

PTC[®]

**PTC Integrity[™] Release
Notes
Integrity 10.9**

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Integrity 10.9 Release Notes

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- These release notes contain information you should read before installing and running Integrity 10.9. The information includes release highlights and lists of fixed items, general notes, and new features, which are grouped by functional areas.
- For the most recent copy of the release notes, refer to the PDF version that is available from the Integrity Support Center at <http://www.ptc.com/support/integrity.htm>. You can also view Integrity guides and current information on supported Integrity product versions, platforms, Web browsers, databases, and Integrity integrations.
- The “Fixed Issues” and “Known Issues” sections include Integrity reference numbers for all fixed and known issues in the summary title. When you report a particular issue, you are notified when it is fixed.

The “General Notes” section contains important information on upgrading, compatibility, and deprecated features.

- Integrity 10.9 is an incremental release which is similar in scope to other 10.x releases. As the packaged Java version is now updated to Java 8u60, upgrading to PTC Integrity 10.9 requires a full installation of the Integrity client and Integrity server. PTC recommends full testing, planning, and preparation for the upgrade. The time it takes to upgrade may increase over previous releases. For more information, see the *PTC Integrity Upgrading Guide* available in the PTC - Integrity Support Center.

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- In each Integrity release, some new features require changes to ViewSets that can make ViewSets edited with a newer Integrity client incompatible with older Integrity clients. When publishing ViewSets to an environment where some Integrity clients have not been upgraded, ensure those ViewSets do not have an adverse impact on users of Integrity clients from previous releases. For example, it is not recommended that a ViewSet from the current release be configured as mandatory for a user of a legacy Integrity client, even if that version of the Integrity client is supported for connecting to the current release of the Integrity server.
 - In the Integrity Help Center, context-sensitive content is linked from help links in the user interface. Most of this content is localized. However, not all content is available in every language. As a result, you can expect to find mixed English and localized content if you are accessing a localized version of Integrity.

Release Highlights: Integrity 10.9

Consider the following when planning to upgrade Integrity:

- Prior to upgrading to Integrity 10.9, the relationship data from the old relationship table must already have been migrated to the new relationship table using a 10.7 or 10.8 Integrity server. For more information on migrating relationship data, consult the 10.8 version of the *PTC Integrity Upgrading Guide*.

The Integrity 10.9 release provides many major enhancements in each of the following functional areas.

Server Configuration and Administrative

Major server configuration and administration enhancements include:

- Ability to set a hard limit for the bulk data cache
- Ability to perform text searches in a query view when the results exceed 10,000 items
- Support packages now include Integrity Build information
- Support for PKI certificate-based authentication when Integrity is used with IBM Security Access Manager for Web (formerly known as WebSEAL)

Software Configuration Management

Major software configuration management enhancements include:

- New policies to control keyword expansion and differencing and merging
- Ability to recursively extend a development path starting from subprojects that are already part of the development path
- New more granular options available when creating a development path
- Version 2.0.1 of the PTC Integrity Plugin for Jenkins is supported for use with Integrity

Workflow and Documents

Major workflows and documents enhancements include:

- Full release of multi-edit undo that includes usability and performance improvements to multiple-row editing in the Document view, and also the ability to see pending deletes and navigate conflicts
- A perspectives feature that allows you to create a customized view of a document
- An advanced filter is available in the Document view
- Custom fields can be defined on a project backing item

- Shared items are now hidden by default from queries
- Integration with Git

Miscellaneous

Major miscellaneous enhancements include:

- Pending import is now available for reimporting Word documents
- Support for Mozilla Firefox ESR 38
- Support for Microsoft Internet Explorer 11
- Support for Microsoft Windows 10

Included Hotfixes: Integrity 10.9

This release of Integrity includes changes from hotfixes that were released for previous versions of Integrity.

Integrity Client Hotfixes

The following hotfixes only apply to the Integrity client, and are included in this release:

Hotfix ID Number	CS Article ID	Issue Summary
HF-S130000000-045	CS200838	Dashboards that use a project filter with a filter type of Fixed ignore the filter and display items for all projects
HF-S130000000-046	CS219607	When many groups or very large groups are present in Integrity, memory issues can occur in the Integrity client
HF-S130000000-049	CS221028	The Project History view takes time to load under certain conditions
HF-S140000001-001	CS223580	NullPointerException error when dropping a sandbox
HF-S140000001-003	CS223198	Hierarchical editability does not work when a change order authorizes edits at the node level

Hotfix ID Number	CS Article ID	Issue Summary
HF-S140000001-012	CS227289	ClassCastException error when loading a document with an IBPL field
HF-S140000000-021	CS222352	Incorrect project and member information returned for Configuration Management CLI commands that use symbolic revision filters on multiple elements

Integrity Server Hotfixes

The following hotfixes only apply to the Integrity server, and are included in this release:

Hotfix ID Number	CS Article ID	Issue Summary
HF-S110000000-029	CS224380	FSA proxy servers can fail to go online after a network interruption
HF-S110000000-036	CS222478	IBPL fields backed by versioned documents do not refresh when versions are created
HF-S130000000-050	CS206633	Poor Integrity server performance when there are a large number of groups
HF-S140000001-004	CS217365	Error logging in the <code>server.log</code> file is triggered when certain document operations are performed with the audit log enabled
HF-S140000001-010	CS227290	Poor performance when displaying large lists for configuration management functionality

Hotfix ID Number	CS Article ID	Issue Summary
HF-S140000001-015	CS232663	Checkpointing as of date for older dates can show incorrect information
HF-S140000000-017	CS88381 and CS218534	Configuration management event trigger fixes

Integrity Client and Integrity Server Hotfixes

The following hotfixes apply to both the Integrity client and Integrity server, and are included in this release:

Hotfix ID Number	CS Article ID	Issue Summary
HF-S110000000-031	CS223588 and CS218524	Renaming a member takes 15–45 seconds Due to bulk data cache cleanups, performance decreases occur during peak working hours
HF-S110000000-037	CS227617	FSA proxy servers can fail to go online after a network interruption
HF-S130000000-052	CS223272	Deleting an entry from a list can cause another entry to be deleted
HF-S140000001-007	CS224143	Cannot open variant version of project when first shared and then reconfigured as a build project
HF-S140000000-022	CS201348	After successfully migrating a type from production server to staging server, the Admin Migration Wizard continues to display the migrated type as a candidate for migration

Hotfix ID Number	CS Article ID	Issue Summary
HF-S140000000-023	CS225065 , CS225061 , and CS225170	Solves the following problems: <ul style="list-style-type: none"> • Source project references on the Integrity client can become stale and cause intermittent MKS125443 errors • During resynchronization, an incorrect case mismatch error appears • During large propagations performed using a resync CP operation, the connection between the client and server is disconnected if an error message is left on the screen for more than one hour
HF-S140000000-025	CS227532	Incorrect repository location displayed for shared subproject

Integrity FSA Proxy Hotfixes

The following hotfixes apply to FSA Proxy servers and are included in this release:

Hotfix ID Number	CS Article ID	Issue Summary
HF-S130000000-048	CS222791	Poor performance when accessing source data through FSA proxy

Fixed Issues: Integrity 10.9

Server Configuration and Administration: Integrity 10.9 Fixed Issues

The following issues have been fixed for Server Configuration and Administration in Integrity 10.9.

Accessing the Integrity server from the Web interface returns the error: Error connecting to <hostname>:7001: String index out of range: -1

As of Integrity 10.9, connecting to the Integrity Web interface no longer results in a connection error when the default address specified in the local Windows HOSTS file in `Windows/System32/drivers/etc/hosts` is not formatted for IPV4.

For more information, see article [CS185622](#) in the Integrity Support Center.

Migrating a pick field and a trigger where the trigger assigns values to the pick field results in errors

As of Integrity 10.9, administrators can now migrate a pick field and a trigger where the trigger assigns values to the pick field using the Integrity Administration Client.

For more information, see article [CS92778](#) in the Integrity Support Center.

After successfully migrating a type from production server to staging server, the Admin Migration Wizard continues to display the migrated type as a candidate for migration

In the Integrity Administration Client, the type history in the edit Type view indicates a change in significant edit fields, even if no unsaved changes exist after a type is edited. Consequently, the Admin Migration Wizard considers the type as eligible for migration based on the type history entry for the significant edit fields. The Admin Migration Wizard displays the type as having differences between the staging servers.

As of Integrity 10.9, the type history in the edit Type view does not display an entry for significant edit fields if there are no changes. The types that have not changed do not appear as candidates for migration in the Admin Migration Wizard.

For more information, see article [CS201348](#) in the Integrity Support Center.

Changes to Phases names are not reflected in History nor Staged in Admin Staging

Changing the name of a phase is not stored as part of the field's history. Consequently, the name change is not migrated from the Admin Staging server to an Integrity Production server. As of Integrity 10.9, changing the name of a phase is stored correctly as part of the field's history so that name change is migrated as expected.

For more information, see article [CS91036](#) in the Integrity Support Center.

FSA proxy servers can fail to go online after a network interruption

Occasionally, after a network interruption, FSA proxy servers can go offline and be unable to reconnect to the Integrity server. Consequently, manually restarting FSA proxy servers is required. As of Integrity 10.9, FSA proxy servers are more resilient to network interruptions.

For more information, see article [CS224380](#) in the Integrity Support Center.

Poor performance when accessing source data through FSA proxy

The implementation of Integrity includes a Federated Server Architecture (FSA) proxy server. The proxy server is not used for caching permission ACLs in the following conditions:

- When the proxy server is restarted
- When the proxy server goes offline without restarting the main Integrity server

These conditions can cause performance issues when accessing software configuration management data through the proxy.

As of Integrity 10.9, the proxy server is correctly used for caching permission ACLs. Additionally, the performance of accessing software configuration management data through the proxy is improved.

For more information, see article [CS222791](#) in the Integrity Support Center.

Due to bulk data cache cleanups, performance decreases occur during peak working hours

The following conditions exist:

- When a member is renamed, the operation takes 15–45 seconds to complete.
- During periods of high activity, bulk data cache cleanups occur more frequently. This can cause slower performance.

As of Integrity 10.9, the following improvements are implemented:

-
- The operation to rename a member is completed in an acceptable amount of time.
 - Bulk data cache cleanups are much faster, which greatly improves performance.

For more information, see article [CS218524](#) and article [CS223588](#) in the Integrity Support Center.

Integrity server unusable until restart

If the `--dumpToBackup` option is used with the `si migrate` command when the main database tables are a different case sensitivity than the backup tables, the Integrity server can be left in an unusable state until it is restarted.

As of Integrity 10.9, the command checks the case sensitivity of the tables. It does not permit the operation if the case sensitivity is different. Instead, an error message is returned.

For more information, see article [CS221232](#) in the Integrity Support Center.

After staging migration, computed fields modified on the production server return Field Not Found errors

When modifying computed fields to store historical results on the production server, if the **Allow Computation Updates on Versioned Items** option is disabled, the modified fields are inaccessible after staging migration. The following error message is logged on the server:

```
MKS131372: An unhandled database exception has occurred....ORA-00904:
"XXXXX": invalid identifier
```

As of Integrity 10.9, when computed fields are modified to store historical results on the production server and the **Allow Computation Updates on Versioned Items** option is disabled, the modified fields are accessible. Errors are no longer returned after the migration. All related charts, dashboards, and queries function as expected.

For more information, see article [CS218214](#) in the Integrity Support Center.

Query does not return items if relationship data has been migrated

Integrity 10.7 introduced a new database storage model and table for relationship data. If the relationship data migration has already been performed, queries do not return items when the query criteria includes attributes of a field value attribute (FVA) field that is backed by an attachment field. For information on migrating relationship data, see the 10.8 version of the *PTC Integrity Upgrading Guide*. As of Integrity 10.9, such queries correctly return items.

For more information, see article [CS224379](#) in the Integrity Support Center.

Integrity server deadlock for configuration management functionality

This issue affects configuration management (Source) functionality. When manually dropping projects and editing policies at the same time, the Integrity server can reach a deadlock state. This means that the competing actions are waiting for each other to complete, with neither action completing. As of Integrity 10.9, this deadlock state cannot occur.

For more information, see article [CS224381](#) in the Integrity Support Center.

Poor Integrity server performance when there are large number of groups

When the Integrity server has a large number of groups, the server slows down and uses more memory. This issue affects both the configuration management, and the workflows and documents functionality. However, the greatest performance impact is for workflows and documents.

As of Integrity 10.9, the performance of the Integrity server is improved when there are large number of groups. The Integrity server is faster and uses less memory when there are large number of groups.

For more information, see article [CS206633](#) in the Integrity Support Center.

When many groups or very large groups are present in Integrity, memory issues can occur in the Integrity client

When many groups or very large groups are present in Integrity, the Integrity client can have memory issues. In such cases, error messages such as `unread block data` and `MKS124803` result.

As of Integrity 10.9, memory usage is more efficient for groups in the Integrity client.

For more information, see article [CS219607](#) in the Integrity Support Center.

Null Pointer Exception error displayed in the Web client when creating an item

When creating an item from the Web client, an error occurs when a relevance rule contains an editable field value attribute (FVA) field that points to a multiple value pick list:

```
MKS124814: Cannot show view information: java.lang.NullPointerException
```

As of Integrity 10.9, this error no longer occurs. For more information, see article [CS224222](#) in the Integrity Support Center.

Translations not present for three sample trigger scripts

Translations are not present for the following sample trigger scripts:

- `RestrictProjectRB.properties`
- `UnrestrictProjectRB.properties`
- `VetoRestrictProjectRB.properties`

As of Integrity 10.9, translations are included for these sample trigger scripts.

Poor Integrity server performance

There is poor Integrity server performance when it is monitored by PTC System Monitor. As of Integrity 10.9, there is improved Integrity server performance when PTC System Monitor is running, especially during bulk data cache cleanup.

For more information, see article [CS218521](#) in the Integrity Support Center.

Null message displayed too late to be useful

The `Null` message is displayed too late in the server and proxy logs to determine what caused it to be displayed. As of Integrity 10.9, the message is displayed when a `Null` object is added to cache array list, which is more useful for investigating the underlying problem.

For more information, see article [CS214669](#) in the Integrity Support Center.

Files in the `installinfo` directory are removed for a superseded hotfix

When installing a hotfix that supersedes a previously installed hotfix, the marker file for the superseded hotfix is removed from the `installinfo` directory. While this does not cause any functional problems, it can cause confusion about which hotfixes have been installed or superseded. As of Integrity 10.9, the marker file in the `installinfo` directory is no longer removed when a superseding hotfix is installed.

Software Configuration Management: Integrity 10.9 Fixed Issues

The following issues have been fixed for Software Configuration Management in Integrity 10.9.

NullPointerException error when dropping a sandbox

Dropping a sandbox before Integrity completes the sandbox migration to Integrity 10.8 causes the Integrity client to return a `NullPointerException` error.

As of Integrity 10.9, dropping a sandbox before Integrity completes the sandbox migration to Integrity 10.8 succeeds, and the Integrity client does not return an error.

For more information, see article [CS223580](#) in the Integrity Support Center.

Incorrect value returned for `workingrevdelta` field using `si rlog` command

When using the `--fields` option with `si rlog` to return the `workingrevdelta` field, a 1 is displayed in a sandbox if the working revision is the same as the member revision. However, a 1 is to display if the working revision is not the same as the member revision.

As of Integrity 10.9, using the `--fields` option with `si rlog` to return the `workingrevdelta` field displays a 1 in a sandbox if the working revision is not the same as the member revision.

For more information, see article [CS200138](#) in the Integrity Support Center.

Incorrect project and member information returned for Configuration Management CLI commands that use symbolic revision filters on multiple elements

In the CLI, a symbolic revision filter, such as `:working`, can be passed to a configuration management member command operating on multiple elements, such as `si print`. Integrity resolves the symbolic revision to the value for the member element processed first. Subsequent member elements are processed using the same revision ID, which results in the return of invalid data.

As of Integrity 10.9, symbolic revision filters do not resolve to revision IDs when used on multiple elements. Valid project and member information is returned.

For more information, see article [CS222352](#) in the Integrity Support Center.

Member move fails if destination project's change package policy differs from the originating project

The **Member ▶ Move** operation fails if the change package policy **Change Packages Enabled** setting for the destination project and originating project differ.

As of Integrity 10.9, the change package policy **Change Packages Enabled** setting for the originating project is used when moving a member. If the operation cannot succeed, a more detailed error message is shown.

For more information, see article [CS217014](#) in the Integrity Support Center.

Cannot open variant version of project when first shared and then reconfigured as a build project

Using configuration management functionality of the Integrity client, the following conditions return an error stating that the project does not exist:

-
- The subproject is a shared variant subproject that has been reconfigured to a build project.
 - The Open Project Wizard is used to explicitly specify the variant version of that shared subproject to open.

As of Integrity 10.9, the subproject can now be opened without error.

For more information, see article [CS224143](#) in the Integrity Support Center.

Incorrect repository location displayed for shared subproject

An issue can occur when viewing configuration management projects. When viewing the configuration path of a shared subproject that has a non-default jump (`#forcejump`), the repository location is incorrect and does not display the canonical shared location.

As of Integrity 10.9, the canonical shared location is displayed when the shared subproject contains a non-default jump (`#forcejump`).

For more information, see article [CS227532](#) in the Integrity Support Center.

Build sandbox revision is null in My Sandboxes view

After retargeting a build sandbox, the sandbox revision can display a null value when the sandbox is viewed from the **My Sandboxes** view.

As of Integrity 10.9, the build sandbox revision displays correctly in the **My Sandboxes** view.

For more information, see article [CS217723](#) in the Integrity Support Center.

Single change package passed to command even though multiple change packages were selected

When using the **Project Change Package Differences** view, selecting multiple change packages and then running the **Change Package ▶ Resynchronize** command results in only a single change package in the list of change packages to be used by that command.

As of Integrity 10.9, the selected change packages are correctly passed to the command.

For more information, see article [CS189266](#) in the Integrity Support Center.

New revision created for unchanged binary files when specified not to check in if unchanged

Unchanged binary members are still checked in using `si projectci` when the `--nocheckinUnchanged` option is specified.

As of Integrity 10.9, unchanged binary members are not checked in when the `--nocheckinUnchanged` option is specified with `si projectci`.

For more information, see article [CS211104](#) in the Integrity Support Center.

Wrong revision checked out when specifying label

When checking out a member with **Revision with Label** and the default selection is unchanged (such that you have not explicitly specified a label), the wrong revision is checked out.

As of Integrity 10.9, the correct revision is checked out.

For more information, see article [CS221261](#) in the Integrity Support Center.

Configuration Management statistics not closing transactions properly

As of Integrity 10.9, a minor memory leak has been resolved related to statistics reporting around bulk Configuration Management operations.

For more information, see article [CS90251](#) in the Integrity Support Center.

When running the `im viewtrigger` command, the created date shown in the output is incorrect

When running the `im viewtrigger` command, the created date shown in the output is incorrect. As of Integrity 10.9, the output shows a valid timestamp.

For more information, see article [CS83731](#) in the Integrity Support Center.

Configuration management event trigger fixes

The `si reloadtriggers` command fails indicating that the Integrity server is busy running configuration management event triggers. The command cannot reload those triggers, even when the server is not busy. As of Integrity 10.9, the `si reloadtriggers` command successfully reloads configuration management event triggers.

The `projectBean.getAssociatedIssues()` method fails to return any associated issues (items) when the project is a build project or variant project. As of Integrity 10.9, the `projectBean.getAssociatedIssues()` method returns associated issues (items) when the project is a build project or variant project.

For more information, see article [CS88381](#) and article [CS218534](#) respectively in the Integrity Support Center.

The Project History view takes time to load under certain conditions

When browsing revisions in the **Project History** view, the time taken to display project history is too long when there are many associated items and project information.

As of Integrity 10.9, browsing revisions in the **Project History** view is faster. Integrity reuses the existing project history information and thus avoids the need to collect information each time you select another revision.

For more information, see article [CS221028](#) in the Integrity Support Center.

Poor performance of restrict project operation for large projects

The restrict project operation enables specific users or groups to perform changes to a restricted project. Such users can only perform changes according to their existing permissions, as defined in the ACLs. In Integrity 10.8, the performance of the restrict project operation is poor for large projects.

As of Integrity 10.9, the performance of the restrict project operation is improved for large projects by efficient management of ACL cache.

For more information, see article [CS221731](#) in the Integrity Support Center.

Source project references on the Integrity client can become stale and cause intermittent MKS125443 errors

The following issues have been resolved:

- The following error message appears intermittently. Stale projects and sandboxes can cause this error.

```
MKS125443: The subproject src/project.pj does not exist (anymore).
```

As of Integrity 10.9, stale projects and sandboxes no longer cause this error to appear.

- When resynchronizing, the following case mismatch error appears even though there is no case mismatch:

```
MKS125158: Unable to create project. A project of the same name, differing only in its case already exists: <project name>
```

As of Integrity 10.9, only legitimate case mismatches are reported during resynchronization.

- During large propagations performed using a resync CP operation, the connection between the Integrity client and Integrity server is disconnected if an error message is left on the screen for more than one hour. As of Integrity 10.9, during large propagations performed using a resync CP operation, the connection between the Integrity client and Integrity server is not affected if an error message is left on the screen for more than one hour.

For more information, see article [CS225061](#), article [CS225170](#), and article [CS225065](#) in the Integrity Support Center.

FSA proxy servers may be offline after a network interruption

After a network interruption, FSA proxy servers may not be able to reconnect to the Integrity Server. Manually restart the FSA proxy servers. As of Integrity 10.9, the cache now detects an interrupted network connection, and then does one of the following:

- Repairs the network connection.
- Triggers a cache restart with a new connection manager.

For more information, see article [CS227617](#) in the Integrity Support Center.

NullPointerException error when cache updates

A `NullPointerException` error can occur when the cache is updated after a change to the repository, but a downstream cache has been disconnected. As of Integrity 10.9, the error is not returned.

For more information, see article [CS223658](#) in the Integrity Support Center.

Resynchronizing change package again results in different revision

In some scenarios, running `si resynccp` for the same change package twice results in a different revision being resynchronized in your sandbox. As of Integrity 10.9, the command behaves consistently each time it is run.

For more information, see article [CS219015](#) in the Integrity Support Center.

Creating a development path fails when specifying legacy option

Creating a development path for certain project configurations or structures can fail if **On development path except explicitly configured subprojects (legacy)** is selected for the **Resulting Subproject Configuration** option. An error is returned stating that the development path does not exist for the specified project. As of Integrity 10.9, operation succeeds. Also note that as of Integrity 10.9, the equivalent operation in the GUI is to select **Retain the existing live configuration of the subproject** for the **On Live Configuration** option.

For more information, see article [CS226593](#) in the Integrity Support Center.

Poor performance and excessive memory usage can occur when performing an operation on a very large number of items

When performing an operation on a very large number of items, such as adding tens of thousands of members, poor performance and excessive memory usage can occur. This issue is especially noticeable in the Working File Changes view. As of Integrity 10.9, performance and memory usage have been improved to resolve this issue.

For more information, see article [CS222460](#) in the Integrity Support Center.

Checkpointing as of date for older dates can show incorrect information

This release includes hotfix HF-S14000001-015 “Checkpointing as of date for older dates can show incorrect information”. For information on this issue and its resolution see [CS232663](#) in the Integrity Support Center.

Unchanged subprojects are always checkpointed in certain project configurations

After upgrading to Integrity 10.7, there are some unchanged subproject configurations that are still checkpointed when the **Checkpoint Unchanged Subprojects** option is set. As of Integrity 10.9, the subprojects are not checkpointed when that option is set.

For more information, see article [CS223781](#) in the Integrity Support Center.

Workflows and Documents: Integrity 10.9 Fixed Issues

The following issues have been fixed for Workflows and Documents in Integrity 10.9.

Editing content in the Document view with multiple-row editing enabled can sometimes incorrectly overwrite values in content in other documents

Editing content in the Document view with multiple-row editing enabled can incorrectly overwrite values in branched (and branched from) content in other documents. That issue can occur when all of the following conditions are met simultaneously:

- The Document view has the following option enabled in the view options: **Edit multiple rows before saving**.
- There is a move operation on any node.
- There is an edit operation on a node whose reference mode is Reuse, or there is an edit operation on a node whose reference mode is Author, but the node has at least one branch where the reference mode is Reuse.

After saving those changes in a single transaction in the Document view, the content that was edited in the view is correct. However, content nodes in other documents that were branched from (or branched to) the edited content incorrectly use the same edit values. The issue occurs because the shared item does not properly branch to keep the edits isolated to only the edited content node.

As of Integrity 10.9, the edits in the Document view (with multiple-row editing enabled) no longer incorrectly update content in documents that are not being updated.

For more information, see article [CS236790](#) in the Integrity Support Center.

Scrolling is slow in a document that has nodes with large tables

In Integrity 10.7 and 10.8, scrolling is slow in the **Document** view when a relatively large table is embedded in a rich text field. As of Integrity 10.9, rendering of tables is much faster, allowing scrolling to perform as expected.

For more information, see article [CS211301](#) in the Integrity Support Center.

