RELEASE NOTES

Release 9.3

Updated January 17, 2020

StiboSystems
MASTER DATA MANAGEMENT

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9.3 Release Notes

A wide variety of Product Master Data Management (PMDM), Customer Master Data Management (CMDM), Product Lifecycle Management (PLM), and platform enhancements were implemented with the 9.3 release.

Some functionality is controlled via component activation, which may include licenses and/or component installations, and may not be available on a particular system. Questions should be directed to your Stibo Systems account manager or partner manager.

Product Master Data Management (PMDM)

- New machine learning-powered functionality enables automatic classification of products. A machine-learning algorithm can be trained on existing classification assignments and subsequently integrated into existing onboarding workflows to automatically classify products, which is beneficial in regards to product onboarding efficiency and fast time to market.
- The first business module for Stibo Systems' PMDM for Retail offering, Product Content Management, is now available. PMDM for Retail is a ready-to-use, customizable starter pack that allows organizations to acquire, manage, and share product data from a variety of internal and external systems with their customers and value chain partners.

Product Lifecycle Management (PLM)

- Support for conditional mandatory attributes on references is now available. This helps suppliers provide complete responses to product requirements and quality testing thresholds.
- PLM to PMDM launch supports the transformation of the distributed model for handling product specifications, supplier responses to a final recipe library, and sellable items in PMDM, so that enrichment for selling the items can begin. This solution includes a sample Web UI that allows PMDM users to view detailed information that was collected during the product specification process.
- Suppliers can now get a record of their specification response that they submit to the customer when they respond to a bid for a private label product.

Customer Master Data Management (CMDM)

- Enhanced data modeling, privileges, processes, integration, and usability to better support centralized MDM scenarios with a particular focus on B2B CMDM use cases, including:
  - New and improved data container editor to promote centralized MDM with applicability across product lines to support line-of-business specific relations and improve user experience. Additionally, data container display settings can be configured globally and propagated where needed, making data container configuration easier, faster, and reusable.
  - Advanced capabilities for the identification and consolidation of data across disparate data sources, enabling the delivery of a single view of customer master data through enhanced intelligent survivorship rules.

Also, **multidomain functionality** includes these changes to the platform:

- A new visual integration with Microsoft Power BI has been added to Stibo Systems' array of analytics offerings. This integration allows users to view and interact with Power BI reports, dashboards, and tiles in the Web UI, providing a new option to analyze and take action on data from both STEP (the MDM platform) and external systems in a seamless interface.
- Open platform improvements include the addition of REST API V2 resource operations for workflows and data container references, the extension and updates to the STEPXML XSDs, and functionality enhancements for ImportChangeInfo.
- Various product enhancements and user experience improvements include image watermarking capabilities upon export, new metric types for improved data sufficiency, UI improvements (e.g., 'what you see is what you get' export capabilities for tables), and improved workflow rules supporting workflow mandatory references.

This document is intended for use by active platform users and partners and describes the above and other new functionality and improvements in greater detail. It does not serve as a replacement for the Online Help, which includes additional information on previously existing and new system functionality, as well as more detailed explanations and step-by-step instructions for use, when appropriate.

In addition to the individual release notes, upgrading customers should read the **9.3 Upgrade Guide**.

If / when applicable at the time of your installation, read the maintenance patch notes for 9.3 to understand the full scope of changes for the 9.3 release.

Installation Recipe

The baseline can be installed using this command:

```
spot --upgrade=step:9.3
```

See the SPOT Program documentation for help doing the STEP upgrade and installing add-on components.

Contact your Stibo Systems account manager or your partner manager for additional information on upgrading or installing the 9.3 release.

9.3 Upgrade Guide

Before upgrading the platform and its add-on components, there are certain system changes that customers need to be aware of when moving to 9.3 from an earlier version. This list may not be comprehensive; however, along with the full release note set, it provides a starting point for upgrade evaluation.

As with every release, some components are deprecated, removed, desupported, or not backwards compatible for various reasons. Customers should also read the Platform and Software Support Changes release note and each individual release note for items that may not be listed below, to see future updates, and to find any software end-of-life notifications.

- Support for these platform versions is ending as of the date shown: 8.1 (November 1, 2019); 8.2 (June 1, 2020); 8.3 (November 1, 2020).
- IE 11 is no longer a supported browser. See the 9.3 Platform and Software Support topic and the Platform and Software Support Changes release note for details.
- All Red Hat Enterprise Linux / Oracle Enterprise Linux 6 versions are desupported with this release.
- Oracle Database version 12.1.0.2 is desupported.
- Adobe InDesign CC 2017 (Client and Server) will no longer be supported in the next feature release; customers should transition to a supported version.
- The outdated DTD for the output template format is no longer available on the API documentation page. More details can be found in the API Enhancements and Updates release note.
- BMECat 2005 will no longer have the 'Generation date' parameter. Instead, a new GXML instruction will automatically generate the current date and time of an export. For already existing BMEcat 2005 configurations where the Generation date field has been manually maintained, the Generation date field will remain. See the Data Exchange Enhancements and Changes release note.
- The option to import eCl@ss Basic CSV files has been removed with the 9.3 release, and an error will appear if users try to upload anything other than eCl@ss Basic XML files. See the Data Exchange Enhancements and Changes release note.
- When a user makes the selection by clicking in the Web UI Tree, the Tree no longer shifts focus. Previously objects in the blue hierarchy took priority focus when making node selections.
- When creating a reference to add via the Multi-Reference Editor, object types displayed in the Create Tab of the Add Reference Action dialog are now identified by the object Title rather than the object ID.
- The default behavior of toolbar actions has been changed for Node Lists. User experience will be different in Web UI when taking the upgrade. See the Web UI Enhancements release note.
- Simple Export has been revamped and renamed to Custom Export. Functionality was added and labels have changed; nothing was removed. Refer to the Web UI Enhancements release note for details.
- Customers that have entities and classifications using your system configured primary image reference will now see images for these when viewing them in Web UI Node Lists using a Thumbnail header or in the filmstrip or gallery display modes. This functionality cannot be removed; however, the image reference can be changed.
- Existing setups with Business Action with Web UI bind will now have a 50 object max applied. The button will be disabled if more than 50 nodes are selected when using this on Node Lists. However, if customers wish to increase that max, they can do so in the button configuration. It is important to note that end users working on screens with the Business Action with Web UI Bind component already configured will experience no change in performance aside from a new system default restricting node selections to no more than 50. However,

when admin users access the designer for those screens, the designer will display as being in error and disallow configuration changes until the error is cleared. Additionally, the field for the 'Max Number of Nodes' parameter will be blank: the default maximum of 50 is applied by the system. To clear the error, designers must manually add a value to the new 'Max Number of Nodes' parameter in all Business Action with Web UI Bind components configured for the screen.

- Users will notice some layout changes on Web UI screens intended to fix minor issues (e.g., unnecessary scrollbars).
- When applying dimension dependencies to attribute or List of Values (LOV) objects, users now must select the dimension point where existing values should be applied. Users are unable to bypass this selection before moving ahead.
- The Children of Type screen has been withdrawn. Users should use the Children of Types screen prior to transitioning to 9.3 so that functionality is not lost with an upgrade.
- The 'External Validator' and the 'Post Save Validation Script' parameters have been removed from Web UI. Also, the 'Run Server Script Action' component has been superseded. Full details can be found in the Web UI Enhancements release note, under the 'Changes to validation functionality' subheading. Additional components have also been superseded (Move Action and Initiate Business Action) and can also be read about in the Web UI Enhancements release note.
- The most recent survivorship rules are now comparing STEP changes with Last_Edit_Date attribute when determining newest value of an attribute during a match and merge import. STEP changes were previously not considered.
- The Data Container Attribute View Editor and the Advanced Merge Data Container Header Web UI components have been superseded. See the Customer MDM Enhancements release note for information on alternate components.
- The configuration for PLM storyboards has been updated to include PLMColor as a product object type instead of an asset.

New Visual Integration with Power BI

Summary

A new visual integration with Microsoft Power BI has been added to Stibo Systems' array of analytics offerings. This integration allows users to view and interact with Power BI reports, dashboards, and tiles in the Web UI, providing a new option to analyze and take action on data from both STEP (the MDM platform) and external systems in one seamless interface.

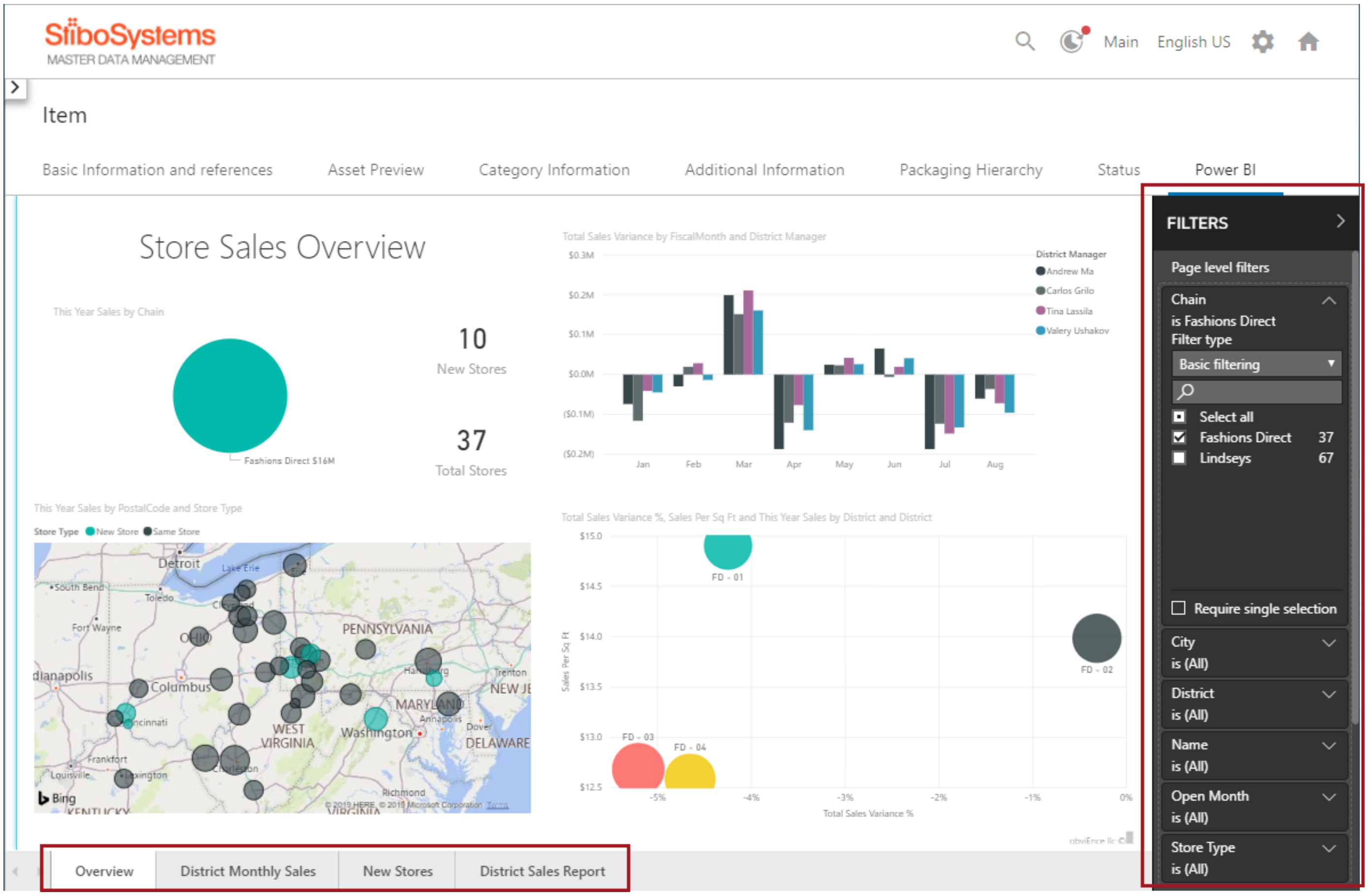
Details

Microsoft Power BI is now available as a visual analytics integration in the Web UI, complementing Stibo Systems' existing visual analytics integrations with Tableau and Qlik. The Power BI analytics integration builds upon Microsoft's Power BI API to authenticate, view, and interact with Power BI reports, dashboards, and tiles on an HTML page via Web UI widgets and screens.

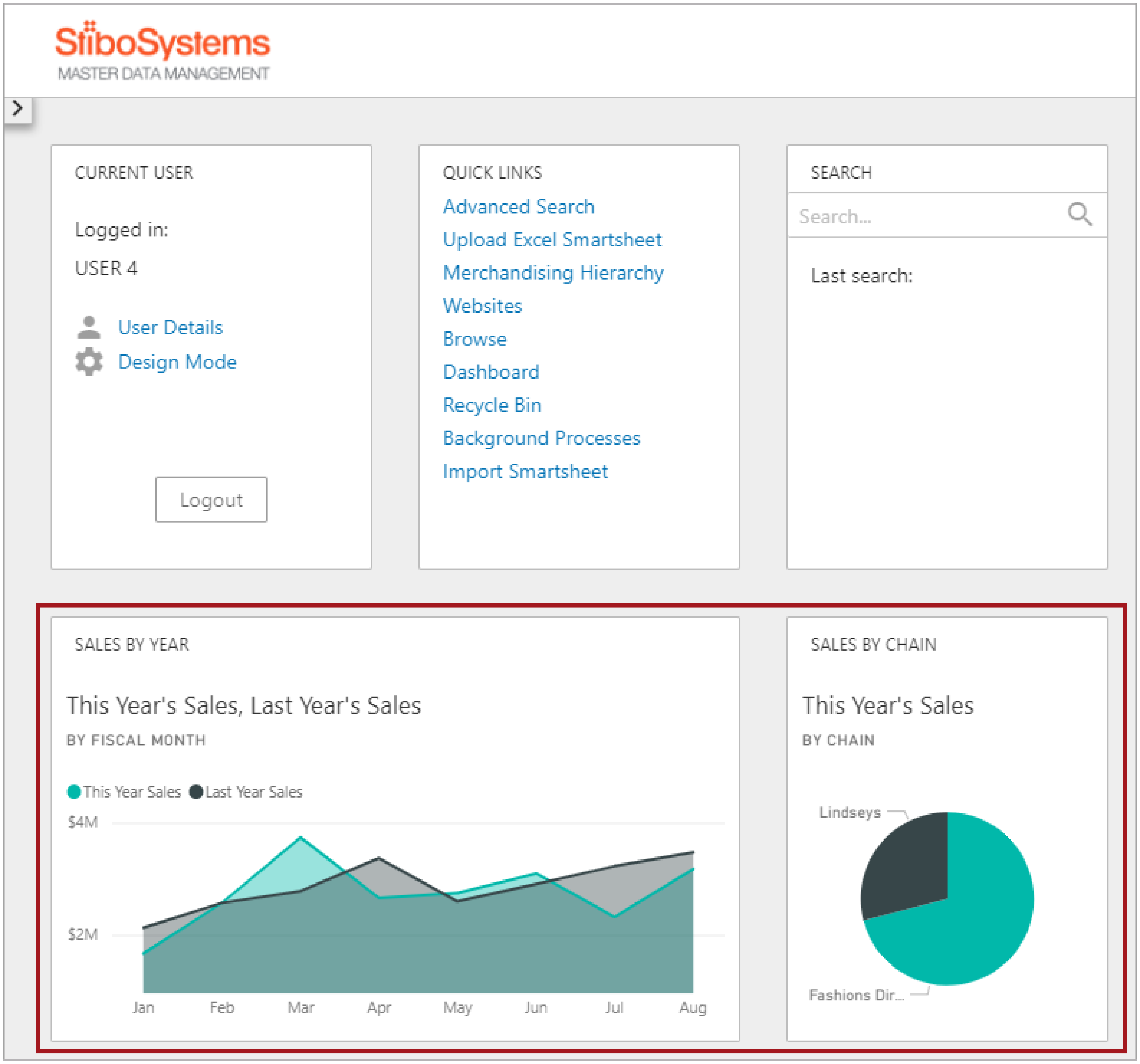
Two new components are available in the Web UI to configure the integration between STEP and Power BI: The Power BI Screen and Power BI Widget. Both components require referencing and authenticating to Power BI to display reports and filter them based on attribution and other criteria such as locale, user, or date.

New Web UI screen and widget components to display Power BI reports

The following screenshot shows a sample Power BI report on a Power BI screen in the Web UI. An optional filter panel is shown on the right side of the screen, and an optional page navigation panel appears on the bottom.



The next screenshot shows a Web UI homepage with two sample Power BI Widgets at the bottom. The Power BI Widget component is very similar to the Power BI Screen component except it is designed to display smaller amounts of high-level summary data.



To access the Power BI visual analytics integration, the X.WebUI.Analytics license must be enabled on your system. Additional setup tasks and system configurations must also be performed by Stibo Systems Technical Services team upon initial setup. Contact your account manager for additional information and to enable licenses for your system.

For more information, see the Visual Integration with Power BI topic in the Analytics documentation.

New Auto Classification via Machine Learning

Summary

The task of assigning a product into a classification hierarchy is an important part of product onboarding, since users only know which attributes to collect for a product when they know what type of product it is. This task is, therefore, on the critical path with respect to time to market for a product—and an important task to make efficient. Correct assignment into classification hierarchies is also important in maintaining a continuous overview of all products in a given hierarchy for analytical purposes. Additionally, the functionality may be relevant when users need to classify products into multiple standard hierarchies, e.g., based on industry standards.

Details

Stibo Systems now offers a new machine learning-powered functionality that enables automatic classification of products based on just a short description. The machine-learning algorithm can be trained on existing classification assignments and subsequently integrated into existing onboarding workflows to automatically classify products. Each auto-classification result is accompanied by a confidence level. If the confidence level is too low, e.g., because there were only a few products in a given classification at the time of training, the task can then be directed to a human user in a workflow. From time to time, the machine-learning algorithm needs to go through retraining based on the latest available data to account for manual decisions that have been made since the last training. If there are no existing classification assignments to train the algorithm from the beginning, then it is still possible to start using the algorithm. However, all classification tasks will initially be directed to a human user. After the first retraining, fewer tasks will be directed, and the algorithm will improve over time.

It is possible to classify products into multiple hierarchies by training separate algorithms for each hierarchy. Both the primary product hierarchy (blue) and classification hierarchy (yellow) are supported. For the classification hierarchy, it should be noted that the algorithm currently only supports hierarchies where each product is classified in exactly one location. If there are multiple languages, a separate algorithm must be trained for each language, even though the hierarchy is the same.

Machine learning-powered auto classification is implemented as a multi-tenant cloud-based service. Access to the service is configured through business actions and integration endpoints. Because of this, it is possible to use the new service even without upgrading to the 9.3 release. The service uses event messaging to automatically stay current with updates to product data and the hierarchy, allowing for retraining to be done quickly, when needed, without having to re-export data.

To enable licensing for machine learning-based auto classification (which is not included in the platform rule-based automatic classification functionality), and for more information, contact your Stibo Systems account manager.

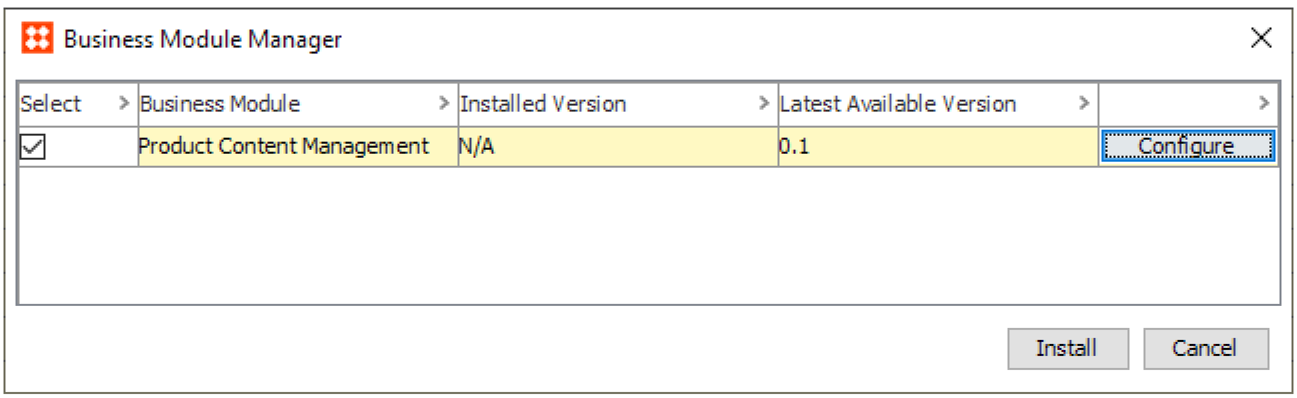
New PMDM for Retail Product Content Management Business Module

Summary

The first business module for Stibo Systems' PMDM for Retail offering, Product Content Management, has been released. PMDM for Retail is a ready-to-use, customizable starter pack that allows organizations to acquire, manage, and share product data from a variety of internal and external systems with their customers and value chain partners. The Product Content Management module implements this logic using a typical business process that covers frequently encountered market scenarios.

Details

The Product Content Management business module is accessed and installed in the workbench by selecting Business Module Manager from the File menu. The following screenshot shows how the Product Content Management business module displays in the Business Module Manager. The only required Business Module Manager configuration is to choose whether the default product hierarchy should be based on the Global Product Classification (GPC) standard.



The following considerations apply to using the Product Content Management business module:

- The Product Content Management business module deals with sell-side products only.
- Users must be granted the 'Install Business Modules' setup action to install business modules.
- The module should only be installed on clean systems. If data structures already exist in the target system (e.g., product or classification hierarchy), or standard STEP base objects have been removed, it is not guaranteed that the module can be successfully installed.
- If any of the steps within a business module fail during installation, the installation may not fully complete, though as much data will be imported as possible.
- The minimum required baseline for the module is version 9.2-mp3.

To access the Product Content Management business module, the following add-on components must be installed on your system in addition to the normal update procedures for the release version onto which the module is being installed:

- product-content-management
- assetdownload

Instructions for installing components can be found in the SPOT Program topic in the System Administration documentation.

The following licenses must also be enabled. Contact your account manager to enable licenses for your system.

- X.ProductContentManagement
- X.App.ProductVariants
- X.Smartsheet

For full details on the Product MDM for Retail solution, see the Product MDM for Retail section of the Solution Enablement documentation. For high-level configuration instructions for the PMDM for Retail Product Content Management business module, see the Product Content Management Module Configuration topic in the Product MDM for Retail documentation. For more information on the Business Module Manager, see the Business Module Manager topic in the System Setup / Super User Guide documentation.

PDS Integration Enhancements

Summary

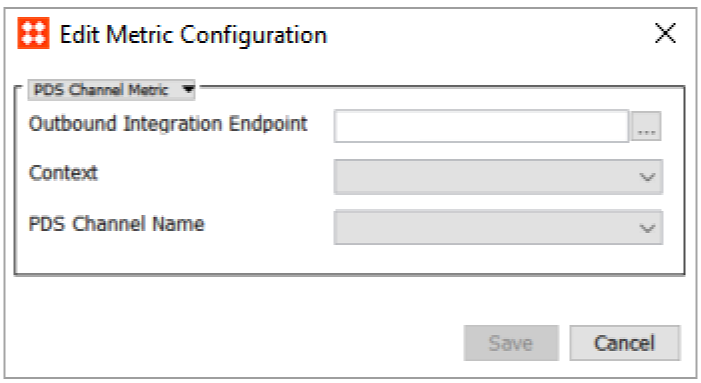
The following enhancements have been made to Product Data Syndication (PDS) integration:

- A new PDS Channel Metric allows users to check data quality and completeness for specific channels before syndication takes place.
- Two new JavaScript business action binds allow administrators the ability to configure automatic publishing to PDS from the Search screen basket based on sufficiency metrics.

Details

New PDS Channel Metric

The new PDS Channel Metric allows users the ability to measure the quality and completeness of a product compared to the data standard of a retail channel in PDS before syndicating it to the PDS channel. The quality and completeness scores are displayed in the sufficiency panel, which is located in the Web UI.



To view the data produced by the PDS Channel Metric in the sufficiency panel in the Web UI, the add-on components 'pds-sufficiency-link' and 'data-sufficiency' must be installed on your system in addition to the normal update procedures for 9.3. This component provides the ability to deserialize preflight data from PDS when used in a sufficiency context; additionally, it allows PDS users that are not using sufficiencies to not have to apply a separate sufficiency component to their system.

Instructions for installing components can be found in the SPOT Program topic in the System Administration documentation.

The following license must also be enabled. Contact your account manager to enable licenses for your system.

- X.Adapter.ProductDataSyndication

For more information, see the Data Profiling Enhancements release note.

Automatic publishing to PDS now possible on Sufficiency Metrics

An administrator can configure automatic publishing to PDS from the Search screen basket based on sufficiency metrics using two new JavaScript business action binds.

For more information, see the Web UI Enhancements release note.

Customer MDM Enhancements

Summary

In the 9.3 release, Customer MDM received a few quality-of-life enhancements, including:

- Updated survivorship rules for determining most recent attribute values.
- New option to allow the entire attribute group with the latest attribute value change to survive.
- Added the ability to identify Merge context when implementing survivorship rules.
- Added the ability to get node or data container with most recent changes when implementing survivorship rules.
- Added functionality to allow empty values to survive during Match and Merge Import with STEPXML files.
- Added new functionality for updating a Merged Golden Record based on a deactivated Golden Record.
- Improved support for source systems that rely on using STEP ID.
- Updated the Company Hierarchy screen 'Save' action to 'Save & Approve' action.
- New data container header for the advanced merge screen.
- In profile configurations, the word-divided attribute parameters 'Unique Value Profile Configuration' and 'Value Profile Configuration' have been merged.

Additionally, there are superseded data container components as described at the end of this release note.

For more information, see the Customer MDM Solution Enablement documentation.

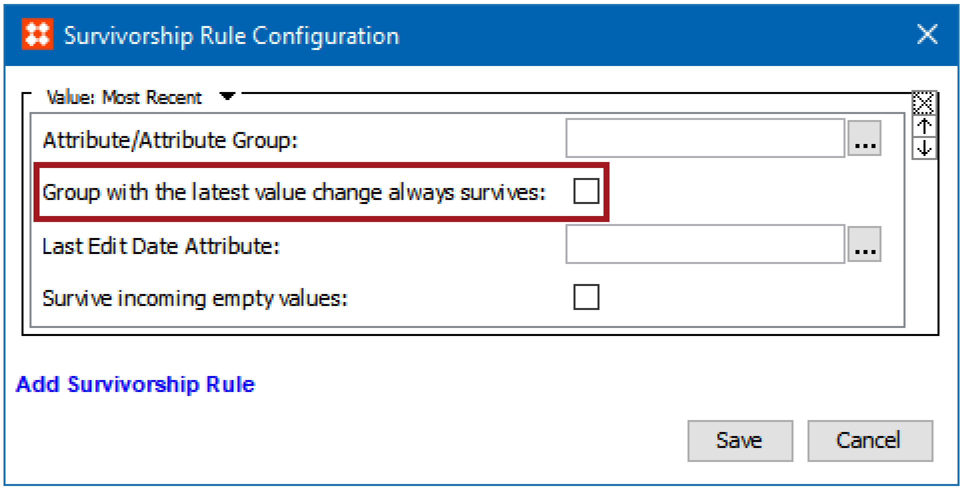
Details

Updated survivorship rules for determining most recent attribute values

Most recent survivorship rules now compare STEP changes with Last_Edit_Date attribute when determining newest value of an attribute during a match and merge import. STEP changes were previously not considered. For more information, see the Golden Records Survivorship Rules topic in the Matching, Linking, and Merging documentation.

