	triExternalContact - Find - subreport with Consultant and Employee
System	Data Upload	General	Data Upload Errors	triDataUploadErrors - triDataUpload - Find
System	FinancialTransaction	General	CostTransactionCodes	triCostCode - triFinancialTransaction - Find
System	WorkFlowActionItem	General	Assignees	triPeople - Filter - People - Not Retired
triActionForm	triAssetCoreLockUninstall	triGeneral	triReturnedBy	triPeople - Filter - People - Not Retired
triActionForm	triAssetOffline	triGeneral	triLocation	Location - Find - All Locations with Sub-reports
triActionForm	triAssetPendingReturn	triGeneral	triReturnedBy	triPeople - Filter - People - Not Retired
triActionForm	triRequestReceipt	triGeneral	triReceivedBy	triEmployee - Find - subreport with Consultant and External Contact
triContract	triAssetLease	triGeneral	AssetLeaseParent	triAssetLease - Find - AssetLease Parent

MODULE NAME	GUI NAME	GUI TAB NAME	GUI SECTION NAME	QUERY
triContract	triOwnedProperty	triLocations	triPrimaryLocation	Location - Find - Active Locations
triContract	triOwnedProperty	triService	triOrganizationServiceProvider	Organization - Find - triOwnedProperty - Service Provider
triContract	triProposedAmendment	triService	triRequestClass	triRequestClass - Find - triProposedAmendment - triService
triContract	triProposedOwnedProperty	triService	triOrganizationServiceProvider	Organization - Find - triProposedOwnedProperty - Service Provider
triCostItem	triCostEstimateUnitLineItem	triGeneral	triAssemblyLineItem	triAssembly - Find
triCostItem	triCostEstimateUnitLineItem	triGeneral	triUnitPriceLineItem	triUnitPriceLineItem - Find
triCostItem	triFoodServicesItem	triGeneral	triCostCodeCommitmentCode	triCostCode - Find
triCostItem	triForecastLineItemSummary	triGeneral	triStandardContractContract	triStandardContract - Find - triForecastLineItemSummary
triCostItem	triPaymentVoucher	triReference	triDocument	Document - Find - All Documents
triCostItem	triRFPResponseLineItem	triGeneral	triRFPLineItem	triRFPLineItem - Find - triRFPResponseLineItem
triDailyJournal	triDailyReport	triGeneral	triDailyDetails	triDailyDetails - Find - triDailyReport
triGovernment	triGovernment	triReference	triDocument	Cannot Replicate
triHelper	triResourceHelper	triGeneral	triResourceInput	triResource - Find Resources - triResourceInput
triHelper	triTaskHelper	triGeneral	triTaskInput	triTask - Find - triTaskHelper Input Task
triIntermediate	triCTQAssessment	triGeneral	triCTQItem	triCTQItem - Find - triCTQAssessment
triIntermediate	triFacilityProjectAccounting	triGeneral	triCostCode	triCostCode - Find
triIntermediate	triPMReadingAsset	triGeneral	triLocation	Location - Find - Query For PMReadingAsset
triIntermediate	triPMReadingAsset	triGeneral	triAssets	triAsset - Find - PMReadingAsset
triIntermediate	triProjectBudgetChangeCostItem	triGeneral	triCostCode	triCostCode - Find
triIntermediate	triProjectBudgetForecastCostItem	triGeneral	triCostCode	triCostCode - Find
triIntermediate	triProjectBudgetTransferCostItem	triGeneral	triCostCode	triCostCode - Find
triIntermediate	triProjectOriginalBudgetCostItem	triGeneral	triCostCode	triCostCode - Find
triIntermediate	triProjectOriginalBudgetTemplateCostItem	triGeneral	triCostCode	triCostCode - Find
triIntermediate	triPunchlistIntermediate	triGeneral	triPunchlistTask	triPunchlistTask - Find
triIntermediate	triResourceReserve	triGeneral	triLocation	Location - Find - Query For triResourceReserve
triIntermediate	triRiskItemIntermediate	triGeneral	triRiskItem	triRiskItem - Find - All
triIntermediate	triRouteGroupAsset	triGeneral	triAsset	triAsset - Find - triRouteGroupAsset
triIntermediate	triSubmittalIntermediate	triGeneral	triSubmittalTask	triSubmittalTask - Find
triInventoryTransaction	triReceivingLineItemLog	triGeneral	triCostCode	triCostCode - Find
triInventoryTransaction	triReceivingLineItemLog	triGeneral	triSpecification	triSpecification - Find
triInventoryTransaction	triReturnLineItem	triGeneral	triCostCode	triCostCode - Find
triItem	triBuildingSystemInspectionItem	triReference	triDocument	Document - Find - All Documents
triItem	triBuildingSystemInspectionItem	triGeneral	triAssessmentTask	triConditionalAssessmentWorkTask - Find - BuildingSystemInspectionItem
triItem	triFoodServiceLineItem	triGeneral	triTaskReservation	triTask - Find Query