Reports using `walktestsession` query show test cases sorted by ID on some databases

The test cases returned by a `walktestsession` query in a report recipe are sorted by ID order by default on some databases with some data sets. This query can be found in reports that show test cases associated with test sessions. As of Integrity 10.9, test cases are sorted by relationship order instead of by ID order.

For more information, see article [CS213074](#) in the Integrity Support Center.

Historical reports create URLs using client-localized dates

When running reports from the Integrity client, date strings use local settings. For historical reports, the report is launched containing historical URLs that contain localized dates. Running the historical report on the Integrity server using a different locale fails with the error `No valid date, valid format is <date format>` when parsing the date.

As of Integrity 10.9, historical reports use a fixed ISO-8601 date string format when the `asOf` option is used as an input to a script or as a URL. Two additional report recipe tags are available for such cases: `<%currentdatetimeutc%>` and `<%labeltimeutc%>`.

For more information on the new report recipe tags, see “Report Tags” in the *PTC Integrity Server Administration Guide*.

For more information on this issue, see article [CS90070](#) in the Integrity Support Center.

CSV text reports do not contain carriage return line terminators

As of Integrity 10.9, text-based CSV reports show carriage return line terminators.

For more information, see article [CS216939](#) in the Integrity Support Center.

Unable to run Relationship report when you do not have permissions to access items linked via a relationship field

When you run a report, assume that the following conditions exist:

-
- The report contains items that display fields from other items through a relationship field.
 - The relationship field contains only one related item.
 - You do not have permissions to access the related items (for example, due to project visibility).

Report processing is aborted, and the following error messages are displayed:
MKS124814: Cannot show view information and MKS124066: Item does not exist.

As of Integrity 10.9, running a relationship report correctly skips over items that you do not have permissions to access. The resulting report contains only information from items that you are permitted to view. Additionally, no error messages are shown.

For more information, see article [CS214849](#) in the Integrity Support Center.

Deleting an entry from a list can cause another entry to be deleted

Modifying lists in rich content fields can sometimes result in the loss of content and the collapse of the list structure. As of Integrity 10.9, content is no longer lost when a list in a rich content field is modified. However, in certain scenarios, the collapse of the list structure can still occur.

For more information, see article [CS223272](#) in the Integrity Support Center.

Moving content with keyboard shortcuts can overwrite the text of another content item

In the Content pane, you can move content using keyboard shortcuts. You simply click in the text section of an item and press CTRL plus the up or down arrow key. However, in the following specific scenario, using these keyboard shortcuts can cause the text of one content item to overwrite the text of another content item:

1. Click in a text field to activate it for editing.
2. Deactivate this field by pressing ESC or clicking another non-editable field for the same content item.
3. Press CTRL plus the up or down arrow key to move the content up or down.
4. Press ESC or click another non-editable field for the same content item.
5. Press CTRL plus the arrow key for the opposite direction to return the content to its original location

The overwriting of content text does not occur when you use these keyboard shortcuts in the Outline pane. It also does not occur when you use the **Content ► Move ► Up** and **Content ► Move ► Down** menu commands.

As of Integrity 10.9, using keyboard shortcuts to move content in the Content pane as described does not overwrite the text of another content item.

For more information, see article [CS107238](#) in the Integrity Support Center.

Outline pane is unable to render the outline if you do not have permission to the initial state on the node

In Integrity 10.7, when you open a document in the **Document** view, the Outline pane can get stuck rendering the outline. This occurs only if you do not have permission to the initial state on the node. As of Integrity 10.8 and 10.9, the Outline pane successfully renders the document outline, even if you do not have permission to the initial state on the node.

For more information, see article [CS229511](#) in the Integrity Support Center.

In the Outline pane, the Text field for the item description is not updated properly

The **Text** field for the item description can be added to the Outline pane using **View** ► **Options**. When you modify this field in the Content pane, all panes display the updated text. When you modify this field in the editable item preview, the Content pane displays the updated text, but the Outline pane does not. As of Integrity 10.9, when you modify this field in the editable item preview, all panes display the updated text.

For more information, see article [CS207838](#) in the Integrity Support Center.

Navigating away from Duplicates Search using keyboard shortcuts results in an error in the Web interface

Within the **Potential Duplicates** view in the Integrity Web interface, pressing TAB and the spacebar to navigate away from the **Duplicates Search** window causes an error. As of Integrity 10.9, using these keyboard shortcuts no longer causes an error.

For more information, see article [CS221459](#) in the Integrity Support Center.

IBPL fields backed by versioned documents do not refresh when versions are created

IBPL (item-backed pick list) fields are missing items for versioned documents after versions are created. In a query for versioned documents, the versions appear. However, they do not appear in IBPL fields until after the Integrity server is shut down and restarted. As of Integrity 10.9, newly created document versions are added as items to IBPL fields immediately after the versions are created.

For more information, see article [CS222478](#) in the Integrity Support Center.

ClassCastException error when loading a document with an IBPL field

Assume that the **Document** view either displays or needs a field on which there is a rule referencing an IBPL field. In Integrity 10.8, when loading the document, the view does not properly account for the value for the IBPL field. This problem occurs only when both of the following conditions exist:

- The IBPL field is not part of the column set shown in the **Document** view.
- The embedded panel is turned off.

As of Integrity 10.9, a document with an IBPL field is loaded successfully. After checking the returned value for the IBPL field, any fields that use the IBPL in a rule are displayed as expected.

For more information, see article [CS227289](#) in the Integrity Support Center.

Unable to make an IBPL field mandatory using constraints based on a combination of another IBPL field value and some other field

As of Integrity 10.9, when administrators create or manage IBPL constraints using the Integrity Administration Client, they can:

- Select an IBPL field as a rule condition.
- Select an IBPL field as a constrained field.
- Optionally make the constrained IBPL field mandatory.

Note

The same IBPL field cannot be specified as both a rule condition and a constrained field.

For more information, see article [CS211501](#) in the Integrity Support Center.

When editing a rich text field that is the source of a rule-based constraint definition, cursor behavior is erratic

When editing a rich text field that is the source of a rule-based constraint definition, the cursor can jump unexpectedly to the beginning or end of the field. As of Integrity 10.9, the cursor no longer behaves erratically nor does the cursor move unexpectedly.

For more information, see article [CS93013](#) in the Integrity Support Center.

A field with an editability condition of `State = -Unspecified-` cannot be edited in a newly created item in the Document view

When the node type is part of the Document model and an item is created in the **Document** view, a field with an editability condition of `State = -Unspecified-` cannot be edited. As of Integrity 10.9, a field with an editability condition of `State = -Unspecified-` can be edited in a newly created item. After this item is saved, however, the field cannot be edited because editability rules are then evaluated, which is the expected behavior.

For more information, see article [CS221771](#) in the Integrity Support Center.

Hierarchical editability does not work when a change order authorizes edits at the node level

Integrity allows for the configuration of document editability using **Type** properties. These properties restrict the editability of fields on the content of the document. Edits to these fields can be made only if there is an item authorizing changes. The **Document** view reads these properties and then grants or restricts field editability accordingly.

During single-row editing in the **Document** view, assume the following:

- An authorizing item is added to the authorizing relationship on a node.
- The document is in a restricted state.

Normally, fields controlled by hierarchical editability on the item become editable, allowing you to modify them. However, in Integrity 10.8, a defect prevents the view from dynamically updating when an authorizing item is added to the node and saved. You must refresh the view for editability to be granted or restricted properly.

In Integrity 10.8, the processor for hierarchical editability was not starting when the document was changed to allow for granting or restricting field editability. As of Integrity 10.9, the processor reloads the hierarchical editability rules for the new field values. This ensures that a change order can authorize edits at the node level appropriately.

For more information, see article [CS223198](#) in the Integrity Support Center.

Errors occur when creating a related item if an underlying item has new related items

Trying to create a relationship when an underlying item has new related items causes errors to occur. Initially, a message indicates that an unknown error has occurred and that the problem must be corrected before the relationship can be created. Clicking **OK** in response to this error results in a null pointer exception. As of Integrity 10.9, these errors no longer occur, and the related item is created successfully.

For more information, see article [CS214610](#) in the Integrity Support Center.

You are not prompted to save changes when exiting queries, reports, dashboards, or charts

In earlier Integrity versions, you are not prompted to save changes when exiting queries, reports, dashboards, or charts. As of Integrity 10.9, the following prompting behaviors occur:

- In the Integrity client, you are prompted for confirmation when you cancel creating, editing, or copying queries, reports, dashboards, or charts.
- In the Web interface, you are prompted for confirmation when you cancel creating, editing, or copying queries or reports.
- In the Integrity Administration Client, the administrator is prompted for confirmation when creating or editing top-level objects. Such objects include users, groups and dynamic groups, projects, states, types, fields, triggers, test verdicts, and test results. They also include queries, reports, charts, and dashboards. The administrator is also prompted for confirmation when canceling the copying of queries, reports, charts, dashboards, types, and triggers.

For more information, see article [CS85503](#) in the Integrity Support Center.

Integrity client stops responding when attempting to obtain and display messages from the Integrity server

The Integrity client can stop responding when attempting to obtain messages from the Integrity server for display in the system tray. As of Integrity 10.9, the client obtains and displays system messages successfully.

Client runs out of memory when creating and editing document items

When editing an item in the **Document** view, an `out of heap - mks.ic.ci.ui.swing.itemview.ModifyItemEntryPanel$2` error occurs if the Integrity client runs out of memory. As of Integrity 10.9, this memory leak is effectively reduced.

For more information, see article [CS91332](#) in the Integrity Support Center.

Queries containing AND or OR operators do not return correct results when context-based text searching is disabled

In Integrity 10.8, when context-based text search was disabled, text search syntax was optimized incorrectly in cases where a logical AND or OR relationship was specified between filters for the same text field. As of Integrity 10.9, queries containing an AND or OR operator return correct results.

For more information, see article [CS224139](#) in the Integrity Support Center.

Propagate Traces wizard fails against live documents if versioned content exists

When running the **Propagate Traces** wizard against a document with a trace to a requirement that is versioned, an error occurs. Additionally, entering the backing item ID for a versioned content item results in an error. As of Integrity 10.9, the **Propagate Traces** wizard runs successfully with a document containing versioned traces.

For more information, see article [CS210789](#) in the Integrity Support Center.

During multiple-row editing, deleting a content item selects the last child of the next node when this node has child items

During multiple-row editing, assume that you are modifying a document that has the following content items:

```
Content 1
....
Content 5
Content 6
Content 6.1
Content 6.2
Content 6.2.1
Content 7
```

If you delete Content 5, you expect Content 6 to be selected. However, Content 6.2.1, which is the last child of the next node, is incorrectly selected instead. If the next node has no child items, selection works correctly. As of Integrity 10.9, the next node is selected correctly, even when it has child item.

For more information, see article [CS221702](#) in the Integrity Support Center.

It can take a long time to save large documents that have multiple-row editing enabled

In Integrity 10.8, saving a large document when multiple-row editing is enabled can take a long time, even for a small number of changes. Large copy and paste operations also caused poor save performance while using multiple-row editing. As of Integrity 10.9, the performance of the save operation in these situations is improved.

For more information, see article [CS223713](#) in the Integrity Support Center.

During multiple-row editing, when multiple conflicts are present, a save operation can result in the selection of a random unresolved conflict

In Integrity 10.8, during multiple-row editing, saving changes when multiple conflicts exist leads to random selection of unresolved conflicts in the document. The next conflict selected for resolution can appear random.

As of Integrity 10.9, if you attempt to save a document that has unresolved conflicts during multiple-row editing, the row that contains the first unresolved conflict is selected. If you click the down arrow ↓ for the drop-down list of conflicts, the next row containing the same conflict type is selected. For more information on navigating conflicts, see “Conflicts Navigation” in the *PTC Integrity User Guide*.

For more information on this issue, see article [CS229351](#) in the Integrity Support Center.

Unable to copy a section from a historical view of a document to a live document

In Integrity 10.8, the following issues can occur when copying a section from a historical view of a document to the live version of the same document:

- When copying a section from a historical view of the document as a subsection of itself in the live document, the copied section is not displayed in the live document. The rows below the target row disappear in the Content pane of the live document. However, refreshing the live document correctly restores all rows. This issue occurs during single-row editing only.
- When copying a section from the historical view of the document below any subsection of itself in the live document, an error appears. Consequently, the copy operation is not successful. This issue occurs during single-row editing and multiple-row editing.

As of Integrity 10.9, these issues no longer occur when copying a section from a historical view of a document to the live version of the same document.

For more information, see article [CS229951](#) in the Integrity Support Center.

Count values are missing from labels on Integrity charts

In Integrity 10.8, Integrity charts did not display count values in labels by default. As of Integrity 10.9, this Integrity chart setting is updated to show count values in labels by default.

For more information, see article [CS224396](#) in the Integrity Support Center.

Integrity does not support Visio 2013 for OLE objects

In Integrity, OLE preview images are not generated when Visio 2013 content is inserted inline in rich text fields. As of Integrity 10.9, the preview images are properly generated.

For more information, see article [CS188378](#) in the Integrity Support Center.

Warning message for a potential duplicate item does not appear consistently in the Integrity client GUI or Web interface

As of Integrity 10.9, a warning message appears consistently in the Integrity client GUI or Web interface when you attempt to create an item that has potential duplicates. The warning message appears if the Integrity administrator has enabled mandatory duplicate detection in the Integrity Administration Client.

For more information, see article [CS225259](#) in the Integrity Support Center.

Dashboards that use a project filter with a filter type of Fixed ignore the filter and display items for all projects

When a dashboard uses a project filter with a filter type of **Fixed**, the project filter list shows only the selected projects. However, the charts, reports, and queries on the dashboard display the items for all projects, rather than filtering them based on the project filter. The issue occurs only in the GUI.

As of Integrity 10.9, reports, and queries on the dashboard only show the appropriate items for the project filter.

For more information, see article [CS200838](#) in the Integrity Support Center.

Error logging in the `server.log` file is triggered when certain document operations are performed with the audit log enabled

When performing certain document operations with the audit log enabled, the following error is logged in the `server.log` file:

```
mks.frame.triggers.TriggerException: Field "Document ID" could not be found
```

This error is logged only when the **Document ID** field is renamed before performing certain document operations.

As of Integrity 10.9, this scenario no longer causes an error to be logged

For more information, see article [CS217365](#) and article [CS271810](#) in the Integrity Support Center.

The “Resolve Difference Between Working File Revision and Member Revision” message can be edited

When the “Resolve Difference Between Working File Revision and Member Revision” message appears, the cursor appears in the message window and the message can be edited. As of Integrity 10.9, this issue is corrected.

For more information, see article [CS220531](#) in the Integrity Support Center.

The default width of the Revision column in the document view is too wide

When the **Revision** column is added to the document view, the default width is too wide. As of Integrity 10.9, the default width of the **Revision** column is an appropriate size.

For more information, see article [CS218849](#) in the Integrity Support Center.

Error when using the add attachment from clipboard button in the Test Results Editor

When clicking **Paste from clipboard** in the Test Results Editor to paste an image, the image is not added and the following error appears:

```
There was no image or text found in the clipboard to attach to the result,
so no action was taken.
```

As of Integrity 10.9, this behavior is corrected. The image is now added as an attachment.

For more information, see article [CS223664](#) in the Integrity Support Center.

FVA fields used in notifications do not consistently appear in emails

Field value attribute (FVA) fields used in notifications do not consistently appear in emails, even though the fields display properly on the Integrity item. As of Integrity 10.9, all FVA fields used in notifications appear in emails.

For more information, see article [CS227394](#) in the Integrity Support Center.

In the Items view, filtering by an IBPL field does not work correctly

From the **Items** view, attempting to filter by an item-backed pick list (IBPL) field does not work correctly. When attempting to filter on an IBPL field, the relationship filter window is shown incorrectly. As of Integrity 10.9, the IBPL filter window is shown with the list of items that can be used for filtering in the IBPL field.

For more information, see article [CS223514](#) in the Integrity Support Center.

Empty labels prevent dashboard results from being shown in the GUI

When running a dashboard that contains an empty label, no results are shown for the dashboard. This issue occurs only in the GUI. When it occurs, a null pointer exception error is shown in the client log file. As of Integrity 10.9, this is corrected. When running a dashboard with an empty label, results are shown as expected.

For more information, see article [CS226089](#) in the Integrity Support Center.

Gateway reimport with externally deleted items states the wrong number of deleted items in the summary report

Integrity Gateway supports import and reimport of documents from external source. During reimport, when a heading is deleted externally, the summary report does not include the count of the deleted children under the deleted heading. As of Integrity 10.9, the Integrity Gateway Summary report states the correct item count of deleted items.

For more information, see article [CS189227](#) in the Integrity Support Center.

Importing a Microsoft Word document that contains cross-references in objects displays the **Error! Reference source not found** error in Integrity

Some Microsoft Word documents can contain cross-references inside shapes, canvas, or group objects. After importing such documents in Integrity, the **Error! Reference source not found** error is displayed.

As of Integrity 10.9, after importing such Microsoft Word documents, the cross-references appear in Integrity as follows:

- The texts associated with the referenced fields are retained in the corresponding shape, canvas, or group objects.
- The cross-references from the shape, canvas, or group object are added below the generated thumbnail image in the same item. The texts associated with the cross-references and included in the same paragraph (<w:p> element) are also added below the thumbnail image.
- The formatting of the cross-referenced texts is retained after import.
- The references are maintained after import.

For more information, see “Bookmark and Cross-reference Support” in the *PTC Integrity User Guide*.

Note

For Microsoft Word 2007 documents, Integrity displays the error for the cross-references after importing documents that contain cross-references inside shapes, canvas, or group objects. However, Integrity creates the cross-references below the generated thumbnail image after import.

For more information, see article [CS202860](#) in the Integrity Support Center.

Integrity Manager project permissions are not refreshed for unconnected users

Users that do not connect to Integrity Manager after a project permission update cannot see the available items and change packages associated with that project, although user is connected to Source. As of Integrity 10.9, Integrity Manager project permissions are refreshed correctly in the create change package window.

For more information, see article [CS227290](#) in the Integrity Support Center.

The SIMetrics computation does not work for SI Project fields in the new format

The Computed Field does not compute the SIMetric() formulas after upgrading to Integrity 10.6 and later. The SIMetric() computations based on a project field appears blank after the upgrade.

In Integrity 10.5, the syntax for the Source Project field changed (the canonical path) from `server=icenterv01:7001::project=/Med Device Solution/project.pj::revision=1.3` to `server=icenterv01:7001::project=#location=/Med Device Solution/project.pj#b=1.3`, breaking the computations based on the new syntax. As of Integrity 10.9, computations are modified to work with new syntax of Source Project Field.

Note

User must execute the `si diag --diag=propagatemetrics` command to fix the metric values for data created for Integrity 10.8 and earlier versions.

For more information, see article [CS216096](#) in the Integrity Support Center.

Traces are not moved properly if a node is versioned without any significant changes

When a node is versioned, traces are copied or moved to the new version from the live node, depending on the situation. However, in some cases, a new version of the node is not created, because there were no significant changes at the time of the check in. In these cases, traces from the live node are not copied or moved to the existing version.

This issue occurs only in Integrity 10.5–10.8. As of Integrity 10.9, traces are copied or moved to the appropriate versions. Because trace relationships are now being handled correctly, `im ci` operations now take longer to complete. The `im ci` command is used to check in a new version for documents and content items.

For more information, see article [CS201218](#) in the Integrity Support Center.

When trace relationships to versioned content are moved, the history and item modification event are not recorded

In situations with trace relationships to versioned content, when the document is versioned, the content item is also versioned as a result, and the trace relationship is moved to the versioned item. This is the expected behavior, as described in “Trace Scenario 3” in the “Trace Relationships in Content Versions” topic in the Integrity Help Center.

If the only trace relationships are to versioned content, this move is not recorded in the history of the content. Additionally, there is no item modification event for the trace relationship changes.

This issue occurs only in Integrity 10.5–10.8 in environments that have not migrated to the new relationship table. As of Integrity 10.9, this behavior has been corrected.

For more information, see article [CS228079](#) in the Integrity Support Center.

Half-relationship issues can occur on items related to a document or content item when it is versioned

When a document or content item is versioned, related items that have other related items can lose their outgoing relationship to those items. For example:

- Document A has a relationship to Document B.
- Document B has a relationship to Project C, which appears in the **Documents** field for Document B.
- When Document A is versioned, Document B now has an empty **Documents** field. This half of the relationship is removed incorrectly.
- However, Project C still shows Document B in its **Documented By** field. This half of the relationship is retained correctly.

This issue occurs only in Integrity 10.5–10.8 in environments that have not migrated to the new relationship table. As of Integrity 10.9, this issue has been corrected. Both halves of the relationship are retained.

For more information, see article [CS228080](#) in the Integrity Support Center.

Extra trace to live downstream node is retained when the downstream node is versioned

Traces are not moved correctly when a new node version is checked in. When a new version of a downstream node is checked in, the expected behavior is that the trace relationship to the upstream node would move from the live downstream node to the new version of the downstream node. However, in this scenario, the relationship between the upstream node and the new version of the downstream node is created correctly, but an extra trace remains between the upstream node and the live downstream node.

This issue occurs only in Integrity 10.7 and 10.8 in environments that have migrated to the new relationship table. As of Integrity 10.9, this behavior has been corrected to remove the extra trace relationship when the trace is moved.

For more information, see article [CS232248](#) in the Integrity Support Center.

Integrity API does not show error details in the API output when using the `imeditissue` command with the `--batchEdit` option

When using the `--batchEdit` option with `imeditissue` command, the Integrity Java API does not show the exception details for an item in the API output. As of Integrity 10.9, the API output displays the details of the work item and the item-based exception when you use the `--batchEdit` option with `imeditissue` command.

For more information, see article [CS229704](#) in the Integrity Support Center.

Improved performance when viewing documents using an Integrity server with a Microsoft SQL Server backing database

Following a Microsoft SQL Server database migration to the IIDeltaMap relationship model, there is poor performance when viewing documents.

As of Integrity 10.9, performance has been improved when viewing documents using an Integrity server with a Microsoft SQL Server backing database.

For more information, see article [CS232532](#) in the Integrity Support Center.

Unable to download attachment files with multi-byte filenames using the Web UI in Internet Explorer 11

When using the Web UI in Microsoft Internet Explorer 11, attachment filenames with multi-byte languages cannot be downloaded.

As of Integrity 10.9, attachment files with multi-byte filenames can be successfully downloaded using the Web UI.

For more information, see article [CS232485](#) in the Integrity Support Center.

StackOverflowError displayed when trying to print

When printing from a document, from the **Items** view, or from the **Relationships** view, a `StackOverflowError` is displayed.

As of Integrity 10.9, printing from documents, from the **Items** view, or from the **Relationships** view no longer results in the `StackOverflowError` being displayed, and print operations are successful.

For more information, see article [CS91443](#) in the Integrity Support Center.

During multiple-row editing, modifications to the Project field value are limited using the embedded panel

During multiple-row editing, you can no longer modify the Project field value for a document using the embedded panel. When no changes have been made to the document, you can modify the Project field by selecting **Document ► Change Project** or by selecting **Document ► Properties**.

Third-Party Integrations: Integrity 10.9 Fixed Issues

The following issues have been fixed for Third-Party Integrations in Integrity 10.9.

Thread safety is improved

As of Integrity 10.9, thread safety is improved for multi-threaded applications using the C API.

For more information on this issue, see article [CS93174](#) in the Integrity Support Center.

Javadocs formatting issue

There is a formatting issue with the *Event Trigger Java Documentation* help available from the Integrity server home page. The javadoc for the `ScriptEnvironment` bean contains improper bold text. As of Integrity 10.9, the text is formatted correctly.

For more information, see article [CS224377](#) in the Integrity Support Center.

Web service fails to return information for the `imviewfield` command

When sending a SOAP request that uses the `imviewfield` command through a web service, the following error message is returned:

```
MKS170064: The command succeeded but there was an error processing the output in
the web services layer
http://webservice.mks.com/2009/Generic/fault">Invalid valuelist type: "null"
```

As of Integrity 10.9, this issue is corrected and the `imviewfield` command can be used successfully in this scenario.

For more information, see article [CS216213](#) in the Integrity Support Center.

Microsoft Visual Studio integration is broken if multiple co-located top-level sandboxes exist

After upgrading to Integrity 10.8, the Microsoft Visual Studio integration is not able to find the correct sandbox if the solution has multiple co-located top-level sandboxes. As of Integrity 10.9, the Microsoft Visual Studio integration works properly when the solution has multiple co-located top-level sandboxes.

For more information, see article [CS223341](#) in the Integrity Support Center.

Cannot share or import a newly created web site solution using the Integrity Microsoft Visual Studio 2013 integration

As of Integrity 10.9, sharing a new web site solution or importing a web site solution using the Integrity integration with Microsoft Visual Studio works correctly in all supported versions.

For more information, see article [CS230201](#) in the Integrity Support Center.

Change detection is not properly applied

When using an integration to synchronize a date-time value with a date-only field in Integrity, change detection is not properly applied. As of Integrity 10.9, the change detection is properly applied.

For more information, see article [CS215111](#) in the Integrity Support Center.

Miscellaneous: Integrity 10.9 Fixed Issues

The following miscellaneous issues have been fixed in Integrity 10.9.