New option to allow the entire attribute group with the latest attribute value change to survive

A new option in most recent survivorship rules allows all values of an attribute group to survive when the group contains the attribute with the most recent timestamp among all compared attribute groups. This can be valuable when making use of survivorship attribute groups. For more information, see the Golden Record Survivorship Rule Types topic in the Matching, Linking, and Merging documentation.



Added the ability to identify Merge context when implementing survivorship rule

JavaScript developers will now be able to identify if rules are executed in a Merge context, and then, tailor survivorship behavior accordingly. A boolean method, isMerge(), will be available in the Match And Merge Survivorship Context bind to help developers determine the survivorship behavior. For more information, see the Match and Merge Survivorship Context Bind topic in the Resource Materials documentation.

Added the ability to get node or data container with most recent changes when implementing survivorship rules

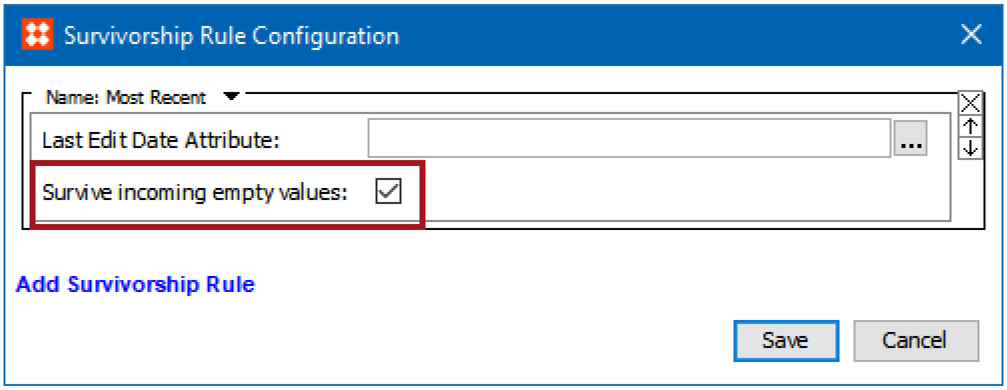
JavaScript developers can now get nodes and data containers with most recent changes in the MatchAndMergeSurvivorshipContext bind. Besides the isMerge() method this bind has been updated with the following methods for comparing two nodes:

- Get node where the specified attribute has the most recent value update.
- Get data container where the specified data container attribute has the most recent value update.
- Get node where the specified data container type has the most recent value update.
- Get node where the specified reference type has the most recent value update.

For more information on creating business action plugins with the API, see the STEP Extension API Guide available on the STEP API Documentation link on the Start Page.

Added functionality to allow empty values to survive during Match and Merge Import with STEPXML files

A new option is available under the 'Most Recent' survivorship rules that allows empty values to survive during import of STEPXML records. This functionality applies to both manual import and inbound integration endpoints. This enhancement allows the import of an empty value (" "), replacing any existing standalone attribute value, attribute value in data containers, and reference metadata with a null value. For more information, see the Golden Record Survivorship Rule Types topic in the Matching, Linking, and Merging documentation.



Added new functionality for updating a Merged Golden Record based on a deactivated Golden Record

Users will now see all changes forwarded to the merged-into Golden Record whenever a deactivated Golden Record is updated using STEP IDs. This functionality extends to importing references using STEP IDs pointing to deactivated Golden Records as well, so references will now point to the active surviving Golden Record.

Improved support for source systems that rely on using STEP ID

With the 9.3 release, the Match and Merge importer will have stronger support for externally-created STEP IDs from source systems. Previously, when an externally-defined STEP ID was imported, an error was generated. When importing a Golden Record with a STEP ID that does not exist, the system will now create the entity with the non-existent STEP ID from the source entity.

Updated the Company Hierarchy Screen 'Save' action to 'Save & Approve' action

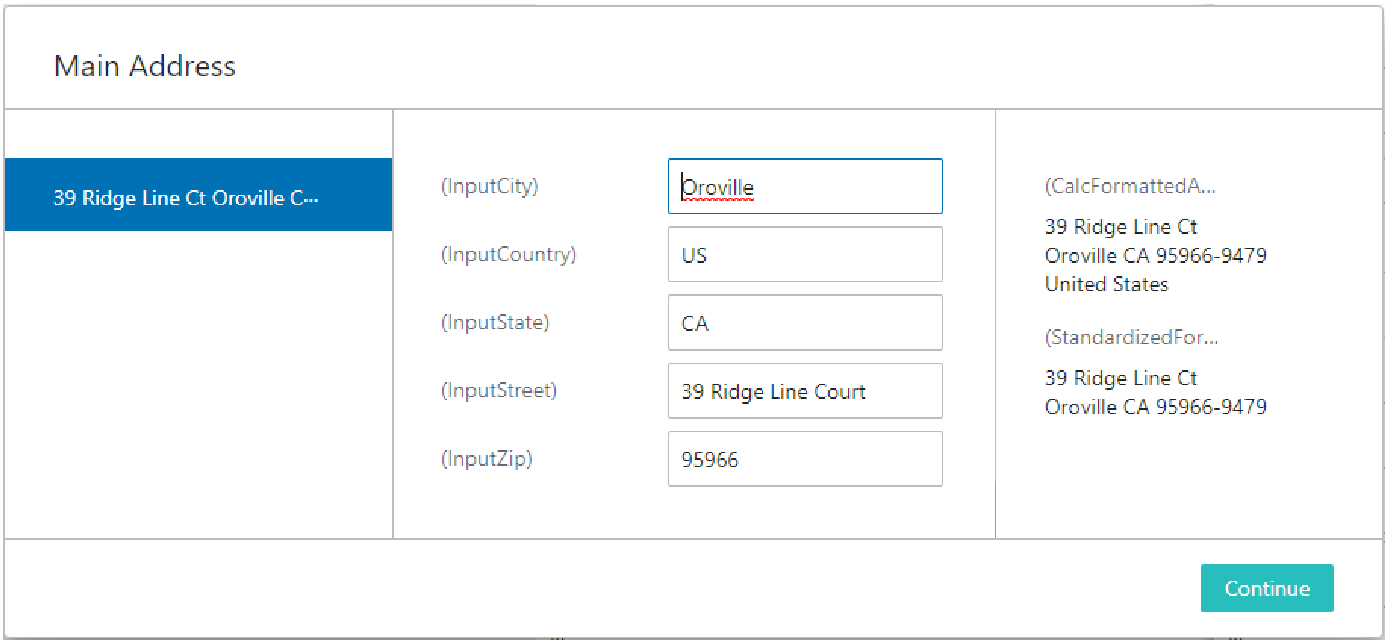
In the Company Hierarchy tab, the 'Save' button has been changed to 'Save and Approve.' When a user selects this action, all changes on these objects are saved and partially approved, so that the references that the user did not create or alter are left unchanged in the existing workspace. If the target objects do not exist in the Approved workspace, then the source object will be partially approved with the attributes remaining unapproved. Finally, any operation failures will result in a prompt for the user. For more information, see the Company Hierarchy Visualization and Maintenance topic in the Web User Interfaces / Web UI Getting Started documentation.

New data container header for the advanced merge screen

A new header is now available for the Golden Record Advanced Merge Dialog Web UI screen called the Advanced Merge Default Data Container Header. This new header allows users to edit existing data containers from within the advanced merge dialog via a popup editor. Like the Default Data Container Editor, references within data containers can also be edited in this editor. All display settings for this editor are centralized within the Global Data Container Configurations component.

For more information on configuring display settings, see the Global Data Container Configurations section of the Web User Interfaces / Web UI Getting Started documentation.

Previously, the Advanced Merge Data Container Header was used without the ability to edit references. Additionally, the editor's display settings were not centralized, so each instance of the header required its own unique configuration.



For more information on this header, see the Golden Record Advanced Merge Dialog section of the Web User Interfaces / Web UI documentation.

Unique Value Profile Configuration parameter has been removed

The Unique Value Profile Configuration parameter has been removed from the data profile configuration editor's interface, and its function has been merged with the Value Profile Configuration parameter. Though merged within the interface, both parameters belong to separate components that gather information during profiling. Any values entered in these fields prior to 9.3 may still differ in the background, however, these parameters should share identical configurations going forward.

Any changes to the Value Profile Configuration parameter will now affect both underlying components, thus ensuring the word-divided setting never differ between background components.

Because it only removes a superfluous field from the interface, this change should have no impact on existing configurations. If the background components differed previous to 9.3, they will continue to do so.

Superseded data container components have been flagged

Due to the addition of the Data Container Default Editor and the Advanced Merge Default Data Container Header, the Data Container Attribute View Editor and the Advanced Merge Data Container Header Web UI components have been flagged as 'Superseded.' These two components can still be used but will not be enhanced in future updates.

New Features for PLM

Summary

Using the private label food solution to create recipes from the ground up, collaboration between customers and their suppliers has been streamlined for accuracy and ease. Customers can use this solution to create a recipe specification, decide upon the flavor variations of the product, communicate these specifications with their suppliers, receive supplier recipes, and agree upon a final supplier for a recipe.

The X.ChangeReport and X.FlexTableHeader licenses are needed for the PLM private label food solution to work, as well as the spire-plm and change-report components.

The following PLM private label food solution features make it easier to create and compare recipes:

- Adding an ingredient group to a specification recipe: Customers are able to add an ingredient group to their recipe specification enabling them to specify the allowance, precision, and quantity requirements of that ingredient group.
- Supplier response: Suppliers can now get a record of their specification response.
- Conditional capabilities in Multi-Reference Editor: Suppliers are now able to improve the completeness of their responses in a Multi-Reference Editor using conditional capabilities.
- Change Reports: Change Reports now support the use of flex attribute values.
- PLM Flex Value Attribute parameter: PLM Flex Value Attribute parameter is now in the Child Components section of PLM Edit Reference Action. Additional updates were made to the component.
- Reference Metadata Flex Value Headers in compare tabs: The Compare Requirements Tab and Compare Parameters Tab now support flex attributes.
- Transforming PLM to PMDM: Using business rules, it is now possible to transform PLM projects to PMDM products.
- Language Support for bill of material (BOM) components: Support for pre-translated ingredients and other information from the ingredient library has now been added to a recipe specification and supplier recipe BOM.

Using the PLM Retail, Footwear, and Apparel solution, it is now easier to plan products needed for specific events, such as a selling season or campaign, to set financial goals, and then determine which products are able to meet these goals.

The spire-plm and plm-ui-rfa components are needed for the PLM Retail, Footwear, and Apparel solution to work.

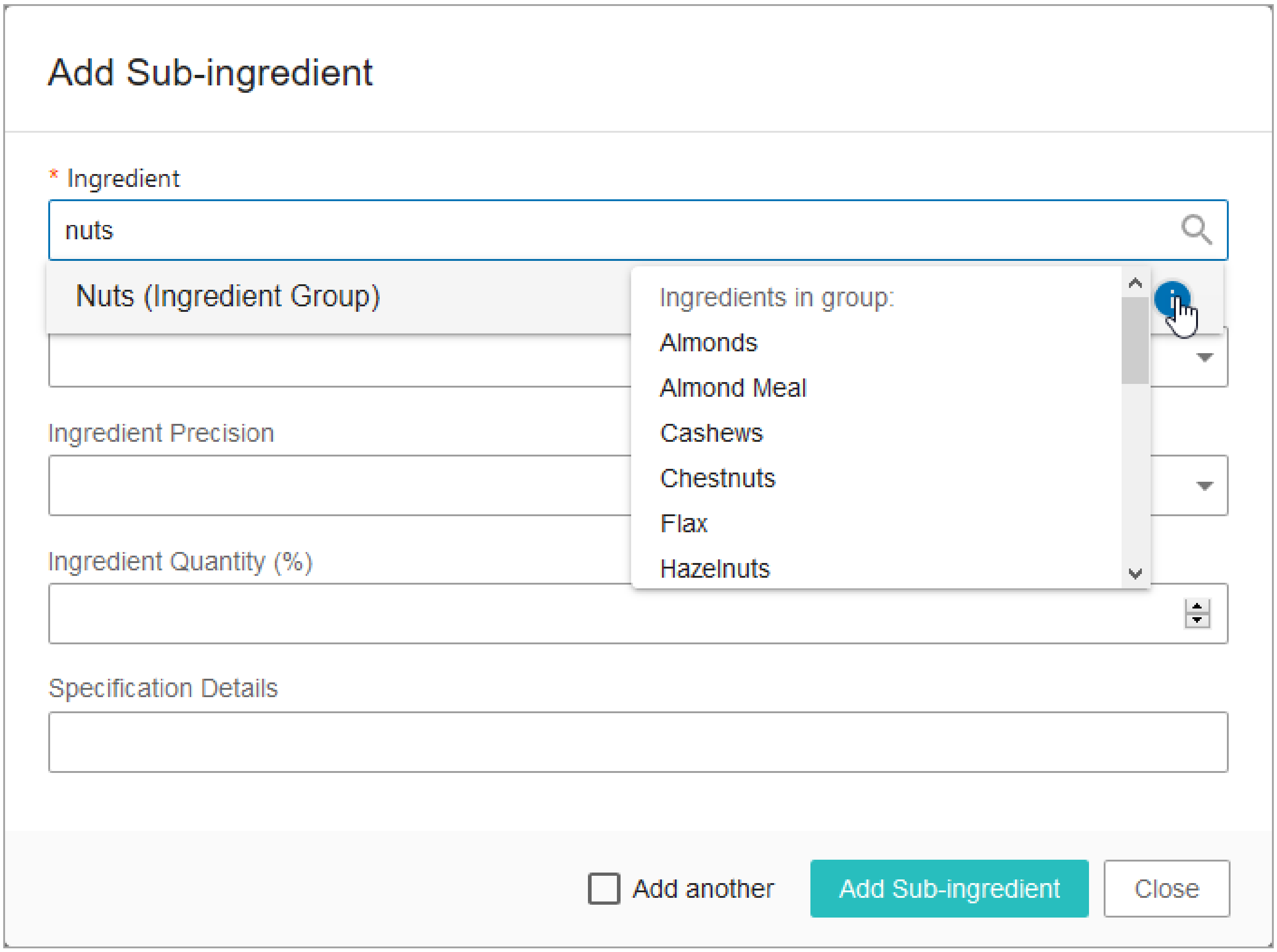
The following PLM Retail, Footwear, and Apparel solution updates make it easier to view, manage, and maintain projects:

- New hierarchy and attributes for PLMMaterial: PLMMaterials has a new structure to better align with industry standards within retail, footwear, and apparel. It also has updated attributes for better data management.

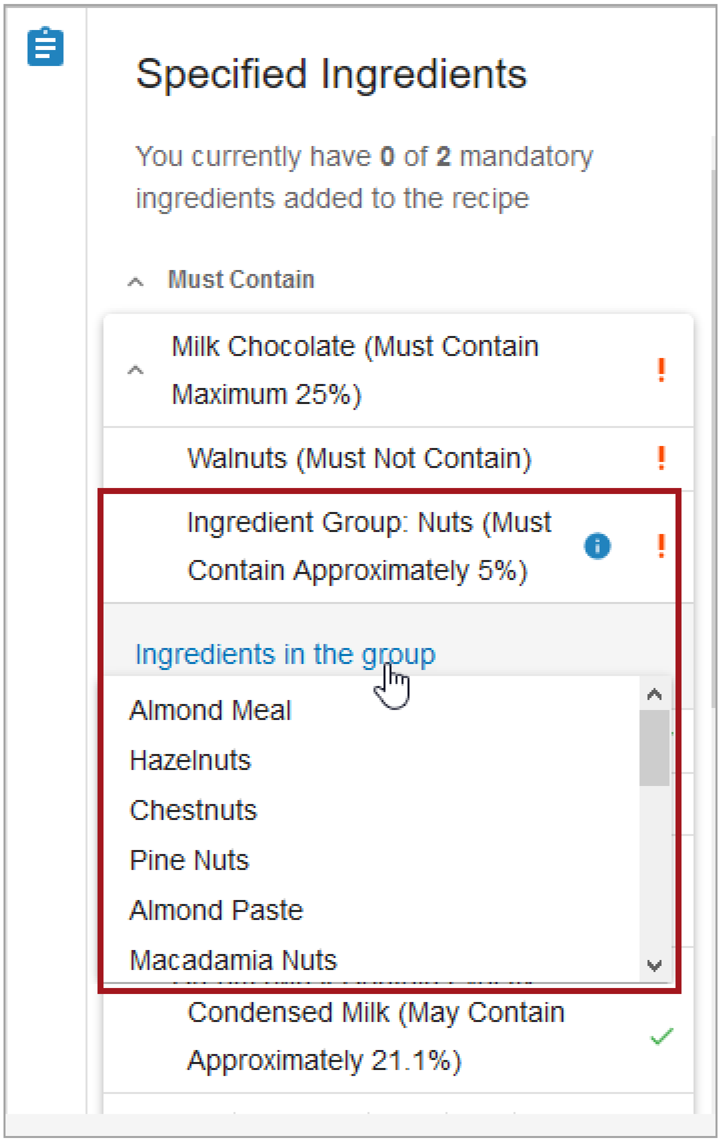
Details

Specify and validate ingredient groups in PLM private label food solution

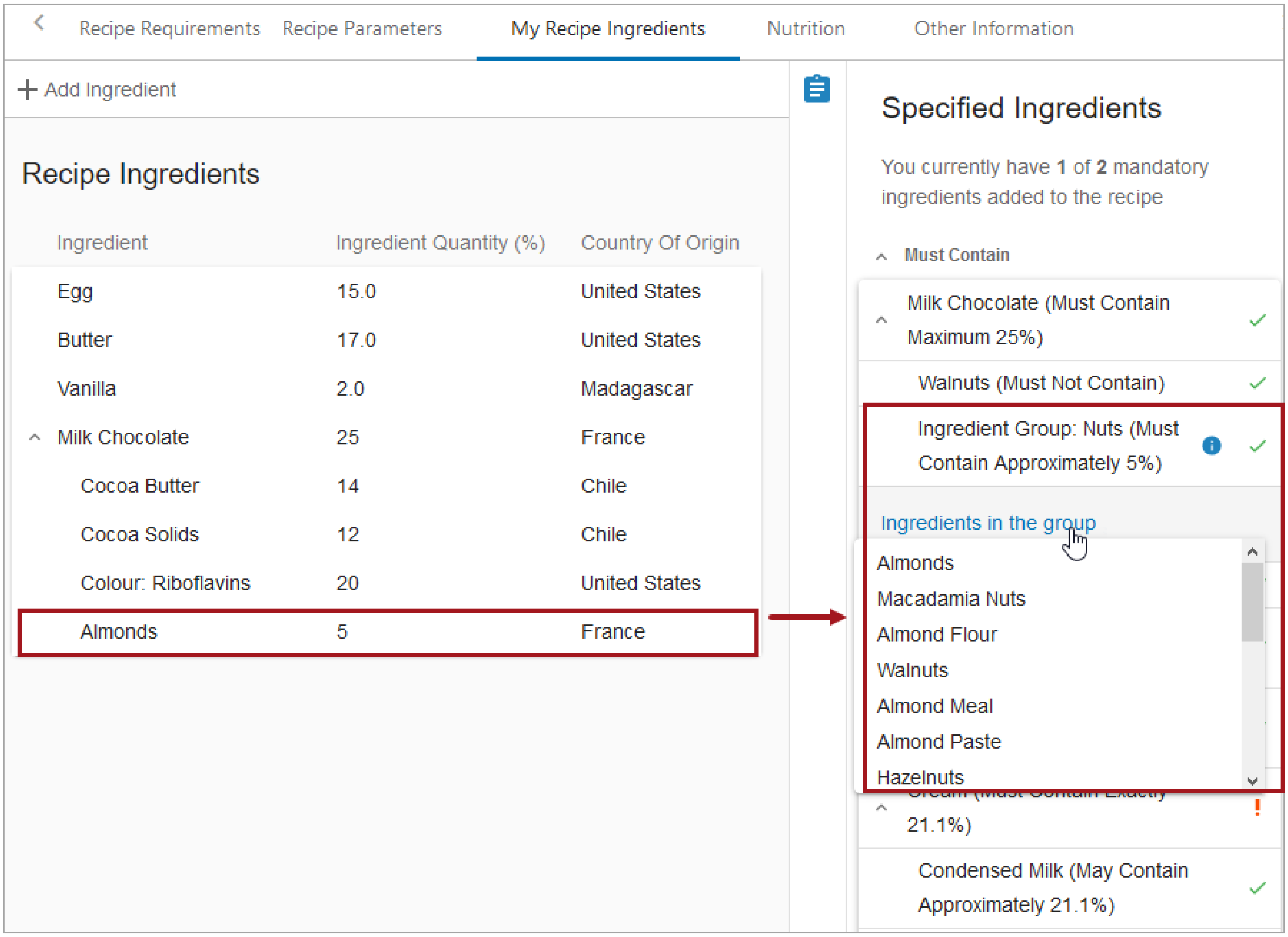
Customers are now able to add ingredient groups to a recipe and specify the allowance, precision, and quantity requirements of that ingredient group on a Specify Ingredients tab. Ingredient groups can either be added directly to the recipe or as a sub-ingredient to a compound ingredient. When adding an ingredient group, the customer is able to see which ingredients are in the group by clicking the information icon. This displays a pop-up list of the ingredients contained in the group.



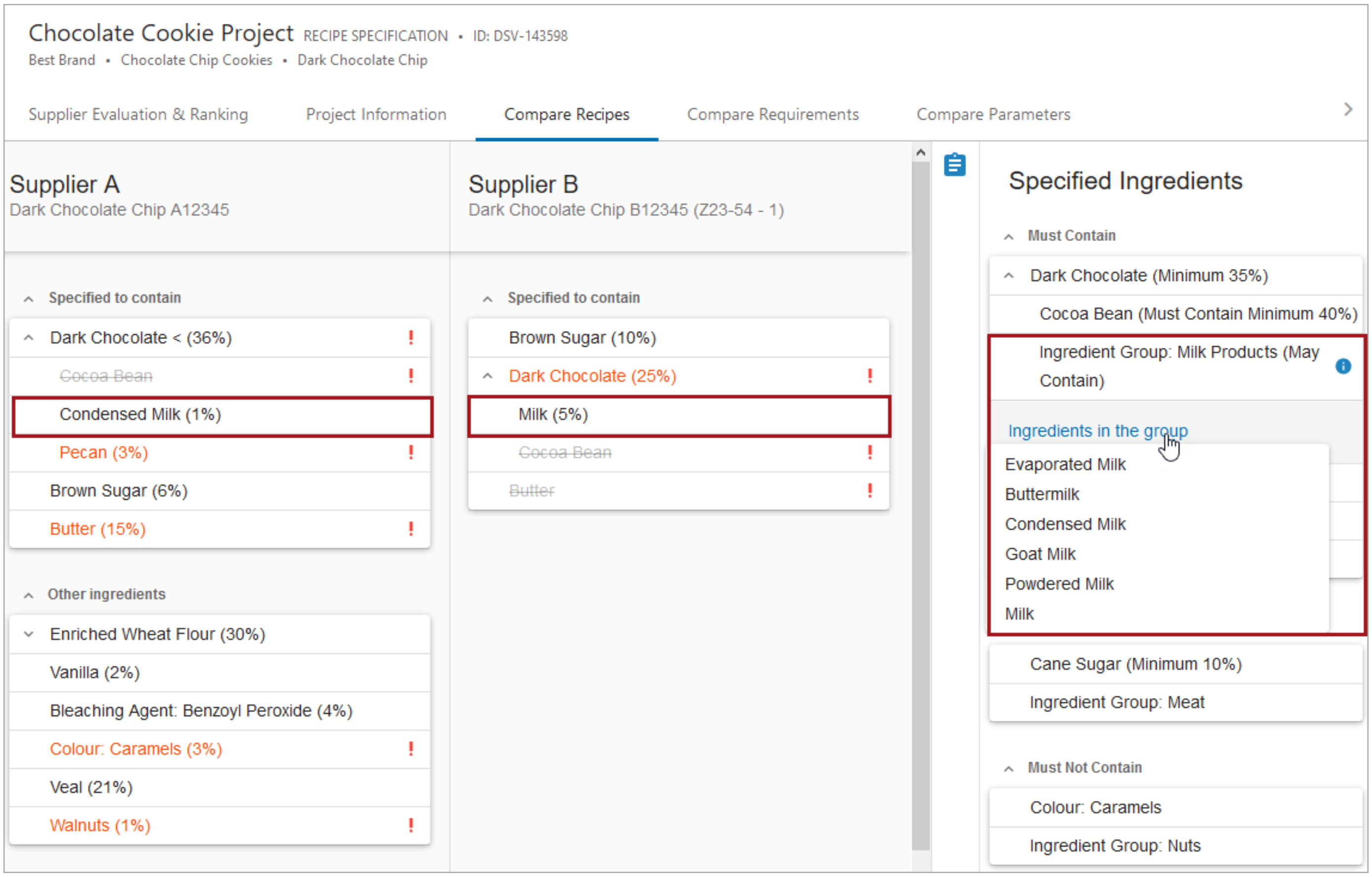
On the Specified Ingredients Side Panel on a Supplier Ingredients tab, suppliers are able to see all ingredients included in the ingredient group by first expanding the ingredient group and then clicking on 'Ingredients in the group.'



Suppliers are then able to build their sample recipe, and automatic validations notify the supplier if they have or have not complied with the specifications in the Specified Ingredients Side Panel. For example, in the picture below, the added ingredient of 'Almonds' correctly fulfills the requested ingredient group outlined in the recipe specification.



Once submitted, a customer can then compare the supplier recipes to their recipe specification on the Compare Ingredients Tab, and check to see that all requests regarding any added ingredient groups were honored.



For more information, see the Specify Ingredients and Supplier Ingredients Tabs topic, the Classification Reference Types topic, and the Compare Ingredients Tabs topic in the Private Label Food Solution segment of the private Label Food Solution section of the Product Lifecycle Management documentation.

New record of supplier response

Suppliers can now get a record of their specification response that they submit to the customer when they respond to a bid for a private label product. If chosen for production, the supplier's response becomes the basis for contractual agreements. This record outlines the bill of materials used to fulfill the private label product, and provides explanations on how the supplier will meet the customer's requirements.