MODULE NAME	GUI NAME	GUI TAB NAME	GUI SECTION NAME	QUERY
triItem	triFoodServiceOrder	triAdministration	triLocationDetails	triSpace - Find Query - FoodServiceOrder
triItem	triFoodServiceOrder	triAdministration	triTaskReservation	triTask - Find Query
triItem	triMoveRequestLineItem	triSystem	triRole	triRole - Find - MoveRequestLineItem
triLog	triCostAllocation	triGeneral	triCostItem	triCostItem - Find - Cost Allocations
triLog	triFCIHistoryAdmin	triGeneral	triLocation	Location - Find - All Locations with Sub-reports
triLog	triFCIHistoryBSI	triGeneral	triLocation	Location - Find - All Locations with Sub-reports
triLog	triLineItemsLog	triGeneral	triPurchaseOrderPOInformation	triPurchaseOrder - Find - LineItemsLog
triLog	triReportToErrorLog	triGeneral	triApprovalList	triApproval - Find Query - ReportToErrorLog
triMeterItem	triEnvMeterItemDTO	triGeneral	triCostCode	triCostCode - Find
triPayment	triPaymentSchedule	triReference	triDocument	Document - Find - All Documents
triPayment	triProcessARReceipts	triReference	triDocument	Document - Find - All Documents
triPayment	triProcessPayments	triReference	triDocument	Document - Find - All Documents
triProposal	triBidDocument	triGeneral	triRecordedByPerson	triPeople - Filter - People - Not Retired
triRequest	triContractChangeRequest	triReference	triDocument	Document - Find - All Documents
triSetup	triNotificationRequirement	triGeneral	triGroupsNotified	Group - Find - NotificationRequirement
triSpaceAllocation	triAreaLevelAllocation	triGeneral	triContact	triPeople - Filter - People - Not Retired
triSpaceAllocation	triLeaseAllocations	triGeneral	triOrganizationBusinessUnit	Organization - Find - triLeaseAllocation
triSpaceAllocation	triSpaceAssignments	triGeneral	triPeopleBusinessContact	triPeople - Filter - People - Not Retired
triSpaceAllocation	triSpaceLevelAllocation	triReference	triDocument	Document - Find - All Documents
triTask	triConditionAssessmentWorkTask	triAdvanced	triProject	triProject - Find Query
triTask	triConditionAssessmentWorkTaskTemplate	triAdvanced	triProject	triProject - Find Query
triTask	triContractReviewTask	triAdvanced	triProject	triProject - Find Query
triTask	triContractReviewTemplate	triAdvanced	triProject	triProject - Find Query
triTask	triInspectionTask	triAdvanced	triProject	triProject - Find Query
triTask	triInspectionTaskTemplate	triAdvanced	triProject	triProject - Find Query
triTask	triInventoryCountWorkTask	triAdvanced	triProject	triProject - Find Query
triTask	triInventoryCountWorkTaskTemplate	triAdvanced	triProject	triProject - Find Query
triTask	triInventoryPickWorkTask	triAdvanced	triProject	triProject - Find Query
triTask	triInventoryPickWorkTaskTemplate	triAdvanced	triProject	triProject - Find Query
triTask	triKeyWorkTask	triAdvanced	triProject	triProject - Find Query
triTask	triKeyWorkTaskTemplate	triAdvanced	triProject	triProject - Find Query
triTask	triMaterialOrderTask	triReference	triDocument	Document - Find - All Documents
triTask	triMaterialOrderTask	triAdvanced	triProject	triProject - Find Query
triTask	triPunchlistTask	triAdvanced	triProject	triProject - Find Query

MODULE NAME	GUI NAME	GUI TAB NAME	GUI SECTION NAME	QUERY
triTask	triPunchlistTaskTemplate	triAdvanced	triProject	triProject - Find Query
triTask	triReserveAsset	triAdvanced	triProject	triProject - Find Query
triTask	triReserveMeetingSpace	triAdvanced	triProject	triProject - Find Query
triTask	triReserveVehicle	triAdvanced	triProject	triProject - Find Query
triTask	triReserveWorkTask	triGeneral	triFacilitiesProject	triFaciltiiesProject - Find
triTask	triReserveWorkTask	triAdvanced	triProject	triProject - Find Query
triTask	triReserveWorkTaskTemplate	triAdvanced	triProject	triProject - Find Query
triTask	triScheduleTask	triAdvanced	triProject	triProject - Find Query
triTask	triSubmittalTask	triAdvanced	triProject	triProject - Find Query
triTask	triSubmittalTaskTemplate	triAdvanced	triProject	triProject - Find Query
triTask	triTask	triGeneral	triFacilitiesProject	triFaciltiiesProject - Find
triTask	triTask	triGeneral	triResponsiblePerson	triPeople - Filter - People - Not Retired
triTask	triTask	triAdvanced	triProject	triProject - Find Query
triTask	triWorkTask	triAdvanced	triProject	triProject - Find Query
triTask	triWorkTaskTemplate	triReference	triDocument	Document - Find - All Documents
triTask	triWorkTaskTemplate	triGeneral	triPeopleResponsible	triPeople - Filter - People - Not Retired
triTask	triWorkTaskTemplate	triAdvanced	triProject	triProject - Find Query

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