White space at the end of a password causes logging in to the Web UI to fail

When you have a white space at the end of your password, you can log in to the Integrity client GUI successfully. However, logging in to the Web UI fails. As of Integrity 10.9, logging in to both the Integrity client GUI and Web UI succeeds.

For more information, see article [CS88455](#) in the Integrity Support Center.

General Notes: Integrity 10.9

Server Configuration and Administration: Integrity 10.9 General Notes

The following notes explain general changes made to Server Configuration and Administration in Integrity 10.9

Migrate relationship data to new database table before upgrading

Integrity 10.7 introduced a new database storage model and table for relationship data. Before upgrading to Integrity 10.9, the relationship data from the old relationship table must already have been migrated to the new relationship table using a 10.7 or 10.8 Integrity server.

Note

If the migration has not occurred before attempting an upgrade to Integrity 10.9, the upgrade will not succeed. However, the database will still be usable to run the original version of Integrity.

The new relationship table is more compact and grows at a significantly slower rate than the relationship table that it replaces. For more information on migrating relationship data, consult the 10.8 version of the *PTC Integrity Upgrading Guide*.

Full Installation required for upgrade to Integrity 10.9

Integrity 10.9 is an incremental release that is similar in scope to other 10.x releases. As the packaged Java version is now updated to Java 8u60, upgrading to PTC Integrity 10.9 requires a full installation of the Integrity client and Integrity server. PTC recommends full testing, planning, and preparation for the upgrade. The time it takes to upgrade may increase over previous releases. For more information, see the *PTC Integrity Upgrading Guide*.

SQL Server transaction log affects disk size allocation

If your implementation of Integrity is backed by a Microsoft SQL Server and the `IssueDeltaAtoms` and `IssueDeltas` contain a large amount of data, then a large amount of disk space is needed for the SQL Server transaction logs. Before upgrading, test the upgrade on test servers to determine the size of the disk space that is needed for the SQL Server transaction logs. Then use that information to set the maximum size of the database transaction log. Also ensure that there is sufficient hard disk space size allocated where the transaction log resides.

Incoming external reference (IER) fields provide support for future functionality

As of Integrity 10.9, a new field type called incoming external reference (IER) has been added. This field type is used to indicate that a requirement has a trace relationship to an object in a product lifecycle management (PLM) system.

The functionality to create a trace relationship to a PLM object is not immediately available at the Integrity 10.9 release. Until and unless functionality exists to create a trace relationship to a PLM object, you can ignore this field type.

Security Issue Resolved

As of Integrity 10.9, a security issue involving Apache Commons Collections was resolved.

Software Configuration Management: Integrity 10.9 General Notes

The following general notes explain general changes made to Software Configuration Management in Integrity 10.9.

Lightweight development paths are now named extendable development paths

As of Integrity 10.9, “lightweight development paths” are now named “extendable development paths” when referenced in the product and its documentation. Exceptions have been noted in the documentation for remaining instances of the legacy “lightweight” term.

Creating an extendable development path automatically extends to live subprojects

Creating an extendable development path configures all subprojects as build and marks them as extendable. As of Integrity 10.9, if the **On Live Configuration** option was set to **Retain the existing live configuration of the subproject** when the development path was created, then creating an extendable development path automatically extends to those live subprojects.

Workflows and Documents: Integrity 10.9 General Notes

Field Filter is now named Other Field Filter

As of Integrity 10, for the **where** field filter, **Field Filter** is now renamed **Other Field Filter**. This option provides for editing an advanced filter.

While creating a custom field of type pick using an inactive value, an error message is displayed

In the command line interface, when a user edits a custom field of type pick and adds or updates the pick values with any of the deleted pick values, then a warning message is displayed that the value is already being used in the CLI. However, in the graphical user interface using the deleted pick value, disables the **OK** button.

Only positive integers, including 0 can be used as pick values. While creating a custom field of type pick, the pick value is prepopulated according to the largest pick value used (including the deleted pick values).

Third-Party Integrations: Integrity 10.9 General Notes

The following notes explain general changes made to Third-Party Integrations in Integrity 10.9.

Integrity API now provides commands to view constraints

Beginning with Integrity 10.9, the Integrity API includes constraints commands that provide the ability to view information about all of the input requirements for fields on Integrity items. This includes both system-defined limitations and administrator-created constraints and definitions. For example, the API can provide information about permitted state transitions and the allowed values for a field. This new functionality enables external integrations and apps to be created that are consistent with the existing Integrity input requirements. For more information, see the *PTC Integrity Integrations Builder Guide*.

When using constraints commands in the Integrity API, only Editing Item Value fields in IBPL constraints are supported

When using the `im itemconstraints` command in the Integrity API, the property constraint that is shown for an IBPL field only reflects administrator-created IBPL constraints if the **Editing Item Value** option is selected. IBPL constraints that use the **Target Field** option are not supported.

Constraints command only exposes Integrity picklist values by label

In the response for a `im itemconstraints` command in the Integrity API, a comparison filter expression on a picklist field is expressed using the string-based labels of the pick values. This is consistent with the values that are displayed to users in an external application. However, when an external application compares the values of this field, the results of some comparisons might not be consistent with the results in Integrity, because Integrity performs these evaluations using IDs instead. The external application does not have enough data from the constraints command to perform a correct evaluation.

For example, suppose that a picklist is defined with the values “Small,” “Medium,” and “Large.” An expression that checks for values less than “Medium” would resolve to “Small” in Integrity, where the evaluation is performed using IDs. However, that expression resolves to “Large” in an external application, where the evaluation is performed using labels.

New Integrity server property to limit the number of allowed values that are displayed for a constraints command

The new Integrity server property `mksis.constraintsAPI.maxAllowedValues` provides a way to limit the number of allowed values that are shown when using a constraints command. If the number of values for a constraint exceeds this limit, the allowed values are not shown for that constraint.

This value can be set to any integer from -1 to 10,000. The default value is -1, which means that no limit is defined.

This information is not included in the *PTC Integrity Server Administration Guide* for Integrity 10.9. It will be added in a future release.

Miscellaneous: Integrity 10.9 General Notes

The following notes explain general miscellaneous changes made in Integrity 10.9.

Documentation Update: File Vaulting Content Merged into *PTC Integrity Server Administration Guide* and *PTC Integrity Help Center*

The contents of the *PTC Integrity File Vaulting for Configuration Management Guide* available for Integrity 10.8 has been merged into the 10.9 version of the *PTC Integrity Server Administration Guide* and the *PTC Integrity Help Center*.

For more information, see “File Vaulting for Configuration Management” in the *PTC Integrity Server Administration Guide*.

Documentation Update: `im diffsegments` command details corrected

An erroneous note has been removed from the `im diffsegments` command documentation as of the 10.9 version of the *PTC Integrity Integrations Builder Guide*.

For more information, see article [CS228113](#) in the Integrity Support Center.

New Features: Integrity 10.9

Server Configuration and Administration: Integrity 10.9 New Features

The following new features have been added to Server Configuration and Administration in Integrity 10.9.

Set a hard limit for the bulk data cache

It is now possible to set a disk hard limit for the bulk data cache. When a limit is set, any attempt to add more data to the bulk data cache (that would increase it to be larger than this size) results in a pause while the system waits for content to be removed from the bulk data cache.

The following properties were added for this feature:

- `si.properties`
 - `si.ServerCache.default.bulkDiskHardLimit`
 - `si.ProxyCache.default.bulkDiskHardLimit`
- `im.properties`
 - `im.ServerCache.default.bulkDiskHardLimit`
 - `im.ProxyCache.default.bulkDiskHardLimit`

For more information, see the following topics in the Integrity Help Center:

- “Configuration Management Properties in `si.properties`”
- “Workflow and Document Properties in `im.properties`”

Can perform text searches in a query view when results exceed 10,000 items

The `mksis.im.itemTextFilterThreshold` property controls the maximum number of items that can be returned before the **Show items containing** text search filter is disabled in the Integrity Web interface.

In Integrity 10.9, the maximum value of the property has been increased from 10000 to 25000 items. If the number of records returned is higher than the value of the property, then the text filter is disabled.

Note

The default value of the `mksis.im.itemTextFilterThreshold` property has not changed.

For more information, see article [CS89300](#) in the Integrity Support Center.

Identify Integrity build information from a support package

In Integrity 10.9, administrators can now access build information from a support package using the server diagnostic command `serverversioninfo`. The build information available with this command includes:

- Product version number or service pack number
- Build number

-
- API version
 - All installed hotfixes

Build information is also available through the `collectSupportPackage` server diagnostic command.

For more information on the commands, see “To run server diagnostics in the CLI” in the Integrity Help Center.

For more information, see article [CS198185](#) in the Integrity Support Center.

Software Configuration Management: Integrity 10.9 New Features

The following new features have been added to Software Configuration Management in Integrity 10.9.

New policy to disable differencing and merging store by reference members

This release of Integrity includes the new policy **Disable Visual Difference and Merge for Store by Reference Members**. If the archive for a member is stored by reference, this policy does not permit users to difference or merge the file using Integrity. Users can still difference and merge the file with a third-party tool if a **Third Party Difference Tool** or **Third Party Merge Tool** value is specified in the Integrity client preferences.

This policy can be useful when a stored by reference text archive contains very large revisions and differencing or merging the member using the Integrity client is likely to exceed the available resources.

This policy is documented in the “General Policy Options” topic in the Integrity Help Center.

For more information, see article [CS220090](#) in the Integrity Support Center.

New policy to prevent keyword expansion

Administrators can configure Integrity to ignore keywords when users perform configuration management operations, by setting the policy **Ignore Keywords**. This policy overrides user keyword settings. This policy can be useful when users work with external source code that contains keywords that do not expand appropriately for Integrity.

This policy is documented in the “Keyword Policy Options” topic in the Integrity Help Center.

For more information, see article [CS84510](#) in the Integrity Support Center.

Recursively extend a development path starting from subprojects that are already part of the development path

Users can recursively extend an extendable development path starting from subprojects that are already part of the development path. This can be useful if a previous attempt to recursively extend a development path failed. Users can retry from the original subproject without needing to manually find all of the unextended subprojects.

For information on using the **Recursive Extend Development Path** action, see the Integrity Help Center.

New options are available when creating a development path

There are new options available when creating a development path in the GUI. You can now specify the way to create the development path selecting a value for the new **Creation Method** option. You can also specify how to treat live subprojects by selecting a value for the new **On Live Configuration** option. Those options replace the **Resulting Subproject Configuration** option.

For the CLI, the `--creationMethod` and `--onLiveConfiguration` options replace the `--resultingSubprojectConfiguration` option.

Note

The Configuration Management Web interface continues to use the legacy option **Resulting Subproject Configuration**. The new options are not available in the Web interface.

For more information, see “Creating a Development Path” in the Integrity Help Center.

Workflows and Documents: Integrity 10.9 New Features

The following new features have been added to Workflow and Documents in Integrity 10.9.

Full version of multiple-row editing with Undo

While Integrity 10.8 introduced a beta version of multiple-row editing with **Undo**, Integrity 10.9 supplies a full version. When you turn on multiple-row editing in the **Document** view, you can perform the following actions:

- Edit multiple rows before saving
- Save all edits within a session in a single transaction
- Undo and redo edits, inserts, moves, and deletes that are made within a session

-
- Show and hide pending deleted rows
 - Restore pending deleted rows
 - Restore field edits for a single row
 - Resynchronize changes with the current server values and navigate the conflicts to be resolved
 - View the number of conflicts and missing mandatory fields that must be addressed before saving

For more information, see “Using Multiple-Row Editing” in the Integrity Help Center.

Pending import for Gateway

You can choose to reimport a Microsoft Word document to a temporary location on the client machine. You can then review this pending import in the **Document** view before saving the document to the Integrity server.

The new Gateway option for pending imports is available only for reimporting Microsoft Word documents. Pending imports can be used for both GUI and automated situations. The user who performs the import is the user who reviews the document before saving it. The review can be done immediately after reimporting or any time later.

The client machine stores the temporary file for review. When the user logs in and opens the document for the first time, the pending import opens for multiple-row editing. The user must save or discard changes before the document or client can be closed.

The **Pending Imports** view allows a user to see all pending imports awaiting review on the servers to which the user is connected.

For more information, see “Opening a Pending Import for Multiple-Row Editing” in the Integrity Help Center and the “Importing Content” section in the *PTC Integrity Gateway User Guide*.

DSD updated for DOCX import sample files to support up to nine Microsoft Word document heading levels

The sample DSD for DOCX XSLT import scripts on the Integrity client has been updated. The sample scripts now support the import of Microsoft Word documents with up to nine heading levels. Previously, the sample scripts supported Word document imports containing Headings 1 through 6 only. In Integrity 10.9, up to nine heading levels are maintained on document import, document export, and when editing in Word directly from Integrity.

For more information, see article [CS89358](#) in the Integrity Support Center.

Shared items no longer appear in text queries or text search results by default (163279, 163599)

By default, shared items do not appear in the following:

- Text queries
- Text searches
- QBR and FVA fields
- Reports
- Charts
- Dashboards

The ability to filter query results for shared items that are referenced by nodes is only available by using the `type.isSharedItem` option in the CLI. For more information, see the CLI man pages for the `im createquery` and `im editquery` commands.

Administrators can configure specific queries to include shared items in their results. For more information, see “Workflow and Document Diagnostics” in the Integrity Help Center.

If a 10.8 or earlier version of the GUI client is used, shared item filtering may not work as expected. For more information, see [Workflows and Documents: Known Issues on page 110](#).

Perspectives in the Document view

Perspectives are sharable, customized, configured views of documents created using advanced filters. You can open, save, edit, delete, reset and, share perspectives. Perspectives can be shared via e-mail notification with a URL link. Manage perspective allows you to open, delete, and close perspectives.


For more information, see “Using Perspectives” in the Integrity Help Center.

Advanced Filter in the Document view

You can use Advanced Filters with multiple operators to apply complex filtering criteria for a document in the Document view.

For more information, see “Filtering in the Document View” in the Integrity Help Center.

Mandatory field tracker in the Document view

When multiple-row editing is turned on, the mandatory field tracker  displays the total number of mandatory fields that require input values for new and edited rows in the current session.

For more information, see “Mandatory Field Tracker” in the Integrity Help Center.

Triggers support for custom fields

Two new bean methods are added in the *ScriptServerBean* to support the Custom Fields field and the Custom Field Values on Integrity:

- *ScriptFieldBean* *getCustomFieldsFieldBean()*
- *ScriptFieldBean* *getCustomFieldValuesFieldBean()*

Two new beans are added that represent custom field definition and custom field value instances:

- *ScriptCustomFieldBean* represents a single custom field definition instance on Integrity.
- *ScriptCustomFieldValueBean* represents a single custom field value instance on Integrity.

Following bean methods are introduced to manipulate the custom field and custom field value instances.

1. Retrieve custom field definitions and custom field values instances.

- *ScriptIssueBean*
 - *ScriptCustomFieldBean* *getCustomFieldBean(String name)*
 - *ScriptCustomFieldBean()* *getCustomFieldBeans()*
 - *ScriptCustomFieldValueBean* *getCustomFieldValueBean(String name)*
 - *ScriptCustomFieldValueBean[]* *getCustomFieldValueBeans()*
- *ScriptIssueDeltaBean*:
 - *ScriptCustomFieldBean* *getOldCustomFieldBean(String name)*
 - *ScriptCustomFieldBean[]* *getOldCustomFieldBeans()*
 - *ScriptCustomFieldValueBean* *getOldCustomFieldValueBean(String name)*
 - *ScriptCustomFieldValueBean[]* *getOldCustomFieldValueBeans()*
 - *ScriptCustomFieldBean* *getNewCustomFieldBean(String name)*
 - *ScriptCustomFieldBean[]* *getNewCustomFieldBeans()*
 - *ScriptCustomFieldValueBean* *getNewCustomFieldValueBean(String name)*
 - *ScriptCustomFieldValueBean[]* *getNewCustomFieldValueBeans()*

2. Add, remove, and modify the custom field definitions and the custom field value instances:

- *ScriptIssueDeltaBean*
 - *ScriptCustomFieldBean* *createCustomField (String name, String datatype, String description, Object defaultValue)*

- *ScriptCustomFieldBean createCustomField(String name, String datatype, String description, Object defaultValue, Map<String, Integer> allowedPicks)*
- *ScriptCustomFieldBean removeCustomField(String name)*
- *ScriptCustomFieldBean createCustomField(String name, String newName, String description, Object defaultValue)*
- *ScriptCustomFieldBean createCustomField(String name, String newName, String description, Object defaultValue, Map<String, Integer> allowedPicks)*
- *ScriptCustomFieldValueBean setCustomFieldValue(String name, Object value)*

For more information, see “Event Trigger Java Documentation,” which is available on the Integrity Server home page.

Custom Fields and Custom Field Values

Fields in Integrity are created at the global level and are assigned to specific Item Types for capturing information throughout the development lifecycle. To create new fields, a user must be an administrator and any attributes created are applicable to all instances of a given type. Project managers or project administrators cannot customize any fields that are specific to their project without involving a system administrator and affecting the entire system.

Custom Fields and **Custom Field Values** are project-specific attributes assigned to specific Item Types for capturing information. The data type for **Custom Fields** and **Custom Field Values** fields are custom data types. The project manager can create attributes for these fields with the data types integer, float, logical, short text, pick, and date (including the time).

For more information, see “Using Custom Fields and Custom Field Values” in the *PTC Integrity Server Administration Guide*, and see “Creating Custom Fields and Specifying Custom Field Values” in the *PTC Integrity User Guide*.

For more information on known limitations of the custom fields functionality, see [Workflows and Documents: Known Issues on page 110](#).

Third-Party Integrations: Integrity 10.9 New Features

The following new features have been added to Third-Party Integrations in Integrity 10.9.

PTC MKS Toolkit 10.0 for PTC Integrity

PTC Integrity 10.9 includes PTC MKS Toolkit 10.0 for PTC Integrity.

Support for Git Integration

PTC Integrity 10.9 supports integration with Git. The PTC Integrity Git integration provides the following features:

- Enables tracking of Git commits to the Integrity change packages associated with Integrity items.
- Supports enforcement of change package creation. Consequently, all changes to Git remote repository have valid Integrity items associated with it.
- Supports Git (version 2.5.0 and later) and GitLab (Community Edition version 7.14.3 or later and Enterprise Edition version 8.4.3-ee or later) type of Git deployment.

For more information, see the *PTC Integrity Git Integration Guide*.

Integrity 10.9 Integration with IBM Security Access Manager

Integrity 10.9 can now be configured to work with IBM Security Access Manager (ISAM). In this configuration, authentication of users is handled by ISAM whereas authorization is still enforced by Integrity Server. This support is designed to work with client certificate-based authentication (PKI Authentication). For more information, see the *PTC Integrity™ Server 10.9 for IBM Security Access Manager Guide*.

2

Integrity 10.8 Release Notes

Release Highlights: Integrity 10.8	55
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- These release notes contain information you should read before installing and running Integrity 10.8. The information includes release highlights and lists of fixed items, general notes, and new features, which are grouped by functional areas.
- For the most recent copy of the release notes, refer to the PDF version that is available from the Integrity Support Center at <http://www.ptc.com/support/integrity.htm>. You can also view Integrity guides and current information on supported Integrity product versions, platforms, Web browsers, databases, and Integrity integrations.
- The “Fixed Issues” and “Known Issues” sections include Integrity reference numbers for all fixed and known issues in the summary title. When you report a particular issue, you are notified when it is fixed.

The “General Notes” section contains important information on upgrading, compatibility, and deprecated features.

- Integrity 10.8 is a service pack release. This incremental release is similar in scope to other 10.x releases. As with any release, PTC recommends full testing of the upgrade process. This change can affect the length of time your upgrade takes and should be accounted for in testing, preparation, and planning. For more information, see the *PTC Integrity Upgrading Guide*.
- In each Integrity release, some new features require changes to ViewSets that can make ViewSets edited with a newer Integrity client incompatible with

older Integrity clients. When publishing ViewSets to an environment where some Integrity clients have not been upgraded, ensure those ViewSets do not have an adverse impact on users of Integrity clients from previous releases. For example, it is not recommended that a ViewSet from the current release be configured as mandatory for a user of a legacy Integrity client, even if that version of the Integrity client is supported for connecting to the current release of the Integrity server.

- In the Integrity Help Center, context-sensitive content is linked from help links in the user interface. Most of this content is localized. However, not all content is available in every language. As a result, you can expect to find mixed English and localized content if you are accessing a localized version of Integrity.

Release Highlights: Integrity 10.8

The Integrity 10.8 release provides many major enhancements in each of the following functional areas.

Server Configuration and Administrative

Major server configuration and administration enhancements include:

- Performance and scalability-driven relationship storage changes
- Localizable administrative objects (Fields, Test Result Fields, Types, and States)
- Ability to set either a Finder dialog or a query for users to be able to add items in relationships
- Ability to create the restricted domain group
- Improvements in visualization and propagation of SCM Project permissions
- Support for accessing the Integrity Web interface using Firefox ESR 38
- Support for Oracle Database 12c

Software Configuration Management

Major software configuration management enhancements include:

- Offline bulk data storage in file vault
- Windows Explorer integration (available for download at <http://www.tortoisesi.org>)
- Enhanced “View Permissions” dialog from source client to offer better usability
- Ability to create a scoped sandbox with selected subprojects
- View of all locks in a project or project variant
- Summary view showing all changes in a selection of change packages
- Ability to deactivate or lock down a development path
- Filtering of inactive or dropped development paths in the Project History view
- Ability to copy permissions recursively on development paths
- Ability to restrict the project with permitted principals
- Ability to extend a lightweight development path to include selected subprojects
- Performance improvements for retargeting sandboxes
- Selective change package rollback capabilities
- New SI difference algorithm for improved performance and resource usage with better handling of large sized files

Workflows and Documents

Major workflows and documents enhancements include:

- Multiple-row editing for documents
- Ability to undo and redo changes during multiple-row editing
- A document difference view
- Support in rich text fields for superscript, subscript, justify, font properties, and symbols
- Options to control drag-and-drop behavior in the Document view

Miscellaneous Integrations

Major miscellaneous integration enhancements include:

- Gateway enhancements:
 - Microsoft Word, Project, and IIF integrations recognize the `field-type=ibpl` attribute in the mapping configuration and display the value of the IBPL fields if an attribute is present
 - Ability to review the logs for IDs of the items that are added, deleted, changed, or skipped during an import operation
 - Ability to export and import documents that contain subdocuments for which users do not have access permissions

Fixed Issues: Integrity 10.8

Server Configuration and Administration: Integrity 10.8 Fixed Issues

The following issues have been fixed for Server Configuration and Administration in Integrity 10.8.

Removing a relationship between two items via an event trigger removes only half the relationship (187350, 947056)

If a relationship between two items is removed as part of an event trigger, in some circumstances, the event trigger only removes half the relationship. In Integrity 10.8, removal of the reverse relationship is handled correctly.

The `encryption.properties` file is being overwritten in some migration situations (958141)

When the `encryption.properties` file contains valid data, the file is no longer overwritten in error.

-XX:CompileCommand options are lost during a server or agent properties migration

In this release, server or agent properties migration operations now correctly handle custom `-XX:CompileCommand` options added to the `mksservice.conf` file.

Security fixes for Integrity Web interfaces (917813)

Integrity 10.8 includes security fixes for Integrity Web interfaces.

The output of the `runsql diag` loses millisecond precision when datetime fields are queried (1051180)

In Integrity 10.7, the output of the `runsql diag` loses millisecond precision when datetime fields are queried.

Requires Boot column is incorrect for `mksis.logging.email.threshold` (726008)

Changing the value for `mksis.logging.email.threshold` requires a server restart, but this is not indicated in the **Requires Boot** column of the **Properties** list in the Administration client. In Integrity 10.8, a check mark now appears in the **Requires Boot** column to indicate that a restart is required.

The value of Default Reference Mode is not shown correctly in the history of the segment type (1044791)

The **Default Reference Mode** value is not recorded correctly in the history of the segment type. This issue occurs in both the Administration client and the CLI. In Integrity 10.8, this issue has been corrected and the history shows the correct **Default Reference Mode** value.

Changes made to the Display Rows value are not shown in the history of the field (1040295)

Changes made to the **Display Rows** value for a field are not recorded in the history of the field. In Integrity 10.8, this issue has been corrected and changes to the **Display Rows** value are correctly recorded in the field history.

The value of Store to History Frequency is not shown correctly in the history of the field (1040300)

When the **Store to History Frequency** value for a field is set to **Monthly**, it is shown in the history of the field as being set to **Delta**. This issue occurs in both the Administration client and the CLI. In Integrity 10.8, this issue has been corrected and the history shows the correct **Store to History Frequency** value.

Changes made to the project filter within a chart are not recorded in the history of the chart (867045)

Changes made to the project filter within a chart are not recorded in the history of the chart. In Integrity 10.8, this issue has been corrected and project filter changes are correctly recorded in the chart history.

Changes made to an IBPL backing filter are not shown correctly in the history of the field (161700)

If you add or change an item-backed pick list (IBPL) backing filter for a field, the field history indicates that an unknown property was modified. In Integrity 10.8, changes made to IBPL backing filter are correctly recorded in the history of the field.