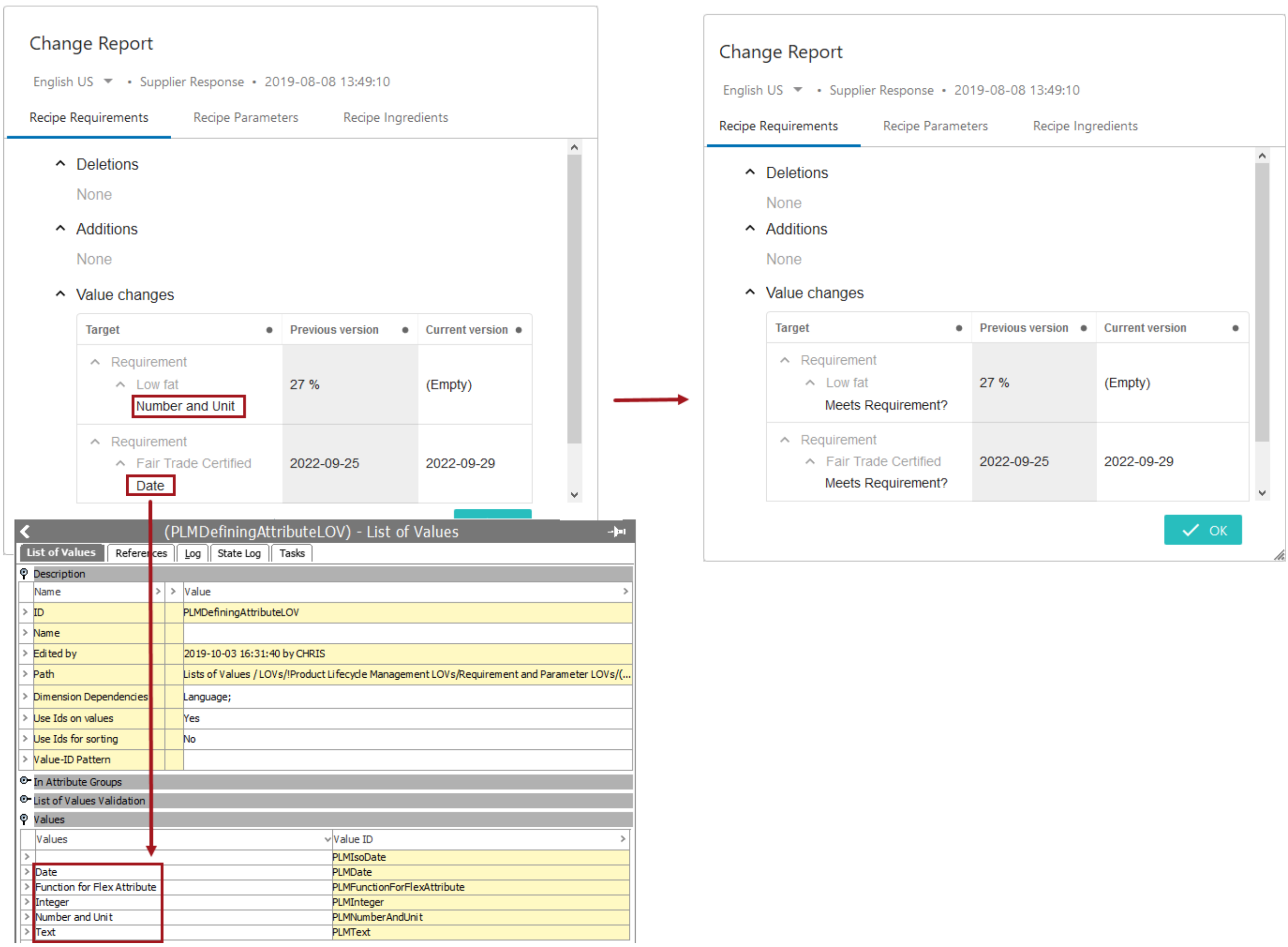
For more information on the private label food solution, see the Private Label Food segment in the PLM for Admins section, and the Private Label Food segment in the PLM for Users section of the Product Lifecycle Management documentation.

New conditional capabilities in Multi-Reference Editor for PLM

Suppliers are now able to improve the completeness of their responses in a Multi-Reference Editor with specific information based on a conditional, conditional with mandatory, or conditionally mandatory attribute or flex attribute. For more information, see the New Conditional Capabilities in Multi-Reference Editor release note in this release note set.

Change Reports now support flex attributes

Change Reports now support flex attribute values. Previously, Change Reports showed Multi-Reference Editor flex attribute values as the defining attribute's value names, such as 'Text' or 'Number with Unit,' in the Target column of the Change Report instead of the designated Reference Metadata Flex Value Header label. This was confusing to users accustomed to seeing the label of the Reference Metadata Flex Value Header. Now with the support of flex attributes, any changes made in the Reference Metadata Flex Value Header will be displayed with the name of the defining attribute instead of the attribute that actually holds the value.



For more information on the set up of Change Reports in the private label food solution, see the Change Reports segment in the PLM for Admins section of the Product Lifecycle Management documentation. For more information on defining attributes and the Multi-Reference Editor, see the Multi Reference Editor in PLM topic in the PLM for Admins section of the Product Lifecycle Management documentation.

PLM Flex Value Attribute updates

The PLM Flex Value Attribute parameter was moved to the Child Components section of PLM Edit Reference Action. Making the PLM Flex Value Attribute a Child Component allows for the addition of more than one PLM Flex Value Attribute, and it enables control of the sequence of any added value attributes or flex value attributes. Additionally, it is now possible to make a flex value attribute mandatory, read only, conditional, conditional with mandatory, or conditionally mandatory. For more on PLM Flex Value Attributes and their capabilities of becoming conditional, conditional with mandatory, or conditionally mandatory, see the 'New Conditional Capabilities in Multi-Reference Editor for PLM' release note in this documentation release note set.

For more information on the PLM Flex Value Attribute component, see the Multi Reference Editor in PLM topic in the PLM for Admins section of the Product Lifecycle Management documentation.

New support for Reference Metadata Flex Value Headers in compare tabs

The Compare Requirements Tab and Compare Parameters Tab are used to compare supplier response in the PLM private label food solution. Previously, the Detailed Requirements Compare dialog and Detailed Parameter Compare dialog that displayed when clicking on a response for further details from the supplier was using a hard coded attribute group. Now, the Detailed Requirements Compare and Detailed Parameter Compare dialogs are configurable in the Web UI designer and support flex attributes.

These dialogs can be configured by going into the Web UI designer and either navigating to the Compare Requirements Tab properties or Compare Parameter Tab properties and going to a new Child Component section called Additional Display Row Attributes. In the Additional Display Row Attributes field a Reference Metadata Flex Value Header and Reference Metadata Attribute component can be added. Having the Reference Metadata Flex Value Header and Reference Metadata Attribute as Child Components allows for the addition of more than one Reference Metadata Flex Value Header and Reference Metadata Attribute, and it enables control of their sequence.

For more information, see the Configuring the Compare Tabs topic in the Private Label Food Solution segment of the PLM for Admins section of the Product Lifecycle Management documentation.

PLM to PMDM Transformation

When a finalized PLM project is awarded, it is now possible to transform each recipe and packaging combination within the awarded project to a PMDM product through the use of the following business rules: PLMFoodCreateRecipeLibrary, PLMFoodFinalizeProject, and PLMFoodCreatePMDMProduct.

These business rules will create a recipe library for the recipes within the awarded project, move the PLM project into a finalized library, remove any objects that are not awarded for the finalized PLM project, and start the created PMDM product in a PMDM new product introduction workflow. These business rules enable the PMDM product to be linked to a recipe object containing all of the detailed information about the ingredients and nutritional data, as well as link it to the finalized PLM project allowing PMDM users to easily view additional information about the PLM project.

For more information see the PLM to PMDM Transformation Overview topic of the Private Label Food Solution segment in the PLM Solution Enablement section of the Solution Enablement documentation.

New language support for recipe bill of materials

Support for pre-translated ingredients has now been added for recipe bill of material (BOM) components, specifically the specify and supplier response BOM. Now, when a customer specifies a recipe in their language, (e.g., English), and sends the recipe to their suppliers, suppliers will see that recipe in their native language, (e.g., German). For more information, see the Private Label Food Solution segment of the PLM for Admins section in the Product Lifecycle Management documentation.

New hierarchy and attribute updates for PLMMaterials

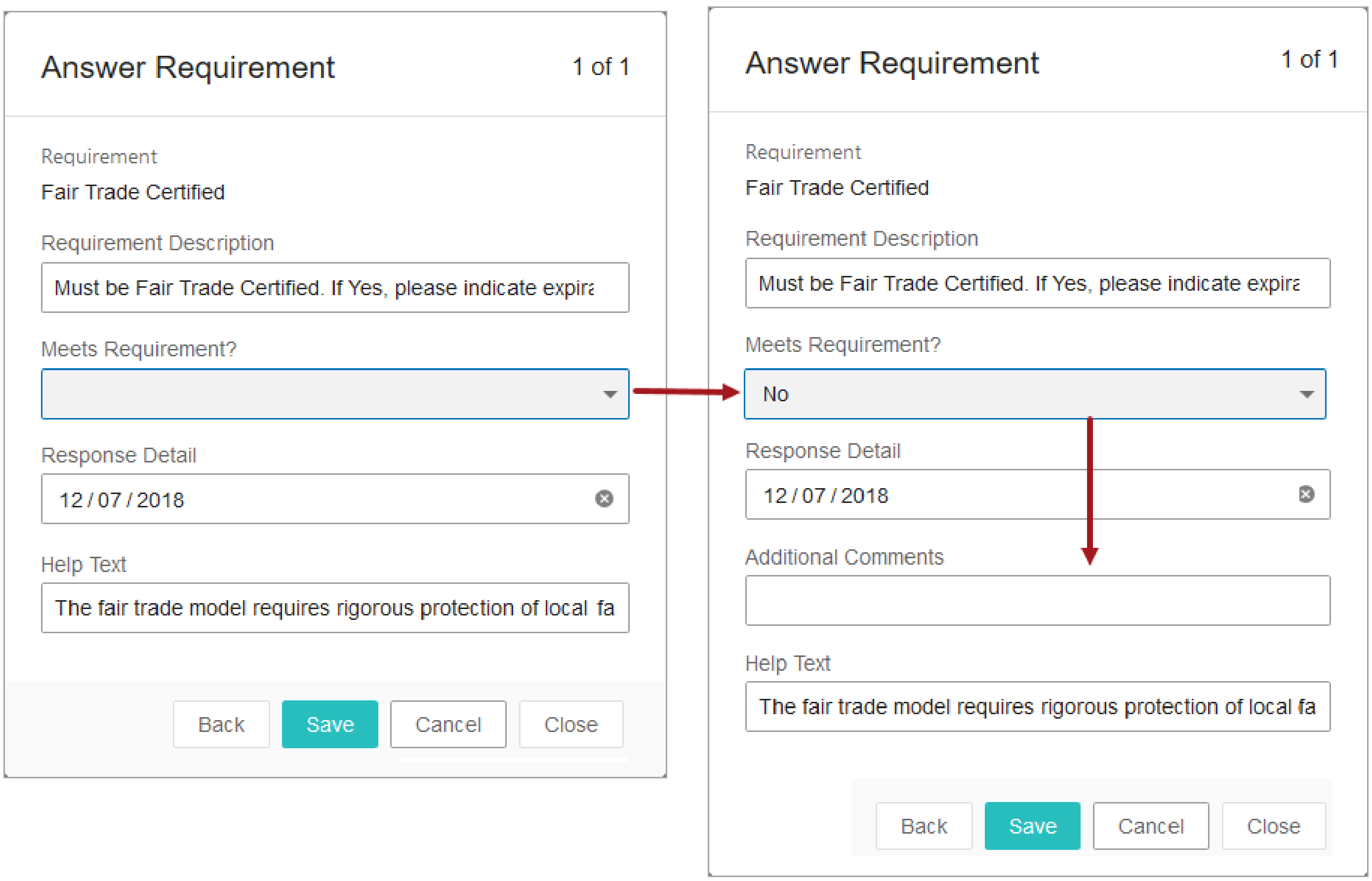
The hierarchy for PLMMaterials has a new structure to better align with industry standards within retail, footwear, and apparel. Additionally, the object types associated with the PLMMaterials structure have updated attributes for better data management. For more details, see the Configurations, Object Types, and Business Rules topic in the Storyboard segment of the PLM for Admins section of the Product Lifecycle Management documentation.

New Conditional Capabilities in Multi-Reference Editor for PLM

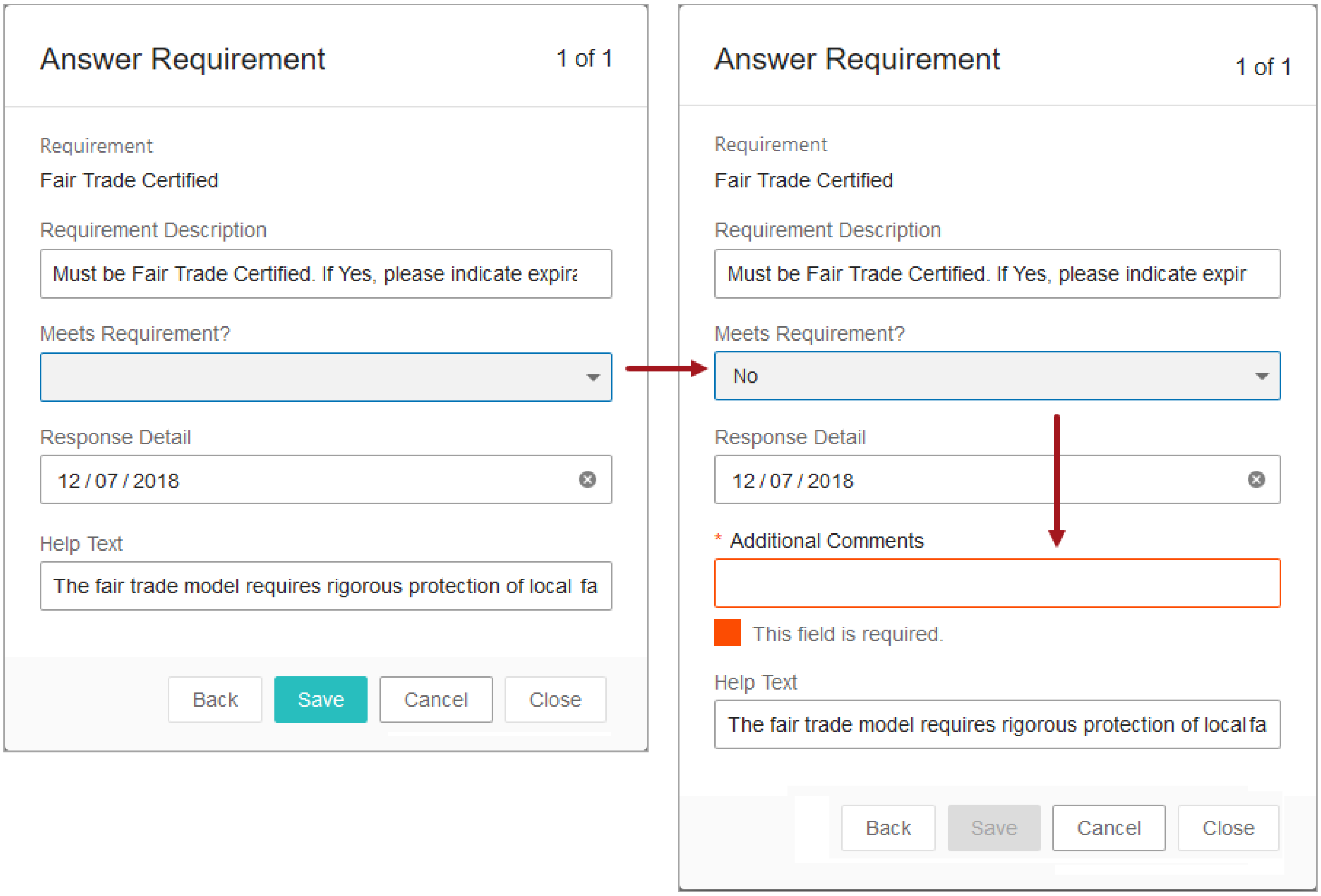
Suppliers are now able to improve the completeness of their responses in a Multi-Reference Editor with specific information based on a conditional, conditional with mandatory, or conditional mandatory attribute or flex attribute.

This can be configured in the Web UI designer on the PLM Create Reference Action or PLM Edit Reference Action on either the PLMAttributeValue or PLM Flex Value Attribute child components.

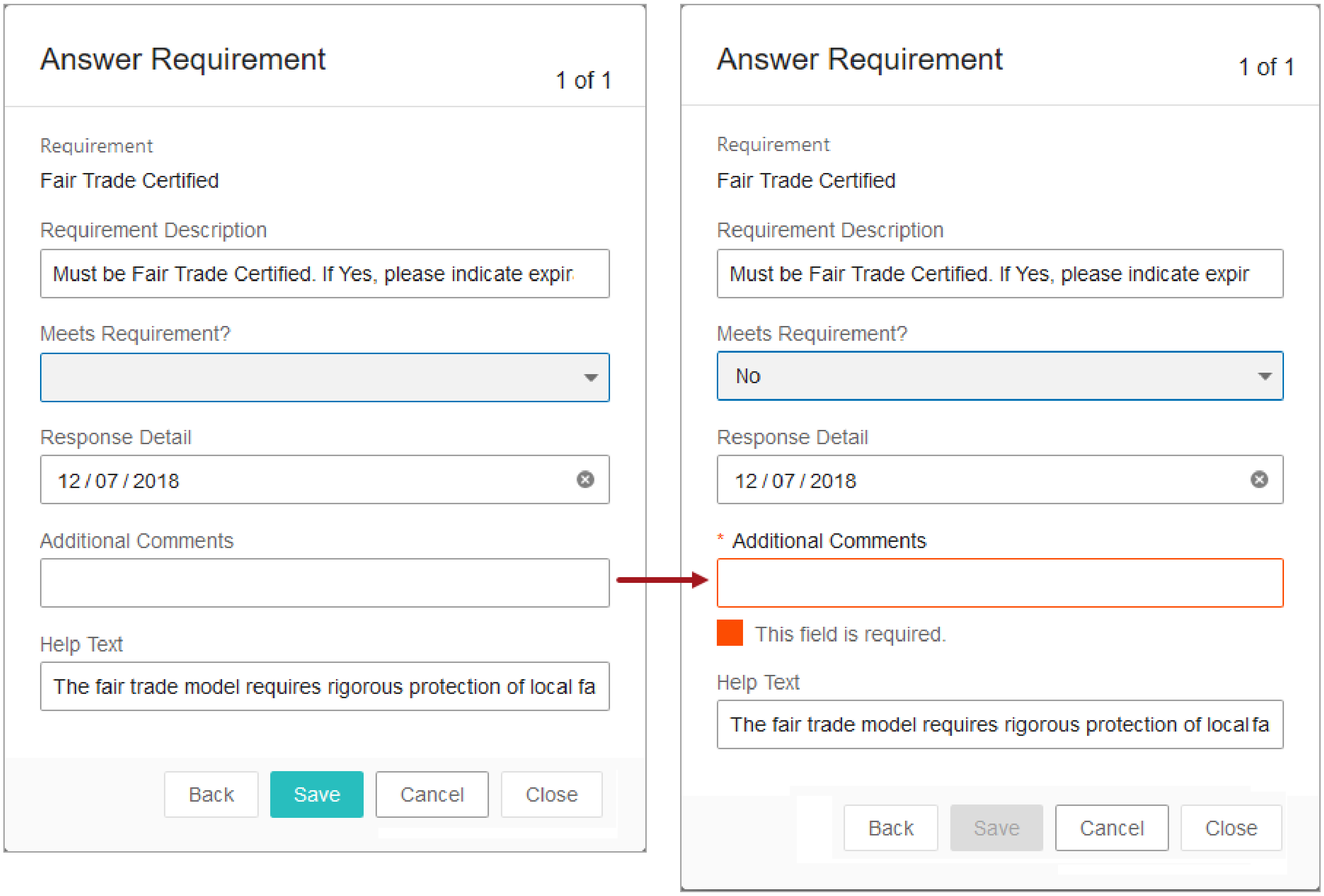
For example, the attribute, 'Additional Comments,' is set with a condition where it will only display if a specific value of 'No' is given for 'Meets Requirements.' This 'Additional Comments' field is not mandatory, and the response can still be saved if left blank.



If the attribute was set as conditional with mandatory, then when a supplier answers the 'Meets Requirements' attribute with 'No', the additional attribute field, 'Additional Comments,' displays, but it must have a value to save the dialog.



If the attribute was set as conditionally mandatory, then when the supplier opens the dialog to respond the field 'Additional Comments' is already displaying, but only becomes mandatory if the supplier responds with 'No.'



An additional option for configuring conditional or conditionally mandatory attributes or flex attributes is the use of the 'Conditional Rules- Business Function' field found on the PLM Edit Reference Action. If this is configured, it will override any child component configurations on the PLM Edit Reference Action, including anything configured on the PLMAttributeValue or the PLM Flex Value Attribute child components (mandatory, read only, and any conditional properties).

Capabilities for conditional, conditional with mandatory, and conditionally mandatory flex attributes are now possible by moving the definition of the flex value attribute from the property of the PLM Edit Reference Action to the Child Component section, using the PLM Flex Value Attribute.

For value attributes, this capability is possible by adding to the PLMAttributeValue child component.

For more information, see the Multi-Reference Editor in PLM topic in the PLM for Admins section of the Product Lifecycle Management documentation.

Data Profiling Enhancements

Summary

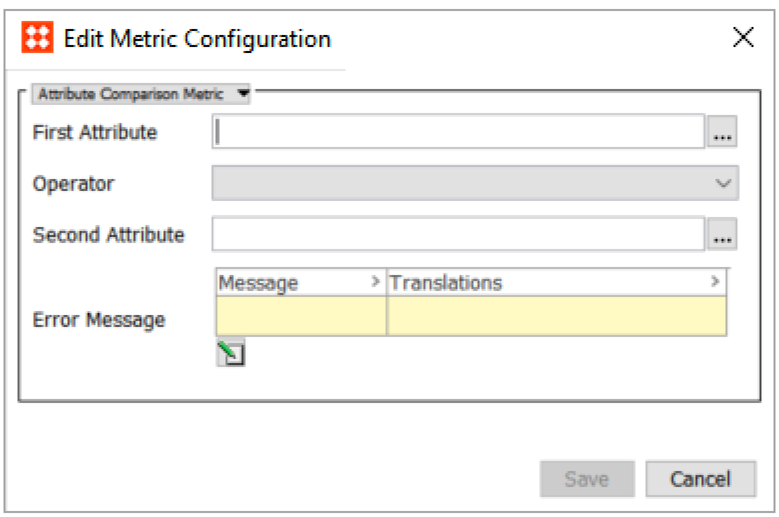
A number of enhancements have been completed for Data Profiling:

- The new Attribute Comparison Metric compares the values of two selected attributes.
- The new Attribute Value Analysis Metric analyzes the value of a selected attribute.
- The new Conditional Attribute Value Metric analyzes the conditions of one or two selected attributes, depending on the results of a conditional statement.
- The new Number of Referenced Target Objects Metric analyzes the number of target objects of a selected reference type.
- The new PDS Channel Metric determines the readiness of a product to be syndicated to a retail channel based on the retail channel's data standard.

Details

New Attribute Comparison Metric

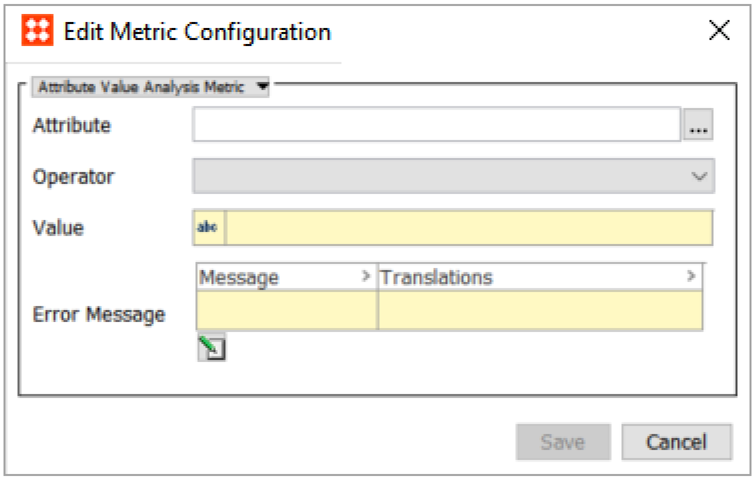
The Attribute Comparison Metric compares the values of two selected attributes based on an operator selected by the user, and returns a score of '100' (true) or '0' (false). Users are able to create an error message for instances when the metric returns a score of '0'; this message is meant to detail the reason for the '0' score and can have multiple translations.



For more information, see the Attribute Comparison Metric topic in the Metrics documentation.

New Attribute Value Analysis Metric

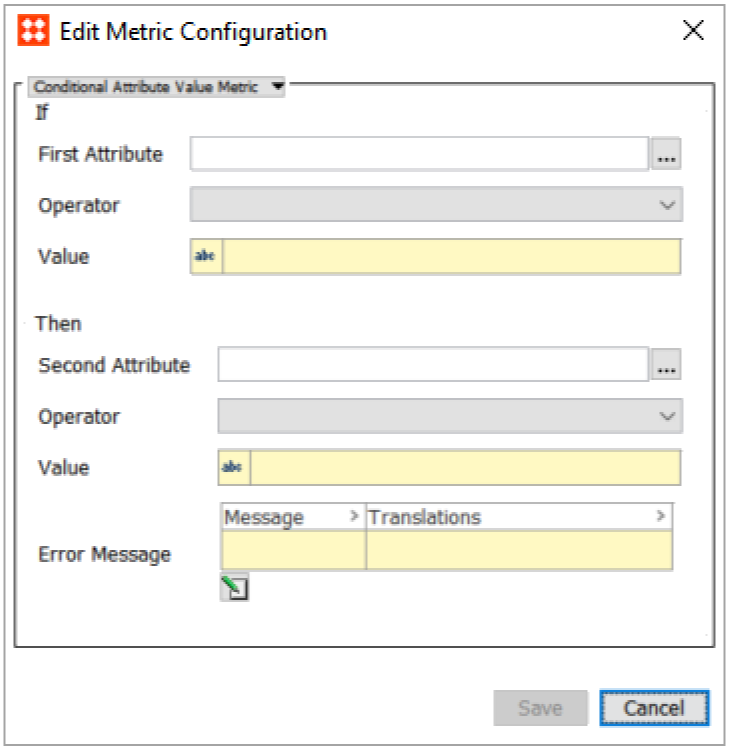
The Attribute Value Analysis Metric analyzes the value of a selected attribute based on an operator selected by the user, and returns a score of '100' (true) or '0' (false). Users are able to create an error message for instances when the metric returns a score of '0'; this message is meant to detail the reason for the '0' score and can have multiple translations.



For more information, see the Attribute Value Analysis Metric topic in the Metrics documentation.