Admin ACL permission is required to make test Web services calls (1042830)

The Admin ACL permission is required to make test Web services calls. In Integrity 10.8, this permission is no longer required.

ORA-00932 error appears when using `TestVerdictName (LastResult ())` in the computation definition of a custom field (1010580)

When using `TestVerdictName (LastResult ())` in the computation definition of a custom field in certain scenarios, the following error message appears: “An unhandled database exception has occurred. Please contact your administrator.” The error supplied by the database is: “ORA-00932: inconsistent datatypes: expected CHAR got CLOB.” In Integrity 10.8, `TestVerdictName (LastResult ())` can be used successfully in the computation definition of a custom field.

Integrity Server restarts unexpectedly due to JVM crash (1071402)

Integrity Server restarts unexpectedly due to JVM crash. In Integrity 10.8, these restarts no longer occur.

Note

If you have applied a workaround for this problem in your current installation by editing the `mksservice.conf` file, this fix is not automatically applied when you upgrade to Integrity 10.8. Contact PTC Technical Support for assistance.

An error can occur when viewing the server log file in the Administration client (991043)

An `ArrayIndexOutOfBoundsException` error can occur when you are viewing the server log file in the Administration client. In Integrity 10.8, this error no longer occurs.

An error can occur when handling caches (1051490)

A null pointer exception error can occur when handling caches. In Integrity 10.8, a generic connection exception error is written to the server log instead of a null pointer exception error if a connection cannot be established.

An error while creating a development path when the `DevpathInheritACL` policy is set to false (1031912)

If an attempt is made to create a development path when the `DevpathInheritACL` policy is set to false, and `OpenProject` permission is not globally granted, an error message “You are denied access to this project” is unexpectedly displayed.

The `removeRelatedIssue` trigger method did not consider QBR fields (998046)

The `removeRelatedIssue` trigger method does not consider query-backed relationship (QBR) fields. This issue also affects the `addRelatedIssue`, `getAddedRelatedIssues`, and `getRemovedRelatedIssues` trigger methods. In Integrity 10.8, an error message appears if these methods are called on a QBR field.

The `getLockRecords` method returns a null pointer exception if the member is not locked (490342)

The `getLockRecords` method returns a null pointer exception if the member is not locked. In Integrity 10.8, the method runs without errors and the results indicate that there are no locks for the member.

No explanation is provided for why duplicate detection cannot be configured (924714)

In certain circumstances, the settings under **Duplicate Detection** in the Administration client are not available, and no explanation is provided for why the fields are unavailable. In Integrity 10.8, a message is provided to explain why these settings are not available.

Copying the administrative objects Field, State, and Type must guarantee a unique name and display name (1066947)

In Integrity 10.8, when copying a **Field**, **State** or **Type**, the generated new name and display name for the copied administrative object does not conflict with the existing one.

Viewing overridden Fields or States in the Edit Type or View Type window, in the Overrides for Fields or Overrides for States view shows description as blank (1054566)

While viewing overridden **Fields** or **States** in the **Edit Type** or **View Type** window, in the **Overrides for Fields** or **Overrides for States** view the description is seen as blank when the description is not overridden. In Integrity 10.8, the global description appears when the description is not overridden.

Database Migration fails in Oracle and SQL server for the state and field description override for the types that no longer exist in the system (1060735)

During Database Migration while upgrading to Integrity 10.8, the state and field description overrides for types are discarded for the types that no longer exist in the system.

Admin Staging can result into a state where a Type on production has two fields having the same display name (1050545)

Admin Staging can result into a state where a **Type** on production has two fields having the same display name. In Integrity 10.8, when an attempt is made to create fields on the staging server and then edit the display name to one of the existing one, after admin migration, the Admin Staging migration results into a state where a **Type** on production has two fields having the same display name.

Database Upgrade to Integrity 10.7 fails with NullPointerException (1057361)

Upgrade to Integrity 10.7 fails with NullPointerException if the **Content** column in the **Fields** table has a null value. In Integrity 10.8, during the database migration, the fields having null **Content** column are skipped.

Copying from a relationship field from a table in Integrity Client copies the names of the fields, states, and types from the table rows (1064866)

Copying from a relationship field from a table in Integrity Client copies the names of the fields, states, and types from the table rows. In Integrity 10.8, the display names of the fields, states, and types are copied.

Invalid Java objects are created in the Oracle database (1071921)

Invalid Java objects are created in the Oracle database, resulting in unnecessary notifications to the database administrator.

In Integrity 10.8, when the Integrity server starts, it runs the following statements to manage invalid Java objects that are defined in the Oracle database:

1. `drop java class`—Removes Java classes that were used in previous versions of Integrity but no longer exist.
2. `create or replace java class`—Ensures that the Java class definitions in the Integrity server installation are correctly loaded into the database.
3. `alter java class...resolve`—Ensures that the interdependencies between the Java classes that are loaded into the database are explicitly validated.
4. `create or replace package` and `create or replace package body`—Ensures that user-defined data types and functions are up-to-date.

Previous Integrity releases performed a subset of these operations during server startup; when IM fields were created, edited, or deleted; and during other actions. Integrity 10.8 minimizes the number of times that the Integrity server performs these operations. They are performed only once during Integrity server startup and when explicitly requested using the `im diag -diag=reloadfunctions` command.

Note

In Integrity 10.8, the Oracle IM Package Body is marked invalid as a result of DDL modifications to the Issues table. For more information, see “Oracle IM Package Body is marked invalid as a result of DDL modifications to the Issues table (1079956)” in the topic [Server Configuration and Administration: Known Issues on page 100](#).

In Japanese installations of the Integrity server, SOAP requests fail due to misinterpreted date format (1075735)

In Japanese installations of the Integrity server, SOAP requests fail because the date format is misunderstood by Integrity. In Integrity 10.8, this issue has been corrected.

Software Configuration Management: Integrity 10.8 Fixed Issues

The following issues have been fixed for Software Configuration Management in Integrity 10.8.

Performance of `createdevpath` operation degrades as the number of checkpoints increase (1006779)

As the number of checkpoints increase in a project, the creation of a development path becomes significantly slower. In Integrity 10.8, the time taken to create a development path no longer significantly depends on the number of checkpoints that a project has.

The Project History view performs slowly when there are many checkpoints with labels on the project (1015595)

Performance improvements have been implemented.

Retarget Sandbox operation has poor performance (962700)

Performing a **Sandbox ▶ Retarget** operation when the **Sandbox** view is open has a negative performance impact. In Integrity 10.8, the operation is now ten times faster.

Integrity performance improvements (1070964)

The following performance issues have been corrected in Integrity 10.8:

- PTC System Monitor shows that `AgentImpl.upsync()` takes longer than expected due to a hostname lookup. In Integrity 10.8, performance for remote clients has been improved by eliminating the need for the hostname lookup.
- The Integrity Client has poor performance or becomes unresponsive when the document outline view is expanded for a large document. In Integrity 10.8, expanding the document outline view in the Integrity Client is much more responsive.
- When the `ScriptFieldBean.computeHistoryNow(int[] ids)` method is called, it causes the Integrity Server to update to its field cache unnecessarily. In Integrity 10.8, calls to the `ScriptFieldBean.computeHistoryNow(int[] ids)` method no longer update the **Last Evaluation Time** property on a field, which required a refresh of the field cache. The property and field cache are updated only when the `ScriptFieldBean.computeHistoryNow()` method is called to compute the field across all applicable Integrity items.
- Performance is slow in the **Document** view when performing certain operations, such as move operations. In Integrity 10.8, these performance issues have been corrected.

Project Change Package Differences performance improvements (992683)

This release includes performance improvements to the `Project Change Package Differences` command in the Integrity client. These improvements reduce the amount of time it takes to launch the view on large project hierarchies.

Poor performance when displaying large lists for configuration management functionality (1053386, 1055981)

In Integrity client, a data filter was added to several locations for displaying lists used by configuration management functionality. When such a list contains thousands of entries, the data filter can take a significant amount of time to display that list's contents. In Integrity 10.8, the data filter displays entries quickly, even when the list it is displaying contains many entries.

Projects viewed from Project History may display incorrect revision information (1063147, 1062202)

Incorrect checkpoint revision information can be displayed under the following set of conditions:

- You have opened a **Build Project** view using the **Project History** view for a shared subproject.
- The shared subproject has a common ancestor with the project it is shared from.
- The selected checkpoint revision was created starting at the common ancestor.

In Integrity 10.8, the **Project History** view correctly displays content associated with the selected revision of the project.

Initial revision of the development path is not identical to the development path root (1055972, 1054488)

When the `createdevpath` command is initiated from a build other than the chosen variant revision base, the initial content of the development path is incorrect. In Integrity 10.8, the initial content of the development path is identical to the development path root.

Development path name does not display in Project History view when a checkpoint filter is applied (1062873)

When the project history is filtered to only show checkpoints on a development path, the development path name is not displayed. In Integrity 10.8, the development path name appears correctly.

The Move to Change Package operation in the Working File Changes view prompts too often (1030228, 1030204)

When you move multiple entries to a change package using the **Working File Changes** view, Integrity 10.7 displays confirmation windows per command operation per subproject. You are unable to click **OK to All** on the first prompt to bypass all subsequent prompts. Depending on the project structure, this can result in a considerable number of prompts to address before the move to change package operation is complete.

In Integrity 10.8, you are prompted only for add member operations when moving files to a change package in the **Working File Changes** view. All other entry types move to the change package without prompting.

When more than one member is being added, you can click **OK to All** to select and apply all options from the prompt, including **Archive Description**, to all subsequent add member operations. Integrity then completes the move to change package operation with no additional prompts.

For more information, see “Working File Changes View” in the *PTC Integrity User Guide*.

The Working File Changes view does not refresh automatically after a non-transactional change package is submitted (1036080, 1030665)

After submitting a transactional change package using the **Working File Changes** view, the view refreshes automatically. However, after submitting non-transactional change packages, you must manually refresh the view. In Integrity 10.8, the **Working File Changes** view refreshes automatically after you submit a change package, regardless of whether the submitted change package is transactional.

The Working File Changes view does not update CP ID value when a modified member is checked out

When checking out a modified member from the **Sandbox** view, the **Working File Changes** view does not automatically update to display the locked member or its **CP ID** (Change Package ID).

In Integrity 10.8, the **Working File Changes** view updates to display **CP ID** values for checked out members.

Software Configuration Management views in databases are not maintained on Oracle (1076405)

In Integrity 10.7, Software Configuration Management views in databases are not maintained on Oracle. In Integrity 10.8, these views, previously marked as invalid in 10.7, have been rebuilt and are maintained properly.

Source repository corruption possible if a user runs out of tablespace (1024538)

This issue is applicable only to an Integrity server using an Oracle database. An Oracle DBA can impose a tablespace quota on an Integrity user. If the user runs out of space in the database, an Integrity check-in operation can result in a corrupt member. In Integrity 10.8, additional checks have been put in place to ensure that corruption does not occur.

Improved solution for determining if a revision is a duplicate (1027170)

A duplicate revision is created automatically if you re-add a dropped member or add a member with an existing archive by selecting **Member ▶ Add** rather than **Member ▶ Add From Archive**. These revisions never have an associated change package and should be included automatically in any propagation. In previous versions of Integrity, a string comparison determines whether a revision is a duplicate revision. In Integrity 10.8, a duplicate revision flag specifies duplicate revisions.

Cannot recurse when using `si deleteprojectlabel` and `addprojectlabel` (129440)

It is not possible to recurse into subprojects when using the `si deleteprojectlabel` and `si addprojectlabel` commands, and that behavior is inconsistent with `si checkpoint` command behavior. In Integrity 10.8, when adding or deleting a project label in the GUI and CLI, you can specify to recurse into subprojects. For information on the recursion logic, see the command documentation.

Empty folders are deleted when a subproject is dropped (125642)

When you drop a subproject, any folders that become empty are deleted as well. Previously, only the files were deleted.

Sandbox not updated after Retarget Sandbox operation (137053)

If sandbox registry information is not available after a **Sandbox ▶ Retarget** operation, the sandbox uses the original development path information instead. In Integrity 10.8, the sandbox uses the correct development path information.

Full text of long chart labels cannot be viewed (122820)

Previously, lengthy chart labels were truncated if they were too long to be displayed. In this release, in the GUI, you can hover over a truncated label to view full label in the tooltip, or adjust the font and font size of the labels to improve the way that they are displayed.

Change package ID is different in member history if entry was moved (1022124)

When performing a **Change Package ▶ Entry ▶ Move** operation, the **Member History** view displays the originating change package ID and not the destination change package ID, until the Integrity server is restarted. Additionally, the same change package appears as the **Creation CPID** in other views until the Integrity server is restarted. In Integrity 10.8, the **Member History** view displays the correct change package ID.

Errors when viewing change packages (1012130)

An `ArrayIndexOutOfBoundsException` error and `InvocationTargetException` error can occur when the **My Change Packages** view displays multiple change packages. The errors can also occur for other views that display multiple change packages. In Integrity 10.8, the errors no longer occur.

Error modifying columns in Locate view (1028769)

Adding or removing columns in the **Locate** view can return a `SettingChangedException` error. In Integrity 10.8, there is no error.

Lines Added and Lines Deleted values incorrectly display after moving change package entry (1024273)

When moving a change package entry from one change package to another change package, the **Lines Added** and **Lines Deleted** column values appear as zero (0) in the destination change package. In Integrity 10.8, the **Lines Added** and **Lines Deleted** column values are correct.

Comparing projects includes results for build subprojects (1018938)

In Integrity 10.8, when comparing two checkpoints, the `si projectcpdiff` command does not recurse into checkpoints for projects that were explicitly configured as build subprojects.

Build subprojects have their checkpoint descriptions appended (163858)

When checkpointing a project that contains an explicitly configured build subproject, the **Project ▶ Checkpoint** command does not checkpoint that build subproject and the command does not append the checkpoint description. When appending the project checkpoint description later in the **View Project Information** window, the command behavior should be the same as with the **Project ▶ Checkpoint** command; instead, the same build projects have their checkpoint descriptions appended. In Integrity 10.8, such build projects do not have their checkpoint descriptions appended.

Archive corruption (1044947)

An archive can be corrupted if a binary file is first added as a text archive when the file is empty, and then the file is later configured to be stored by reference after data has been added to that file. In Integrity 10.8, it is not possible to check in binary data into a text archive by setting the storage format to be stored by reference; consequently the archive corruption cannot occur.

When backing up or restoring a project, projects are published after migration exceptions are encountered (1024443)

When creating a backup or restoring a project from a backup, projects were being erroneously published after exceptions were encountered during a migration. In Integrity 10.8, migrations no longer continue when exceptions are encountered so that an administrator can review and correct migration errors before creating or restoring a backup.

lockRecordDetailFormat option does not apply to si rlog command (1017795)

The `lockRecordDetailFormat` option does not apply to the `si rlog` command. In Integrity 10.8, this option has been removed from the command documentation.

--fields=isSystemManagedFields option can be used with im fields command (1047930)

In Integrity 10.8, you can use the `--fields=isSystemManagedFields` option with the `im fields` command to return a true or false value to indicate whether the field is system-managed.

Unclear warning message appears when Integrity detects conflicting transactions for the same relationship field (1055590)

The message “Warning: Relationship *<field ID>* possibly corrupted on item *<item ID>*” appears when Integrity detects conflicting transactions for the same relationship field. This message implies that corruption has occurred, when the intention is to say that possible corruption has been prevented. In Integrity 10.8, the message has been reworded.

A ClassCastException error occurs when trying to create a subproject called 'project.pj' (960739)

This error occurs if you try to create a subproject (*<directory>/project.pj*), where *<directory>* is the same as the file name of the project in which the subproject is created. For example, assume that the subproject `project.pj/project.pj` is created inside the project `development/project.pj`. The directory portion of the subproject conflicts with the file name of the project. In Integrity 10.8, all user input is validated before the transaction is committed to the server. This means that you can no longer create a subproject with the same name as the directory or an existing member.

Error message MKS147202 appears incorrectly (972484)

If you attempt to create a duplicate development path name, the following incorrect error message appears: “MKS147202: The development path name <dev path name> already exists on subproject <subproject name>.” In Integrity 10.8, the correct error message appears.

Discarding a change package or change package entry with a create subproject entry causes error message to appear (1020096)

In certain circumstances, discarding a change package or change package entry that includes a create subproject operation causes the following error message to appear: “Could not execute sql.Statement: mks.frame.sql.FrameworkSQLException.” In Integrity 10.8, the change package or change package entry can be discarded successfully and the error does not appear.

Null pointer exception error occurs when closing a Member History view (259231)

When a **Member History** view is open as the client is restarted, and the user tries to close that **Member History** view after the client restart, a null pointer exception message is displayed. In Integrity 10.8, closing the **Member History** view no longer results in an error being displayed.

Built object out of sync with lock state error (1047076, 977710, 1039217)

There are Built object out of sync with lock state errors returned in the Integrity server log for an implementation of Integrity that uses the database repository. In Integrity 10.8, known causes of the Built object out of sync with lock state errors have been corrected.

Integrity server runs out of memory when checking in large text files (103249)

An out of memory error occurs for the Integrity server when checking in large text files. In Integrity 10.8, a new difference algorithm is implemented to enhance performance of the check in operations for large text files. Consequently, the out of memory error no longer occurs when checking in large text files.

Verify member checksums on check in (1035381, 923193)

In Integrity 10.8, a new Configuration Management policy generates checksums on member add and member check in operations that are used to verify member data received by the server. This policy is enabled by default. As checksum validation is performed, if validation fails, the member file is copied to the `data/failed_checksum` directory under the Integrity server install directory.

Validation failure details are logged on the Integrity server. For more information, see article CS137714 in the Integrity Support Center at <http://www.ptc.com/support/integrity.htm>.

Retaining changes while checking out modified binary files (957555)

In the Integrity client GUI, while checking out modified binary files in your sandboxes, if you want to retain the changes that you made, a confirmation message appears. You need to select the checkbox **Retain Binary Files** in the **Options ► Advanced** menu of the **Checkout** command.

- If the **Retain Binary Files** checkbox is neither selected nor cleared, a confirmation message appears to confirm if you want to retain the changes in the new working file, before checking out the modified binary file.
- If the **Retain Binary Files** checkbox is selected, the modified binary file is directly checked out, without any confirmation message.
- If the **Retain Binary Files** checkbox is cleared, a confirmation message appears to confirm if you want to overwrite the modified file.

For more information about retaining changes while checking out modified binary files in the CLI, see `si co` command help in the man pages.

Source usability improvements bundle (1036084)

The following performance issues have been corrected in Integrity 10.8:

- Don't show branch IDs for dropped development paths when opening a project **As of** a specific date (1032208).

In Integrity 10.8, in the Open Project Wizard, when you select **As of** to open a project as of a specific date, branch IDs for dropped development paths are no longer available for selection. The list includes only branch IDs for existing variant branches.

- When a development path is deleted, provide better handling of the error "MKS125445: The variant path <devpath> does not exist (anymore) ." (1031340).

In Integrity 10.8, if you delete a development path when a corresponding variant sandbox or variant project view is opened and expanded in the background, multiple errors are no longer shown. Instead, a single, informational message replaces the content of the view for the deleted development path.

- This is applicable to any sandbox or project view (docking or floating) where the topmost project/subproject is on the development path that has been deleted.

-
- If the deleted development path applies to one or more subprojects in the view's configuration, meaning that it is not the topmost project/subproject, then you see one error message, and the affected subprojects are forcibly collapsed. The remaining elements in the view that are unaffected by the deleted development path remain available for selection and interaction.
 - Checking in or out a member when either checkpointing a project or creating a development path on the same client machine causes the Integrity client to become unresponsive until the checkpointing or path creation operation completes (1028243).

In Integrity 10.8, the Integrity Client no longer becomes unresponsive if you try to check a member in or out while another source operation from the same client machine is underway. However, the member is not checked in or out until after the other source operation completes.

Connection timeout during Resync CP operation (1080035)

If a Resync CP operation is running unattended and a message appears without being addressed, an Integrity client timeout may occur, which prevents the operation from completing successfully. In Integrity 10.8, the connection is maintained during the entire Resync CP operation, including while waiting for a response to a message.

When Integrity uses the new relationship table, deleting items can result in unexpected behavior (1054990, 1055006)

When Integrity uses the new relationship table, deleting items can result in unexpected behavior, including constraint violations and `IndexOutOfBoundsException` exception error messages. In Integrity 10.8, these issues are no longer present.

Workflows and Documents: Integrity 10.8 Fixed Issues

The following issues have been fixed for Workflows and Documents in Integrity 10.8.

Inability to submit a set of item changes as a group in the Document view (101998)

Using new multiple-row editing with Undo functionality, you can edit multiple rows before saving all edits within a session in a single transaction.

For more information, see “Using Multiple-Row Editing” in the *PTC Integrity User Guide*.

Inability to undo and redo edits in the Document view (101996)

Using new multiple-row editing with Undo functionality, you can undo and redo the edits, inserts, moves, and deletes that you have made within a multiple-edit session.

For more information, see “Using Multiple-Row Editing” in the *PTC Integrity User Guide*.

Excessive memory requirements and load times for opening large documents in Integrity 10.7

Changes made in Integrity 10.7 to improve document usability resulted in excessive memory requirements and load times when opening large documents. In Integrity 10.8, opening large documents requires less memory and provides shorter load times. The Content pane displays all content items for immediate viewing. As you scroll or edit the document, additional fields that require editability rules, relevance rules, or mandatory rules are loaded as needed. While these fields load, images of clocks are shown.

Poor performance in Integrity API (1034372)

Tests conducted against the Integrity API discovered a performance bottleneck. In Integrity 10.8, infrastructure code is refactored to remove this bottleneck.

When launching new views, the Integrity client can become unresponsive pending a restart of the client (147726)

In 10.8, the client launches new views without becoming unresponsive.

Performance issue when item has large number of rich content fields (1016957)

It can take a long time to display items for types that contain a large number of long text fields with rich content enabled, when those fields are also populated with default text. In Integrity 10.8, performance is improved when displaying items that contain such fields.

Test Result Editor loads unnecessary computed fields, which adversely affects performance (1049897, 1052319)

The Test Result Editor loads extremely slowly because unnecessary computed fields are being evaluated. In Integrity 10.8, the Test Result Editor loads normally.

Allow null/unspecified values to be set for integer fields in rules through the Integrity GUI (128409, 1021402)

Rules on integer fields containing null/unspecified values using the Integrity client GUI are now supported.

The Label value displayed on the History tab in the Integrity client is not consistent with the Label value displayed on the Labels tab (1018240)

Label values are now consistent across various Integrity interfaces.

Right-click shortcut menu Replace option tooltip is incorrect for an Attachment field (1023373)

The tool tip text is now correct.

Parameter substitution does not work for Test Step fields in the Document view (921412)

Parameters on related items are now properly substituted.

Dragging and dropping content items from the Document view to the Outline view collapses the expanded node (1042374)

Dragging and dropping a content item from the **Document** view to the **Outline** view collapses the expanded node in the tree. Users must manually expand the node to confirm the position of the added content item in the outline. Now, dragging and dropping an item no longer collapses expanded nodes. Users can position the added content item as part of the drag and drop action.

The format for Branched Date is incorrect for items that are not visible to the user (1029323)

In the Integrity client, the format for **Branched Date** is incorrect for items that are not visible to the user. For example, Mon Mar 09 13:08:14 EDT 2015 is shown instead of Mar 9, 2015 1:08:14 PM. The Integrity 10.8 client now uses the correct format for **Branched Date**.

Unable to view query definition when query name contains multi-byte characters (990116, 1006217, 1081387)

Although you could successfully create a query name with one or more multi-byte characters, an error appeared when you tried to view the query definition. Integrity 10.8 displays the query definition for a query name with multi-byte characters.

An error can occur if names for admin objects in an Oracle database are long and contain extended or multi-byte characters (1024807)

In an Oracle database, the **Name** column for admin objects is 100 bytes in length rather than 100 characters in length. If you enter a 100-character name, every multi-byte character increases the byte count by 1, putting the name over the column limit. In Integrity 10.8, the **Name** column on shared objects now supports multiple-byte characters. This means that the ORA-12899 error about the value being too large for the column no longer occurs.

Unable to preview OLE object in Document view after editing in MS Word (930900)

Unable to preview OLE object in Integrity client **Document** view after editing in MS Word and publishing the changes to Integrity. In Integrity 10.8, multiple PNG files do not get attached to the content for every alternate change. Instead the PNG file that is created after the first publish gets updated.

ViewSets do not remember the display fields that have been configured for an open Relationships view (260388)

ViewSets do not remember the display fields that have been configured for an open **Relationships** view. When the Integrity client is restarted, the open **Relationships** view shows different relationships than before. In Integrity 10.8, display fields in a ViewSet are saved and displayed.

Unable to edit rich text fields after configuring a ViewSet to dock the Items views in the left pane and right pane (923215)

The Integrity client GUI does not allow editing rich text fields after docking the **Items** views in the left pane and the right pane. This is due to the change in customization settings for **Items** views.

In Integrity 10.8, after making changes to the docking configuration, you can press F5 to refresh the **Items** views. Refreshing the **Items** views enables the editing of rich text fields.

The Items view loads all computations twice if the sort field is also a computation (1028544)

When the **Items** view loads and the initial list of items is sorted by a computation, the computation is retrieved twice:

- Once so that the items can be sorted
- Once to display the value

In Integrity 10.8, this is no longer the case for all computations. Computations that are able to calculate values using the fields on the item are no longer required to load a second time. However, computations that do require information from other items or run queries are still loaded twice.

Tabbed rich text content renders incorrectly in the Integrity client (1009270, 1001534)

Pre-formatted tabbed rich text content is now formatted correctly and is consistently visible in the Integrity client, web, and CLI.

Backslash ("\") shows as "¥" in a rich content field (1058376)

Depending on the computer locale and operating system, a backslash in a rich content field could show as "¥" instead of "\". In Integrity 10.8, backslashes are shown.

The rich text fields in Integrity do not support enhanced rich text features like subscript, superscript, symbols, special characters, and mathematical operators (131461, 232413, 266988)

The Web interface and the Integrity client GUI do not support enhanced rich text features like subscript, superscript, and symbols (including special characters and mathematical operators).

With Integrity 10.8, subscript and superscript are available in the rich text editor. You can also insert symbols, special characters, and mathematical operators in the rich text using the Integrity client GUI.

For more information, see “Working With Rich Content” and “Formatting and Editing Text” in the Integrity Help Center.

You can also export Integrity documents to MS Word retaining the enhanced rich text features without loss of content. The rich text content is also supported when you import documents or publish content to Integrity from MS Word.

For more information, see the previously referenced topic and “Using the Word Editor” in the Integrity Help Center.

For more information on the Gateway support for enhanced rich text features, see the *PTC Integrity Gateway User Guide*.

Integrity 10.7 does not correctly set height and width values when a Word document with an embedded image is added to rich text field (1039193)

In Integrity 10.7, images added to the **Document** view have their height and width values set. This allows the view to reserve space to display the image, which decreases the number of times that the row height changes. When a Word document with an embedded image is added to a rich text field, the image does not get its height and width set. In Integrity 10.8, the height and width is set correctly when a Word document with an embedded image is added to a rich text field.

Content is rendered incorrectly in rich text fields after importing a Microsoft Word document that contains multiple overlapping bookmarks (995559)

A Microsoft Word document can contain two or more bookmarks whose targets reference the same text in the document. Importing such a Microsoft Word document in Integrity can cause incorrect rendering of the imported content in the rich text fields.

In Integrity 10.8, the imported Microsoft Word document content with multiple overlapping bookmarks is rendered correctly in the rich text fields.

Selecting table cell content in a rich text field of Integrity client GUI can lead to selection of the entire table cell (961736)

In Integrity 10.8, you can select the table cell content in rich text fields without selecting the entire table cell. To select an entire table, click a table cell and select **Format ▶ Table ▶ Select Table**. Alternatively, you can use **Select Table** on the shortcut menu or the rich content toolbar to select an entire table.

Inactive users not shown in user lists when using the history or change package filters with a user attribute (865018, 913056)

If you attempt to add a filter to a query using the **Add a history (by user) filter** option or the **Add a change package filter** option with a **Created By** attribute, inactive users are not shown in the list of users. In Integrity 10.8, inactive users are included in the user list.

When editing a type from the Integrity CLI, you can inappropriately remove a field that is used in a constraint (734190)

If you use the `im edittype` command from the CLI to remove a field that is used in a constraint, the edit incorrectly succeeds. This is because the `im edittype` command does not test for required fields being visible in field relationships. In Integrity 10.8, this test is performed. If you attempt to remove a field that is used in a constraint, the following error message appears:

```
Error editing type [Type Name]: One or more constraints
contain invisible field(s): [Field Name]
```

Customers who applied HotFix HF-S130000000-024 are unable to make edits in views containing IBPL fields in their column sets (1053059)

After applying HotFix HF-S130000000-024, any item, query result, or **Document** view that contains IBPL (Item Backed Pick List) fields as part of the view's column set are not updated when related items are edited. Attempting to save edits on related items displays an error in the client. In Integrity 10.8, views containing IBPL fields as part of their column set are updated when related items are edited.

Admin staging migrations and solution installations can incorrectly save document locking attributes (1032158, 1033386)

When document locking attributes are set on Type objects, they can be incorrectly saved during a staging migration or solution installation. In some cases, the staging migration or solution installation fails with an error. In other cases, attributes that contain references to admin objects may not be saved correctly.

In Integrity 10.8, admin staging migrations and solution installations correctly save document locking attributes. Existing attributes that are incorrect can be fixed manually by remigrating the affected Type objects. Edit all Type objects that have locking enabled and migrate the changes to the production server.

Unable to input floating field value using scientific notation in Integrity CLI (1036662)

Parsing of floating field values in the Integrity CLI and API is not correct when using scientific notation. The exponent is missing when entering a scientific notation value in Integrity. In the Integrity CLI, a floating field value cannot be input using scientific notation. In Integrity 10.8, these issues have been corrected.

Unable to drop a node on the row header (1042375)

When you drag a node from the content pane to the row header or from the relationship item to the relationship row header, the node is added at the bottom of the document. In Integrity 10.8, this issue has been corrected. When you perform the same action, a tooltip appears along with the blocked symbol.

Some fields show up as none when viewing an item type in the CLI or API (1036083, 1033397)

When running `im viewtype` in the CLI or API, fields for the item type may show up as `none`. When creating or editing an item type, you specify the fields to display. For example, if **Copy Fields** is selected in the tree in the left pane, you specify the fields to copy by default for this item type in the right pane. However, when `im viewtype` is run in the CLI or API, `none` may show up for the fields to display. When `im viewtype` is run in the CLI or API in Integrity 10.8, the fields specified for display for the item type are shown correctly.

Editing conflict error message appears when pasting content in the Document view (1045609)

When **Item Preview** is set to **Editable** in the **Options** window, copying and pasting text using the right-click menu causes an editing conflict error to appear incorrectly. In Integrity 10.8, this error message no longer appears.

A document content item that has a mandatory constraint rule on any field cannot be deleted (928775, 1038687)

When attempting to delete content from a document where the content has a mandatory constraint on a field, the following error appears: “Error MKS147911: The following fields which are mandatory have not been filled in: *<Field>*” while deleting content in Integrity. In Integrity 10.8, fields that are necessary for the evaluation of constraints are loaded. This error message no longer appears.

A live field cannot be added to a document view or item preview (1019851, 1032476)

If a live field is displayed as a column in a document view or item preview, the following error message appears: “Cannot add to layout: constraint must be a string (or null).” In Integrity 10.8, live fields appear correctly in document views and item previews and this error message no longer appears.

When batch editing items, the Edit Items window and data filter are subject to field relevance rules (129248)

Before Integrity 10.8, when batch editing items in the Integrity client GUI or Web, changing a field value does not immediately refresh the data filter or the **Edit Items** window.

In 10.8, when batch editing items, field relevance is evaluated immediately after each field is populated. Fields appear or disappear immediately in both the data filter and the **Edit Items** window based on configured relevancy rules.

In the case where a field update brings back a previously irrelevant field, that field is added to the data filter, but the field does not automatically display on the **Edit Items** window. Manually select the field from the data filter to display it in the window and edit its value.

After clicking a link on the History tab of the Item Details view, an error message appears (1024698)

On the **History** tab of the Item Details view, when there are too many items to view on the tab, the following message appears: “The field value is too long to be displayed in history. Click here to see the value.” When the link is clicked, the following error message appears: “Missing IN or OUT parameter at index: 7.”

In Integrity 10.8, the link in the message on the **History** tab works correctly and the error message no longer appears.

Cannot open the Source Trace Viewer from a historical Item Details view when the item contains an SI Project field (1058621)

Launching the Source Trace Viewer from a historical Item Details view results in an error when the item contains an SI Project field. In Integrity 10.8, opening the Source Trace Viewer no longer results in an error.

When filtering on a range field in the Document view, an error message appears (1015361)

When you filter on a range field in the **Document** view, the following error message appears: “MKS131372: An unhandled database exception has occurred.” In Integrity 10.8, filtering on a range field works correctly and the error message no longer appears.

Creating a related item on a test case causes an error message to appear in the Test Results Editor (1017906)

When creating a related item on a test case, the Test Results Editor displays the following error message: “-1.” In Integrity 10.8, the related item is created correctly and the error message no longer appears.

On the Test Results tab, the bottom portion of the Assigned User field cannot be seen (922305)

On the **Test Results** tab, the bottom portion of the **Assigned User** field cannot be seen. In Integrity 10.8, the full text can be seen.

Unable to copy or paste content in the Web interface when using Firefox ESR 38 (1050642)

The Web interface does not allow selection of content when using the Firefox ESR 38 browser. Also, double-clicking a text in the Web interface does not highlight the text.

In Integrity 10.8, you can select content in the Web interface when using the Firefox ESR 38 browser. Also when you double-click a text in the Web interface, the text is highlighted.

Null Pointer exception occurs when creating a related item in Web interface (1049646)

Creating a related item for an item in the Web interface by selecting **Create Related Item** opens the **Create Related Item** window. If there is no selection of an item type in the **Create Related Item** window and you click the **OK** button, a null pointer exception occurs.

In Integrity 10.8, the **OK** button is unavailable if an item type in the **Create Related Item** window is not selected. You can create a related item if there is a selection of an item type in the **Create Related Item** window.

Null pointer exception can occur when working with documents (1034537)

A null pointer exception can occur when working with documents. In Integrity 10.8, an informational error message appears in this situation instead.

Null pointer exception occurs when exporting a document with a missing shared content item to Microsoft Word (1018457)

If you have a document with a shared content item that has been deleted and you try to export that document to Microsoft Word, a null pointer exception occurs. In Integrity 10.8, the export to Microsoft Word is successful. The content item whose shared item has been deleted is not included in the exported document.

Error message appears when a virtual item should be created and the user does not have permission to create it (1033562)

When a virtual item should be created and the user does not have permission to create items of that type, the following error message appears: “MKS124311: No valid initial states for type “<type>”.” In Integrity 10.8, the virtual item can be created successfully.

UnsupportedOperationException error appears when batch editing multiple issues and changing a single significant field (990912)

When batch editing items, and only changing a single significant edit field, if there are traces that are updated due to the edit and marked as suspect, the operation fails with an `UnsupportedOperationException` error. In Integrity 10.8, this operation completes successfully.

Error message appears when field relationship has been modified and the view is refreshed (1023739)

When a field relationship is modified and the view is refreshed immediately, the following error message appears: “ORA-06575: Package or function IM is in an invalid state.” This message appears even though the operation completed successfully. In Integrity 10.8, this error message no longer appears.

When deleting items, constraint violation and `IndexOutOfBoundsException` exception error messages can occur (1045123, 1057357)

When deleting items, the following issues can occur:

- The historical item order can become corrupted.
- The process attempts to insert duplicate keys in certain circumstances.
- For an item with multiple relationships, if the related items are deleted from top to bottom, the last related item in the list cannot be deleted.

In Integrity 10.8, these issues no longer occur.

Null pointer exception occurs when trying to run any query in certain `ViewSets` (979176)

It is possible to get your `ViewSets` into a state in which trying to run any query causes a null pointer exception to occur. This happens because Integrity incorrectly allows non-relationship filters to be parsed without error when they are specified using field syntax instead of relationship syntax. During query parsing, Integrity 10.8 forces relationship filters to use the proper relationship filter syntax.

Null pointer exception can occur when filtering item branches in GUI (1029368)

When viewing an item in the Integrity client GUI, filtering the table on the **Branches** tab can cause a null pointer exception error if one or more of branches for that item are configured by the administrator has configured any branches for the item to not be visible to you. The error occurs when **Branched By** is the first column, or if **Branched Date** is the first column and **Branched By** is the second column. In Integrity 10.8, only items visible to you are shown.

Root ID changed when document inserted or included (1073972)

When inserting (or including) a document into another document, the root ID of the inserted (or included) document (now a subdocument) is erroneously set to the subdocument's ID; the root ID should not change. In Integrity 10.8, the root ID of any item (document or content) cannot change after it is set.

Test Management: Integrity 10.8 Fixed Issues

The following issues have been fixed for Test Management in Integrity 10.8.

The test session metrics display incorrect count for test cases after adding test cases within milliseconds of the defined time (142513)

For test cases added to the test documents, the test session metrics sometimes display the incorrect count for the planned test cases. The test session metrics display the incorrect count with respect to the **Tests As Of Date** field of the test session. This happens when you add test cases within milliseconds of the time defined in the test session's **Tests As Of Date** field.

In Integrity 10.8, the planned count in test session metrics displays correct value for test cases added within milliseconds using the **Tests As Of Date** field.

Third-Party Integrations: Integrity 10.8 Fixed Issues

The following issues have been fixed for Third-Party Integrations in Integrity 10.8.

Methods return zero results when run as scheduled event trigger (1043080)

When the `getNewSourceTraceBeans()` and `getSourceTraceBeans()` methods are used in a scheduled event trigger, the methods always return zero results. In Integrity 10.8, the methods return the correct result.

Need a function that only returns active pick field values in event trigger beans (127190)

There is no way to determine what values are active when using the `getPickFieldValues()` method in the `ScriptFieldBean`. In Integrity 10.8, a new `getPickFieldActiveValueList()` method was added to the `ScriptFieldBean` that returns a List of active values. For more information, see the Event Trigger Java Documentation available from the Integrity server home page.

Integrity web services vulnerability (1015240)

An Integrity web services vulnerability exists. In Integrity 10.8, this vulnerability has been removed.

Gateway export of embedded images fails for included / inserted document nodes (1058278)

When a parent document which contains a subdocument which has an image attached in the text field, is exported, the image in the subdocument does not appear in the exported document.

In Integrity 10.8, the image in the subdocument appears, when the parent document is exported.

Miscellaneous: Integrity 10.8 Fixed Issues

The following miscellaneous issues have been fixed in Integrity 10.8.

Integrations to the Integrity server can experience multi-user scalability performance issues during translations for character encoding (1028524)

Performance improvements have been implemented.

All non-severe error messages are logged to the DEBUG category in the Integrity client log (1023266)

All error messages are logged under the ERROR category, regardless of severity or the Integrity component.

SIExceptions are logged under the ERROR category in the Integrity server log (201629)

SIExceptions are now logged under the DEBUG category rather than the ERROR category in the Integrity server log.

When customizing a ViewSet in the Integrity Administration client, selecting Make all Visible, Locked causes all actions to become unavailable (573099)

From the Integrity Administration client, administrators can open the **ViewSets** view by selecting **ViewSet Distribution ▶ ViewSet**. To modify a ViewSet, right-click the ViewSet and select **Edit**. To customize a ViewSet, select **ViewSet Customize**. Expand and select any of the action groups on the left. If an administrator right-clicks in the right pane and selects **Make all Visible, Locked**, all actions incorrectly become unavailable. In Integrity 10.8, all actions remain available after **Make all Visible, Locked** is selected.

General Notes: Integrity 10.8

Server Configuration and Administration: Integrity 10.8 General Notes

The following notes explain general changes made to Server Configuration and Administration in Integrity 10.8.

Integrity 10.8 or later does not support PTC System Monitor 3.0

Integrity 10.8 is only compatible with PTC System Monitor (PSM) 4.0. It is not supported with PSM 3.0 and earlier PSM releases. This is due to an incompatibility with the version of Java that is used with both products. This incompatibility does not allow the Integrity server to start. If you are currently running PSM 3.0 or earlier, you must upgrade to 4.0 before upgrading to Integrity 10.8 or later.

Support for Firefox ESR 38

Integrity 10.8 supports the Mozilla Firefox ESR 38 browser on supported platforms.

With the release of Integrity 10.8, Mozilla Firefox ESR 31 is no longer supported.

Support for Oracle 12c

Integrity 10.8 includes support for Oracle 12c. When connecting Integrity 10.8 to an Oracle database (11g R2 or 12c), specify the service name instead of system identification name.

 **Note**

For the most current product platform support information, see <http://support.ptc.com/partners/hardware/current/support.htm>.

Oracle 11g Release 1 no longer supported

In Integrity 10.8 and later, Oracle 11g Release 1 is no longer supported.

For upgrades, relationship data migration must occur in Integrity 10.7 or 10.8

Integrity 10.7 and 10.8 are the only releases where migrating relationship data is possible. As of Integrity 10.9, an upgrade is not permitted unless relationship data has already been migrated. For more information, see “Migrating Relationship Data” in the *PTC Integrity Upgrading Guide*.

Staging and Deploy functionality no longer supported

In Integrity 10.8 and later, the Staging and Deploy functionality is no longer supported. Any attempt to use this functionality in Integrity 10.8 displays the following error:

Staging and Deploy is no longer supported on current Integrity version

Also the Sandboxes used for the Staging and Deploy functionality are not supported. You cannot migrate such Sandboxes from earlier versions of Integrity to Integrity 10.8 and later.

Generic UNIX installer for Integrity Agent no longer supported

The Staging and Deploy functionality is not supported in Integrity 10.8 and later. Consequently, the generic UNIX installer for Integrity Agent is also no longer supported.

Applying Integrity 10.8 service pack prevents restart of Integrity Agent 10.7

The Staging and Deploy functionality is no longer supported in Integrity 10.8 and later. If the Staging and Deploy functionality is enabled (`mksagent.startup.sd=true`) in the `agent.properties` file, the Integrity Agent fails to start. A `FATAL` category log message in the `agent.log` and `FATAL.log` files is also logged. The log message indicates that the Staging and Deploy functionality is no longer supported. Applying Integrity 10.8 service pack to Integrity Agent 10.7 disables the Staging and Deploy functionality by updating an existing `mksagent.startup.sd=true` property to

`mksagent.startup.sd=false` in the `agent.properties` file. This automatic disabling of Staging and Deploy functionality on the Integrity Agent is required to support remote automated patching.

Software Configuration Management: Integrity 10.8 General Notes

The following notes explain general changes made to Software Configuration Management in Integrity 10.8.

Project files are now in client-side database

As of Integrity 10.8 and later, project information is stored in a client-side database, and consequently there are no `.pj` files in Sandboxes. Project files still display as virtual project files (with the `.pj` file extension) in Integrity interfaces. Instead of project files, project information is stored in a client-side database in the `.mks` directory of the system on which the Integrity client is installed. The location of the `.mks` directory is specified by the `MKS_IC_INSTANCE_DIR` environment variable. By default, on Windows the `.mks` directory can be located in the home directory of the user.

Note

An Integrity user's `.mks` directory must have sufficient space available to fit three copies of the client-side database. The amount of space needed depends on how many Sandboxes the user has, and a minimum of 50 MB available space is recommended.

Dropping a Sandbox is now permanent

As of Integrity 10.8, dropping a Sandbox is now permanent. After a Sandbox is dropped, it cannot be accessed with Integrity. Even if you do not delete the Sandbox files, you cannot import the Sandbox again.

Shared Sandboxes not supported as of Integrity 10.8

Shared Sandboxes are not supported for Integrity 10.8 and later. After the Integrity client upgrade, only the owner of the Sandbox continues to have access to the Sandbox through the Integrity client. Other users who were sharing the Sandbox can no longer access that Sandbox.

Enhanced View Permissions window for the Integrity client

In Integrity 10.8, the enhanced **View Permissions** window for the Integrity client provides better usability for understanding permission inheritance. The **View Permissions** window provides a tree structure for ACLs and the related permissions in a single view. You can determine the permissions for each ACL node in the ACL tree since the permissions and ACLs are highlighted on selection. You can also use the menu commands and the shortcut menu actions to create, modify, or delete ACLs and permissions. The **View Permissions** window also enables you to switch between various development paths available for a single mainline project without exiting the window.

For more information, see the *PTC Integrity User Guide*.

Scripting Sandbox migration during client install

After the Integrity client upgrade, information for Sandboxes is migrated into a client-side database as each Sandbox is opened on an individual basis. It is possible to migrate all Sandboxes as part of the Integrity client upgrade. For information on scripting the Sandbox migration as part of an Integrity client silent install, see article CS217628 in the Integrity Support Center at <http://www.ptc.com/support/integrity.htm>. Also consult the article if your Integrity client upgrade includes a disk drive change and there are existing Sandboxes to migrate.

Third-Party Integrations: Integrity 10.8 General Notes

The following notes explain general changes made to Third-Party Integrations in Integrity 10.8.

Sandbox is no longer dropped by default when Eclipse project is deleted

There is a change to the default preferences for the Integrity Integration with Eclipse and IBM Rational Development Platform. For the option **Drop Integrity Sandbox when Eclipse project is deleted**, the default has changed to false (disabled). By default, the Sandbox is not dropped when an Eclipse project is deleted.

Miscellaneous: Integrity 10.8 General Notes

The following notes explain general miscellaneous changes made in Integrity 10.8.

Integrity client log file date format change (1047390)

The Integrity client log file (`IntegrityClient.log`) date format is now 24-hour time notation instead of 12-hour time notation. For example, 2015-07-28 14:22:39.

Documentation Update: PTC Integrity 10.8 Sandbox scope documentation

At the time of the Integrity 10.8 release, the following documentation issues are present regarding sandbox scope functionality:

- In the CLI man pages for the `si createsandbox` command, the description for the `--filter=outofscope` option for subproject scope is incorrect. The `--filter=outofscope` option displays the members that are in a scoped Sandbox that do not match the current scope.
- In the *PTC Integrity User Guide* and the Integrity Help Center, the following Sandbox scope documentation is missing:
 - details about how out of scope members can exist in a new Sandbox.
 - details about how out of scope subprojects created in scoped Sandboxes may not appear on the file system or in the **Sandbox** view. For more information, see [Software Configuration Management: Known Issues on page 106](#).

These documentation issues will be addressed in a future release.

Documentation Update: PTC Integrity 10.8 Server Administration Guide and Integrity Help Center

At the time of the Integrity 10.8 release, file vault functionality details expected in the English and Japanese versions of the *PTC Integrity Server Administration Guide* and the Integrity Help Center have been made available in a separate document. The *PTC Integrity File Vaulting for Configuration Management Guide* is available online through the PTC – Integrity Support Center at <http://www.ptc.com/support/integrity.htm>.

The contents of this guide will be included in all versions of the *PTC Integrity Server Administration Guide* and the Integrity Help Center in a future release.

Documentation Update: PTC Integrity 10.8 Server Administration Guide

The generic UNIX installer for Integrity Agent is no longer supported in Integrity 10.8. However, the PTC Integrity 10.8 Server Administration Guide and Integrity Help Center erroneously contain two references related to generic UNIX installer for the Integrity Agent in the “Integrity Agent Security” and “Choosing Your Security Policy” topics. This erroneous content will be corrected in a future release.

Documentation Update: PTC Integrity 10.8 Server Administration Guide

At the time of the Integrity 10.8 release, the Japanese version of the *PTC Integrity Server Administration Guide* and the Japanese version of the Integrity Help Center, which is included in an Integrity 10.8 installation and available online through the PTC – Integrity Support Center, contains the following incorrect text in the “Relationship Fields” topic: “End user has at least `CreateSharedAdmin` permission on the set queries.” This erroneous content will be corrected in a future release.

Documentation Update: PTC Integrity 10.8 User Guide

A few topics about adding principals and viewing ACLs in the *PTC Integrity User Guide* and Integrity Help Center indicate that you can type in or select from lists when choosing development paths and principals. However, you cannot type in these fields but rather filter them to limit the choices that are shown in the lists. This erroneous content will be corrected in a future release.

Documentation Update: PTC Integrity 10.8 User Guide

Some localized versions of the “To Manage Restricted Projects” topic in the *PTC Integrity User Guide* contain an incorrect reference to `MySampleProject` in the example section. The corrected sentence in the English version of the guide is as follows:

If the **Overwrite permitted principals** option is selected at the `Sample_Project` project level, the principals at the `S1_Sample_Project` and `Sub1_Sample_Project` subprojects are overwritten by the principals at the `Sample_Project` parent project.

The affected languages are German, Japanese, Simplified Chinese, and Traditional Chinese. At the time of publication, the content could not be corrected.

This erroneous content will be corrected in a future release.

Documentation Update: PTC Integrity Versioning Guide (1085285)

At the time of the Integrity 10.8 release, the Japanese version of the *PTC Integrity Versioning Guide*, which is included in an Integrity 10.8 installation and available online through the PTC – Integrity Support Center, incorrectly contains “10.6” when referencing guides and products in the Integrity 10.8 release documentation. The affected topics include:

- Overview of Document Versioning
- Configuring Integrity for Document Versioning
- Working With Document Versioning

This erroneous content will be corrected in a future release.

New Features: Integrity 10.8

Server Configuration and Administration: Integrity 10.8 New Features

The following new features have been added to Server Configuration and Administration in Integrity 10.8.

Ability to mark domain groups as Restricted from Integrity Administration client

MKS domain users (administrators) can now define restricted groups. To administer such groups, they require the `RestrictGroup` permission under the `mks:system:mksdomain` ACL. This permission can be granted to the principal along with the `AdminServer` permission.

File Vault for Configuration Management

Integrity 10.8 introduces File Vaulting functionality for Configuration Management files. File Vaulting allows store-by-reference revision contents to be stored on disk rather than in the database. This is useful for customers with a large volume of file contents to keep the overall database storage requirements low.

You can use the Migrator tool to move the pre-existing revisions which are marked as reference, from the database to the file vault.