New Conditional Attribute Value Metric

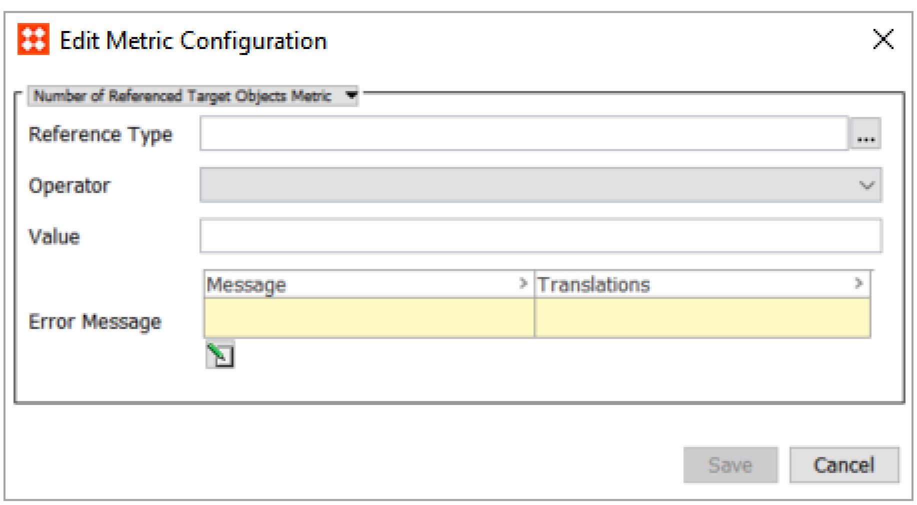
The Conditional Attribute Value Metric evaluates the value of a selected attribute ('First Attribute') based on an operator, and if that evaluation returns a 'true' value, then the metric will proceed and evaluate the value of another selected attribute ('Second Attribute') based on an operator. The results of the evaluation (based on the selected operator for the second attribute) are either a score of '100' (true) or '0' (false). Users are able to create an error message for instances when the metric returns a score of '0'; this message is meant to detail the reason for the '0' score and can have multiple translations. Note that If the evaluation of the first attribute returns a 'false' value, then the metric will return a 'non-applicable' value.



For more information, see the Conditional Attribute Value Metric topic in the Metrics documentation.

New Number of Referenced Target Objects Metric

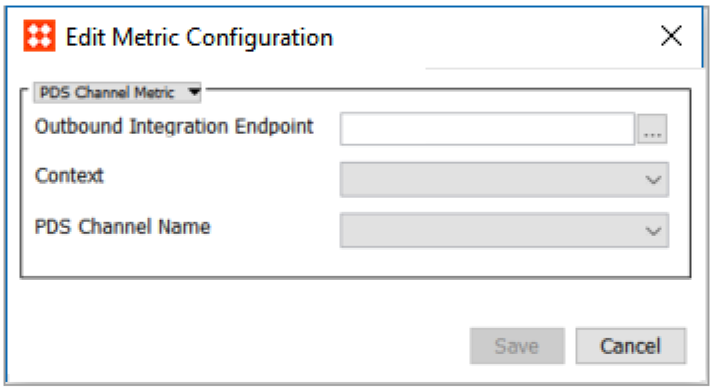
The Number of Referenced Target Objects Metric detects the number of target objects of a selected reference type for a given product, and based on an operator selected by the user, returns either a score of '100' (true) or '0' (false). Users are able to create an error message for instances when the metric returns a score of '0'; this message is meant to detail the reason for the '0' score and can have multiple translations.



For more information, see the Number of Referenced Target Objects Metric topic in the Metrics documentation.

New PDS Channel Metric

The new PDS Channel Metric allows users to check the readiness of a product to be syndicated to a retail channel based on the retail channel's data standard. This 'readiness check' is achieved by measuring the product's data quality and completeness. The data quality and completeness results are then displayed within the Sufficiency panel in the Web UI as a sufficiency score along with any error messages. Unlike the error messages that are available in the previously described metrics, these error messages are not user configurable but instead created and returned from PDS. Note that in order for the PDS Channel Metric to operate, a connection between STEP and PDS must be established.



To view the data produced by the PDS Channel Metric in the sufficiency panel in the Web UI, the add-on components 'pds-sufficiency-link' and ‘data-sufficiency’ must be installed on your system in addition to the normal update procedures for 9.3. This component provides the ability to deserialize preflight data from PDS when used in a sufficiency context; additionally, it does not require PDS users not using sufficiencies to apply a separate sufficiency component to their system.

Instructions for installing components can be found in the SPOT Program topic in the System Administration documentation.

The following license must also be enabled. Contact your account manager to enable licenses for your system.

- X.Adapter.ProductDataSyndication

For more information, see the PDS Channel Metric topic in the Metrics documentation.

Data Exchange Enhancements and Changes

Summary

The following updates have been made within the Data Exchange functionality:

- BMEcat 2005 export now includes a Generic XML instruction that automatically generates the current date and time
- Improved ETIM / eCl@ss ID matcher when using auto map in the import tools
- Support for deprecation in ETIM
- Support eCl@ss version 11 (with new XML 3.0 format)
- De-support import of eCl@ss CSV
- Import Change Info enhancements
- Export capabilities improvements for tables in the Web UI

Details

BMECat 2005 update

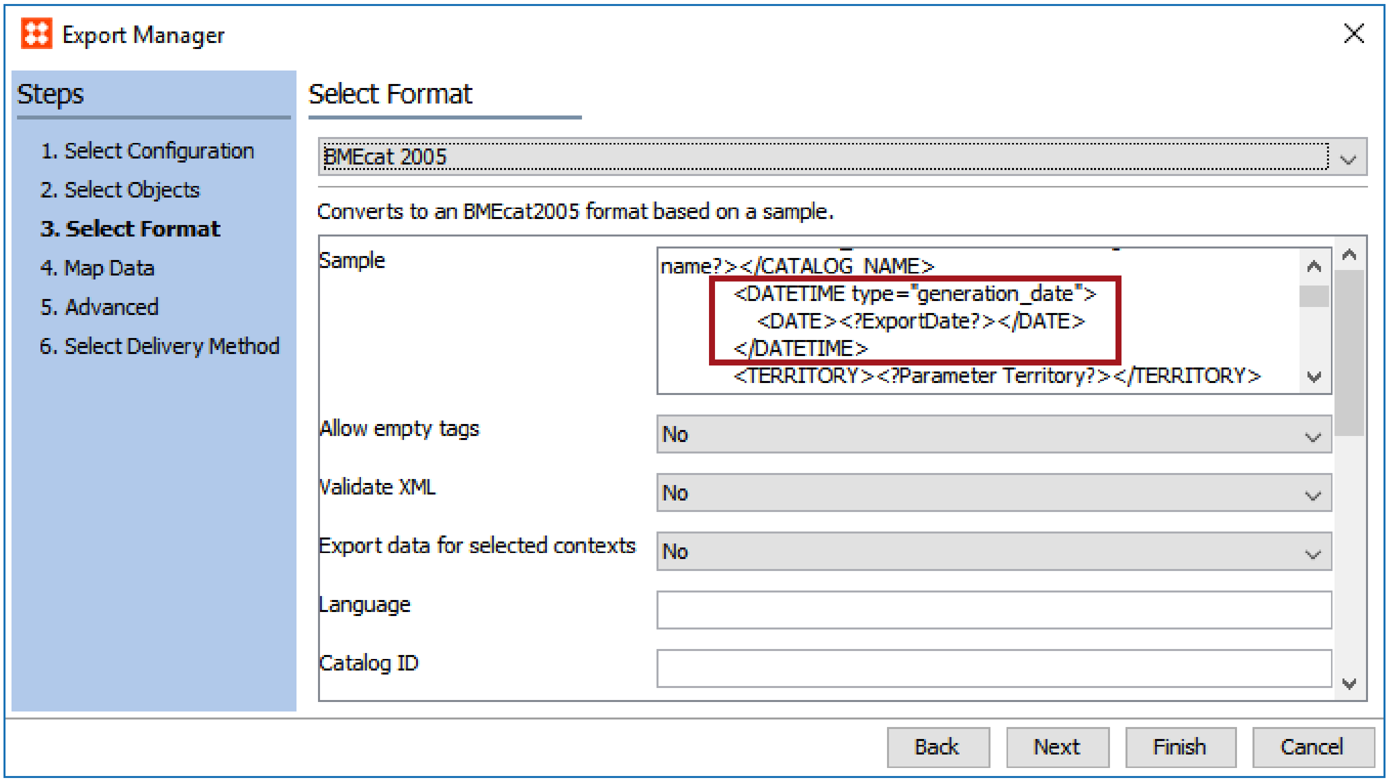
The new 'ExportDate' Generic XML instruction automatically generates the current time and date and replaces the 'Generation date' parameter within the export tools. Additionally, users are able to indicate the time zone where the export is generated. This new Generic XML instruction is now included within the default XML template for BMEcat 2005 and users can also add this feature to a currently configured BMEcat 2005 as well. For pre-existing BMEcat 2005 configurations where the 'Generation date' parameter has been manually maintained, the 'Generation date' parameter will remain automatically.

To access BMEcat 2005, the add-on component 'bmecat' must be installed in addition to the normal update procedures for 9.3. Instructions for installing components can be found in the SPOT Program topic in the System Administration documentation.

The following licenses must also be enabled:

- X.Import.BMEcat2005
- X.Export.BMEcat2005

Contact your account manager to enable licenses for your system.



It is important to note that although the new Generic XML instruction is included in the BMEcat 2005 template in this specific example, the instruction can be used wherever Generic XML is applied for outbound purposes.

For more information regarding the BMEcat 2005 export tools and their configuration, see the BMEcat 2005 Format topic in the Data Exchange documentation.

For more information on Generic XML instructions, see the Generic XML Outbound Processing Instructions topic in the Data Exchange documentation.

Improved ETIM / eCl@ss ID matcher when using auto map in the import tools

For BMEcat 2005 format imports, the auto map functionality in the import tools have been enhanced to better match the ETIM / eCl@ss attribute IDs located in the import file with the ETIM / eCl@ss attribute IDs located in the system. Correctly matching these attribute IDs has been an issue in the past because the ETIM / eCl@ss attributes in STEP are prefixed with 'ETIM_' and 'eClass_' respectively, whereas the attribute IDs in the import file do not have these prefixes. To address this issue, the updated auto map functionality will initially try to match the attribute IDs in the import file with an ID of an attribute in the system. If no match is found, auto map then:

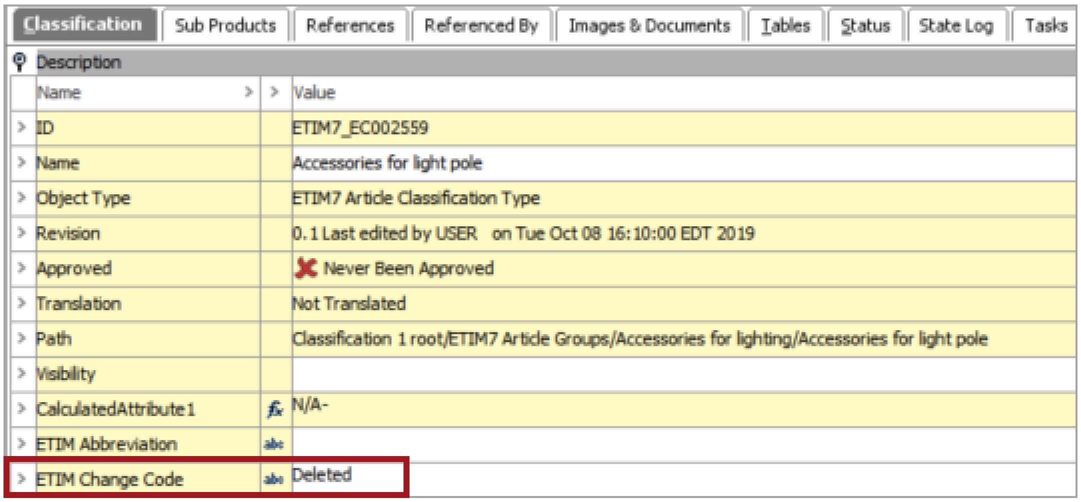
1. Adds the prefix 'eClass_' or 'ETIM_' to the input attribute's IDs that failed to match to an attribute ID in the system.
2. Attempts to match the modified attribute IDs in the import file with attribute IDs in the system.

If no match is found, or if more than one match is found, users will manually map the attribute.

For more information on these format imports, see the BMEcat 2005 Format topic, the ETIM Format topic, and the eCl@ss Format topic in the Data Exchange documentation.

Support for deprecation in ETIM IXF format

To reduce obsolete ETIM data when importing the ETIM taxonomy, data marked as 'deleted' in the ETIM importer file will not be imported into the system. These changes apply to new imports only; existing data which is marked as "Deleted" will not be changed.



Note Additionally, Lists of Values (LOV) filter values will be updated on new ETIM version imports only.

For more information, see the ETIM IXF Format topic in the Data Exchange documentation.

To access ETIM, the add-on component 'etim-importer' must be installed in addition to the normal update procedures for 9.3. Instructions for installing components can be found in the SPOT Program topic in the System Administration documentation.

The following license must also be enabled:

- X.Import.ETIM

Contact your account manager to enable licenses for your system

Support for eCl@ss version 11 (with new XML 3.0 format)

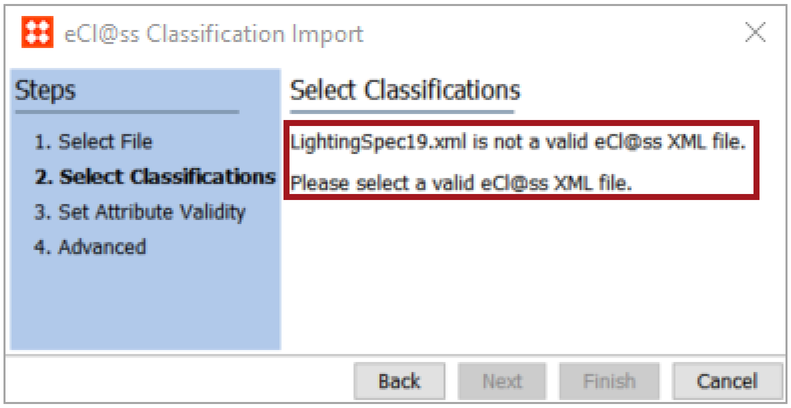
The platform now supports the newly released eCl@ss version 11, which comes in the new 'XML 3.0' format. All future XML releases will only be published in XML format 3.0.

For more information on the eCl@ss format, see the eCl@ss topic in the Data Exchange documentation.

Option to import eCl@ss CSV files no longer supported

Although importing eCl@ss Basic CSV files is no longer supported, it will not have any effect on already existing eCl@ss data previously imported via eCl@ss CSV files. The import of eCl@ss Basic XML files continues to be supported. If a user attempts to import any file type besides a valid XML file, the error message shown below informs them that the selected file is not a valid eCl@ss Basic XML file and that a valid eCl@ss Basic XML file is required. Additionally, the 'eCl@ss mapping' option is no longer available.

For more information on the eCl@ss format, see the eCl@ss topic in the Data Exchange documentation.



To access eCl@ss, the add-on component 'eclassimporter' must be installed in addition to the normal update procedures for 9.3. Instructions for installing components can be found in the SPOT Program topic in the System Administration documentation.

The following license must also be enabled:

- X.Import.EClass

Contact your account manager to enable licenses for your system.

Import Change Info enhancements

The functionality of the ImportChangeInfo object, available to business rules during import, has been extended. In addition to the existing functionality that makes it possible to see which attributes values have changed for an object during import, it is also now possible to see in which qualifiers (a dimension point or a combination of dimension points) changes have occurred. For JavaScript-based business rules, the ImportChangeInfo object is available via the 'Import Change Info' bind.

Additionally, a new method (ImportChangeInfo.isAllDataHandled(): boolean) has been introduced that lets business rules see if all data has been handled, which is important in situations were object handling (e.g., creating references) may be deferred. Also, the existing ImportChangeInfo.isUnmodified(): boolean method has been updated to lessen the chance of incorrect 'false' returns in cases where an object was not modified.

For more information, see the Import Change Info Bind topic in the Resource Materials online help.

Improved Web UI exporting for tables

Exporting table information in the Web UI has been improved via the Custom Export Action. Functionality improvements include the user's ability to export the contents of a table without having to build a time-intensive mapping to create the export. For full details, see the Web UI Enhancements release note.

Web UI Enhancements

Summary

Enhancements and changes to the Web UI for the 9.3 release include:

- Custom Export Action gives users a simpler way to export table views in the Web UI. Supports one-click export as well as more configured exports.
- To better inform users as to which actions are configured and available, selection-dependent toolbar actions now display in the toolbar regardless of whether a selection has been made. Additionally, toolbar actions can now be grouped using the 'Menu Group' component.
- Errors generated in the Web UI by running business rule-related components or importing Smartsheets are now more easily accessible.
- Multi-value attributes can now have their values ordered and reordered in the Web UI via a new, easy-to-use interface.
- With the configuration of business actions using new JavaScript binds, it is possible to automatically publish objects to PDS only when they meet the configured Sufficiency Metrics, ensuring data adheres to established quality standards.
- The Search screen Actions menu allows users to manually execute user-defined business actions on the results of a search, providing the ability to modify the objects directly from the Search screen.
- Static facets available on the Search screen can be added or removed directly from the Web UI, enabling users to modify the visible filter groups as needed.
- New highlighting of applied static facets is displayed on the Search screen and allows users to easily identify how the results are filtered. Applied static facet values are moved to the top of the available values selections list so users can easily modify selected values.
- New sorting options for the Search screen allow users to prioritize search results more efficiently and include 'Last updated date,' 'Date of creation,' 'Relevance,' and 'Attribute.'
- The basket functionality no longer requires the activation of the ‘data-sufficiency’ component.
- Enhanced marketing information can be displayed on the Product Editor screen and allows users to see content available via Syndigo in Web UI.
- The Move Action and Initiate Business Action are superseded in favor of a more robust alternative.
- When applying dimension dependencies to attributes and List of Value objects, users can select specific dimension points to which data can be applied.
- Data Containers displayed using the Data Container Table View Editor now support custom configuration of row height and column width.
- The Advanced Search screen now provides a date picker component when searching for attributes that require date selection.
- Input fields are now dynamically sized to improve Web UI layout.
- The 'Target or Reference Metadata Value Header' now supports the ability to display and edit metadata on Product to Classification Links in Web UI tables.
- The number of errors that can display in a background process's Execution report is now configurable.
- Image thumbnails are now enabled for display on classification and entity objects on Node List screens in the Web UI.
- The KPI Widget has been updated to ensure the pie chart fills more of the available space.

- A new filtering option for Web UI tables allows users to search multiple delimiter-separated values to filter for precise matches.
- A new header called 'Duration in Workflow State Header' displays how long an object has spent in the current workflow state.
- Focus on a selected node in the Tree Navigator will now persist without shifting to a different instances elsewhere in the hierarchy.
- Business Action with Web UI Bind component can now be configured to restrict the number of nodes upon which its business action can be run.
- Some Web UI functionality supporting data validation has been removed or superseded as more current components meet the requirement more efficiently.
- The Golden Record Linked Members Component has three new components that enhance its usability.

Details

Improved export capabilities in Web UI

Export capabilities for tables in the Web UI have been updated for improved usability. One of the key areas of focus for this functionality is to improve the user's ability to export the contents of a table without having to build a time-intensive mapping to create the export.

The key updates include:

- The 'Simple Exporter Action' toolbar action has been renamed to 'Custom Export Action.' Configurations of the 'Simple Exporter Action' will persist following an update to 9.3, but the expanded functionality included in this update will also be available.
- 'Custom Export Action' supports both a single-click export of Web UI table data, as well as more complex configurations using the 'Custom Export' configuration window. All exportable headers displaying in the table, whether through configuration of the table or through configuration on an applied user configurable view, now display in the 'Custom Export' configuration window by default. Users can add or remove these headers to create the desired export. Previously, all headers required for export had to be manually added even if they were already displaying in the table.
- Users who create custom-designed exports in the 'Custom Export' configuration window can now save and reuse those exports. By checking the box in the 'Custom Export' configuration screen called 'Save export as template,' the export configuration is saved locally and can be used for future exports. If shared, the export configurations can be reused by all members of the designated user groups. Additionally, users can elect to click the 'Export Current View' button in the export configuration selection window; rather than select a pre-existing configuration or build a new one, 'Export Current View' exports the table columns as they currently display.
- A new parameter allows designers to restrict whether the end-user can execute an export with a single-click, or if the 'Custom Export' configuration window can be accessed to allow the end-user to create exports that differ from the data displaying in the table. This enables the admin user to more tightly control how the end-users export Web UI data.
- Data displaying under the Target or Reference Metadata Header can now be exported from a Web UI table using the updated 'Custom Export Action' toolbar action.

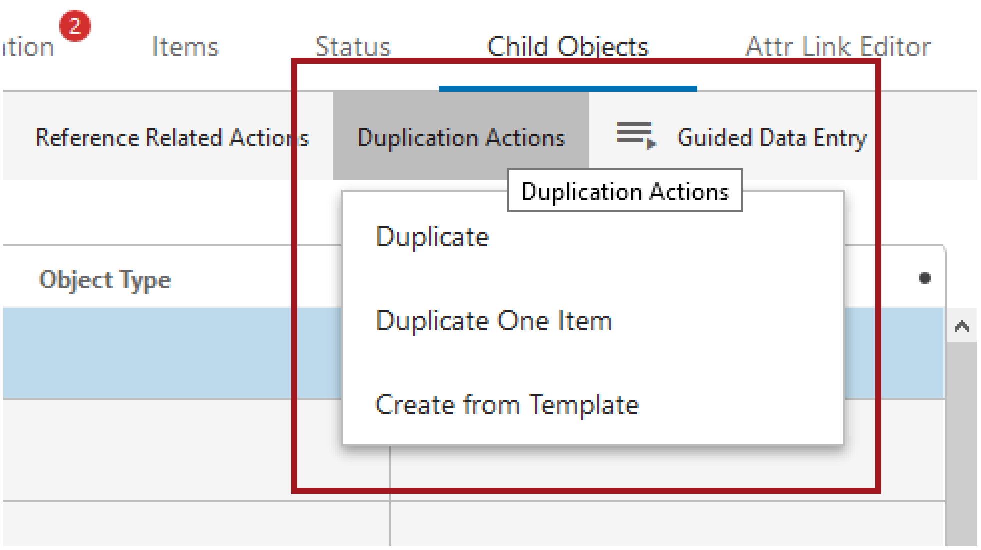
It is important to note that some data types that can be configured to display in Web UI tables, like assignee, reference metadata for reference types that allow multiple references, approval status, etc., are not supported for export, even with this update.

For more information on the updated Custom Export Action, see the Custom Export Action topic in the Web User Interfaces / Web UI Getting Started documentation.

Toolbar action updates

Two improvements have been made to how toolbar actions can be accessed in the Web UI:

- All toolbar actions added to Node Lists will now display in the toolbar regardless of whether a selection has been made. Previously, selection-dependent toolbar actions would not display in the toolbar unless a user selected one or more objects. This had the effect of requiring users to make a selection to see the full range of available toolbar actions configured on a Node List. Now, selection-dependent toolbar actions will display without a selection having been made but will show as inactive (grayed out) pending a selection. This ensures that users can see at a glance which actions are available. Selection-neutral toolbar actions will continue to display as active.
- In light of the change described above to display all toolbar actions by default, designers now have the option to further streamline their Web UI by slotting individual toolbar actions into button groups. This gives admin users the ability to better control Web UI display, and ensure the most frequently used actions are most accessible. Through configuration of a new toolbar action called 'Menu Group,' users can add multiple toolbar actions into a group. When the group button is clicked, a dropdown displays showing all configured actions. In the screenshot below, the toolbar group is called 'Duplication Actions', and the three toolbar actions that display in the dropdown have been added to the 'Duplication Actions' button group. Toolbar actions that can be selected will display in black text; those that are inactive and cannot be selected will show in gray text.



Users with Node Lists that have a large number of toolbar actions configured will see all configured toolbar actions display following an upgrade to 9.3. Some may wish to make configuration changes on Node Lists to accommodate the update. To aid backwards compatibility, users may continue to hide selection-dependent toolbar actions by adding the `WebUI.ShowWebUIToolbarActionsWithoutSelection` property to the sharedconfig.properties file and setting it to 'false.'

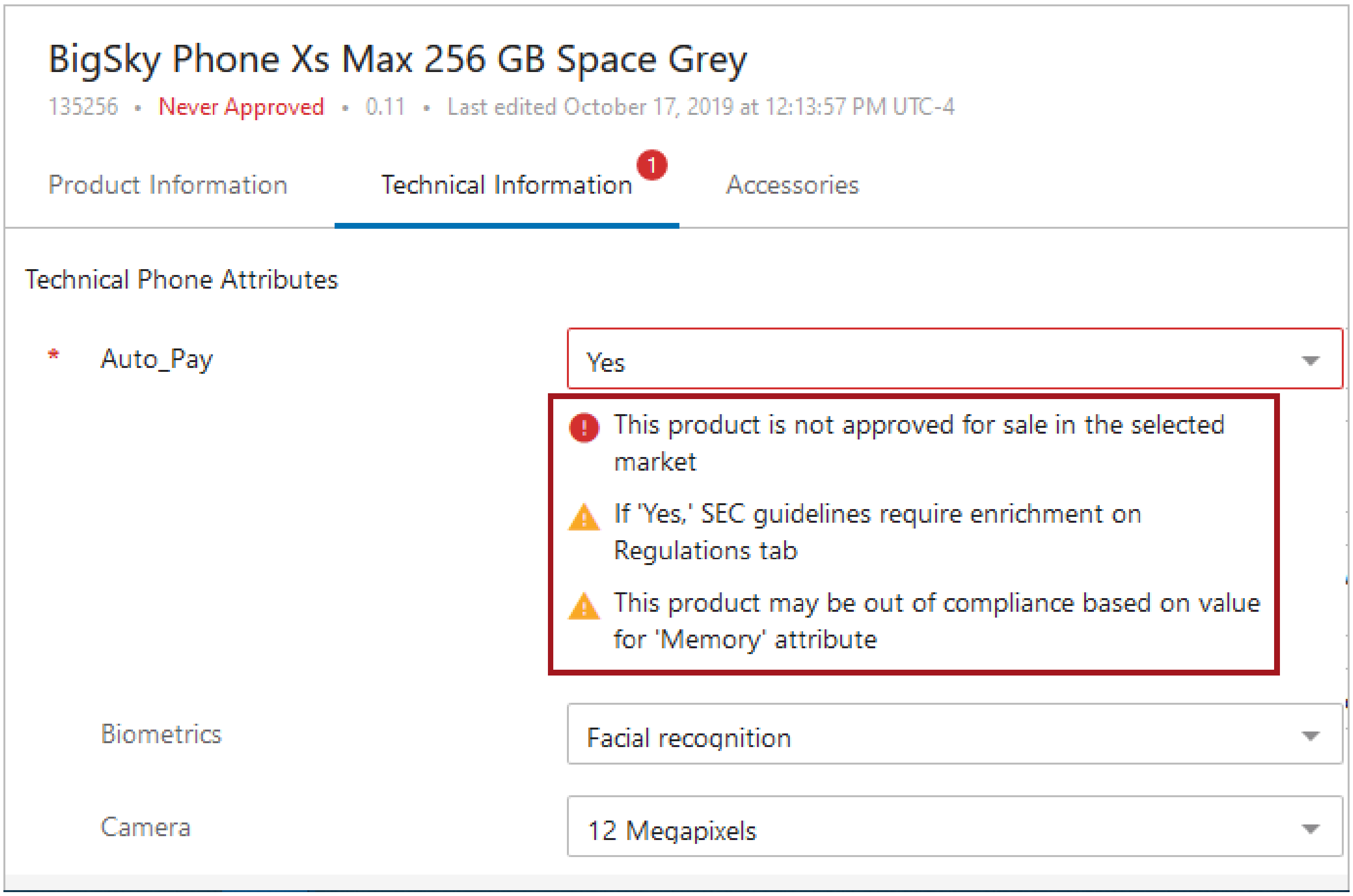
For more information on toolbar action buttons, see the Action Buttons topic in the Web User Interfaces / Web UI Getting Started documentation.