For more information, see the *File Vaulting for Configuration Management Guide*.

Localization capability for administrators

Integrity 10.8 introduces the capability to localize the configuration and add translation strings to Fields, Test Result Fields, Types, and States for the values of the administrative attributes: Display Name and Description.

Integrity also allows the user to view the client user interface in their preferred supported languages: English (en), Japanese (ja), Chinese Traditional (zh_TW), Chinese Simplified (zh_CN), and German (de).

In the new feature:

- Currently only Fields, Test Result Fields, Types, and States are supported for localization.
- A new attribute Display Name is introduced for the Type and State administrative objects.
- The values of the attributes Display Name and Description of the administrative objects are available for translation. These values can be exported and their translations can be imported back into the system.
- Administrator can now have the description of an overridden Field and State on a Type, translated in the supported locales.

For more information, see the Configuration Localization section in the *PTC Integrity Server Administration Guide*.

New property to restrict characters in a development path name

Integrity 10.8 introduces a new source configuration property called `mksis.si.restrictedCharsForDevpathName`. This property enables you to prevent specific characters from being used in development path names.

For more information, see “Source Configuration Properties in the Database” in the Integrity Help Center or the *PTC Integrity Server Administration Guide*.

Software Configuration Management: Integrity 10.8 New Features

The following new features have been added to Software Configuration Management in Integrity 10.8.

New Change Package Entries view shows the net effect of a set of change packages or all of the change packages for a selection of items

Using the **Change Package Entries** view, you can review changes saved to the server for one or more items, change packages, or a combination of both, without having to review individual change packages. You can also review the cumulative effect of changes by selecting a specific member revision and using a net differences gesture.

This new view is available in the Integrity client for change packages from the **Change Packages** menu or for items by right-clicking and selecting **View Change Package Entries**.

For more information, see “Viewing the Net Effect of Change Package Entries” in the *PTC Integrity User Guide*.

Note

You must customize existing ViewSets and the right-click menu under **Configuration Management** ► **Change Package** to enable this new view option in the Integrity client.

The new view is also available using the CLI and API command `si viewcpenries`. For information on this command, see the CLI man pages or the Integrity API documentation.

New Project Locks view shows locks by all users on all members of a sandbox or project

The **View Project Locks** action can be used to find locks by all users on all members of a sandbox or project. You can also remove all or selected member and non-member revision locks if you have the `RemoveOtherUserLocks` permission. To make finding specific locks easier, you can apply a text filter in the new **Project Locks** view as well as in the existing **Locks** view.

In addition to being available via the **Project** view or **Sandbox** view, when you run the **View Project Locks** action on a selected checkpoint in the **Project History** view, Integrity determines which variant that checkpoint corresponds to and finds all locks on that variant, if the checkpoint corresponds to a currently existing variant.

For more information, see “Finding All Locks on Members of a Sandbox or Project” in the *PTC Integrity User Guide*.

View all locks in the system

In the **Locks** view, you can now view all locks in the system. In the GUI, select **Member ▶ Locks ▶ View All Locks**.

From the CLI, you can use the option `--locker=:anyone` with the `si locks` command to return all locks in the system. For information on this command, see the CLI man pages or the Integrity API documentation.

Improved sandbox use by `si resynccp` command when multiple sandboxes are found (1011536)

Sandbox use is improved when using the `--[no]spanProjects` option with the `si resynccp` command. When multiple sandboxes are found, Integrity now uses the sandbox that contains the longest common directory prefix matching the sandbox from which the command is run.

Create sandboxes with selected subproject scope

In addition to defining project members, you can now define what subprojects are included when creating or configuring a sandbox by defining sandbox scope. A sandbox scope transfers specific subprojects or individual members from the Integrity server to the sandbox directory when the sandbox is created. Sandbox scope controls what initially displays in the **Sandbox** view, and controls what subprojects or members are available on the file system.

In the CLI, the `--scope=[subproject:subprojectConfigurationPath]` option can be used for the `si createsandbox` and `si configuresandbox` commands to specify subprojects, where the subproject name is relative to its parent.

In the GUI, the **Create Sandbox Wizard** and the **Sandbox Information ▶ Sandbox Scope** windows are now expanded to include the ability to select subproject scope from a project tree.

Update Integrity Sandboxes with third-party software component source code

You can unzip third-party component software into an empty Integrity sandbox and review all files that have been added, changed, or deleted before committing these changes to the repository.

Checksum verification must be enabled on the Integrity server to use the **Working File Changes** view to review changes to third-party software component source code. Checksum verification is enabled by default in new Integrity 10.8 installations. For Integrity installations upgraded to 10.8, checksum verification is enabled as part of an internal Sandbox migration process. However, you must also manually resynchronize existing migrated Sandboxes using the `--overwriteunchanged` option so that checksum information is calculated correctly.

Improved sandbox use by `si resynccp` command when multiple sandboxes are found (1011536)

Sandbox use is improved when using the `--[no]spanProjects` option with the `si resynccp` command. When multiple sandboxes are found, Integrity now uses the sandbox that contains the longest common directory prefix matching the sandbox from which the command is run.

Error and status report dialogs display flat project path information for Add Project Label and Remove Project Label command operations (1081191)

In the GUI, error and status report dialogs now append flat path project information for Add Project Label and Remove Project Label command operations.

Note

Flat path details are displayed for configuration path readability. For unambiguous project identification, refer to existing configuration path details provided in error and status report dialogs.

Improvements to client memory usage

Client memory usage has been significantly improved in the following scenarios:

- When working with many members that are at revision 1.1. For example, creating a sandbox for a project that was recently imported to Integrity.
- When performing a large operation with the status report window open. Users can further adjust memory usage by adjusting the new **Max Messages Displayed** property.

For more information, see “To set command preferences in the GUI” in the *PTC Integrity User Guide*.

Ability to extend a lightweight (build) development path to a selected subproject

A lightweight development path is created on a project without including any of the subprojects in the development path. With the necessary permission, you can extend a lightweight development path to include the selected subprojects either non-recursively or recursively. Children of selected subprojects are excluded in a non-recursive extension and included in a recursive extension.

You can create lightweight development paths off existing lightweight development paths. You can extend subprojects on non-lightweight development paths created off lightweight development paths.

For more information, see “Extending a Lightweight Development Path” in the *PTC Integrity User Guide*.

A development path can be marked as active or inactive

In the Integrity Client GUI or CLI, you can now activate or deactivate a development path to mark it as active or inactive. Inactive development paths are filtered out of most views and commands. In the GUI, you can use the **Activate** or **Deactivate** options. In the CLI, you can use the `si activatedevpath` or `si deactivatedevpath` commands.

For more information, see “Deactivating a Development Path” and “Activating a Development Path” in the *PTC Integrity User Guide*, and the CLI man pages for these commands.

Copy Project Permissions

Integrity 10.8 introduces **Copy Project Permissions** functionality through which you can copy project permissions across different lines of development for a selected project. Copying project permissions works recursively through the project tree, including projects that have moved, been configured, or have shared subprojects.

For more information, see “Copy Project Permissions” and “Copy Project Permissions Scenarios” in the *PTC Integrity User Guide* and “Development Path ACLs” in the *PTC Integrity Server Administration Guide*.

Manage Project Restrictions

Integrity 10.8 introduces **Manage Project Restriction** functionality through which you can restrict principals from performing certain modifying actions on the mainline or branch of any project. Project restriction works recursively through the project tree. As a part of the restriction operation, you can permit specific users or groups to perform allowed operations to a restricted project. When using

the CLI, you can also use the `im restrict` command with the new `--allowPrincipal` and `--denyPrincipal` options to manage project restriction.

For more information, see “Manage Project Restrictions” in the *PTC Integrity User Guide*.

Ability to revert a change package

You can now revert a change package in the Integrity Client GUI and CLI. For help with using the `si revertcp` command, see the man pages.

For more information, see “Revert CP Overview” in the *PTC Integrity User Guide*.

Usability Improvements to Add Subproject wizard (1051940, 1051520, 1036704)

As of Integrity 10.8, the **Add Subproject** wizard shows the **Date** selector, which you can use to look up a subproject that was current as of a past date. This makes it easier to add a dropped subproject that is currently not registered. Based on the subproject selected, its configuration is pre-populated in the wizard.

Trigger bean updates to support deactivating and activating development paths

The following trigger bean updates have been made:

- The following new classes are available:
`ScriptActivateVariantArgumentsBean` and `ScriptDeactivateVariantArgumentsBean`. These classes make the variant name being activated or deactivated available to script authors.
- For the `ScriptProjectBean` class, the following new methods are available: `deactivateVariant` and `activateVariant`. These methods deactivate and activate variant projects.
- For the `ScriptProjectBean` class, the new methods `getActiveVariants` and `getInactiveVariants` have been added.
- For the `ScriptProjectBean` class, the `getVariants` method has been updated to return both active and inactive variants. If you only want active variants to be returned, you must update your scripts to use `getActiveVariants` instead.

For more information, see the Javadocs.

Change the Integrity Server for a Sandbox (112766)

You can now use the `si retargetsandbox` command to specify a different Integrity Server for a Sandbox. To retarget the Sandbox from its existing Integrity Server to another Integrity Server, use the `--retargetServer` option. The

option can be used when the current server is offline (the new server must be online). For information on command syntax, see the man page for `si retargetsandbox`.

Move a Sandbox to a new location

You can now use the `si movesandbox` command to move a top level Sandbox to a new location on the file system. Previously, you had to drop and then re-import a Sandbox in order to move it. For information on command syntax, see the man page for `si movesandbox`.

Workflows and Documents: Integrity 10.8 New Features

The following new features have been added to Workflows and Documents in Integrity 10.8.

Beta release of multiple-row editing with Undo

When you turn on multiple-row editing in the **Document** view, you can perform the following actions:

- Edit multiple rows before saving
- Save all edits within a session in a single transaction
- Undo and redo edits, inserts, moves, and deletes that you have made within a multiple-edit session

For more information, see “Using Multiple-Row Editing” in the *PTC Integrity User Guide*.

Progress is to continue, with Integrity 10.9 addressing the following:

- Optimize performance
- Visualize pending deleted rows
- Implement other usability enhancements

Document Difference view compares differences between two document selections

You can compare differences in document structure, item-level content, and field-level content using the new **Document Difference** view. From a **Document** view, select **Document ► View Differences**.

This new view presents structural and content changes side-by-side in two document panes. Additions, deletions, moves, and changes are highlighted. Navigation tools enable you to efficiently review and navigate the differences.

For more information, see “Comparing Documents” in the *PTC Integrity User Guide*.

Caution

At the time of the Integrity 10.8 release, information about the impact of Integrity configuration on what is visible in the view is available in the following product documentation:

- The English version of the Integrity Help Center that is included in an Integrity 10.8 installation
- The English version of the *PTC Integrity User Guide* that is included in an Integrity 10.8 installation
- The English and localized versions of the *PTC Integrity User Guide* that are available online through the PTC – Integrity Support Center at <http://www.ptc.com/support/integrity.htm>

This additional content will be included in the localized version of the Integrity Help Center and *PTC Integrity User Guide* that are included with an Integrity installation in a future release.

Enhanced rich text support

You can now select various fonts and font sizes in the rich content fields of the Web interface and the GUI. You can also use the **Subscript**, **Superscript**, and **Justify** features to format text.

For more information, see “Formatting and Editing Text” in the *PTC Integrity User Guide*.

You can insert symbols, special characters, and mathematical operators in the rich text field of the Integrity client GUI.

For more information, see “Inserting Symbols (GUI Only)” in the *PTC Integrity User Guide*.

Gateway supports import of MS Word documents with enhanced rich text content

You can import MS Word documents to Integrity using the Gateway. After the import, Integrity supports the following enhanced rich text features:

- Fonts and font sizes
- Text formatted using **Subscript**, **Superscript**, and **Justify**
- Symbols (including special characters and mathematical operators)

For more information, see the *PTC Integrity Gateway User Guide*.

 **Note**

During import of MS Word document, the custom size of the fonts from MS Word is retained in the rich text fields. However, you cannot use the same font size to format other text in Integrity.

Gateway supports export of Integrity documents to MS Word retaining enhanced rich text content

You can export Integrity documents to MS Word using Gateway. Gateway supports the following enhanced rich text features during the export operation:

- Fonts and font sizes
- Text formatted using **Subscript**, **Superscript**, and **Justify**
- Symbols (including special characters and mathematical operators)

For more information, see the *PTC Integrity Gateway User Guide*.

 **Note**

After the export operation, the fonts that are not available in the operating system are visible as per the MS Word default settings.

Integrity supports enhanced rich text for use in MS Word and for published content from MS Word to Integrity

You can use the enhanced rich text content of Integrity documents in the Word editor. You can also publish the MS Word content to Integrity retaining the rich text content.

For more information on rich text content, see “Working With Rich Content” and “Using the Word Editor” in the *PTC Integrity User Guide*.

Relationship Browse Style

While creating or editing a relationship field, you can now specify the browsing style. In the Integrity Administration Client, you can set the browsing style to either **Queries** or **Finder**. This launches the **Items** view or Find items to relate window while browsing for the related items in the Integrity client. On the CLI, browsing style can be defined or edited with the new options - `relationshipbrowseStyle`, which is available for `im createfield`, `im fields`, and `im editfield` commands.

RelationshipBrowseStyle option available for im createfield, im fields, and im editfield commands

You can now use the `relationshipBrowseStyle` option for `im createfield`, `im fields`, and `im editfield` commands. This option specifies the relationship browse style that is used for adding or editing a related item. `browseStyle` can be either set to **Queries** or **Finder**. For more information on these commands, see the CLI man pages.

Confirmation message for drag and drop in Document view

In the Integrity client **Document** view, the **Editing** tab in the **Options** window now has a **Prompt** selection for drag-and-drop behavior. While **Move (Default)** is the initial default, you can select **Prompt** if you want a window to open so that you can choose whether the drag and drop is to perform a move, copy, or create trace operation.

For more information, see “Configuring Editing Options for the Document View” in the *PTC Integrity User Guide*.

Information message now available for selection of all documents containing subdocuments

In Integrity client **Document** view, an information message appears when you select all the contents of the document and a subdocument is part of the selection. This message provides the information that a subdocument is a part of the selection with the type and ID of the subdocuments. For more information, see the *PTC Integrity User Guide*.

Third-Party Integrations: Integrity 10.8 New Features

The following new features have been added to Third-Party Integrations in Integrity 10.8.

Gateway improvements

In Integrity 10.8, the following improvements are done in Gateway:

- Now, Microsoft Word, Project, and IIF integrations recognize the `field-type=ibpl` attribute in the mapping configuration and displays the value of the IBPL fields if attribute present.
- You can review the logs for IDs of the items that are added, deleted, changed, or skipped during Import operation.
- You can now export and import documents that contain subdocuments, for which you do not have access permissions.

Integrity API now provides the means for the calling integration to identify itself

The Integrity API provides the means for the calling integration to identify itself to Integrity using either a named session with an ID, or by setting an invocation ID on a command runner. For information on creating sessions and command runners that can be used to supply this context to the Integrity product, see the *PTC Integrity Integrations Builder Guide*.

For configuration management (Source) triggers, the `ScriptEnvironmentBean` has two new methods: `getIntegrationID` and `getIntegrationCallerID`. These methods provide a way for a trigger to determine the ID used by an integration for its session or command runner invocation respectively. For more information, see the “Event Trigger Java Documentation” link available from the Integrity server home page.

Support for Integrity API 4.16

Integrity 10.8 includes Integrity API 4.16, which is compatible with Integrity API 4.10 and higher. As a part of localization support, the Integrity API 4.16 shows the display name for supported administrative objects such as Field, Type, and State using the `Item.getDisplayId()` Java API method.

For more information about Integrity API 4.16, see the *PTC Integrity Integrations Builder Guide*.



Note

Using the `Item.getDisplayId()` Java API method with an API version older than 4.16 returns the administrative object’s name instead of its display name. However, you can still view the display name for these objects using the API field data from the relevant `im fields` command. For example, the `im fields` command when used with `--fields=displayName` retrieves the display name as the value in an API field.

3

Known Issues

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Server Configuration and Administration: Known Issues

The following notes describe known issues for Server Configuration and Administration.

Errors when using Oracle 12c with Integrity 10.8 (1087855)

If your Integrity server is running on an Oracle 12c database, the following errors may occur:

- `ORA-01792: maximum number of columns in a table or view is 1000`—This error is related to a known Oracle 12c issue (Doc ID 1951689.1, Bug 17376322 “Select Statement Throws ORA-01792 Error”). This defect is addressed by the Oracle patch 19509982.
- `ORA-00932: inconsistent datatypes: expected - got CLOB`—This error is related to a known Oracle 12c issue. A defect in certain versions of Oracle 12c causes query filters to fail when testing the value of a field value attribute (FVA) text field through an item-backed pick list (IBPL) or query-backed relationship (QBR) field. For more information, see article CS218755 in the Integrity Support Center at <http://www.ptc.com/support/integrity.htm>.

Some Integrity user queries may run slower after upgrading to Oracle 12c

After upgrading to Oracle 12c, some Integrity user queries may run slower due to Oracle choosing inefficient SQL plans.

For more information, see article CS218308 in the Integrity Support Center at <http://www.ptc.com/support/integrity.htm>.

Japanese Integrity server installer displays English text (501677)

In the Japanese Integrity server installer, the **Case Sensitivity Question** window and **Previous Installation Detected** panel incorrectly displays English text.

Property for silent client install contains incorrect default installation location (502987)

The `USER_INSTALL_DIR` property in `mksclient.properties` incorrectly lists `C:\\Program\ Files\\Integrity\\IntegrityClient` as the default client installation location.

Tip

To reflect the default client installation location for the current release, you must modify it to `C:\\Program\ Files\\Integrity\\IntegrityClient10`.

Oracle error when viewing an item with computations calling QBR fields (497900)

If you create a computation that calls a query backed relationship (QBR) field by name, viewing an item that contains the computed field results in the following error message:

```
ORA-00904:"X"."ID":invalid identifier
```

Tip

Create the computation without calling the QBR field by name. For example, assume that you had this computation for getting the total from a QBR field:

```
IsEmpty(aggregate("<QBR Field Name>",count()),0)
```

You could get the same results by calling the backing query and correlation field used for the QBR field:

```
IsEmpty(Query("<Query Name>",<Correlate on>, count()),0)
```

Integrity client 10.0 (or earlier) connecting to Integrity server 10.1 does not display relationship field if column set contains a column for item revisioning field (692444)

If you have users connecting through the Integrity client 10.0 or earlier, certain display problems can occur in the client GUI if you have configured default column sets that include columns for the new item revisioning fields. If a column is included for an item revisioning field, the older client does not display any information for relationship fields that are referenced by that item revisioning field.

The item revisioning fields that can cause the behavior include: **Revision**, **Revision Increment Date**, **Significant Edit Date**, **Significant Change Since Item Revision**, and **Item Significant Edit Date on Shared Item**. In an older Integrity client, the display problem occurs for all relationship fields that are referenced by any of these item revisioning fields.

 **Tip**

To avoid the display problem for older Integrity clients, you can exclude item revisioning fields when configuring your default column sets. Alternatively, you can have users upgrade their older Integrity clients to version 10.1.

SiteMinder Direct security domain does not support authentication with credentials that include UTF-8 multi-byte characters

The Integrity SiteMinder Direct security domain does not support authentication with credentials that include the following characters:

- UTF-8 multi-byte character values
- ISO-8859-1/Windows-1251 character values 128-255

If you are configuring the Integrity server to use the SiteMinder Direct security domain, ensure that user credentials do not include these characters.

Increase in default PermGen memory may prevent Integrity servers on 32-bit machines from starting

In Integrity 10.3 through 10.6, the default PermGen memory setting increased from 128 to 192 MB to improve memory management on the Integrity server. In *<Integrity server installdir>/config/mksservice.conf*, view the following setting:

```
mks.java.additional.24=-XX:MaxPermSize=192m
```

If your Integrity server is running on a 32-bit machine and the server is configured to use all available memory, this increase in PermGen memory may prevent the server from starting. Specifically, there may not be enough memory to allocate to the PermGen memory and also the max heap setting. For example, if your max heap setting is 1024 MB, you may have to reduce the setting by 64 MB to 960 MB. In *<Integrity server installdir>/config/mksservice.conf*, modify the following setting:

```
mks.java.additional.2=-Xmx1024m
```

If you require assistance, contact PTC - Integrity Support.

CopyDB errors when copying database to or from an Oracle database if data contain range field with infinity as range boundary (913747)

Under certain conditions, the CopyDB utility fails to copy the `RangeDefaults` database table if the data contain a range field that has infinity (∞) as a range boundary. Specifically, the following can occur:

- When copying a Microsoft SQL Server database to an Oracle database, the CopyDB utility reports an overflow error.
- When copying from an Oracle database to another database, the CopyDB utility reports that the value is not a valid instance of the `float` data type.

The errors are reported to the `CopyDatabase.log` file, and the `RangeDefaults` database table is not copied successfully.

Tip

If you encounter the overflow error or invalid data type error while using the CopyDB utility, finish running the CopyDB operation and then update all affected range fields on the target database. The `RangeDefaults` table entries are repopulated when you update the range fields.

Short words are ignored when performing duplicate detection for Chinese languages (923230)

For both Simplified and Traditional Chinese, Integrity ignores words fewer than three characters in length when performing duplicate detection.

Silent installer for Integrity server differs from graphical installer (991698)

As of Integrity 10.6, the process of setting the product language for the Integrity server through a silent installer differs from the process of doing so through the graphical installer and from previous Integrity server silent installers.

To set the product language through a silent installer, you must do two things:

1. Specify the silent installer language with the `-l` language option when you run the silent installer. Valid values for `language` are the language codes for supported Integrity languages. For Integrity 10.6 and later, the following language codes are accepted: `en` (English), `ja` (Japanese), `de` (German), `zh_cn` (Simplified Chinese), and `zh_tw` (Traditional Chinese).

 **Note**

Existing customers who are using German or Chinese locales must specify `en`.

2. Specify a value for the `MKS_PRODUCT_LANGUAGE` property in the `mksserver.properties` file. The value for this property must be one of the supported Integrity languages listed previously.

The product language specified must match the silent installer language. If this is a new server and you require a different supported product language, the silent installer must be run in that language. If this is an upgrade of an existing server, the silent installer must be run in the same language as the existing server's product language.

Integrity relationship data migration in a failover configuration may result in database inconsistencies (1055667)

Integrity relationship data migration in a failover configuration may result in database inconsistencies. This migration is not protected against concurrent migration in a dual-server node installation failover configuration. For more information, including a workaround, see article CS209957 in the Integrity Support Center at <http://www.ptc.com/support/integrity.htm>.

Type name is displayed instead of the display name in the Fields view (1063414)

In the **Fields** view, when the **Allowed Types** column is made visible, names of the **Type** are displayed instead of the display names.

Type name is displayed instead of the display name in error messages (1060781)

In the error messages, name of the **Type** is displayed instead of the display name.

State name is displayed instead of the display name in error messages (1061559)

In the error messages, name of the **State** is displayed instead of the display name.

Type name is displayed instead of the display name (1067762)

In the **Edit Query** window, when you select **Other** under the **visible in item type** filter, name of the **Type** is displayed instead of the display name.

Oracle IM package body is marked invalid as a result of DDL modifications to the Issues table (1079956)

The IM package body that is defined in the Oracle database has a dependency on the Issues table. When the definition of the Issues table is altered—for example, when IM fields are created, edited, or deleted—the status of the IM package body is marked invalid. It must be revalidated before any functions in the package body can be executed again. The Oracle database automatically revalidates the IM package body the next time any function in the IM package body is used.

The importtranslations command does not display the type of the administrative objects on the server-side (1082907)

The server-side output of the `importtranslations` command does not display the type of the administrative objects. In cases where the names of the different administrative objects are same, during server failure the user cannot distinguish between the different administrative objects.

responses diag is not updated to account for file vault location (1086070)

Currently, the `responses diag` does not account for the file vault location.

Viewing project permissions sometimes causes a NullPointerException to occur (1088083)

In the Project view, selecting **Project ► Views ► View Permissions** intermittently causes a `NullPointerException` error to occur due to timing-related issues when the view is being initialized.

When the IP address of a referenced external server is updated, the change does not take effect until the Integrity server is restarted (130840)

When the IP address of a referenced external server, such as an email or LDAP server, is changed, the change does not take effect until the Integrity server is restarted. Until the server is restarted, error messages such as the following appear:

```
mks125593: change package 99999:1 was created on server integrity.server.com:7001.
you are currently connected to integrity.server.com:7001. you must be connected to
server integrity.server.com:7001 to perform this operation
```

This issue occurs because Java incorrectly caches the previous network address. For more information, including a workaround, see article [CS86871](#) in the Integrity Support Center.

Software Configuration Management: Known Issues

The following notes describe known issues for Software Configuration Management.

Checkpoint by date limitation (1022205)

If the project was previously backed up and restored, and the specified date corresponds to a time before the restore operation, it is not possible to checkpoint that project as of that date or view that project's configuration as of that date.