Actionable error handling for business rules and Smartsheets

The presentation of errors and warnings generated by the Business Action with Web UI Bind component and Smartsheet imports has been updated to improve accessibility and better empower users to take immediate corrective action. All updates described are applicable to attribute errors only.

These are the updates to error handling functionality for the 9.3 release:

- Error and warning messages generated from running business rules on Node Details screens now display under the relevant field. Additionally, multiple error messages can display beneath a field.



Previously, errors generated from business rules executed via business rule-enabled Web UI component buttons (including the Business Action with Web UI Bind, Submit, Bulk Update, Approve, Initiate Business Action Action, and Initiate Business Condition Action) would display as a popup and in the Warning Notification Panel.

- A new bind called 'Data Issues Report' enables users to configure business rules for use in the Web UI that will include error or warning messages.

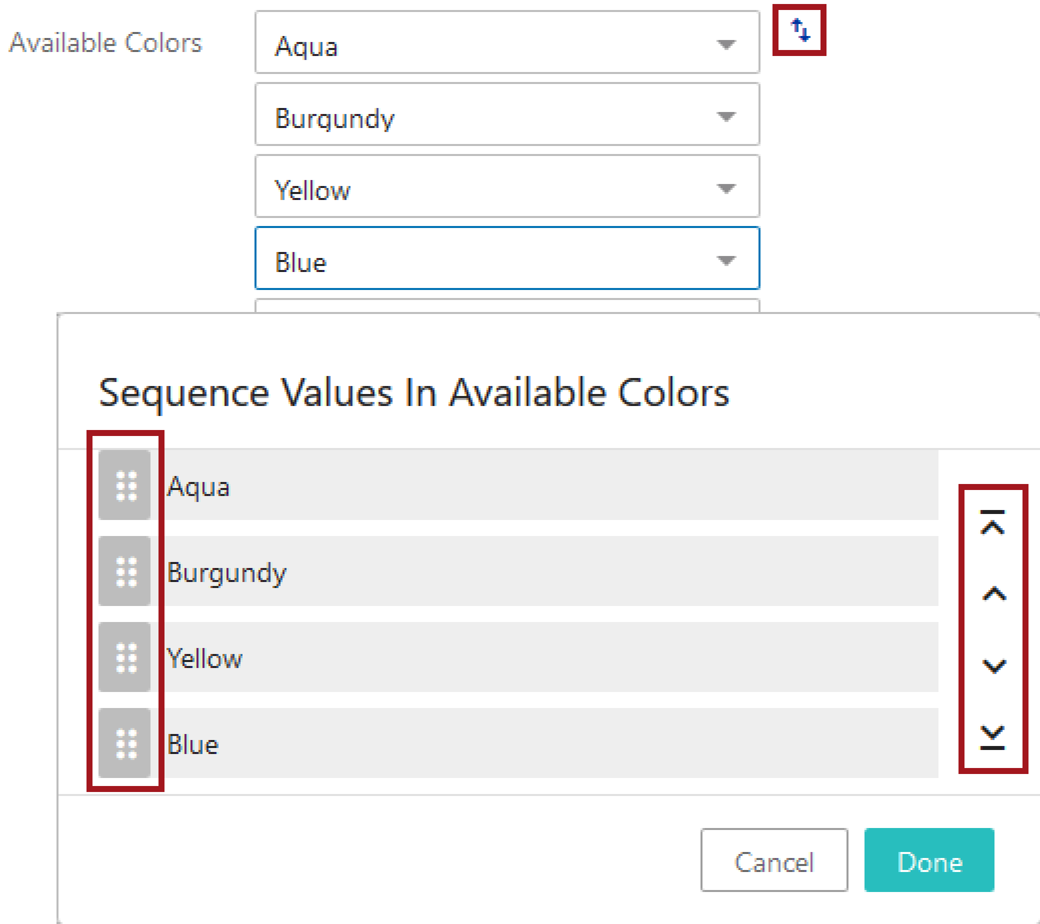
- Error and warning messages that display in the Warning Notification Panel through usage of the 'Date Issues Report' bind include active links to the relevant object. These links enable users to navigate directly to the object in question to take quick action.
- Error and warning messages configured via the 'Data Issues Report' bind are automatically filtered to show only those that are current and relevant. For instance, if a business rule is run that determines whether an attribute value is invalid, and the user corrects the attribute value to make the value valid, any error messages generated from running the business rule disappear from beneath the field. When the corrected attribute value is saved, the error and warning messages are automatically removed from the Warning Notification Panel. With this release, the system applies automatic validation to ensure not only that displayed messages pertain only to active errors or warnings, but that no duplicate messages are presented to the user.
- Smartsheet import errors now display on the Warning Notification Panel in the Web UI. Each error is accompanied, when applicable, by a link that will navigate the user directly to the affected product. Previously, the errors could only be found in the execution report section of the background process, which involved time-intensive manual navigation. Now, the error can be easily found, understood, and acted on, all in the Warning Notification Panel, which can be accessed with a single click.
- If an erroring object is imported into the system via a Smartsheet import and resides in a workflow, the link to that object will navigate the user to the Task List screen assigned to the workflow state in which that object exists. This allows users to quickly see where in a workflow an object sits and quickly take corrective action to progress that object through the workflow.

For more information on the Business Action with Web UI Bind component, see the Business Action with Web UI Bind component topics in the Web User Interfaces / Web UI Getting Started documentation. For more information on the 'Data Issues Report' bind, see the JavaScript Binds topic in the Resource Materials documentation. For more information on importing Smartsheets in the Web UI, see the Smartsheets in Web UI topics in the Web User Interfaces / Web UI Getting Started documentation.

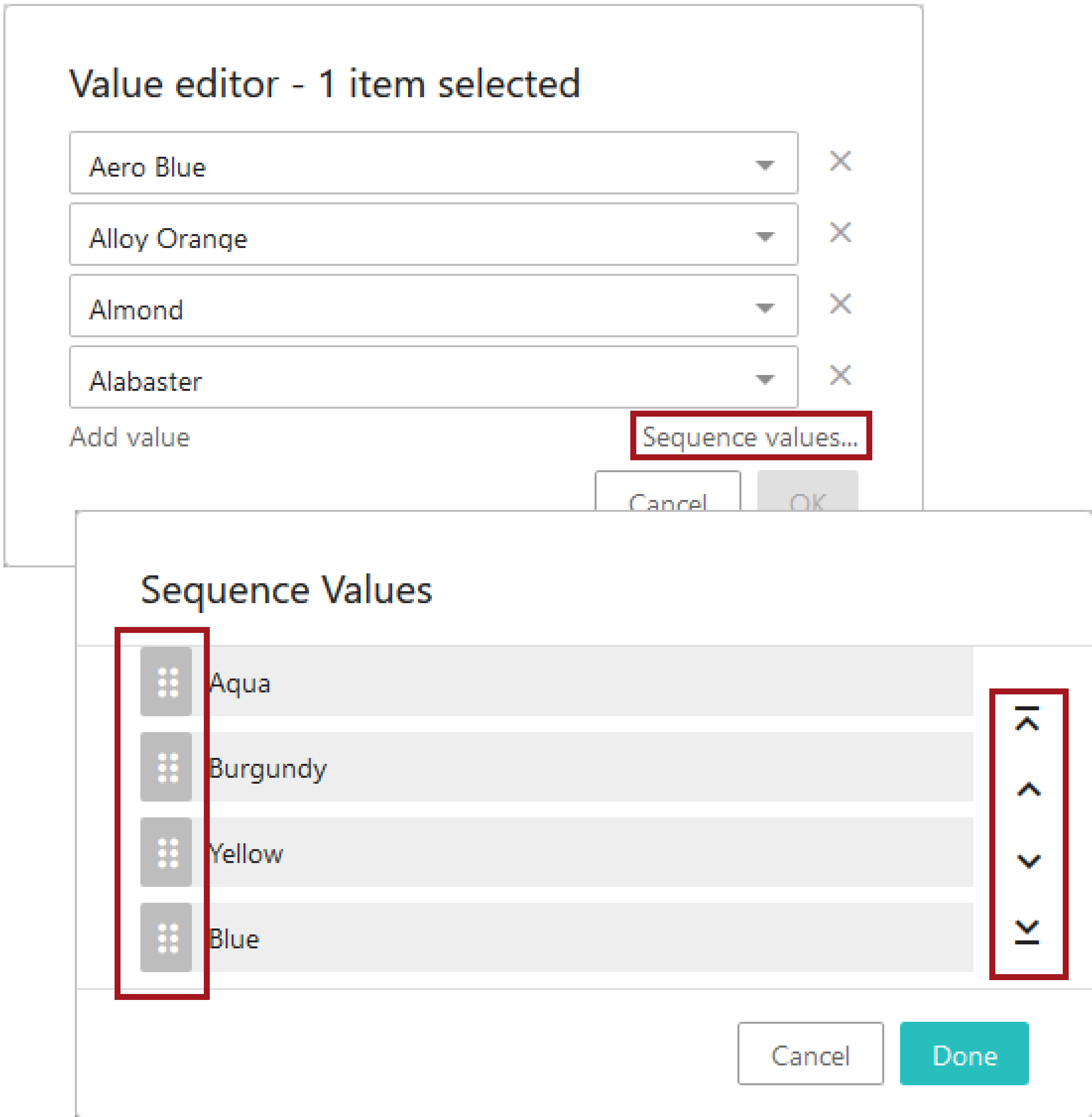
Sequencing multi-valued attributes in Web UI

Multi-valued attribute values can now be sequenced (or resequenced) in the Web UI when displayed in a Node Editor or in a Node List.

When displaying in a Node Editor, a sequencing icon will display ( ) to the right of the field. When the icon is clicked, a 'Sequence Values In' window will show in which users can either click and drag values with the drag handles to the left of each value or use the arrow icon buttons to the right of each value. These buttons can move the selected value to the top of the list ( ), up one position ( ), down one position ( ), or to the bottom of the list ( ).



When multi-valued attribute values display in a Node List, users can click the 'Sequence values...' link to display the 'Sequence Values' window. Again, users can either click and drag values to move them, or use the arrows.



Automatic publishing to PDS now possible on sufficiency metrics

Configuring sufficiencies and metrics define rules and conditions that evaluate the quality and completeness of data on a given object. Now, an administrator can configure automatic publishing to PDS based on sufficiency metrics using the following two new JavaScript business action binds:

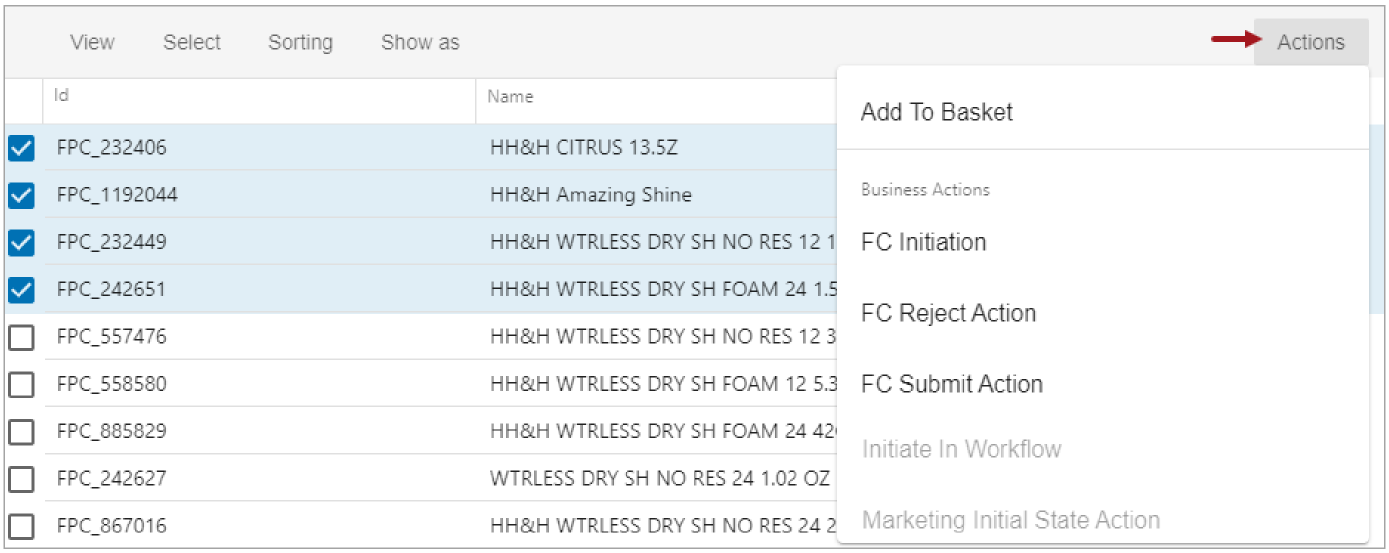
- Sufficiency Check Action Context - captures nodes, recipient mails, and channel ID data from the PDS Export Wizard for use in a business action.
- PDS Submission Context - allows submission of objects to a PDS channel directly from a business action including nodes, recipient mails, and channel ID data.

For more information, see the Publishing Only Sufficient Products to PDS topic in the Web User Interfaces / Web UI Getting Started documentation.

To use this functionality, install the following add-on components: 'data-sufficiency', 'productdatasyndication-integration', and 'ui-basket'. Instructions for installing components can be found in the SPOT Program topic in the System Administration documentation.

Execute business actions from the Search screen

The Search screen allows users to easily filter objects in a user-friendly way, and business rules can be configured to validate objects, send objects to a workflow, or any number of other actions. Now, both functions can be performed directly from the Web UI Search screen. User-defined business actions that are valid for all selected search result objects are available via the Actions menu. The selected business action is executed via a background process against the selected objects in the current Search results. This new functionality gives users the ability to search, select, and take action on objects all from a single screen.

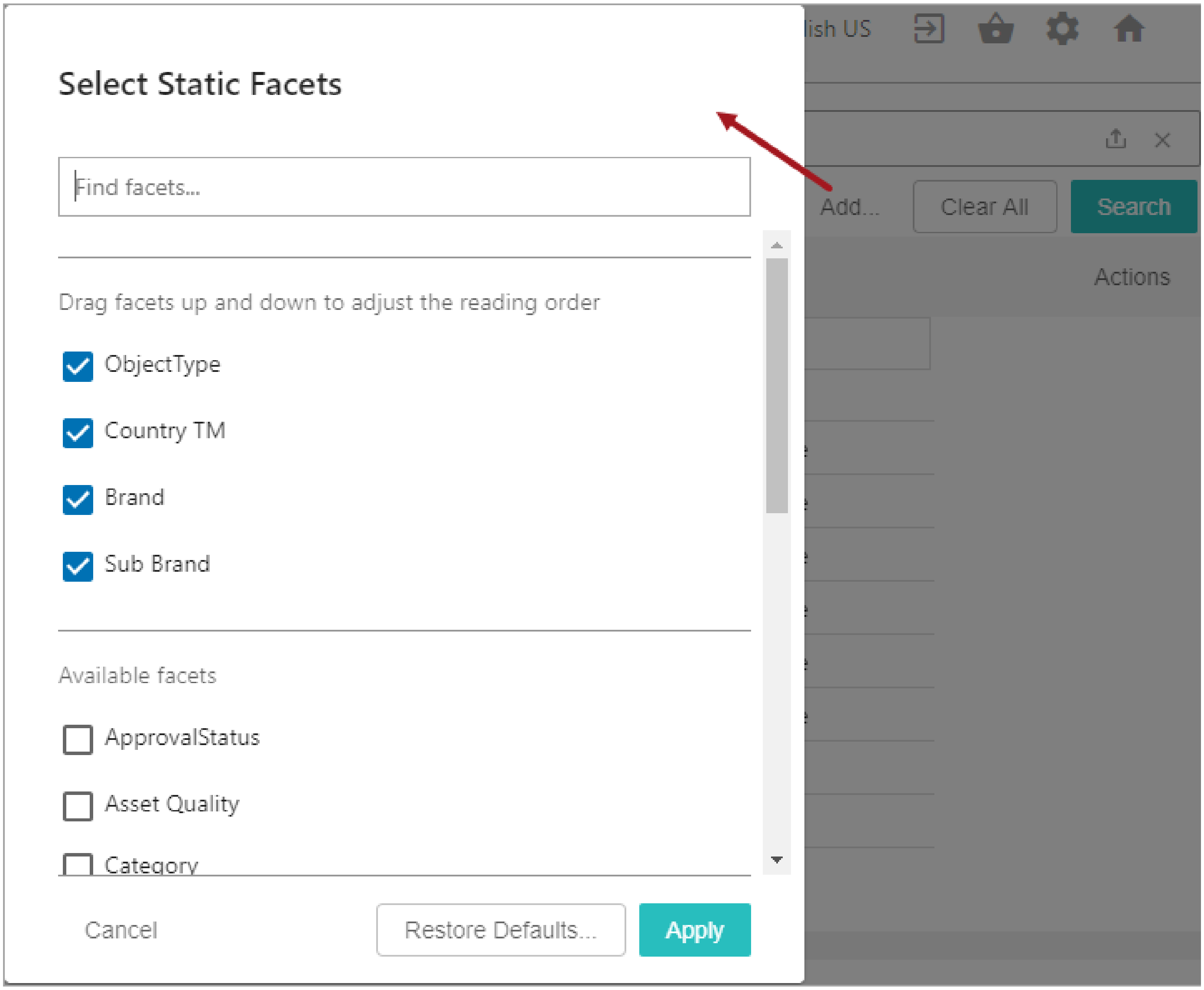


For more information, see the Search Screen Actions topic in the Web User Interfaces / Web UI Getting Started documentation.

Before starting Search screen configuration, contact your Stibo Systems account manager or partner manager for assistance. Activation and configuration of Elasticsearch and the Search screen (via the 'X.Elasticsearch' license and the 'elasticsearch-integration' add-on component) should not be done without the assistance of Stibo Systems.

Modify static facets displayed on Search screen

On the Search screen, users filter search results with static facets to refine the results displayed. The new static facet 'Add...' button allows a user to effortlessly change the displayed static facets, providing a personalized group of filter options. A single list of attributes is configured by an administrator and is used to define the attributes on both the static facets and Search screen views.



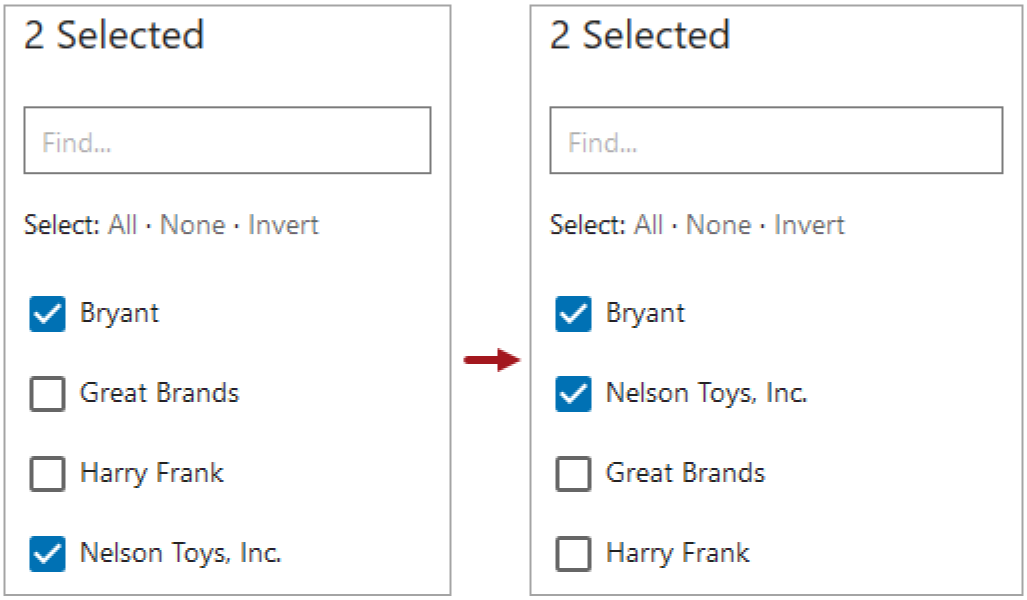
For more information, see the Search Screen Static Facets topic in the Web User Interfaces / Web UI Getting Started documentation.

Before starting Search screen configuration, contact your Stibo Systems account manager or partner manager for assistance. Activation and configuration of Elasticsearch and the Search screen (via the 'X.Elasticsearch' license and the 'elasticsearch-integration' add-on component) should not be done without the assistance of Stibo Systems.

Improved visual cues for applied static facets on Search screen

Static facets on the Search screen now allow users to easily visually see any limits set for search results. Once a static facet is applied, the facet now displays with a blue background and shows either a single value selection (as shown below for the 'Item' value selected in the Object Type facet) or shows the facet name for multiple selections and the number of values selected (as shown below for the Brand facet, where two values are selected). Previously, only the text updates were displayed when a static facet was set, which made it difficult to distinguish the filters that were applied to the search results.

Additionally, any values selected and applied for a static facet are moved to the top of the facet values list. This priority listing allows users to easily see the selected values which is helpful when the list includes a large number of values.



For more information, see the Search Screen Static Facets topic in the Web User Interfaces / Web UI Getting Started documentation.

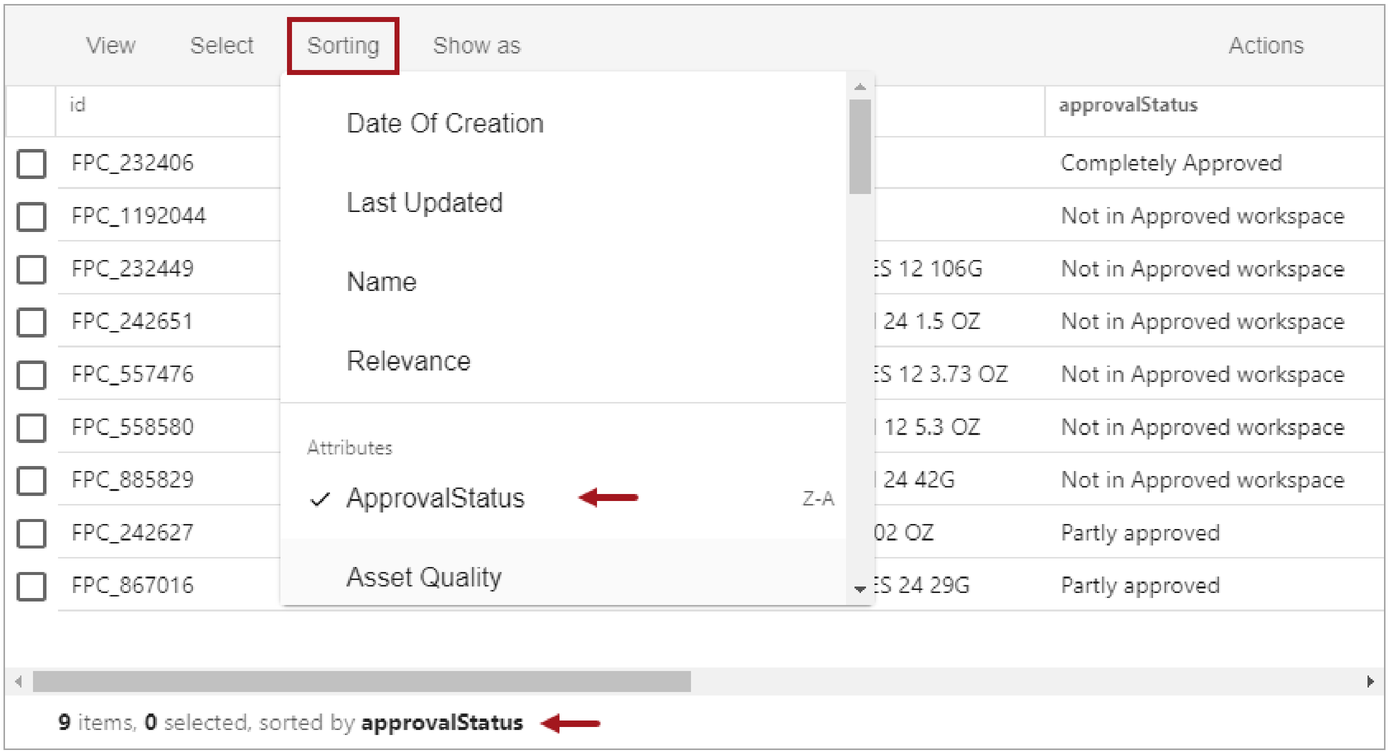
Before starting Search screen configuration, contact your Stibo Systems account manager or partner manager for assistance. Activation and configuration of Elasticsearch and the Search screen (via the 'X.Elasticsearch' license and the 'elasticsearch-integration' add-on component) should not be done without the assistance of Stibo Systems.

New Search screen sort options

Users can now prioritize search results more efficiently using the following new sort options:

- Attribute - attribute values, alphabetically by default.
- Date of Creation - the date of the first STEP revision, with the newest date at the top by default.
- Last Updated - the date of the object's last revision, with the newest date at the top by default.
- Relevance - objects that best match the configured search word(s). This always returns the best-matched results at the top.

While only one sort option can be applied at a time, the sorted results can be displayed in ascending or descending order, except for Relevance, which is always displayed with the best-matched results at the top. Additionally, the selected sort order is included in the status bar displayed at the bottom of the Search screen.



For more information, see the Search Screen Sorting topic in the Web User Interfaces / Web UI Getting Started documentation.

Before starting Search screen configuration, contact your Stibo Systems account manager or partner manager for assistance. Activation and configuration of Elasticsearch and the Search screen (via the 'X.Elasticsearch' license and the 'elasticsearch-integration' add-on component) should not be done without the assistance of Stibo Systems.

Basket component is no longer dependent on Sufficiency component

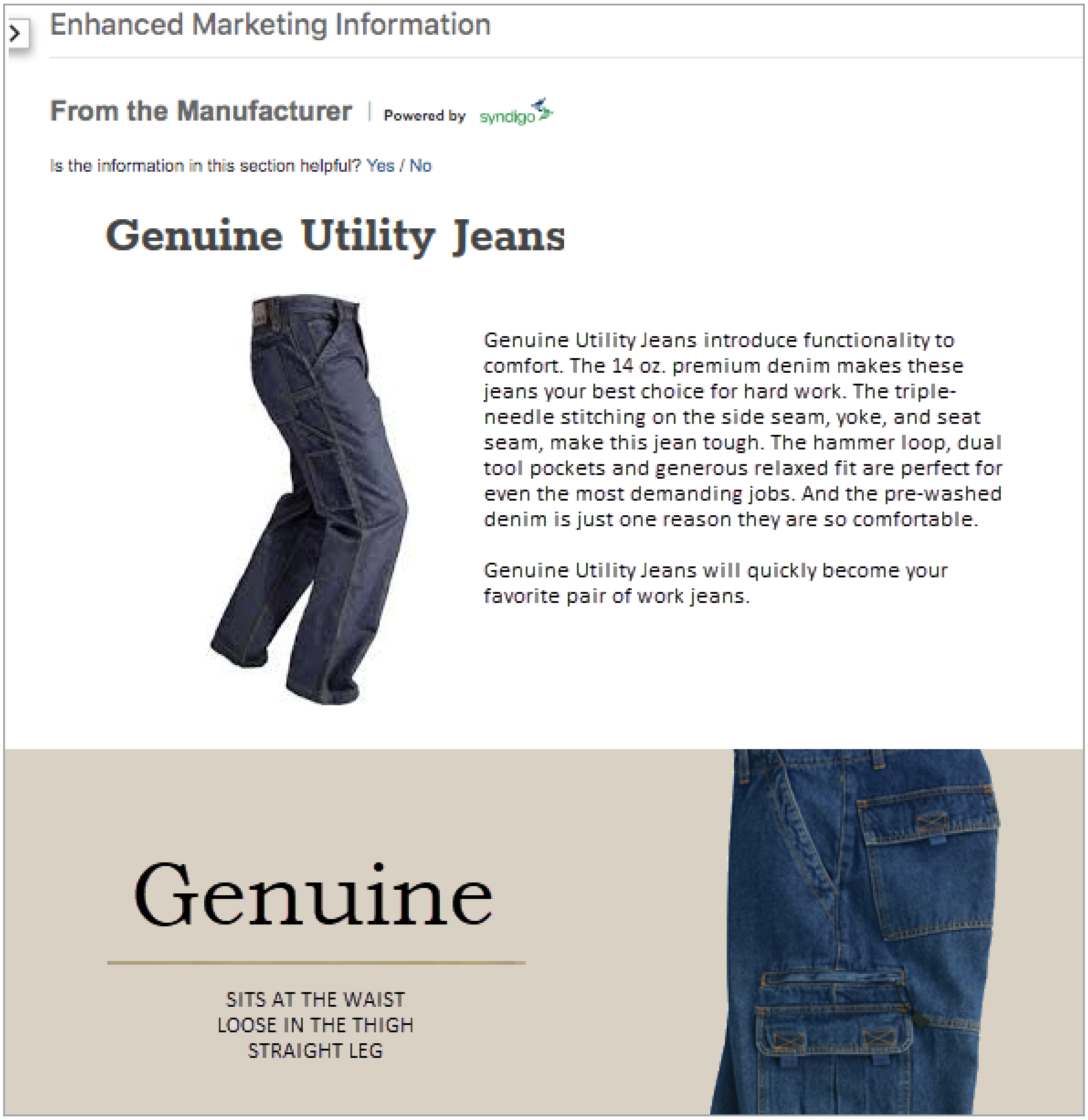
Previously, the Search screen's Basket functionality required the activation of both the 'ui-basket' component and the ‘data-sufficiency’ component. Now, the basket add-on component can be installed independently.

For more information, see the Search Screen Basket topic in the Web User Interfaces / Web UI Getting Started documentation.

Instructions for installing components can be found in the SPOT Program topic in the System Administration documentation.

Enhanced marketing information on Product Editor screen

Rich marketing content is often requested from a third-party source such as Syndigo. An administrator can now configure this content to display in the Product Editor screen along with the product details. One-time configuration in workbench System Setup enables integration with Syndigo, which allows enhanced marketing content to be displayed in Web UI. Data stewards can use this Web UI preview to verify how the marketing information will be presented to customers.



For more information, see the Adding Rich Marketing Content from Syndigo topic in the Web User Interfaces / Web UI Getting Started documentation.

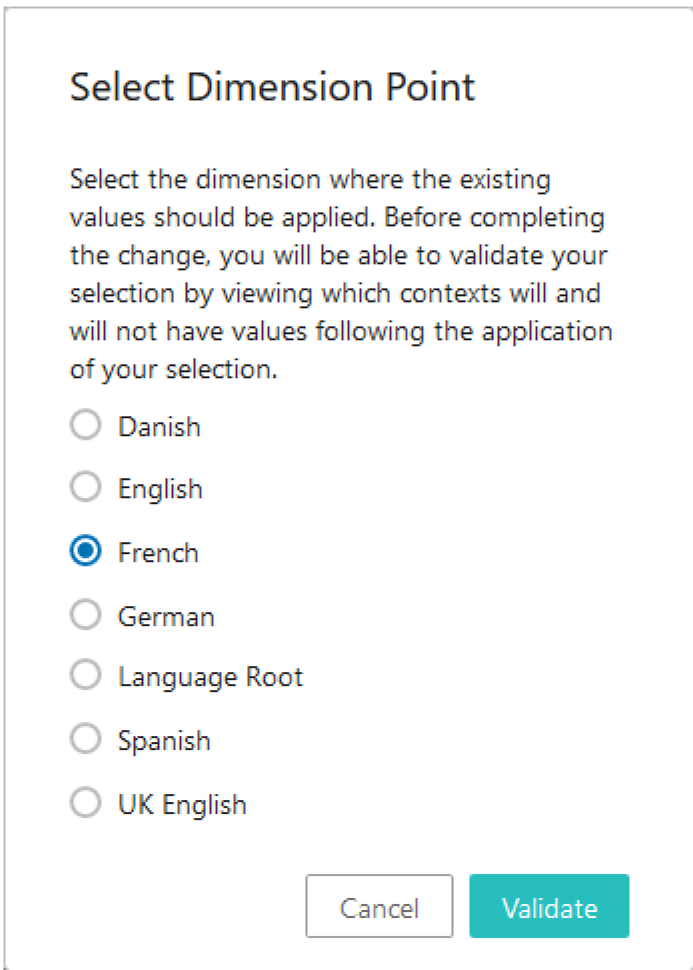
To use the Syndigo integration on the Product Editor screen, the 'ui-product-editor' and the 'syndigo' add-on components must be installed. Instructions for installing components can be found in the SPOT Program topic in the System Administration documentation.

Move Action and Initiate Business Action are superseded

The status of actions 'Move Action' and 'Initiate Business Action' have been set to 'Superseded,' and it is recommended that users configure the 'Business Action with Web UI Bind' component in their place. This status change has been made because the 'Business Action with Web UI Bind' component can be configured to accomplish the same tasks, features a greater range of functionality, and lessens the support burden. The 'Move Action' and 'Initiate Business Action' are not being removed with this release but may be removed in a future release. The current status changes for these components have occurred strictly to encourage users to take advantage of the more robust functionality offered in the alternative components.

Ability to select dimension point when enabling dimension dependency

When applying dimension dependencies to attribute or List of Values (LOV) objects in either the Web UI or in workbench, users now have the option to select the dimension point where existing values should be applied.



Previously, when users would apply, for instance, a language dimension dependency to an attribute or LOV, the existing data would be applied to the highest dimension point (e.g., 'All Languages' / 'Language Root' in most cases), inheriting down to lower levels. If values had been entered in English previously, all configured languages would continue to show the English values following the update. This ensured that the existing data continued to appear in all previous locations following application of a new dimension dependency. However, the purpose for applying a dimension dependency is typically to allow unique values to exist on the same attribute in different dimension points. Therefore, displaying English values in, for example, the French, Danish, and Dutch contexts was not the desired outcome, and would necessitate a user removing values from those contexts using a cumbersome export / import process.

By enabling users to select a specific dimension point to which existing data will be applied, the system now better supports the standard use case of differing data by dimension point, allowing users to apply the existing values only to the dimension point to which they are relevant. If more than one dimension point needs data applied to it, users can apply the data to the selected dimension point, export, and then import to all needed dimension points. Users who wish to utilize the previous functionality can apply the existing values to the highest dimension point.

Once the user has selected the dimension point to which existing values should be applied, the system validates the selection against the available contexts and displays a popup containing a list of all contexts that will have values following the change, as well as those that will not.

In order to support the selection interface and validation, it is no longer possible to add multiple dimension dependencies in one action. Attempting to do so displays an error prompting the user to add them individually.

For more information on dimension dependent attributes, see the Dimension Dependent Attributes topic in the System Setup / Super User documentation.

Data Container Table View Editor size is now configurable

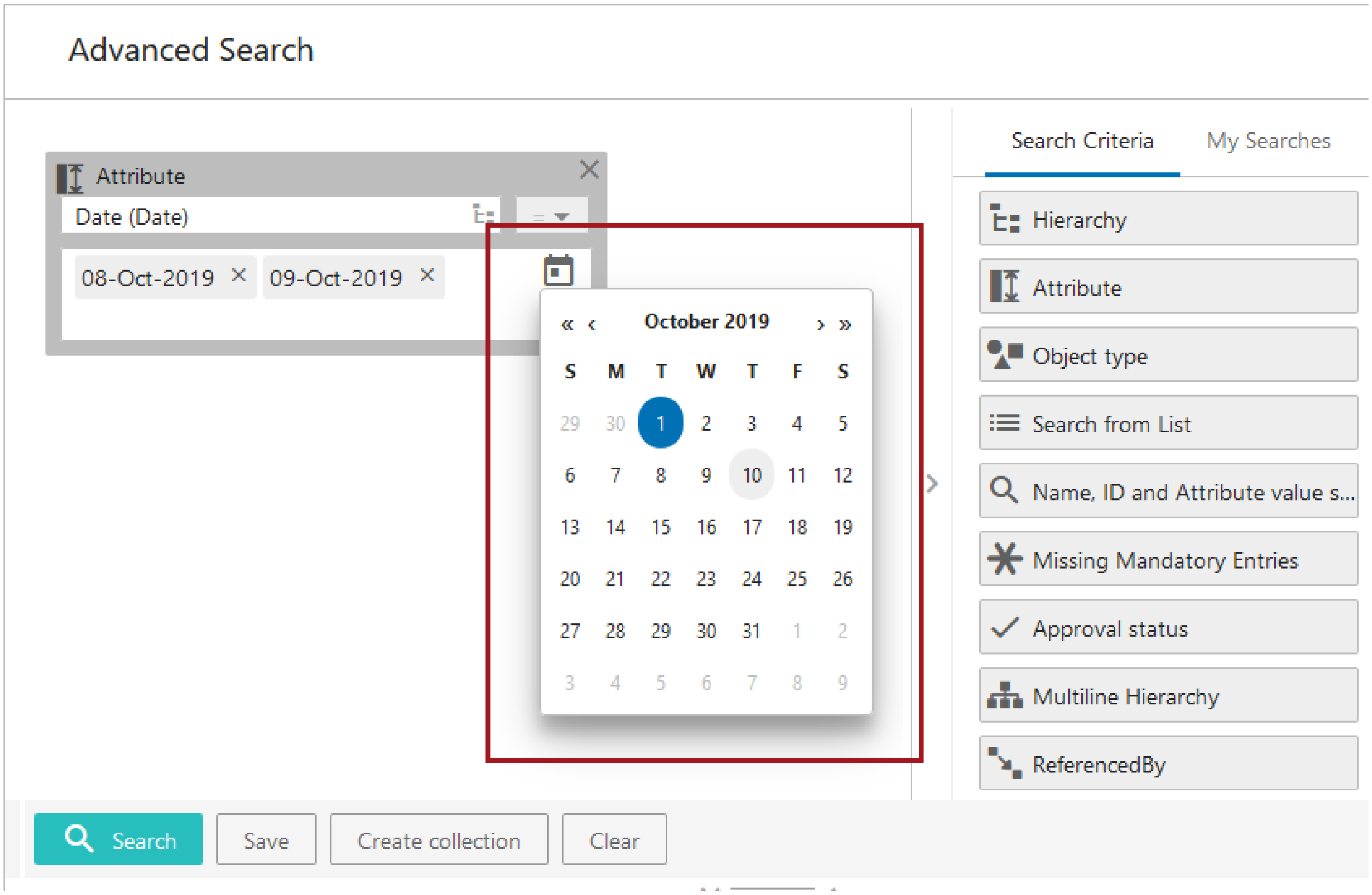
Column widths and row heights in the Data Container Table View Editor component can now be configured either manually or via two new designer settings.

Previously, the dimensions of the data container table were locked and could not be adjusted, resulting in instances where some cell data could not be seen in its entirety. Now, users can configure the table to better display data by setting values for the new 'Preferred Row Height' and 'Preferred Column Width' designer settings, or by manually adjusting height and width to determine how the table displays in the current session.

This update helps ensure all relevant information in data containers can be viewed in the Data Container Table View Editor. For more information on the Data Container Table View Editor component, please see the Data Container Table View Editor topic in the Web User Interfaces / Web UI Getting Started documentation.

New date picker available in Advanced Search

The Advanced Search screen functionality is now updated to allow users to more easily search for objects based on attributes with a Date, ISO Date, or ISO Date and Time validation base type. Once a user has selected an attribute with one of these validation base types, a calendar button is accessible. When clicked, a date picker displays that enables users to select one or more date values relevant to the search request.



Through use of the date picker, users no longer have to determine which date format is correct prior to executing a search. The system does this automatically by populating the chosen date into the search field in the correct format. Additionally, the search field still allows users to enter free-text date values.

For more information on the Advanced Search functionality in the Web UI, see the Advanced Search topic in the Web User Interfaces / Web UI Getting Started documentation.

Dynamic sizing for input fields

Dynamic sizing of input fields has been introduced in the Web UI. Following an improvement added with the 9.1 release, some customers experienced issues with unnecessary scroll bars displaying in the Web UI. Dynamic sizing solves this issue by enabling the UI layout to react to size changes in a more responsive way.

Edit metadata on Product to Classification links in Web UI tables

The 'Target or Reference Metadata Value Header' component available for Node Lists in the Web UI now displays and enables editing of metadata on Product to Classification links, giving designers expanded flexibility to show as much relevant data as possible when designing tables in the Web UI. Previously, the 'Target or Reference Metadata Value Header' could display metadata on reference types, but not link types.

As with reference types, this update is restricted to Product to Classification link types that do not allow multiple targets (i.e., the 'Allow multiple links' setting for the reference type is set to 'No').

For more information on Node Lists, see the Node List Component topic in the Web User Interfaces / Web UI Getting Started documentation.

Execution report errors configurable

The number of errors that display in background processes (BGPs) is now configurable.

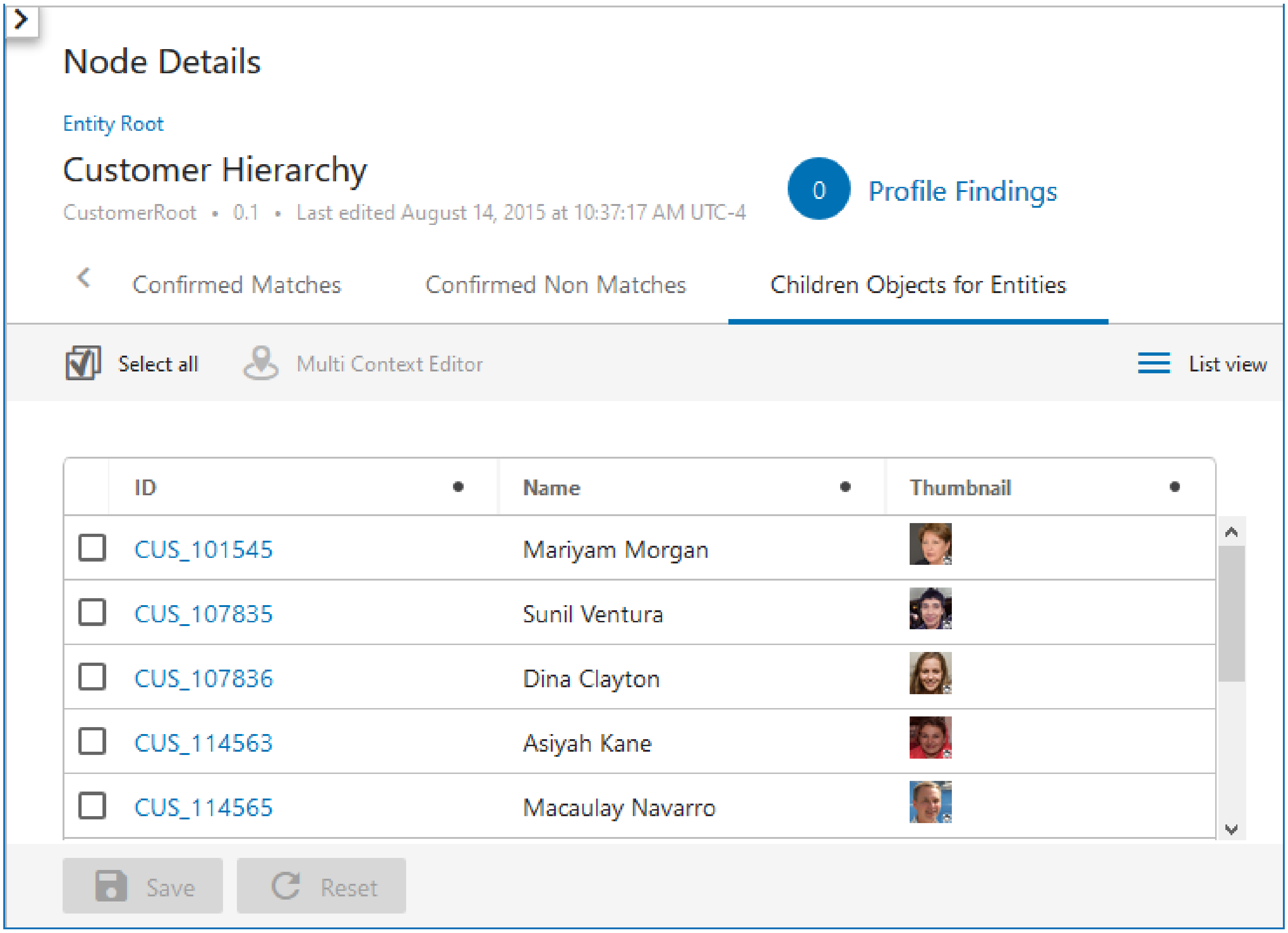
Previously, the hard-coded maximum number of errors that could display in the execution report section of a BGP was 1,001. Now, users can add two properties to the sharedconfig.properties file to display a user-set maximum number of errors. The `Import.TotalErrorReportLimit` property allows users to set a new maximum number of errors that display in a BGP. The `IntegrationEndpoint.ErrorLogExcerptsLimit` property enables users to set a maximum number of errors that display, per BGP, in the 'Error Log Excerpts' tab on integration endpoints. By default, this tab displays the first 10 errors for each of the last 100 BGPs initiated from that endpoint.

It should be noted that this change only affects the number of errors visible in the execution report. The numeric total of errors generated in a BGP will always display, regardless of these settings. Additionally, info and warning messages are not affected by this change.

When configuring these properties, users should be advised that setting a new maximum significantly higher than 1,000 could result in performance slowdowns when running certain BGPs.

Image display on classifications and entities on Node Lists

Image thumbnails are now enabled for display on classification and entity objects on Node List screens in the Web UI.



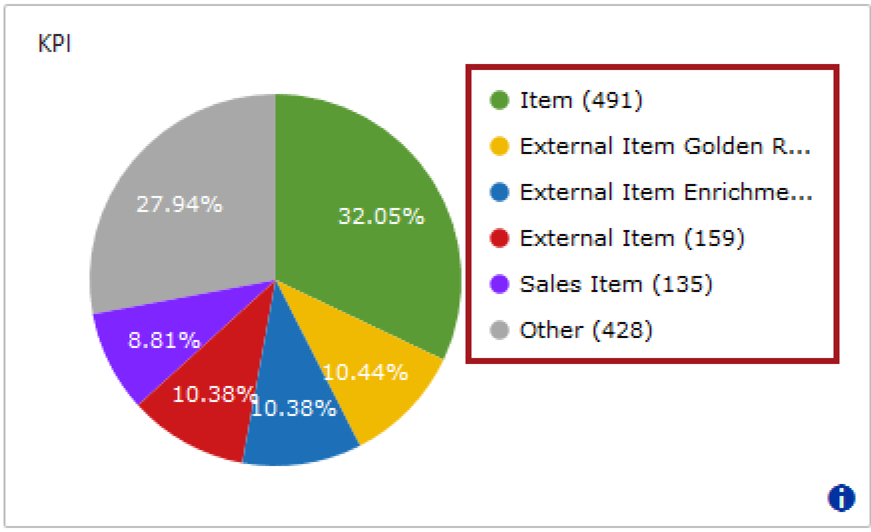
Previously, images linked to classification or entity objects on Node List screens would not display, regardless of configuration, showing only a folder icon for classifications and no image at all for entities. Now, all display modes have the capability of showing images for classifications and entities in the same way that they do for products. Using the Gallery and Film Strip display modes, this means that the primary image is automatically displayed, unless an alternate asset reference type is configured. For all other display modes, the Thumbnail Header is used to show images, which automatically displays the primary image.

Users who upgrade to 9.3 and would like to see thumbnail images display for these super types when viewed in Node Lists must add the required classification and entity object types as valid source objects on the Primary Product Image reference type (or other configured image reference type).

For more information on Node Lists, see the Node List Component topic in the Web User Interfaces / Web UI Getting Started documentation.

KPI homepage widget text display update

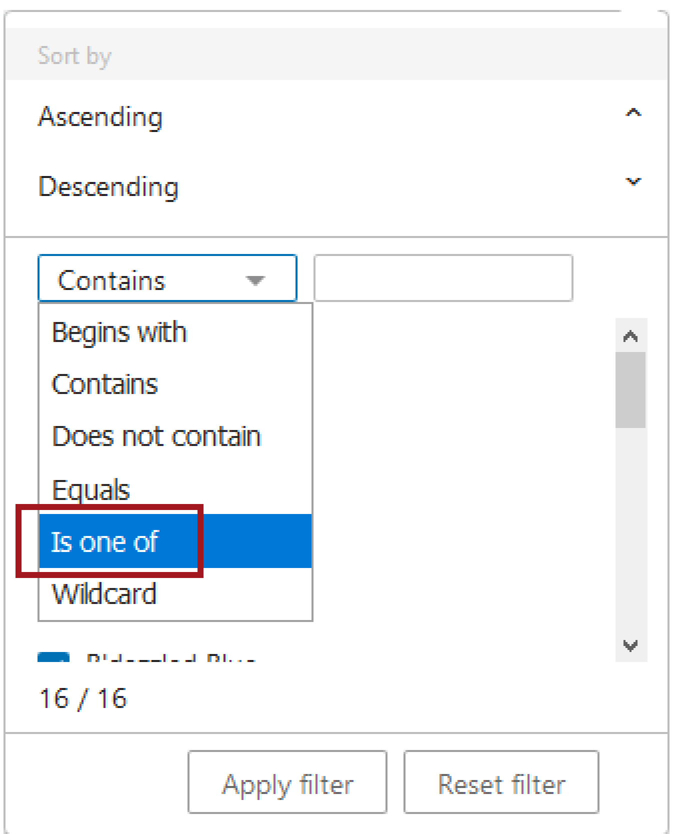
The KPI Widget has been updated to ensure the legend text that displays to the right of the pie chart fills more of the available space in the widget. Previously, the legend text truncated to an ellipsis even though additional space was available to display more characters.



For more information on the KPI widget, see the Data Profile Widgets in Web UI topic in the Web User Interfaces / Web UI Getting Started documentation.

New filtering option for Web UI tables

A new filtering option called 'Is one of' has been made available for Web UI tables. This option is available on Node List screens for all headers, but may best be used with the 'Name,' 'ID,' 'Title,' 'Attribute Value,' and 'Attribute Value Group' headers. The 'Is one of' search operator enables users to filter a table based on a list of values in a selected column.



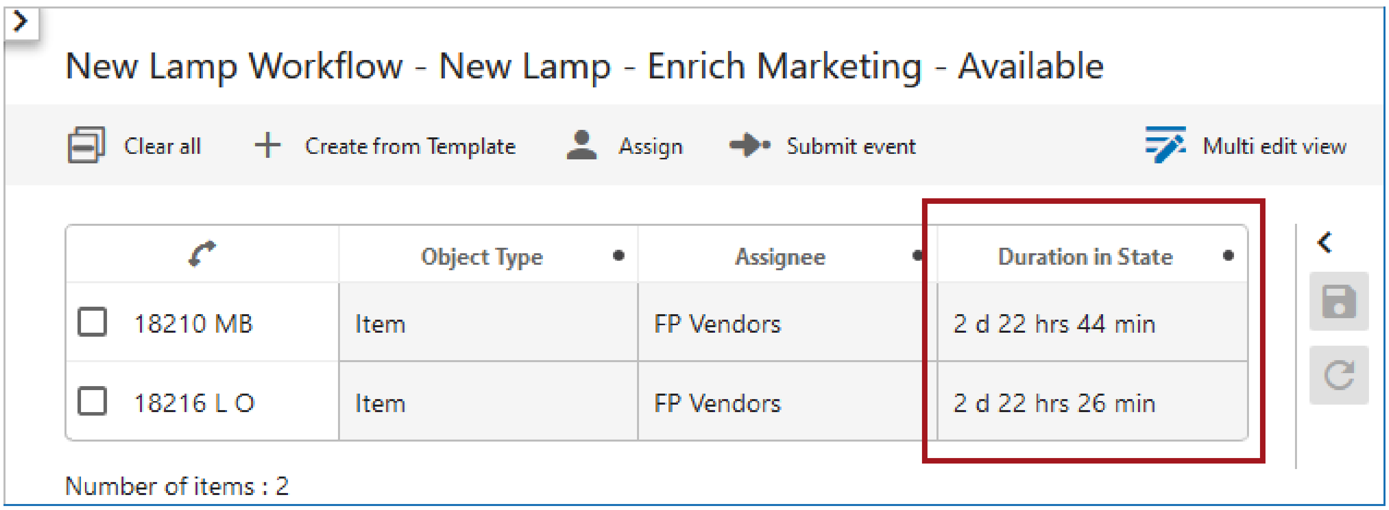
Multiple values separated by commas (or other accepted delimiters like semicolons, pipes, tabs, or newlines) can be pasted into the input field to the right of the operator selector, directing the system to filter results to show only those rows containing any of the entered values. If no row in the table contains a value exactly matching at least one of the pasted values, no results will display.

This operator is best used in instances when the user wants to work with a subset of objects for which certain values are known, often the object's ID. These values, copied from an Excel spreadsheet or other source, are then pasted into the filter to obtain the desired subset of objects.

For more information on filtering in the Web UI, see the Node List Component topic in the Web User Interfaces / Web UI Getting Started documentation.

New Task List header displays object's time spent in workflow state

A new header called 'Duration in Workflow State Header' is now available for configuration on Task List screens.



When added, this header displays how long each object has spent in the current workflow state. Previously, users could configure their Task List screens to display whether an object had been in a workflow state past a configured deadline. However, this could result in a large number of tasks showing as 'past deadline,' which did not always provide the right level of detail required to clear the most urgent workflow tasks from the queue. With the 'Duration in Workflow State Header,' users can sort the Task List so the oldest tasks display at the top, giving users a powerful tool to more effectively manage their workflows.

For more information on Task Lists, see the Task List topic in the Web User Interfaces / Web UI Getting Started documentation.

Object focus in the Tree stays consistent

Focus on a selected node in the Tree Navigator will now persist without shifting to a different instance of that object elsewhere in the Tree Navigator.

Because the system highlights all instances of a given object in a Tree Navigator when any one instance of that object is selected, the system would sometimes shift focus to a different instance of the object, causing the user's view of the Tree Navigator to change. As an example, if users selected an object in the yellow hierarchy, then the system would shift focus, in the Tree, to the instance of that same object in the blue hierarchy. This behavior was unhelpful in many instances.