Projects view may incorrectly display a build sub-subproject as a variant sub-subproject with incomplete variant information (799539)

If a sub-subproject is configured as a variant and its parent subproject is configured as a build, a `si projects --displaySubs` call from the Integrity API now correctly returns the sub-subproject without generating an error. However, displaying sub-subprojects from the **Projects** view (in all interfaces) may incorrectly display the build sub-subproject as a variant sub-subproject with incomplete variant name information.

Error when discarding a change package that contains a pending Create Subproject operation and multiple pending entries (905918)

Under certain conditions, an error can occur when attempting to discard a change package. The error (MKS125529) occurs when the change package contains a pending **Create Subproject** operation as well as multiple pending change package entries that refer to the same member under that subproject.



Tip

To resolve the error, discard each change package entry individually, and then discard the change package. If you encounter further problems, contact PTC - Integrity Support.

Errors when discarding a change package or change package entries after deleting a project or removing a development path (906663)

Under certain conditions, an error can occur when discarding a change package entry for a project that has been purged from the source repository using the `si deleteproject` command. To resolve the error, you can discard the complete change package using the Integrity client or the Integrity web client.

In addition, an error can occur when discarding a change package that contains entries for a project on a development path, if that development path has been removed using the `si removedevpath` command. When this error occurs, the change package may be partially discarded. To resolve the error, you can run the **Discard** operation a second time.

If you encounter further problems, contact PTC - Integrity Support.

Change package entry operations do not work for From entry types in the Project Change Package Differences view or the Change Package Entries view (1069438)

The **Project Change Package Differences** view and the **Change Package Entries** view display Move and Configure Subproject entry types as separate **To** or **From** change package entries.

In cases where you want to perform change package entry operations, such as Move Change Package Entry or Discard Change Package Entry, on a split change package entry, you must select the **To** entry to complete the operation. The change package operation cannot be completed when you select the **From** entry in either view.

Configuration Management Web interface menu issue when using Internet Explorer 10 (937066)

When using Microsoft Internet Explorer 10 to access the Configuration Management Web interface, lists and menus do not expand if they contain a single entry. However, this issue does not cause a loss of functionality. For lists in windows, a single-entry list displays the single available selection. That entry is selected when **OK** or **Apply** is clicked. For menus, the single entry denotes the view that is currently displayed.

Inconsistent line terminators and transactional change packages can result in Submit Change Package operations failing with a non-helpful error message (989442)

The following options are turned on in the Integrity administration client:

- **Preserve Line Terminators in Text Archives If Consistent**
- **Change Packages**
- **Change Packages Transactional**

In this situation, a **Submit Change Package** operation can result in the following error:

```
MKS125171: An error occurred establishing a connection with the Integrity server.  
An error occurred while executing a remote method call; nested exception is:  
java.lang.Error: *** Pending Lock CP entry
```

 **Tip**

Reopen the change package and resubmit it.

When creating, adding, sharing, or moving subprojects, the corresponding folder is not necessarily created on the file system (1072555)

In Integrity 10.8 or later, when creating, adding, sharing, or moving subprojects using the CLI or the API, the corresponding folder is automatically created on the file system but only when a Sandbox is in context. When only a project is in context, the folder is not created on the file system.

In the GUI, folders are never created on the file system when creating, adding, or sharing subprojects. You must resynchronize the Sandbox or Subsandbox for the corresponding folder to appear on the file system.

As a result of this change in functionality, the following related Integrity functionality is also impacted:

- In the client, the **Working File Changes** view displays a newly-created subproject folder that is created using the client as a dropped folder until you resynchronize the Sandbox. This is because the view assumes that a missing folder on disk indicates an intentionally deleted folder, which may not always be the case.
- An out of scope subproject created using the client in a subproject-scoped Sandbox does not exist on the file system nor is it visible in the **Sandbox** view. You must modify the Sandbox subproject scope in order to see the newly-created subproject in the **Sandbox** view.

Multiple Integrity server groups in the Change Package Entries view (104038)

Change packages are tied to the hostname of the Integrity server. The **Change Package Entries** view displays groups of entries for each Integrity server alias when that server is represented by multiple aliases (such as a qualified hostname versus localhost).

For more information about how to consolidate multiple server aliases by updating change package entries in the Integrity database, see article CS129093 in the Integrity Support Center at <http://www.ptc.com/support/integrity.htm>.

Working File Changes view does not update the change package summary in the Change Package list after editing (1028508)

In the **Working File Changes** view, the change package summary shown in the **Change Package** list is not updated when the summary is edited.

Tip

Close and reopen the window in which the **Working File Changes** view appears.

si movesandbox messages always shown in English (1085482)

When using the `si movesandbox` command in the CLI, messages are always shown in English, even if Integrity is configured to use a language other than English.

In non-English configurations, an English message heading is shown in a final report after a CP propagation where a development path was extended (1088241)

In non-English configurations, the following English message heading is shown in a final report after a CP propagation where a development path was extended:

```
Extend devpath command was run on the following subprojects:
```

The View Permissions window can display partial ACL tree after selecting Normal (mainline) option multiple times (1088458)

You can view ACLs for a project or subproject by selecting **Project** ► **Views** ► **View Permissions** in the Integrity client GUI. The **View Permissions** window opens and displays the ACL tree for the project or subproject. If **Normal (mainline)** is selected in the **View Permissions** window and if you proceed to select **Normal (mainline)** again, an error occurs. Consequently, the ACL pane of the **View Permissions** window only displays a partial ACL tree.

Tip

To view the correct ACL tree for mainline projects, close the **View Permissions** window and open it again.

The Apply Change Package command and Move to Change Package command in the Working File Changes view do not extend multiple lightweight development paths in cases of heterogeneous subprojects (1083797)

The **Apply Change Package** command and **Move to Change Package** command in the Working File Changes view automatically extend multiple lightweight development paths in cases of homogeneous subprojects. In cases of heterogeneous subprojects, these operations fail on the first attempt. However, the operations succeed if you run them again

Workflows and Documents: Known Issues

The following notes describe known issues for Workflows and Documents.

Report Recipe with walkDocOrdered should not use the recurseReference parameter (1008882)

If you create a recipe with a `walkDocOrdered` query to report the contents of a report, avoid using the `recurseReference` parameter. Otherwise, the content will be out of order, and the section field will not be calculated. For information on using the `walkDocOrdered` query in report recipes, see the Integrity Help Center or *PTC Integrity Server Administration Guide*.

Some processes may run slower after migration to the new relationship table (1028731, 1028897)

After migrating to the new relationship table that is introduced in Integrity 10.7, the following processes may not respond as quickly:

- Running some reports and queries
- Looking up historical relationships
- Branching documents with a large number of items
- Branching segments with a large number of document structure edits
- Working with very large test sessions
- Performing aggregate computations (MS SQL databases only)

Some processes are slower because additional relationship validations are performed. Other processes are slower because the default schema for the relationship table has changed. While the default schema includes indexes that are essential for good performance, further tuning may still be required. As a best practice, PTC recommends that you review and apply the procedures outlined in “Database Performing and Tuning” in the *PTC Integrity Performance Tuning Guide*. If further assistance is required, contact PTC - Integrity Support.

In rich text fields, multiple spaces that are inserted between words are collapsed when the item is saved and when Undo is used on a field that has multiple spaces during multiple-row editing (1086556, 1086016)

When an item is saved, extraneous spaces between words in a rich text field are collapsed to ensure clean content. Additionally, if you insert multiple spaces in a rich text field during multiple-row editing, the first selection of **Undo** collapses the multiple spaces. If you never undo this field edit, the multiple spaces are still collapsed when you save your changes.

 **Tip**

If you want multiple spaces to stay intact, press CTRL+SPACE to insert the spaces. When viewing the HTML, displays for each extra space that is inserted using this key combination.

Setting filter criteria while refreshing the Document view does not apply the filter (1028117)

When setting filter criteria while a **Document** view refresh is in progress, the filter criteria is not applied to the **Document** view contents.

 **Tip**

Refresh the **Document** view again to apply the filter criteria.

In the Document view, when a node is saved with a mandatory field left blank, there is no notification message about the missing field value (1140035)

In the Document view, when a node is saved with a mandatory field left blank, a **Mandatory field found** message should appear to notify the user about the missing value. However, this message does not appear. As a workaround, users should look for red field labels to identify missing values for mandatory fields in this scenario.

In the Document view, dragging and dropping a content node in the outline pane causes the content pane to move the selected node out of view (1140390)

In the Document view, when a content node is dragged and dropped in the outline panel, the document is repositioned in the content pane so that so that the selected content node is no longer visible. As a workaround, select the node in the outline again, which returns the content pane to that node.

Word-level document differences may highlight content unexpectedly

When comparing document differences, the word-level difference highlighting in the **Document Difference** view is dependent on how the built-in Java library identifies language-specific word boundaries. As a result, entire sentences may be highlighted instead of individual word differences for some languages, such as Japanese or Chinese.

Also, under some conditions, white space or non-breaking spaces can be highlighted in cases where spaces are interpreted as part of a word difference.

Rich text field content can become cut off without an indication that the content is not visible (1088368)

In the **Document Difference** view or the **Document** view, rich text fields containing fixed width HTML content that is wider than the width of the view, such as tables or images, can be cut off.

Workaround:

In the **Document Difference** view, manually increase the width of the affected column to accommodate the fixed width HTML element. Use the scrollbar in that document pane to see the entire contents of the field.

In the **Document** view, manually increase the width of a column in a field to see the entire contents.

When viewing document differences, hyperlinks cannot be clicked (1086402)

When using the **Document Difference** view to compare two documents, hyperlinks that can appear in rich text fields, relationship fields, and attachment fields cannot be clicked.

Tip

As a workaround, you can view the item details to follow hyperlinks or to access relationships and attachments.

In languages other than English, the “Item added” message is used in the Document Difference view even if two or more items were added (1086019)

If you are using Integrity in a language other than English, the word “item” is always singular in the **Item added** message in the **Document Difference** view, even if two or more items were added.

A small number of messages are not localized in all languages (1088367)

The majority of the messages in Integrity are localized. However, not all messages are available in every language. As a result, you can expect to find mixed English and localized messages if you are accessing a localized version of Integrity.

Sometimes the Content pane does not scroll to display moved content (1028435)

When using the Outline pane to move content to another location in a document, sometimes the Content pane does not scroll to display the moved content in its new location.

Certain operations on contents or pressing F5 can cause the Content pane to scroll up to show content other than the selected content (1088695)

Performing operations lower in the **Document** view can cause the Content pane to scroll up, rather than showing the selected content on which the operation was performed. This same erroneous behavior can occur when pressing the F5 key to refresh the document. However, you can scroll back to the content on which you performed the operation. Or, if **Link with detail** is selected as the view layout for the **Document** view, you can reselect the content in the Outline pane. The Content pane then automatically scrolls back to the selected content.

Deselecting an item in the Outline or Content pane does not deselect it in the other pane (1088333)

In the **Document** view, deselecting an item in the Outline or Content pane does not deselect it in the other pane. However, in either pane, you can always press CTRL and then click an item to deselect it.

Document operations may take longer (1028898)

Due to some optimizations made to the **Document** view in Integrity 10.7, operations such as copying, opening, and inserting documents may take longer to complete.

Collapsed branch icon on the Outline pane in the Document view appears incorrectly if keyboard shortcut is used (1029329)

In the Outline pane in the **Document** view, if you use keyboard shortcuts to collapse an item on the hierarchy that has child items under it, the minus sign (-) does not change to a plus sign (+). As a result, it appears that the item does not have any child items.

Tip

If possible, use the mouse to collapse the hierarchy.

In the Document view, removing filters leaves the view in an incomplete state in one particular scenario (1088621)

You can apply both a text filter and a where clause filter in the **Document** view. If a server operation is performed after both of these filters are applied, when you remove first the where clause filter and then the text filter, the view is in an incomplete state. To resolve the following issues and continue working, press F5 to refresh the view.

- The Outline pane still looks filtered.
- The filter spinner keeps spinning in the top left corner of the Content pane.
- The selections in the Outline pane and Content pane are not the same.
- None of the fields in the Content pane are editable inline.

Note

A server operation is a save during multiple-row editing or a delete, move, or save during single-row editing.

NullPointerException if Integrity server connection is lost while loading a large document (1030797)

If your connection to the Integrity server is lost while a large document is being loaded in the **Document** view, a `NullPointerException` error occurs.

Running a query using the Run Query toolbar button produces different results (493612)

When you edit a query and save the changes, the query runs and gives you the new results. If you then rerun the query using the **Run Query** toolbar button, you get results based on the original query, before it was edited.

Save As Default command followed by sorting a column or Reset To Default command may show incorrect column set (497891)

After running a query and modifying the visible columns using the **Configure Columns** command, the **Save As Default** command sets the column set of the query as the new default. However, after sorting a column or selecting **Reset To Default**, the column set may incorrectly revert to the one originally displayed when the query was first run, not the default column set established after selecting **Save As Default**.

Tip

Rerun the query to view the new default column set.

Removing a new relationship renders the relationship field no longer editable (501663)

With inline editing for relationships fields enabled in an **Edit Item** view, dragging and dropping a relationship onto an empty relationship field and then removing the relationship renders the relationship field no longer editable.

Tip

To edit the relationship field, close and reopen the **Edit Item** view.

Revision annotation "+" does not display when field is added as column in Items view, Relationships view, or Document view (654525)

When working with item revisioning, the “+” annotation is normally displayed for a **Revision** field when **Significant Change Since Item Revision** is true. However, the annotation does not display when the field is added as a column in the **Items** view, **Relationships** view, or **Document** view. The “+” annotation indicates that there have been changes since the last revision.

Tip

You can display current column content in all affected views by creating a short text field with the following computation:

```
concat(Revision, ("Significant Change Since Item Revision" ? Text("+") : Text(""))) )
```

To display updates from saved edits or incremented revisions, you can then press F5 to refresh the view.

Potential for inconsistent item history and modification dates during certain recursive document operations when using MS SQL Server databases (664007)

For MS SQL Server databases, there is a known timing window that can occur during long running recursive operations, such as incrementing document revisions, changing document projects, and batch edit commands. For long-running operations that update many items, concurrent edits by multiple users may display an incorrect last modified date.

For example, under such conditions, the edit operation displays in the history as:

```
Wed Apr 11 13:05:00 EDT 2012 Text: My modified requirement text
Wed Apr 11 13:04:00 EDT 2012 Revision: 2.0
```

The last modified date is shown as Wed Apr 11 13:04:00 EDT 2012, when the correct timestamp is the later time of 13:05:00 EDT.

When this occurs:

- You can view the item “as of” either date, and the correct history is shown.
- The modification date does not correctly reflect the last edit time.
- If both users are performing increment revision operations, the revision order is reversed, and the lower revision number has the later revision timestamp. If this results in a minor revision (such as revision 1.4 at 13:05 EDT) with a later timestamp than the subsequent major revision (such as revision 2.1 at 13:04 EDT), you should re-increment the major revision. This ensures future minor increments use the correct major sequence (such as 2.n). Before re-incrementing the major revision, you may also need to delete any labels for the existing major revision.

Tip

- Use process controls to reduce the number of users allowed to make updates prior to using the operations. For example, put the document in a restricted state where only selected users can update it, and then have one user perform the operation.
 - Reduce the timing window by reducing the total duration of the recursive operation. You can reduce the duration of the operation by using smaller documents or, for very large documents, by incrementing revisions only on sections of the document rather than on the entire document.
 - Use a revision trigger to increment revisions on large documents or sections. The revision trigger has been modified to detect this “out of order” condition and will report an error.
-

Error installing Japanese Integrity 2009 solution template in Integrity 10.1 on Oracle (685219)

Installing a solution template `alm2009j.imt` without a prefix and with no sample data on an Oracle database results in an error during installation. The error indicates a file in the template already exists.

Tip

Install the solution template with a prefix.

Dynamic Relationships view does not update when content is saved by selecting Save menu option (686981)

When working in the **Document** view, the dynamic **Relationships** view does not update when you select **Item** ► **Save** to save the document content or content in an included document. The problem is limited to the update of the displayed view because the actual content change is saved correctly.

Tip

Press CTRL+S to save your changes and update the dynamic **Relationships** view successfully.

Clearing a rich content field in Firefox 15+ incorrectly repositions the cursor (889410)

In the Workflows and Documents Web interface using Firefox 15 or higher, clearing existing content in a rich content field incorrectly repositions the vertical placement of the cursor. This is a known issue with Firefox 15 and higher. To track this Firefox issue, browse to:

https://bugzilla.mozilla.org/show_bug.cgi?id=846943

Selecting multiple items in Firefox 11+ incorrectly highlights images and text on the page (891109)

In the Workflows and Documents Web interface using Firefox 11 or higher, holding down the Shift key while you select multiple items may incorrectly highlight images and text on the page. This is a known issue introduced in Firefox 11 and may also cause unintended highlighting in other areas of the Web interface. To track this Firefox issue, browse to:

https://bugzilla.mozilla.org/show_bug.cgi?id=739396

F5 key does not refresh the relationship table when working in a floating Item Edit view (919588)

When working in a floating Item Edit view with a relationship table selected, pressing the F5 key does not refresh the relationships in the view.

Tip

You must close and reopen the view to refresh the relationship table in the floating Item Edit view.

Document view does not display incoming external edits inline when performing an inline edit with prompting disabled (920031)

Under certain conditions when performing an inline edit of a field, the **Document** view does not display incoming external edits inline in the content table. The behavior occurs if you have **Item Preview** pane enabled for the view and the **Show confirmation message before saving a modified item** option disabled.

The incoming changes are displayed in the preview pane; however, if prompting is disabled, you are not prompted before saving the changes of your current inline edit and the incoming external changes are then overwritten.

Tip

To avoid losing any incoming external edits, you can disable the **Item Preview** pane and also ensure that prompting is enabled. To disable the **Item Preview** pane, select **View ► Open** and click the **General** tab. Under **Item Preview**, select the **Off** option. To enable prompting, select **View ► Open**, click the **Messages** tab, and select the **Show confirmation message before saving a modified item** option.

Alternatively, you can also set your view options to allow wrapping of table contents. To allow wrapping of table contents, select **View ► Open** and click the **General** tab. Under **Table Content**, select the **Wrapping** option.

Note

Incoming external edits may also be overwritten if you cancel a conflict detection message without first resolving the differences between your current edit and the incoming external edit. In such instances, you should refresh the view to display the latest content.

Correct row may not be in focus when performing an operation that automatically switches context from one item to another (921069)

When working in the Content pane of a document, the correct row may not always be in focus when performing an operation that automatically switches context from one item to another. For example, if you edit a Test Steps field by performing a copy and paste, the newly pasted item is automatically selected and appears to be in focus. If you then immediately perform another operation, such as an edit, the next command may run on the original (copied) item instead of the new (pasted) item that appeared to be in focus.

The behavior can occur intermittently for relationship fields in the Content pane of the **Document** view. The behavior may also be seen with other operations that automatically switch context from one item to another, such as copy and replace, create related item, delete, and remove.

Tip

After you complete the first operation (such as the copy and paste), click the item that you want to perform the next action on, even if that item already appears to be selected (in focus).

Dragging and dropping in the Outline pane does not update the selection in the Content pane (932436)

In the **Document** view, dragging an item from the bottom of the Outline pane and dropping it on an item in the top of the Outline pane (as a subsection) does not update the selection in the Content pane.

Keyboard shortcuts may not work in some Web interface views and dialogs using Internet Explorer 10 (936610)

When accessing the Integrity Workflows and Documents Web interface using Microsoft Internet Explorer 10, keyboard shortcuts may not work in views and dialogs that contain lists of objects. Some notable areas of the product that are impacted are the **Items** view and locations that use the data filter. Examples of keyboard shortcuts that may not function include the up and down arrow keys for moving to the next or previous item, and Ctrl+A for selecting all items.

Users should not use date-time values to query time entries using the CLI or API (945572)

In the CLI and API, attempting to query time entries with a date-time value instead of a date-only value can cause the query to return unpredictable results. For example, you should not specify something like between time *date_time_A* and *date_time_B* in a query or filter for `entrydate` in the CLI or API. Both the Integrity GUI and Web client prevent the use of date-time values in such queries.

Querying on Contains or Contained By relationship fields does not return versioned items (953638)

Queries with relationship filters that include **Contains** or **Contained By** relationship fields do not return versioned items.

Cannot specify a versioned item ID when creating a query or rule for an FVA field backed by an ID or Document ID field (956711)

If you create a field value attribute (FVA) field backed by an ID or Document ID field, you cannot specify a versioned item ID when creating a query or rule for the FVA field.

Tip

Create a query or rule on the ID or Document ID field through the relationship field that backs the FVA field.

Relationship fields in CSV format and nested inline relationship fields do not display versioned item IDs (950971)

If document versioning is enabled, relationship fields configured to display in CSV format and nested inline relationship fields do not display versioned item IDs.

IBPL field backed by a content item type does not update after a document Check In operation (952111)

If an item backed pick list (IBPL) field is backed by a content item type, such as a Test Case, checking in a document does not update the IBPL field in the new versioned content items.

Replacing an existing relationship by dragging and dropping does not display a versioned item ID

If you drag a relationship and drop it on an existing relationship in a relationship field, the confirmation message that appears does not display the versioned item ID of the relationship being replaced.

Tokens appear in the Style pane for reports (991434)

When you copy a static custom report, the labels for attributes of sample screen and printer styles may appear as internal tokens rather than localized text strings. A static custom report is one where the **Use report type and style from server** property is set to false.

Branching a document takes significantly longer in Share reference mode (1079429)

If you branch a document while in **Share** reference mode, it takes significantly longer than the same operation in **Reuse** mode.

Warning does not appear when saving a document with blank mandatory field under specific conditions (1088232)

When editing a document in a situation that meets all of the following conditions, the save is unsuccessful without a message to explain why:

- The item preview is in editable mode.
- Multiple-row editing mode is enabled.
- A mandatory field has been left blank.
- The blank mandatory field is not in a document view column.

In this situation, the mandatory field must be completed to successfully save the changes.

Note that if you click again, the message indicating that a mandatory field is blank might appear.

Cascading relevance rules are not handled consistently between single and batch edit modes (1086950)

Fields impacted by a relevance rule that is a result of the evaluation of another relevance rule are not handled consistently between single and batch edit modes.

- In the **Item** view or **Items** view, the value of a non-relevant field in the database is used for rule evaluations.
- During an edit, the value on the screen before the field becomes non-relevant is used for rule evaluations.
- At the end of an edit, the value of the non-relevant field, which is now hidden, is saved to the database if it is a single item edit. The value of the non-relevant field is not saved to the database if it is a batch edit.

During multiple-row editing, a moved content item that is later returned to its original position can still show as an unsaved change (1079429)

During multiple-row editing, you can move a content item (A) and then move, insert, or delete sibling nodes above it. If you change sibling nodes above A and then move A back below its initial sibling, an edit document icon still appears on A. This is because the relative positions of the nodes have changed and must be saved.

During multiple-row editing, if you insert an image in a rich text field and then undo the insertion, the document edit icon still shows in the row header (1086907)

During multiple-row editing, you can insert an image in a rich text field. The document edit icon then shows in the row header to indicate an unsaved change. If you undo this insertion, the document edit icon still shows after your initial selection of **Undo**. This is because the image insertion actually consists of two additional operations behind the scenes. If you select **Undo** two more times, these additional operations are undone and the document edit icon no longer shows.

During multiple-row editing, undoing and redoing changes in large content blocks cause the cursor and change text to not be visible (1088162)

During multiple-row editing, undoing and redoing changes in large content blocks cause the cursor and change text to not be visible. This is because the cursor and changed text are outside of the content that is currently in view. However, you can easily scroll to the area where the text has been changed.

During multiple-row editing, closing the Document view while a save is in progress can cause a `NullPointerException` to occur (1087595)

During multiple-row editing, you are able to make a large number of changes before saving them. If you close the **Document** view while changes are being saved, a `NullPointerException` error can occur. The best practice is to avoid closing the **Document** view while the save is in progress. However, if you accidentally close the view, the save operation should still complete successfully. The error is not related to the save operation itself but rather to refreshing the view after the save.

During multiple-row editing, moving and copying nodes from a different document adds them to a different location than does moving and copying nodes within a document (1085901)

During multiple-row editing, nodes are always added as the first child of its parent when dropped as a subsection. During single-row editing, nodes are always added as the last child of its parent when dropped as a subsection. When moving or copying nodes from a different document into a document that is open for multiple-row editing, the operation is performed as if the document was open for single-row editing. However, moving and copying nodes from a different document should behave the same as moving and copying nodes within the document.

During multiple-row editing, cyclical edit situations can occur when you save (1085706)

During multiple-row editing, you can end up in a cyclical edit situation that cannot be easily resolved. For example, after copying and pasting a number of requirements under the same parent, saving can cause a trigger error to occur. The error indicates that a specific item has already been edited and saved once in this transaction and cannot be changed again. This error is erroneous. A significant edit is likely being triggered, causing the cyclical trigger operation.

During multiple-row editing, after saving changes, the field in focus is not immediately editable (1139296)

During multiple-row editing, immediately after saving, the field in focus is generally available for editing. However, in some cases, the field in focus is not immediately editable. You can click the field to begin editing.

During multiple-row editing, recovery information for relationship fields show only one value (1085858)

If an unexpected shutdown occurs during multiple-row editing, the recovery information that displays when you next open the document shows only one value for relationship fields, even when multiple values were added.

During multiple-row editing, partial recovery of unsaved changes for attachment fields is not possible (1086355)

You can add multiple values to attachment fields. If an unexpected shutdown occurs during multiple-row editing, an attempt is made to recover your unsaved changes when you next open the document. For attachment fields, partial recovery is not possible. Either all unsaved changes are recovered or no unsaved changes are recovered.

During multiple-row editing, recovery of unsaved changes can be incomplete if an end-of-file exception occurs for other than the completion of a successful read (1086634)

During multiple-row editing, recovery of unsaved changes relies on an end-of-file (EOF) exception to detect the end of changes in the backup file. However, an EOF exception can occur in other conditions. For example, EOF exceptions can occur if the file has been truncated or the stream has been misaligned due to serialization

errors or compatibility errors. If any of these problems occur, the recovery silently ignores the unprocessed changes and gives the impression that all changes were recovered successfully.

 **Tip**

You can easily check to see if the last changes that you made are restored. If they are present, then none of these problems occurred and all of your unsaved changes were fully recovered.

During multiple-row editing, an attempt at recovering unsaved changes from one unexpected shutdown can result in another unexpected shutdown, placing you in a continual loop (1087951)

During multiple-row editing, it is possible after an unexpected shutdown of the client to get into a situation where the recovery attempt of your unsaved changes results in a subsequent shutdown. Finding yourself in such a continual loop is rare. For more information, see article 218556 in the Integrity Support Center at <http://www.ptc.com/support/integrity.htm>.

During multiple-row editing, the editable item preview steals the focus so that text edits made in the Content pane are not captured (1088618)

Assume that the editable item preview is shown during multiple-row editing and that the active tab in this preview does not contain the text field that you want to edit. When you select this text field in the Content pane and begin to type, the editable item preview steals the focus, displaying the tab with this field. Because the Content pane no longer has focus, the edits that you make after the focus shift are not captured in the Content pane. However, you can select the Content pane to continue typing.

When using a 10.8 or earlier client, shared items may not be filtered as expected (163279)

In Integrity 10.9, shared items are filtered out of most results. However, if an Integrity 10.8 or earlier GUI client is used with an Integrity 10.9 server, shared item filtering may not work as expected. For example:

- Shared items are not filtered when specifying an override query for charts and reports.
- When you view detailed information for a chart, shared items are filtered appropriately. However, if the information is refreshed, the result set changes.
- If the administrator has set shared items to appear in results for a specific query, the results are correct when the query runs initially. However, if modifications are made to the query that cause the results to be reloaded, shared items are added to the results list.

Deleting an item can take a long time

It can take a long time to delete an item. If you encounter long item delete times, article [CS119789](#) contains information to improve performance. The article is available from the Integrity Support Center.

Computed field that use a query backed relationship field does not update correctly

Computed fields that use a query backed relationship (QBR) field do not update correctly when the QBR's backing query is modified.

For more information, see article [CS121594](#) in the Integrity Support Center

Incorrect results are displayed for document filter in the historical view (1139312)

While trying to use a **Where** filter in the historical view of a document, the filter takes the current state of the document and not the historical state because filtering happens on the live values and not the historical values.

Shared perspective URL does not resolve correctly

A shared perspective URL does not resolve correctly under the following conditions:

- A complex filter with a large number of fields has been configured in the column set.
- The resulting URL exceeds the mail program's maximum mailto body character length.

The portion of the resulting URL beyond the maximum length is truncated. For example, Microsoft Outlook limits the mailto body to 2083 characters. A shared perspective URL greater than 2083 characters is truncated and does not resolve correctly.

For more information, consult the mail program product documentation for details on mailto body character length limitations.

When saving a perspective with a name that contains invalid characters, an incorrect error message appears (1140262)

When saving a new perspective with a name that contains invalid characters, the following error message appears: “<Integrity installation directory>\Client\user\.mks\ci\<server>^\<port>^\<username>dv\perspectives\
<invalid perspective name> (The filename, directory name, or volume label syntax is incorrect)”

This is an incorrect message. The message should say, “Invalid perspective name.”

Perspectives can be shared only if an email client is configured (1141748)

Perspectives can be shared only if an email client is configured. If you attempt to share a perspective and do not have an email client, Integrity stops working and must be restarted.

Perspectives do not work correctly unless the default column context is used (1141712)

When a perspective is shared from the document view, users who receive the emailed perspective link must set their column context to the default. To do so, access the document view for any document, right-click a column heading, select **Column Context**, and select **Default**. If the column context is not set to the default, the user's existing columns are shown instead of the ones that are defined in the perspective

Custom Fields and Custom Field Values Known Limitations

The following Integrity functional areas do not support Custom Fields or Custom Field Values:

- Notification rules
- Copy Fields list
- Queries
- Batch editing items of types that have custom fields or custom field values configured
- Advanced Filter definitions
- Comparing field-level differences between two document selections using the **Document Difference** view
- Trigger rules
- List of field assignments in trigger
- Type constraints
- Type attributes
- Query Backed Relationship (QBR)
- Item Backed Pick List (IBPL)
- Field Value Attribute (FVA)
- Sort By field in Report

Custom fields and custom field values are not supported in the following Integrity integrations:

-
- PTC Integrity Integration Platform and Integrity Integration Platform-based integrations
 - PTC Integrity Requirements Interchange Format Utility
 - PTC Integrity Requirements Connector version 3.1 or earlier

Documentation Update: PTC Integrity 10.9 custom fields documentation (1142030)

At the time of the Integrity 10.9 release, the following documentation issues are present regarding Custom Fields functionality:

In all versions of the *PTC Integrity User Guide* and the *PTC Integrity Help Center*:

- In the topic “Defining Project-Specific Custom Fields,” documentation for the add operation is missing.
- In the topic “What are Custom Field Values,” details about how **Custom Field Values** are related to the Project backing item are missing.
- In the topic “Specifying Custom Field Values,” the reference to being able to edit multiple **Custom Field Values** when the items all participate in the same project is incorrect. Batch editing is not permitted. Also, you cannot add **Custom Fields** and **Custom Field Values** on the same type.
- In the topic “Known Limitations of Custom Fields and Custom Field Values,” some known limitations are missing.

In all versions of the *PTC Integrity Server Administration Guide* and the *PTC Integrity Help Center*:

- In the topic “Using Custom Fields and Custom Field Values,” some known limitations are missing.

In the CLI man pages:

- The documentation incorrectly identifies the `[--customFieldDefinition=value]` option as a valid option for the following commands: `im createsegment`, `im createcontent`, and `im importsegment`.
- The `im importcontent` command is missing the `[--customFieldValue=value]` option. The usage statement for this command correctly documents the option.
- The `im importissue` command is missing square brackets for the new `[-customFieldDefinition]` and `[-customFieldValue]` options.

These documentation issues will be addressed in a future release.

Changing the Project field value results in the loss of Custom Field Values on items that participate in the project with custom fields defined (1141441, 1141476, 1141928)

Under some circumstances, you may not be warned about the loss of **Custom Field Values**, or the warning message displayed to you may be unclear. To prevent the loss of **Custom Field Values**, use caution when editing the Project field value on the Project backing item or any item that participates in that project with custom fields defined.

Caution

Editing the Project field value also clears values from all versioned items that contain **Custom Field Values**.

Custom field values do not populate until the newly created item is saved in the Web UI (1139319)

While creating or editing an item in the GUI, the values for the **Custom Field Values** field are populated after you select a project. In the Web UI, the user has to save the item to view the values of the **Custom Field Values** field.

Long values for float fields change during input for custom fields (1138879)

Entering long floating-point numbers for custom fields result in changes in the values that are very close to the boundary for rounding up or down.

Default values in the Custom Field Values field are not displayed when a document is created using a Template (1139815)

When new documents are created using an existing document as a template, default values in the **Custom Field Values** field are not displayed in the new document.

Custom field values are not populated with the default values from the custom fields for subdocument reference node (1140145)

When subdocuments are inserted or included in a document, the Custom Field Values field is not populated with the default values from the custom fields on the subdocument reference node.

The Custom Fields Values table is sometimes not displayed after the project is changed (1140817)

When an item includes custom field values, changing the project sometimes results in loss of the table that displays the custom field values.

To make the table visible, click the border of the window or switch between one application window to another.

While creating a custom field of type pick using an inactive value, an error message is displayed

In the CLI, when you edit a custom pick field and add or update the pick values with any of the deleted pick values, then a warning message is displayed that the value is already being used in the CLI. However, in the GUI, using the deleted pick value disables the **OK** option. Only positive integers, including 0, can be used as pick values. While creating a custom field of type pick, the pick value is prepopulated according to the largest pick value used (including the deleted pick values).

User can define the Custom Fields fields without assigning any Project to the backing item

While creating a Project backing item, you can keep the Project blank and define the **Custom Fields** fields. You can set the project later and the existing definitions are retained.

Items View incorrectly marks the view as changed when no change exists (1141145)

After reverting a Project field value change on a Project backing item, the Items view incorrectly marks the view as changed when no change exists.

Item Preview does not populate Custom Fields values for a virtual row (1141139)

In the Document view, Item Preview does not populate **Custom Fields** field values for a virtual row. You can ensure that Custom Field Values are enabled in the column set, or you can save the item to make Custom Field Values visible and editable.

In the Web UI, a dropped custom field of type pick is not shown in the Historical view of the non-backing item (1141170)

A dropped custom pick field is not shown in the Historical view of the non-backing item in the Web UI. The dropped custom pick field displays correctly in the GUI.

Custom short text field has no configurable limit in the Integrity Administration Client (1140951)

Unlike regular short text fields, the administrator has no ability to impose a limit on the size of a short text custom field.

Undo on a custom field does not remove the entire text at once (1140142)

Undoing the value of a custom short text field results in undoing the value character by character.

A text filter on some field values, such as Custom Field Values, are not applied after saving a document (1140751)

Following a document save in multi-edit mode, the Document view is refreshed and a specified text filter is applied before some complex field values, including **Custom Field Values**, are applied. The result is that text filters on those field values are not applied after the save operation. Reconfigure the text filter to see the saved field values.

Not all custom fields are displayed in the Document view for new contents added by a pending import (1141129)

When new content is added by a pending import, not all custom fields are visible in the Document view. Only the custom fields that are specifically set as part of the pending import are displayed. The result is that other fields cannot be set while reviewing the pending import. Save the document to open all custom fields for editing.

In the Web UI, when prompted to confirm a change to the Project field value on the Project backing item with custom fields defined, clicking No does not revert the Project value (1141629)

When prompted to confirm a change to the Project field value on a Project backing item with custom fields configured, clicking **No** to the prompt in the Web UI does not revert the Project value. Revert the Project value manually and save your changes to apply the reverted value.

After changing the Project field value on an item with custom fields defined, the Custom Field Values table is not visible on the History tab (1141625)

After changing the Project field value on an item with custom fields defined, the **Custom Field Values** table is not visible on the item's **History** tab. Setting **Custom Field Values** on the item makes the table visible.

Exception error when batch editing a type that has Custom Fields or Custom Field Values defined (1141480)

When batch editing an item type that has **Custom Fields** or **Custom Field Values** defined, the following error message is logged on the server:

```
java.util.ConcurrentModificationException
```

This exception error message can be safely ignored.

Exception error when changing the Project field value on an item with custom fields defined in the Web UI (1141717)

After changing the Project field value on an item with custom fields defined in the Web UI, and then reverting the change to the Project field value, the following error message is logged on the server: `mks.ci.exception.CIException: Invalid call to fromString() for Custom Field`

This exception error message can be safely ignored.

In the Document view, when a node is saved with a mandatory field left blank, there is no notification message about the missing field value (1140035)

In the Document view, when a node is saved with a mandatory field left blank, a **Mandatory field found** message should appear to notify the user about the missing value. However, this message does not appear. As a workaround, users should look for red field labels to identify missing values for mandatory fields in this scenario.

In the Document view, dragging and dropping a content node in the outline pane causes the content pane to move the selected node out of view (1140390)

In the Document view, when a content node is dragged and dropped in the outline panel, the document is repositioned in the content pane so that so that the selected content node is no longer visible. As a workaround, select the node in the outline again, which returns the content pane to that node.

Historical view of a document shows blank columns and clock icons when filters are updated or removed (1141260)

In the historical view of a document, when filters cause rows to be added to the view, blank columns and clock icons appear in the rows that are added. The clock icons imply that information is being loaded, but the view does not update. As a workaround, manually refresh the view when this occurs.

If the Project field for a document is modified on the server while a content item for that document is being updated, changes to custom fields are lost during conflict resolution (1141416, 1141975)

If the Project field on a document is modified on the server while a content item for that document is simultaneously being updated, any changes to custom fields are lost during the conflict resolution process when the content item updates are saved. The conflict resolution window does not show the **Custom Field Values**.

In the Document view, **Custom Field Values** are lost for all custom fields in all nodes of the document. The user does not receive a message or conflict icons that indicate that this data is being removed. The custom fields for the new project are shown. If this is a new item, you must ensure that **Custom Field Values** are enabled in the column set to see these fields.

Undo pasting an image leaves broken image reference (1141442)

When editing a document in the GUI, performing an undo operation can cause a pasted image to appear as a broken image reference. The undo operation does not remove the image as expected. The issue occurs when **Item Preview** is set to **View Only** in the **Options** window for the view. The workaround is to delete the image reference manually.

Perspectives can be shared only if an email client is configured (1141748)

Perspectives can be shared only if an email client is configured. If you attempt to share a perspective and do not have an email client, Integrity stops working and must be restarted.

Perspectives do not work correctly unless the default column context is used (1141712)

When a perspective is shared from the document view, users who receive the emailed perspective link must set their column context to the default. To do so, access the document view for any document, right-click a column heading, select **Column Context**, and select **Default**. If the column context is not set to the default, the user's existing columns are shown instead of the ones that are defined in the perspective.

Test Management: Known Issues

The following notes describe known issues for Test Management.

Integrity client does not always display the mandatory field information message when saving a Test Case (919543)

When working with a Test Case in the floating **Edit Item** view and creating a new Test Step, the mandatory field information message is not displayed if you are attempting to save the parent Test Case and focus is on a non-Order field in the Test Steps table. The Integrity client automatically moves focus to the field where the mandatory information is required. However, no message is displayed to explain the details.

This behavior does not occur when focus is on the **Order** field or when working with embedded edits.

 **Tip**

If you are using a floating **Edit Item** view, you can display the mandatory field information message by resaving your changes.

Inline item creation is not supported for Test Step item types where duplicate detection is mandatory (919132)

Due to certain focus problems encountered with the **Potential Duplicates** view, the creation of items inline is not supported for Test Step item types where duplicate detection is mandatory. If you have configured a type with the role of Test Step, and have also set mandatory duplicate detection for that type, Integrity automatically disables the creation of virtual rows under the **Test Step** tab for that type.

 **Note**

Under these conditions, you cannot create a new item through an inline edit operation. However, you can continue to create new related Test Step items using the **Create Related Item** command.

To allow the creation of a new related Test Step items using inline editing, you must ensure that duplicate detection is not mandatory for the associated type.

Out-of-sync row selection in the Document view after canceling the move of an unsaved virtual row (922361)

After canceling the move of an unsaved virtual row in the **Document** view, the selection in the Outline and Content panes becomes out of sync. This known issue occurs under the following conditions:

1. In the **Options** window for the **Document** view, enable **Item Preview ▶ Editable ▶ Enable inline editing for relationship field items**, and **Saving modified items** confirmation message.
2. In the Content pane, edit the text field in the virtual row for a parent Test Case item.
3. In the editable **Item** view, click the **Test Step** tab and add a Test Step item, but do not save the Test Step item.

-
4. In the Outline pane, press Ctrl+Up arrow key to move the unsaved Test Case item.
 5. When prompted to save the item, click **Cancel**.

The Content pane displays the selection on the unsaved virtual row. However, the Outline pane displays the selection on the last saved row. The Outline and Content panes should display the selection on the unsaved virtual row.

 **Tip**

To avoid this issue, PTC recommends saving the virtual row (Test Case) and new item (Test Step) before moving the Test Case. If the Outline and Content panes become out of sync, PTC recommends refreshing the **Document** view or closing and reopening the view.

Clicking a Test Step virtual row in a Test Suite document that does not allow editing causes the row to appear and disappear (922339)

If a Test Suite document is in a state that does not allow editing, clicking a Test Step virtual row with inline editing enabled causes the row to disappear. The row may reappear when performing some actions, such as switching to a different tab and then switching back to the tab containing the **Test Steps** field. However, clicking the virtual row again causes it to disappear.

Warning message for the annotation field in the Test Result Editor does not appear in Firefox (955349)

The ESR17 release of Firefox does not display the new warning message for exceeding 4000 characters in the annotation field of the Test Result Editor.

Third-Party Integrations: Known Issues

The following notes describe known issues for Third-Party Integrations.

New default Integrity client installation directory

The Integrity 10.0 release changes the default installation directory of the Integrity client, which affects integrations that were installed with earlier versions of the client. The new default installation directory for the Integrity client is:

- On Windows: C:\Program Files\Integrity\IntegrityClient10
- On UNIX: \$HOME/Integrity/IntegrityClient10

The previous directory was ... \MKS\IntegrityClient.

If you had a previous version of the Integrity client, PTC recommends that you first disable any existing integrations and then uninstall the previous client before installing Integrity client 10.

If you have installed Integrity client 10 and uninstalled the previous client, but did not disable previous integrations, those integrations remain enabled but refer to a location that no longer contains supporting files. In this scenario, SCC integrations are removed due to the missing DLLs. The Visual Studio SDK integration will not operate due to the missing DLL. Eclipse-based integrations will fail after a clean re-start of Eclipse.

If you have installed Integrity client 10 without first uninstalling the previous version of the client, the enabled integrations continue to reference supporting files from the old location but open with the new Integrity client 10. Integrations continue to function in this scenario. However, any integration-specific HotFixes applied to the Integrity client 10 will not update the supporting files in the old client location.

Disabled toolbar buttons in the Microsoft Visual Studio 2012 integration (902969)

After the initial installation and configuration of the Microsoft Visual Studio 2012 integration, or after uninstalling and reinstalling the integration, some or all buttons in the following toolbars may be disabled, even when all the conditions required to enable the toolbar buttons are met:

- Main Integrity toolbar
- Work In Progress toolbar
- Integrity **Items** view toolbar

These conditions include an open Visual Studio solution or active change package.

Tip

If you encounter this issue, restart Visual Studio. To avoid encountering this issue, PTC recommends allowing Visual Studio to restart at least once after the integration installation completes.

When using the Microsoft Visual Basic 6 integration, some operations may cause Visual Basic to crash (907102)

When using the Microsoft Visual Basic 6 integration with the Integrity 10 client, certain operations, such as **Add Project from MKS Integrity SCC Extension** and **Create Project from MKS Integrity SCC Extension**, may cause Visual Basic to crash. The crash occurs sometime after creating the project or sandbox but before adding any files.

 **Tip**

Restarting Visual Basic 6 may solve this issue. If the operation that caused the crash was creating a new project or sandbox, that project or sandbox should now exist, and you can add any files that you were trying to add in the original operation.

Visual Studio 2012 integration incorrectly reports that a file is not part of the active change package (907105)

When using the Visual Studio 2012 integration to resynchronize, the integration incorrectly includes the file in the **Unassociated Changes** list instead of the active change package if there are unsaved local changes and incoming changes from the server for the same file. The Integrity client correctly reports that the file is in the active change package, but the revision being locked is a revision earlier than the resynchronized revision. In such cases, you cannot submit this change package.

 **Tip**

To avoid the problem, save any local changes before resynchronizing. If you encounter the problem, use the Integrity client to check out the member revision to move the lock on the file to the resynchronized revision. The integration will then correctly report the status of the member.

Integrity to Windchill Integration, and other integrations using the PTC Integrity Integration Platform Integrity Adapter, may not work properly with Integrity 10.6 (991606)

The Relationships method in the currently released version of the PTC Integrity Integration Platform Integrity Adapter is not compatible with Integrity 10.6 and only returns partial data. Any integration using this method, directly or indirectly, only receives data at one level, ignoring data from lower levels. It is confirmed that this issue affects an Integrity to Windchill Integration. When used with Integrity 10.6, this integration only retrieves top-level content nodes from a document.

Newly exceptions reported to older clients may have an incorrect API representation (1078308)

When the Integrity-API uses an Integrity client that is of an older version than the Integrity server it is connected to, and the server throws an exception that the client does not explicitly understand, the Integrity-API reflects this exception by default as an ItemModificationException which may not accurately represent the

actual nature of the error. For example, the Integrity 10.8 server has introduced the concept of restricted projects and with it a new exception to report that a user is not allowed to make changes such as through a check-in, add, or drop member operation. Ideally, this new error must be reported as a `PermissionException` in the Integrity-API, but will not be reported so if the Integrity 10.7 client is being used.

The Integrity API 4.16 representation for the Integrity field that backs an IBPL field retrieved from the `im` command does not return display name (1087435)

Integrity 10.8 includes Integrity API 4.16. In this new API version, a Java API item representing an Integrity field returns the field's display name using the `getDisplayId()` method. However, the 4.16 API representation of the Integrity field that backs an IBPL field retrieved from the `im fields --fields=backedBy` command or the `im viewfield` command still returns the field's name only instead of its display name.

Miscellaneous: Known Issues

The following notes describe known miscellaneous issues.

Hidden branches not included in Branches table when filter criteria is entered in the GUI (1028982)

When you enter filter criteria in the **Branches** table to refine the list of items shown, branches to which you do not have access are shown in the Workflows and Documents Web interface, but not in the GUI.

ViewSet toolbar customization can be reset (1029364)

When an Integrity ViewSet toolbar is customized, such as moving toolbars to other rows, those user modifications are not persisted when the Integrity client window is closed and reopened, or when the ViewSet is customized through the **Customize ViewSet** window. This is due to a third-party component JDK 8 issue. For more information, see <https://bugs.openjdk.java.net/browse/JDK-8061636>.

Integrity 10 `man -h` command does not work when client file path includes parentheses (412373)

The Integrity 10 client includes the `man` command, which displays manual pages with detailed command information. Normally, `man` displays the plain text version of the specified command's manual page. When specified with the `-h` option (`man -h`), the command opens the appropriate CHM file and displays a full HTML version of the specified command's manual page. However, if Integrity client 10 is installed to a location that includes a parenthesis symbol - (- in the file path, the `man -h` command does not work.

For example, if you installed the 32-bit Integrity client 10 on a 64-bit operating system, the default Windows installation directory includes parentheses as follows:

```
C:\Program Files (x86)\Integrity\IntegrityClient10
```

The `man -h` command does not work in this configuration. This limitation does not affect the `man` command when run without the `-h` option.

 **Note**

As a workaround, you can do the following:

1. In the **Windows System Properties** window in the Windows Control Panel, go to the **Advanced** tab and select **Environment Variables**.
2. Locate the `MAN_CHM_INDEX` variable and click **Edit**.
3. Under the **Variable** value, ensure that all references to Integrity client's IDX files are in the 8.3-based format. For example, **Program Files (x86)** is typically `progra~2`. You are able to determine the 8.3-based format by using the `dir /x` command in the DOS terminal or using a command prompt.
4. Click **OK**.
5. Restart the DOS terminal or command prompt window from which you attempted to access the `man -h` command.

For more information on how Windows generates 8.3 file names from long file names, see <http://support.microsoft.com/kb/142982>.

Integrity interface updates

Integrity 10 provides an updated interface for the Integrity client and Integrity Administration client. However, the product and documentation may contain some legacy graphic elements or references to the MKS brand. For example, some property names and certain integrations still use the MKS brand.

Right-clicking or middle-clicking a menu or option behaves as a left-click (493653)

When you right-click or middle-click a menu or menu option, the option is activated. The expected behavior is that the menu or menu option does not activate on a right-click or middle-click.

External hyperlinks in the Integrity Help Center or documentation do not work

On occasion, clicking external links in the Integrity Help Center or in PDF files for Integrity documentation may not open the destination page correctly in your browser.

Tip

If clicking the link does not work, manually copy the entire link to a new browser window or tab. The link should open the destination page correctly.

Japanese characters display as squares in Select Product Language panel on English Solaris OS

When installing the Integrity server, client, or agent on an English Solaris operating system (OS), Japanese characters display as squares in the **Select Product Language** panel. To use Japanese as the product language on Solaris, you must install the Japanese language pack and set a Japanese locale.

English text for links on Integrity server home page (991531)

In the Integrity Help Center and *PTC Integrity Server Administration Guide*, the “List of Client Installs” topic documents how to add links to Integrity client installation binary files when configuring the Integrity server home page. The process documented results in English linked text for the following versions of the Integrity server home page: German, Simplified Chinese, and Traditional Chinese.

Formatting of currency, dates, and numbers may change for existing customers using German or Chinese locales after upgrading to Integrity 10.6 (991566)

Existing customers who use German or Chinese locales should expect to see differences in the formatting of currency, dates, and numbers after upgrading to Integrity 10.6.

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Accessing Release Notes from Previous Releases

These release notes include information for the current Integrity release. You can view release notes from previous releases by going to the Integrity Support Center at <http://www.ptc.com/support/integrity.htm>.