It is important to note that this update will not affect the system's current default behavior of highlighting all instances of an object wherever present in a Tree Navigator. The difference introduced with this change is that now users will have to scroll to see those additional instances; the object the user has selected will remain the focus even if other instances of the object are located elsewhere.

For more information on the Tree Navigator component, please see the Tree Navigator Component topic in the Web User Interfaces / Web UI Getting Started documentation.

Update to the Business Action with Web UI Bind component

A new configuration option has been added to the Business Action with Web UI Bind component when configured on Node Lists that allows an administrator to set the maximum number of nodes upon which the Business Action with Web UI Bind button can be run. Previously, no restrictions could be set, which could result in performance issues if a component was configured with a highly complex business action and then applied to a large selection.

The new parameter, 'Max Number of Nodes,' is mandatory and requires an administrator to set the value when configuring the component. If the user selects more nodes than the configured 'Max Number of Nodes' parameter allows, the Business Action with Web UI Bind button is disabled. If the user selects the maximum number of allowed nodes or fewer, then the button is enabled. It is recommended that, subject to customer requirements and system resources, Business Action with Web UI Bind components configured with a high level of complexity should set the maximum number of nodes to less than 50, while low-complexity instances of the component may set the maximum to more than 50.

When updating to 9.3, it is important to note that end users working on screens with the Business Action with Web UI Bind component already configured will experience no change in performance aside from a new system default restricting node selections to no more than 50. However, when admin users access the designer for those screens, the designer will display as being in error and disallow configuration changes until the error is cleared. Additionally, the field for the 'Max Number of Nodes' parameter will be blank: the default maximum of 50 is applied by the system. To clear the error, designers must manually add a value to the new 'Max Number of Nodes' parameter in all Business Action with Web UI Bind components configured for the screen.

For more information on the Business Action with Web UI Bind component, see the Business Action with Web UI Bind topic in the Web User Interfaces / Web UI Getting Started documentation.

Changes to validation functionality

Changes have been made in three places with respect to validation-related functionality. As business conditions meet validation requirements more efficiently than some existing Web UI functionality, the following changes have been made for the 9.3 release:

- The 'External Validator' parameter, found on the 'Attribute Value Component Properties' screen in the designer, has been removed.
- The 'Post Save Validation Script' parameter which was available on a number of screens, like Node Details, BGP Details, etc., has been removed.
- The 'Run Server Script Action' component has been superseded.

With this update, the 'External Validator' and 'Post Save Validation Script' parameters have been removed and will not be seen when adding new components upon which the parameters were previously available. If the removed parameters (which display with a gray background to indicate they have been withdrawn) are shown on active components configured in your Web UI, those parameters will remain until the content added for those parameters is removed and the designer is saved. Once removed and saved, the parameters will not display the next time the components are accessed in the designer.

The superseded 'Run Server Script Action' component will continue to display in the 'Add component' window, but will now show with a gray background and a note in the description about using the 'Business Action with Web UI Bind' component instead of the 'Run Server Script Action.' If already configured on a system, the 'Run Server Script Action' component will continue to work as configured following an update to 9.3. The 'Run Server Script Action' component is scheduled to be removed in a future release.

Update to the Golden Record Linked Members Component

Three new parameters have been added to the Golden Record Linked Members component in Web UI: Use Immediate Save, Dimensions, and Enable Freeze Panes. Enabling 'Use Immediate Save' will prompt a save every time an edit is made to data within the component. The 'Dimensions' parameter allows users to tweak the default display length / width of the rows and columns of the grid. The 'Freeze Panes' action button allows users to freeze the selected columns / rows for streamlined navigation of the table.

Together, these three parameters enhance the usability of the component and align it with standard table component functionality across the Web UI.

For more information, see the Golden Record Linked Members Component section of the Web User Interfaces / Web UI documentation.

Additional Enhancements and Changes

Summary

The following enhancements have also been made as part of the 9.3 release:

- Kerberos single sign on can be used with SAML authentication.
- A new workflow privilege for allowing users to see all tasks for all groups to which the user belongs.
- A new image watermarking feature is available to add fixed, scaled, and tiled watermarks to images upon export.
- Support for mandatory references has been added for workflows.
- Support for mandatory references has been added for Smartsheets.
- The 'Send Republish Event' bulk update plugin is generally available and is no longer enabled via the Matching license.
- The reference type creation process in workbench has been updated to improve ease of use.
- Two new calculated functions have been added that allow users to ask for conversions between a date and its corresponding day-number.
- The 'Revert to' option that displays in workbench when right-clicking a workflow revision has been removed.
- Filtering List of Values objects in workbench now displays both the LOV's name and its ID, when applicable.
- To lessen the chance of inadvertent data loss, the 'Import from Clipboard' action now includes a confirmation warning when editing transformation lookup tables.
- When applying dimension dependencies to attributes and List of Value objects, users can now select specific dimension points to which data can be applied.
- In addition to standard 9.3 updates, some sections of online help documentation have been expanded and reorganized.

Users will find more updates in the Enhancement Requests release note that follows.

Details

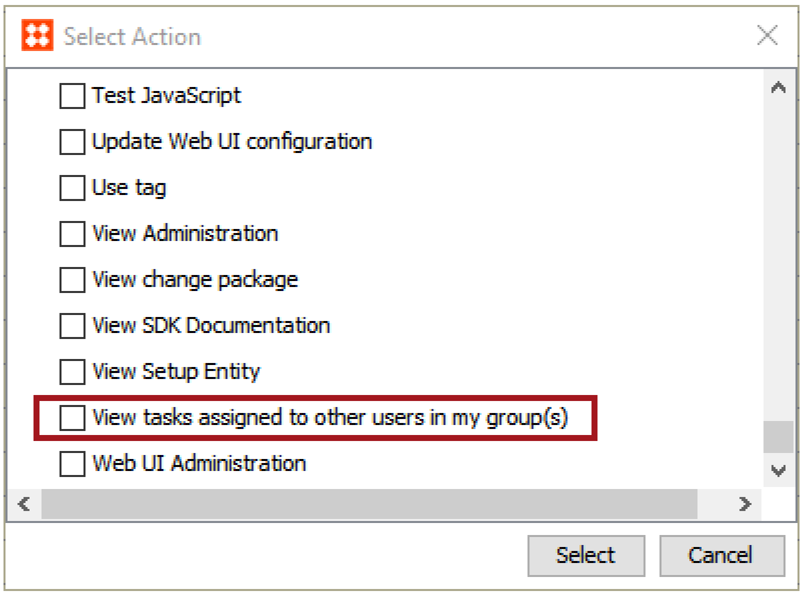
Kerberos authentication support

It is now possible to use Kerberos single sign on in conjunction with SAML authentication. If Kerberos is configured to be the preferred authentication mechanism, users accessing the Web UI without a valid Kerberos ticket will when first accessing a Web UI be presented with a 'Sign In' dialog and will when pressing 'Sign In' without having entered credentials be redirected to the identity provider for SAML authentication. When subsequently accessing the Web UI, users will be automatically redirected to the identity provider authentication page.

For more details, see the STEP Authentication Guide available from the STEP API Documentation page, accessible at [your system URL]/sdk or from the Start Page.

New workflow privilege

A new privilege titled 'View tasks assigned to other users in my group(s)' allows users to see all tasks of all groups they are a member of, whether they are tasks assigned to themselves, assigned to others, or tasks that are not yet assigned to any user. This privilege differs from what is currently provided by the 'STEP Workflow Administrator' setup action where users are able to view all tasks across all groups. Additionally, this new privilege gives administrators the ability to allow users to view tasks in these various assignment states without having to provide the other privileges that are part of the 'STEP Workflow Administrator' setup action.



Users with this new privilege must select the 'double user' / Show Group button (located within the STEP Workflow Tasks tab in the workbench and the Status Selector widgets in the Web UI) to see the tasks assigned to others in their group(s).

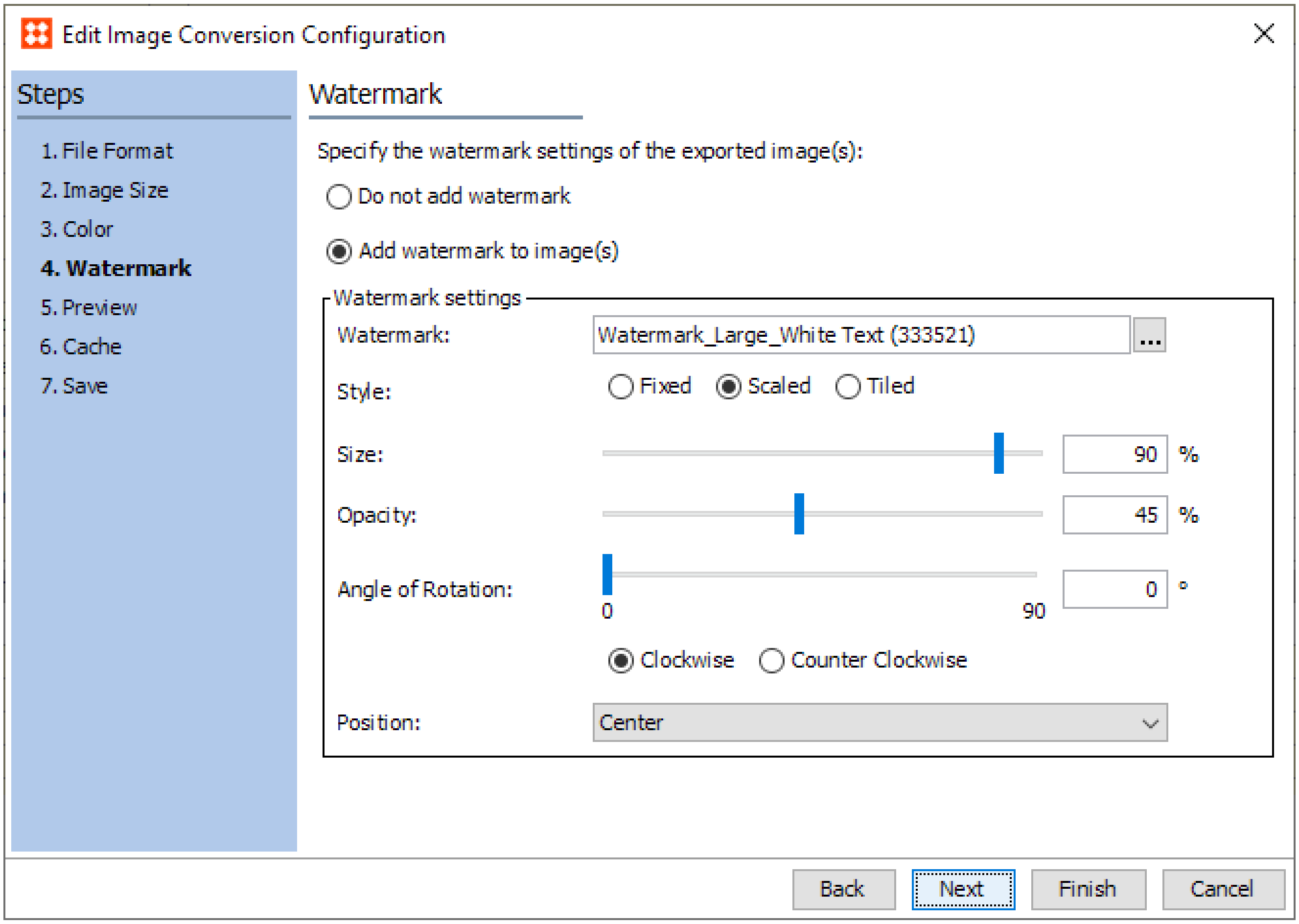
For complete information on privileges related specifically to workflows, see the Workflows section of the Setup Actions documentation.

New image watermarking feature

Watermarks can now be added to images. This functionality is applied within image conversion configurations, which can be used for both manual and automated image exports, including asset push and STEPXML, as well as for image imports using the Asset Importer.

The following screenshot shows an example of a watermark that has been added to an exported image.

To enable this new functionality, a new 'Watermarks' step has been added to the 'Create Image Conversion Configuration' and 'Export Images and Documents' wizards. The configuration options are identical in both places. Three modes of watermarking are supported: fixed, scaled, and tiled. The fixed and scaled options allow for single watermarks to be added to images, either in a fixed size or scaled in relation to the target image. The following screenshot shows the available options for a scaled watermark, which include size, opacity, angle of rotation, and position.



Note that the only accepted image type for watermarks is PNG, since this is the only system-supported format that supports background transparency.

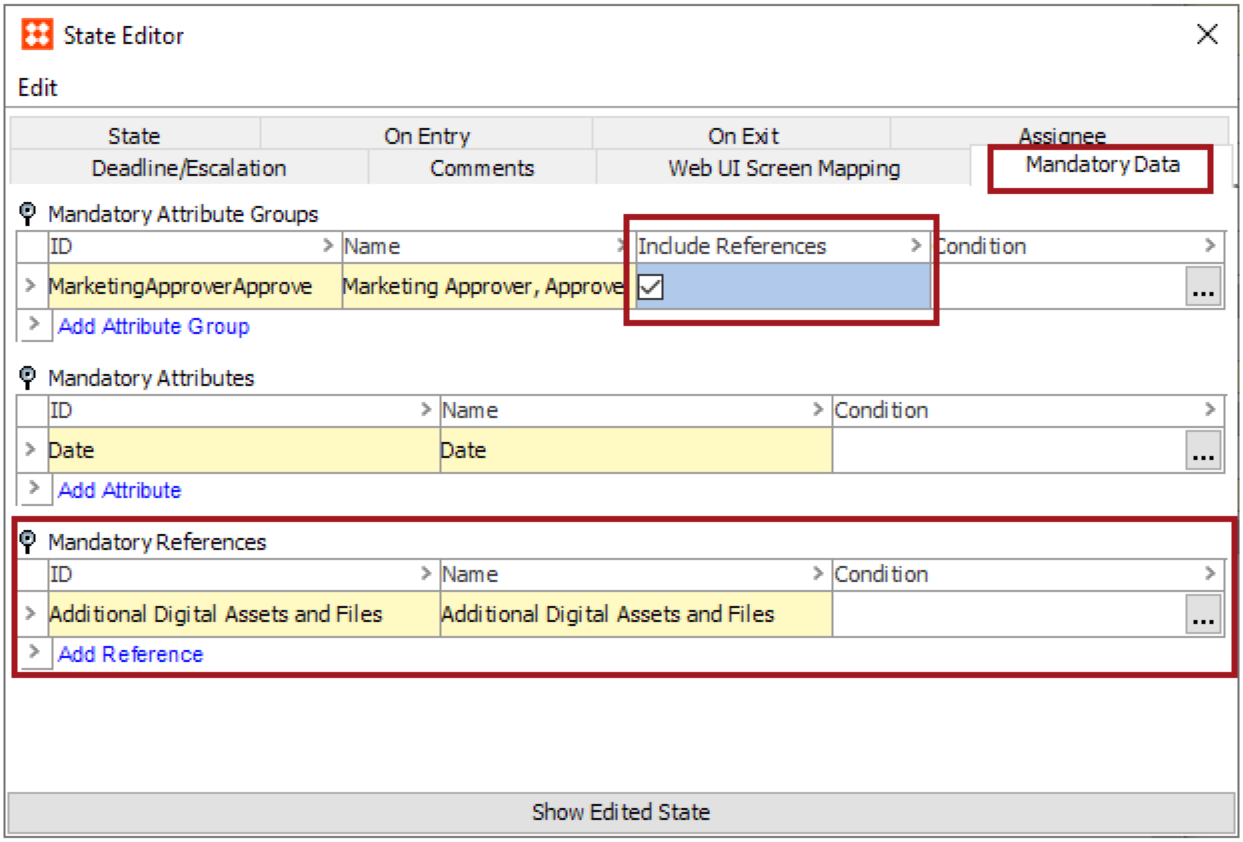
For more information, see the Watermark topic in the Exporting Assets section of the Digital Assets documentation.

Added support for mandatory references in workflows

Support for mandatory references has been added for workflows. This new feature allows for mandatory references to be specified both for workflow states and transitions in addition to mandatory attributes and attribute groups. Previously, business rules had to be written to enforce mandatory references.

To enable this functionality, new options for mandatory references have been added to the State Editor and the Transition Editor in the workbench. Additionally, the name of the Mandatory Attributes tab has been changed to Mandatory Data in both editors to indicate its expanded scope.

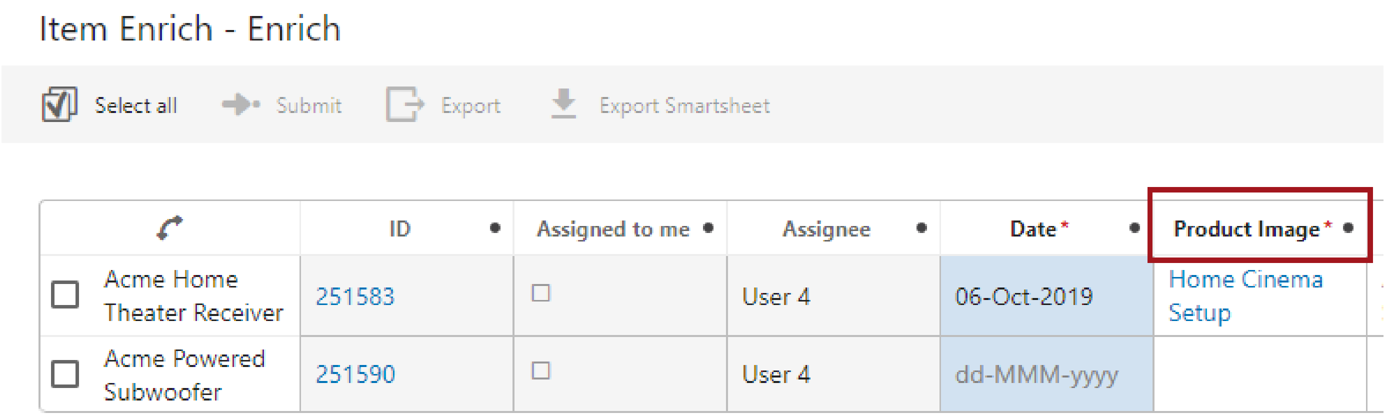
The below screenshot shows the options for the State Editor, which are identical to those on the Transition Editor. A new Include References column and checkbox has been added to the Mandatory Attribute Groups section. Checking this box makes all references linked into the selected attribute group mandatory for the state or transition being edited. A new section named Mandatory References has also been added, which allows users to select one or more mandatory references in addition to those contained within the selected attribute group(s). Conditionally mandatory references are also supported.



In the Web UI, mandatory references are now indicated by a red asterisk in the following reference-related components:

- References
- Reference Value
- Reference Header
- Referenced Asset Representation
- Classification Links
- Classification Product Links

The following screenshot shows a state-specific mandatory asset reference (Product Image) in the Reference Header component within a Multi Edit Display Mode table on a Task List screen.



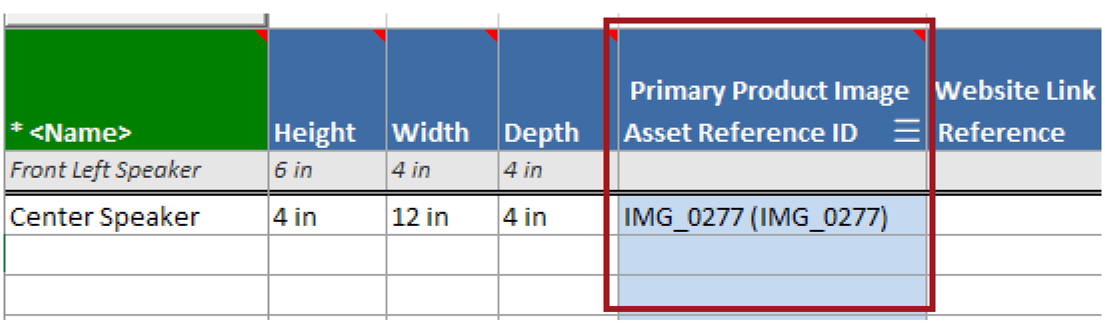
Workflow-state mandatory references are also now enforced in Smartsheets, in the same manner as mandatory attributes. Cells for mandatory references are shaded blue, and the Smartsheet cannot be validated if the mandatory reference field is not populated.

For more information, see the Mandatory Attributes and References in Workflows topic in the Workflows documentation.

Added support for mandatory references in Smartsheets

References can now be made globally mandatory for Smartsheets, eliminating the need to write business rules to enforce the population of mandatory reference fields when Smartsheets are validated.

This functionality is handled in a near-identical fashion to how mandatory attributes are enforced in Smartsheets, with both a visual indicator and error reporting on missing values. References marked as mandatory have their value cells highlighted blue to prompt the user to populate the field, as shown in the following screenshot.



Mandatory references are configured in the workbench in a way similar to how mandatory attributes are configured, except a description attribute that indicates if the value is mandatory is placed on the 'Reference-Type' object type instead of the Attribute object type. Supported reference types are: product reference types, classification reference types, image and document reference types, product to classification link types, and entity reference types. Product attribute link types and classification attribute link types are not supported.

To access Smartsheets, the X.Smartsheet license must be enabled on your system. Contact your account manager to enable licenses for your system.

For more information, see the Mandatory Data in Smartsheets topic in the Excel Smartsheet Format section of the Data Exchange documentation.

Mandatory references are also now supported in Smartsheets for workflow states. See the previous section of this release note (Added support for mandatory references in workflows) for more information.

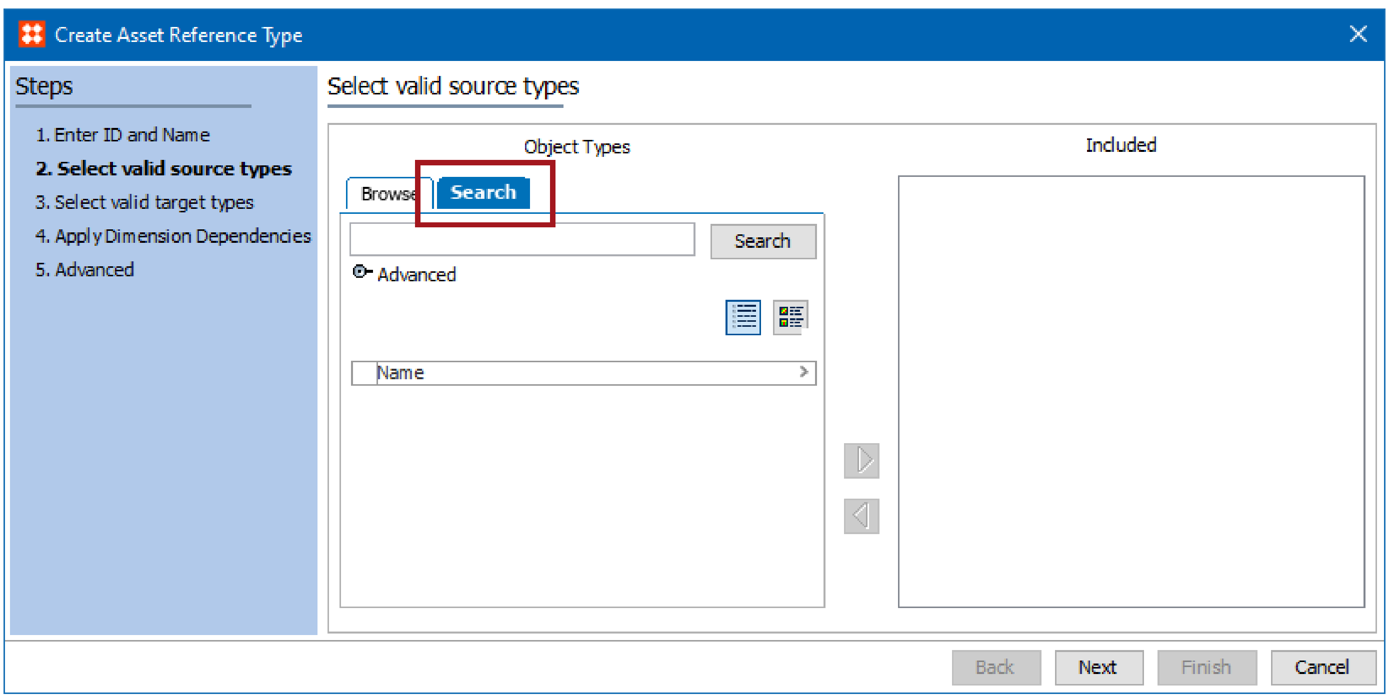
'Send Republish Event' available without Matching license

Now, the 'Send Republish Event' bulk update plugin is generally available, and customers do not need the STEP.Matching license in order to use this operation.

Improved reference type creation process

The reference type creation process in workbench has been updated to improve ease of use.

Previously, the popup that displays when creating a new reference type would often need to be manually expanded as some content was not readily visible. Additionally, users could only browse the hierarchy for their needed source and target objects, often requiring a significant number of clicks to select the desired objects. Now, the default size for the reference type creation popup is large enough to accommodate all data, and a 'Search' option was added, allowing users to use typeahead functionality to quickly locate their desired objects.



As part of this change, the ID validation step now occurs as soon as the user submits the requested ID for the new reference type, which is at the start of the reference type creation process. This update has been made so that users are immediately informed if an ID is already in use, rather than finding out at the end of the process, after they have completed the configuration.

For more information on creating references in workbench, see the Creating a Reference Type topic in the System Setup / Super User documentation.

New calculated functions for date conversion

Two new calculated functions have been added that allow users to ask for conversions between a date and its corresponding day number (and vice versa) so that date comparisons or manipulations can be accomplished. The calculated function 'ConvertDateToNumber()' converts an ISO date value (YYYY-MM-DD) into a number by calculating the number of days between the provided date and the first day of January, 1900. The 'ConvertDayNumberToDate()' calculated function translates a given number into a date value, also based on 0 being January 1st, 1990. In both cases the additional day of February 29 in leap years is accommodated.

One use case where these functions might be applied is when calculating the end date of a sales offer. For example, a retailer is offering a promotional discount on a specific item for a period of thirty days. If the start date of the promotion period is provided, these calculated functions can be used to first convert the start date into a number, and then add the number '30' to account for the thirty days of promotion. This new number can then be converted back into a date, which will be the date thirty days from the offering start period, thus automatically providing the promotional period's end date.

Another use case is to determine how long a particular task has been in a specific workflow state. If, for example, the date at which the task was started in the workflow was saved by a business rule, then using the function 'ConvertDateToNumber()' on that given date plus the current date will allow for the automatic calculation to be done.

For more information on calculated attributes, see the Calculated Attributes topics in the System Setup / Super User documentation. For more information on calculated functions, see the Attribute Functions topic in the Resource Materials documentation.

'Revert to' option removed for workflows

The 'Revert to' option that displays in workbench when right-clicking a workflow revision has been removed. The option was incorrectly available and has been removed so users do not get an error when selecting the 'Revert to' option.

For more information on managing workflow configuration revisions, see the Version Control System Integration topic in the Configuration Management documentation.

Show LOV value IDs in filtering interface

When filtering Lists of Values (LOVs) in which the values use IDs, the LOV filtering dialog in the workbench now displays both the LOV's name and its ID. Previously, the name displayed in the filtering dialog without the ID, which, in some cases, provided insufficient information for proper LOV value filtering.

For more information on filtering LOV values, see the Filtering LOV Values topic in the Web User Interfaces / Web UI Getting Started documentation.

'Import from Clipboard' warning added to transformation lookup tables

When creating or editing transformation lookup tables in workbench, users are now given a warning when the 'Import from Clipboard' button is clicked, prompting the user to confirm the selection. This provides a buffer against inadvertent data loss. Previously, users would receive no warning when the button was clicked, which sometimes resulted in an accidental loss of data contained in the lookup table.

For more information on transformation lookup tables, see the Transformation Lookup Tables topic in the Resource Materials documentation.

Ability to select dimension point when enabling dimension dependency

When applying dimension dependencies to attribute or List of Values (LOV) objects in either the Web UI or in workbench, users now have the option to select the dimension point where existing values should be applied. See the Web UI Enhancements release notes for more information on this change.

Online Help / Documentation updates

- A new Analytics section was added and applicable sections of documentation have been moved into this umbrella topic, including Embedded Analytics Platform and Audit Message Framework.
- Online help now includes more support information regarding infrastructure requirements, architecture information, and performance recommendations and troubleshooting. Updates can be seen in the System Administration section.

  Customers were previously able to access this information via the Document Repository (under My Issues) within the customer portal (Jira). The documents will be removed from the Document Repository; however, online help is accessible in Jira from the Release Information dashboard / page (always accessible from the left navigation options once logged into Jira).

- New feature and tutorial videos have been added to Jira for the 9.3 release. A new static Release Documentation Videos dashboard is available within the left navigation options. Videos will also be available via the Stibo Systems' Community.

  For more information about gaining access to the Community, see the Training and Community Resources topic.

Enhancement Requests

Summary

Customer satisfaction is top priority for Stibo Systems. When customers make software enhancement requests, Stibo Systems works diligently to meet their business needs. Many of the changes available in 9.3 are implemented as solutions to these requests.

The list below highlights many of the enhancement requests that were completed in 9.3, but this is not a comprehensive list. Additional customer-requested enhancements not listed below were completed as part of previously planned roadmap-driven projects, as well as for specific product lines and/or customers, and are therefore not globally applicable.

Details

Solutions are listed below. A cross-reference to more details is provided, if applicable.

- A new privilege titled 'View tasks assigned to other users in my group(s)' allows users to see all tasks of all groups they are a member of, whether they are tasks assigned to themselves, assigned to others, or tasks not yet assigned to any user.
- The 'Revert to' option has been removed as an option for workflows via the Status tab in workbench. The option was not functional and the concept of reverting workflows would likely lead to invalid workflow instances.
- Support for mandatory references in workflows has been added to the workflow editor.
- Support for image watermarks has been added for image conversion configurations and image exports.
- When creating or editing transformation lookup tables, users are now given a warning when the 'Import from Clipboard' button is clicked, asking the user to confirm the selection.
- For date comparisons or manipulations, new calculated functions have been added that allow users to ask for conversions between a date and its corresponding day number (and vice versa).
- When creating a new reference type, the default size for the popup is now large enough to accommodate all data and also has a 'Search' option. As part of this change, the ID validation step now occurs as soon as the user submits the requested ID for the new reference type, which is at the start of the reference type creation process. This update has been made so that users are immediately informed if an ID is already in use, rather than finding out at the end of the process, after they have completed the configuration.
- When applying dimension dependencies to attribute or List of Values (LOV) objects in workbench, users now have the option to select the dimension point where existing values should be applied.
- When filtering Lists of Values (LOVs) in which the values use IDs, the LOV filtering dialog in the workbench now displays both the LOV's name and its ID.

For more information on the items above, see the Additional Enhancements and Changes release note.

- A new GXML instruction that automatically inputs the date / time of a generated export is now included within the BMEcat 2005 Export Wizard's XML default template.
- There are a number of Industry Standards updates including support for eCl@ss version 11 (with new XML 3.0 format) and improved ETIM / eCl@ss ID matcher when using auto map in the import wizard.

For more information regarding the enhancement requests outlined in the two bullets above, see the Data Exchange Enhancements and Changes release note.

Many of the Web UI changes outlined below are described further in the Web UI Enhancements release note.

- Dynamic sizing of input fields solves layout issues involving display of unnecessary scroll bars by enabling the UI layout to react to size changes in a more responsive way.
- Multi-valued attribute values can now be sequenced (or resequenced) in the Web UI when displayed in a Node Editor or Node List.
- The number of errors that display in background processes (BGPs) can now be configured by adding two new properties to the sharedconfig.properties file.
- Image thumbnails are now enabled for display on classification and entity objects on Node List screens.
- Column widths and row heights in the Data Container Table View Editor component can now be configured either manually or via two new designer settings.
- A new header called 'Duration in Workflow State Header' is now available for configuration on Task List screens. The header can be added to display how long each object has spent in the current workflow state.
- When creating a reference to add via the Multi-Reference Editor, object types displayed in the Create Tab of the Add Reference Action dialog were shown with their ID rather than their name. Now, the Name will be displayed, if it is available, and '(ID)' will be displayed, if it is not. This aligns with the standard platform practice of showing the Name for setup objects (business rules, object types, workflows, etc) and the Name or 'Name (ID)' for data objects.
- A new filtering option called 'Is one of' has been made available for Web UI tables to allow for filter from list / search from list capabilities.
- The KPI Widget legend text that displays to the right of the pie chart has been extended.
- The default behavior of toolbars has been changed so that all toolbar actions added to Node Lists will now display in the toolbar regardless of whether or not a selection is made. And, because of this change, designers now have the option to slot individual toolbar actions into button group components, giving admin users the ability to better control the display and make the most frequently used actions more accessible.
- Viewing and editing metadata on Product to Classification links in Web UI tables (via the Target or Reference Metadata Value Header) is now possible.
- Tree item focus is now solely determined by the manual selection of the end user, so when the system selects all instances of a node, the blue hierarchy will no longer take priority focus.
- Improved Web UI table export capabilities including the user's ability to export the contents of a table without having to build a time-intensive mapping to create the export via the Custom Export Action (formerly the Simple Exporter Action).
- Actionable error handling has been added for business rules and Smartsheets.
- Advanced Search screen functionality now allows users to search for objects based on attributes with a Date, ISO Date, or ISO Date and Time validation base type without having to determine which date format is correct prior to executing a search.
- When applying dimension dependencies to attribute or List of Values (LOV) objects in the Web UI, users now have the option to select the dimension point where existing values should be applied.

API Enhancements and Updates

Summary

Information applicable to the enhancements / deprecation outlined below is available in the API documentation at [system]/sdk or access the STEP API Documentation from the Start Page.

Details

REST API V2 enhancements

New resource operations are listed below. Additionally, with the 9.2 Release, it became possible for data container objects to have references to other objects. This ability is now also reflected in the REST API V2.

For detailed information about the new functionality, please see the Swagger and OpenAPI 3.0 documentation available via the STEP API Documentation page on systems with the 'restapiv2' component installed and the STEP.SDK.WebService license enabled. Contact your account manager for license information. Instructions for installing components can be found in the SPOT Program topic in the System Administration documentation.

Workflows

Operation	Description
GET /workflows	Returns IDs of available workflows
GET /workflows/{id}	Returns the workflow with the specified ID
POST /workflows/{id}/instances	Starts a workflow
GET /background-processes/{id}/attachments/{attachmentId}/content	Returns the background process attachment content
DELETE /workflows/{id}/instances/{instanceId} Deletes the workflow instance with the specified ID	Deletes the workflow instance with the specified ID

Workflow Tasks

Operation	Description
GET /workflow-tasks/{id}	Returns the workflow task with the specified ID
POST /workflow-tasks/{id}/claim	Claims a specific workflow task
GET /workflow-tasks/{id}/events	Returns the available events for a task

Operation	Description
POST /workflow-tasks/{id}/release	Releases a task
POST /workflow-tasks/{id}/trigger-event	Triggers an event for a task
POST /workflow-tasks/search	Search for / query workflow tasks

XSD enhancements

The XSDs for the STEPXML format and for the output template format used with the Advanced STEPXML format plugin have been updated to correctly reflect the schemas. The XSDs can be downloaded from the STEP API Documentation page.

For more information, see the STEPXML XSD topic in the STEP API documentation.

Platform and Software Support Changes

This section lists current and future planned changes to platform and software support. The complete list of platform and software support is available in the 9.3 Platform and Software Support section of the System Release and Patch Notes documentation.

Current Updates

The changes in platform and software support from version 9.2 to 9.3 are listed below.

- Internet Explorer version 11 will no longer be supported with the 9.3 release nor will Safari for Windows clients. For 9.3 Windows clients, the latest versions of Chrome, Firefox, and Edge will be supported. The term 'latest' is defined by the browser vendor. Check with browser vendors to determine the latest version available. Stibo Systems strives to test all new supported browser versions, and on very rare occasions, may need to provide special instructions if a browser update has backward compatibility issues.
- Adobe InDesign CC 2017 (Client and Server) will be desupported in the next feature release.
- The option to import eCl@ss Basic CSV files is no longer available. Support remains for the eCl@ss Basic XML import. For more information, see the Data Exchange Enhancements and Changes release note. Also, refer to the eCl@ss Format topic within the Data Exchange > Data Formats section of the documentation.
- All Red Hat Enterprise Linux / Oracle Enterprise Linux 6 versions are desupported with this release.
- Oracle Database version 12.1.0.2 is no longer supported.

Future Updates and End of Life Notifications

The changes in platform and software support expected in the future include the following:

- **Support for version 8.3 is ending, effective November 1, 2020**
- **Support for version 8.2 is ending, effective June 1, 2020**
- **Support for version 8.1 is ending, effective November 1, 2019**

  The purpose of the support notifications above is to officially communicate desupport / end of life for these systems and request that customers update as soon as possible to the latest release of STEP. Please contact your Stibo Systems account manager or partner manager, or the support department, to receive help and guidance on how to update to a supported release.

  Software errors reported for the versions shown above may be rejected after the listed effective dates. Application support issues in progress for the releases being desupported will be closed on the desupport date. It is not possible to extend the support services for desupported versions.

  To receive help on updating the STEP application, please reach out to your Stibo Systems account manager or your partner manager.

- In version 8.1, an attribute value migration option was introduced that supported migration of data to a new storage model called 'Compact Value Storage.' This migration changes how non-LOV attributes are stored, offers better performance, and a significant reduction in memory footprint for STEP systems running with the In-Memory option. Since 8.1, many production systems have been through successful conversions.

  With version 10.0, planned for a Spring 2020 release, an alternative will be generally available that will run STEP with Cassandra as persistence layer as an alternative to Oracle. The migration to the 'Compact Value

Storage' will be a prerequisite for running Cassandra and, under all circumstances, the migration is considered to be the recommended practice. The migration path is documented in the online help in the Attribute Value Migration topic in the Maintaining Attributes section of the System Setup / Super User Guide documentation.

Miscellaneous Bugfixes

A number of bugfixes have been applied as part of the 9.3 release. For 9.3 maintenance patch bugfixes (if / as applicable), separate notes are generated for each maintenance patch. Refer to the entire set of 9.3 release and maintenance patch notes prior to installing or upgrading.

BUGFIXES

ISSUE-317584 - OIEP post-processor fix

In the OIEP Copy Context Dependent Values and References post processor, there was a problem handling STEPXML when a multi-value tag appeared twice for the same attribute. During the STEPXML processing, the second multi-value tag was omitted and the data that should be inside the tag was exported without it. This error has been fixed, and hotfixes are available for step-9.1-mp5 and step-9.1-mp6.

ISSUE-326162 - Edit permissions fixes

Now, unhandled Class Cast exceptions are not returned on the Web UI Node Editor for the References Component with Attribute column if the current user does not have permissions to edit this attribute. Additionally, LOV values with an ID are no longer shown in a dropdown list in the Link Attribute Column under the References component in the Web UI if the user does not have edit permissions.

ISSUE-341658 - Duplicate action fixes

An exception was thrown when duplicating a product in the Web UI's Node Editor when the Duplicate action was used and the source product had an empty name. This has been fixed. Additionally, an empty name will not be shown as '[null]' in the Duplicate dialog for the same component.

ISSUE-351734 - LOV filter fix for LOV IDs

LOV IDs were not displaying for the filtered LOV values on the Web UI Node Editor screen due to LOV filtering not taking the Show LOV IDs parameter from the Attribute Value Client component into account. This has been fixed.

ISSUE-354192 - Fix for the Golden Record Source Traceability Screen

In the Web UI Golden Record Source Traceability Screen, if the screen configured with the attribute group and the attribute did not have a value, the attribute will not be shown on this screen. This behavior has been fixed and all attributes from the configured attribute group will be shown on the screen.

ISSUE-360997 - System Setup Group Root deletion fix

Fixed an issue where a user was prevented from successfully deleting a System Setup Group Root that previously contained an integration endpoint that has been moved to another folder.

ISSUE-361089 - Asset Preview Screen fix

Fixed a problem where the user was not able to select assets on Web UI Asset Preview Screen without toolbar actions being configured in Design Mode.

ISSUE-365868 - JavaScript search fix

Fixed the JavaScript Search to include JavaScript in the 'Applies If' section of a Business Action or Business Condition.

ISSUE-367319 - Web UI Node List thumbnail fix

Fixed a problem when thumbnails were not displayed in the popup when a user clicks on a cell under the thumbnail header on Web UI Node List.

ISSUE-368606 - Multi Reference Editor reload fix

Fixed a problem where the Multi References Editor in the workbench reloaded unnecessarily after a reference is created, which caused the error message 'Reference already existed.' Now, Multi References Editor reloads correctly and no longer tries to create a new reference if it has been created before reload.

ISSUE-369183 - In-Memory Task List fix

When viewing / managing Task Lists in In-Memory, errors could occur if a task had been deleted by another user / process (due to operation on deleted object). This has now been fixed.

ISSUE-370672 - Multi-value separator fixes

Added Multi-value separator parameter to the Value section in the Asset Reference mapping in the workbench export manager. Additionally, the Multi-value separator for exported references was not being taken into account during Smartsheet validation and import, causing errors. This has been fixed, and a hotfix is available for step-9.2-mp3.

ISSUE-371446 - In-Memory duplicate tables fix

Fixed a bug in the In-Memory exporter that caused duplicate tables to be exported in translation mode.

ISSUE-371477 - Missing Mandatory warnings no longer hiding

Fixed a problem when previous Web UI alerts were cleared out by the new alerts, which resulted in hiding the Missing Mandatory warning when the Business Condition warning was being shown during Submit action execution. Hotfixes are available for step-9.2-mp2 and step-9.2-mp3.

ISSUE-371553 - Expired password message fix for REST API

Fixed an error code in REST API so that now users get a message stating that their password has expired.

ISSUE-371576 - Multi Valued attribute duplication deletion fix

Fixed a problem when the save button on a Web UI Node Editor was not enabled when the user removed duplicated value from Multi Valued attribute value component.

ISSUE-371700 - Custom Export attribute group mapping fix

Previously, there was an issue in the Web UI Custom Export, when the Groups Initially Open box is checked in design mode, the base table did not correctly map the attribute groups. This has been fixed.

ISSUE-372146 - Unique Key Value LOV Values fix

Fixed display of LOV Values in the Unique Key Value editor in the Web UI.

ISSUE-372660 - Index Out Of Bound exception fix

Fixed an Index Out Of Bound exception that was shown to users without privileges to submit an item on the Web UI Task List via the Submit From Grid action component. Now, the correct error message is shown.

ISSUE-372826 - Root Node URL parameter description change

In the Web UI, the Root Node URLs parameter description for the Search Below component has been changed to 'A list of root node options, configured for the node picker dialog, from which users can select a top node. Please note that this parameter only restricts a node picker selection and has no effect on the search result.'

ISSUE-374149 - Fixed bug with exporting multi-level references

There was an issue in domain exporter in exporting multi-level references in products when user export products from classifications hierarchy. This has been fixed. There is also a 9.1-mp5 and mp6 hotfix available.

ISSUE-374286 - Removal of planned pages missing publication sections

It is now possible for Stibo Systems Support to remove planned pages that are missing publication sections. A hotfix is available for step-8.3-mp3.

ISSUE-374550 - GDSN outbound mapping read-only fix

GDSN outbound mapping of text transformations fields are no longer locked / read only. Hotfixes are available for gdsn2-7.0.44, gdsn2-7.0.45, and gdsn2-7.0.46.

ISSUE-374584 - Publication export XML format fix

When exporting from a publication into a CSV in the workbench, there was an error when additional Assets tags were opened but were not closed, corrupting the XML format, making it impossible to process the XML further. This error has been fixed. Hotfixes are available for step-9.2-mp3 and step-9.0-mp5.

ISSUE-374594 - Registering of product fix

Fixed failing registering of product from the Web UI to GDSN if the transaction type is configured to be NONE.

ISSUE-374785 - Fixed issue with Create Attribute Group Management Screen

The Value component now works correctly in the Attribute Group Management Screen in Web UI, i.e., it lets you edit the metadata attributes on the Attribute Group.

ISSUE-374827 - STEP Workbench Launcher fix

There was a problem when a user attempted to open the STEP Workbench Launcher after opening a previous release's STEP Workbench Launcher. This has been fixed.

ISSUE-374940 - Smartsheet validation exception fix

An exception occurred when validating Smartsheet values containing special XML characters that were wrongly unescaped. This has been fixed. Also, a step-9.2-mp3 hotfix is available.

ISSUE-375086 - Smartsheet fixes

The row limit for imported Smartsheet maintenance sheets has been removed. Additionally, the Smartsheet template has been adjusted so that the user is not able to edit cells beyond the pre-formatted cell limit.

ISSUE-375333 - LOV Typeahead fix

Typeahead did not work in the LOV cells on the Web UI Node List because the focus moved from the cell after typing the first character. This has been fixed.

ISSUE-375339 - Headers on Smartsheets now auto-resize correctly

Fixed a problem when long column headers on Smartsheets were not auto-resized correctly when auto-size mode or 'Auto-fit cell' was selected during Smartsheet export. There is a hotfix available for step-9.2-mp3.

ISSUE-375945 - Attribute Value Header numeric attributes decimal fix

Previously, copied and pasted values containing a comma separator caused validation errors on the Web UI's Multi Edit Display mode Attribute Value Header for numeric attributes in locale that had a comma as a decimal separator. This has been fixed.

ISSUE-376208 - Special characters allowed in workflow business rule IDs

Fixed business rule IDs to accommodate special characters when editing workflow states or transitions.

ISSUE-376294 - Import performance fix

A transaction can generate many events, which will cause business conditions to be executed. It will be the same business rules over and over again. It has been shown that parsing the XML to get the object type group rules is a performance bottleneck - rather than the execution of the business logic in some cases. Therefore, the solution is to cache these rules to increase performance.

ISSUE-376487 - Unhandled exception on Task List and a Node State

In the Web UI with the In-Memory component enabled, an unhandled exception when accessing the Task List screen and a Node state for certain items that do not exist or were being deleted has been fixed. Hotfixes are available for step-9.1-mp5 and step-9.1-mp6.

ISSUE-376495 - DAM server credentials added

Previously, it was not possible to provide credentials (user / password) when a request for an asset to a DAM server using the Scene7DownloadContentPlugin was made. Now, credentials have been added to the request. The user and password are defined as part of the Scene7DownloadContentPlugin configuration.

Example:
Scene7DownloadContentPlugin.CanHandle5.User=stepsys
Scene7DownloadContentPlugin.CanHandle5.Password=stepsys

ISSUE-376510 - Translation attribute permissions fix

Previously, when handling a translation of an object with a multi-valued language / country dependent specification attribute, if the translation was imported by a user without permission to 'Modify product attribute value (also translate)' in languages other than language2, then a privilege error occurred because a translation was requested from language1 to language2. Now, the privilege error is avoided when the user has sufficient permissions.

ISSUE-376661 - Smartsheet Import read-only data fix

Now, imported read-only references and classification to product links will no longer erase existing data during Smartsheet Import with replacement rules for Reference Type and Classification Product Link Types.

ISSUE-376694 - Oracle 18 bug workaround

On Oracle 18, the error 'Bug 27935464 ORA-14411 When Truncate Indexed Global Temporary Table Concurrently' was thrown, potentially causing OIEPs to fail. A workaround for this Oracle bug has now been implemented in STEP.

ISSUE-376781 - Classification to Product Link NPE fix

Fixed a NullPointerException (NPE) shown in the Web UI Node List when a user created a Classification To Product Link in the References Table header. There is also a hotfix for step-9.2-mp3.

ISSUE-376897 - STEP Workbench Launcher fix

There was a problem when a user attempted to open the STEP Workbench Launcher after opening a previous release's STEP Workbench Launcher. This has been fixed.

ISSUE-377021 - Privilege issue fix for product to classification links

When a user created product to classification links and when metadata attribute values on these links were edited, privilege-checking had some minor errors. In order to be allowed to do these operations, the user should have owned the corresponding privileges as the owner of the link. Instead, the user was allowed to create links if she had privileges on the product and was allowed to edit the metadata if she had privileges on the classification. This has now been fixed.

ISSUE-377364 - Query optimization for drill-down search framework

There was a problem in cases where excluded criteria with a large number of matches was included in the drill-down search in the workbench, which caused performance issues. This has been fixed by optimizing the query for the drill-down search framework in cases where it takes a long time to find the intersection of the individual query terms. Hotfixes are available for step-9.0-mp5-2018, step-9.1-mp5-2019, and step-9.1-mp6.

ISSUE-377375 - DownloadContent plugin fix

Fixed a potential exception when calling DownloadContent in a custom plugin.

ISSUE-377570 - Web UI default context privilege fix

Fixed an error where the Web UI was unable to load when a user did not have view privileges in the default context.

ISSUE-377684 - PLM-specific tab fixes

Certain tabs (Specify Ingredient, Supplier Ingredient, Compare Ingredient, Compare Requirement and Compare Parameter) were showing a blank page when specifying a business condition for each tab page on the screen and when the business condition was false. A hotfix is available for step-9.2-mp3.

ISSUE-377758 - Table Header Assignee NPE fix

In the Web UI, fixed NullPointerException (NPE) for Table Header Assignee if one of the items on a Node List did not have a node state (for example, on the Advanced Search Screen). A hotfix is available for step-8.3-mp3.

ISSUE-378111 - Export permissions NPE fix

Fixed NullPointerException (NPE) during export in domain mode (with In-Memory enabled) when the user does not have permissions to view a certain exported item.

ISSUE-378283 - Smartsheet exception fix

Fixed a problem when Smartsheet threw an unexpected exception during validation / Node Picker browse tab preparation for the <Parent ID> column. A hotfix is available for step-9.2-mp3.

ISSUE-378348 - Status Selector Widget Task List navigation fix

Previously, when a user navigated from the Status Selector Widget in the Web UI to the Task List (configured as a Status Selector condition in the Forwarding Switch Screen) and navigated to one of the items on the Task List, if the user clicked on the same state in the sidebar workflow, STEP navigated the user to the same item and not to the Task List. This has been fixed.

ISSUE-378378 - Single submit dialog ID fix

Now, the Web UI workflow Submit from Grid action displays the state name instead of the state ID in the single submit dialog.

ISSUE-378406 - Fixed exception thrown when doing manual translation

Fixed UnableToStoreTranslation exception, thrown when user tries to do a manual Excel translation of LOV attribute without IDs.

ISSUE-378446 - Classification export error fix

An unexpected error was thrown when classification-to-classification references were exported. This has been fixed.

ISSUE-378467 - Fixed error on Save & Approve enablement

Error that Save & Approve button is enabled when product is fully approved is now fixed. When there are no changes on product since the last approval, the button is disabled.

ISSUE-378679 - Business condition
 tags for Smartsheet

Now,
 tags in business condition output will be correctly replaced by the new line character during Smartsheet online validation and error sheet creation.

ISSUE-378925 - Business rule execution error fix

Fixed error occurring when executing the same Business Rule twice in workbench. A hotfix is available for step-9.2-mp3.

ISSUE-378971 - Value editor OK button fix

In the Web UI, the OK button was not activated on the value editor after editing the sequence. The button has been fixed so that it is enabled or disabled as expected.

ISSUE-379088 - Encrypted attribute width expanded

In the Web UI, the encrypted attribute fields were too narrow. This has been fixed by expanding the width.

ISSUE-379114 - Web UI security vulnerability fix

There was a security vulnerability in the Web UI. This has been fixed.

ISSUE-379129 - Bulk update business rule execution fix

In the Web UI, bulk update business rule executions with many data issues now work as expected.

ISSUE-379335 - IIEP BGP multiple file fix

In STEP IIEP when, configured with the 'Hotfolder using meta files' receiver, there was a problem processing multiple files. BGP processed the same file and did not process subsequent files. It was also possible to get a NullPointerException (NPE) in the BGP Log. The error has been fixed.

ISSUE-379479 - Metadata Value on Reference attribute mapping search fix

When attempting to select a metadata attribute when mapping Metadata Value on Reference, the search results were showing invalid results. This has been fixed.

ISSUE-379512 - Popup dialog close with browser back button

In the Web UI, popup dialogs now automatically close when navigating back with the browser's back button.

ISSUE-379549 - Status Selector Widget Task List navigation fix

Previously, when a user navigated from the Status Selector Widget in the Web UI to the Task List (configured as a Status Selector condition in the Forwarding Switch Screen) and navigated to one of the items on the Task List, if the user clicked on the same state in the sidebar workflow, STEP navigated the user to the same item and not to the Task List. This has been fixed.

ISSUE-379642 - Value editor Java fix

Fixed an error in the Value editor for List of Values in the workbench. When the workbench ran with Java 8, only the first line of the LOV value was shown. When the workbench ran with Java 9 or above, if a LOV value contained a newline, none of the following lines were shown. Now, all newlines are rendered with an ↲ character in the Value editor.

ISSUE-379643 - Customer-specific edit collection search criteria toolbar fix

Added possibility to enable toolbar actions on a Web UI Edit Collection Search Criteria mode for Advanced Search screen.

ISSUE-379998 - Automatic Classification exceptions fix

Fixed a problem where Automatic Classification exceptions in the Allow Rules were duplicated in the workbench.

ISSUE-380008 - Task List multiple alerts now collapse

Now, users will be able to collapse expanded multiple alerts after submitting multiple items on the Web UI Task List. After clicking on the 'Click for details' link on the Web UI alert, child alerts will be shown and the 'Click for details' link will change to 'Hide details.' Clicking on 'Hide details' link causes child alerts to be hidden and the link will change back to 'Click for details' again.

ISSUE-380031 - Side panel status fix

Fixed a problem where the side panel status in the Web UI did not switch correctly when the user navigated between screens with configured visible / invisible side panels.

ISSUE-380047 - Business Action data issues now display

Data issues produced by business action execution on state entry / exit are now displayed.

ISSUE-380160 - Attribute Value Comparison save fix

When editing the Attribute Value Comparison business condition rule in the workbench, the parameter values were not saved when running on a server with a language other than English. This has been fixed so the values are now saved.

ISSUE-380173 - Oracle 18 bug workaround

On Oracle 18, the error 'Bug 27935464 ORA-14411 When Truncate Indexed Global Temporary Table Concurrently' was thrown, potentially causing OIEPs to fail. A workaround for this Oracle bug has now been implemented in STEP.

ISSUE-380405 - Web UI dialog fix

There was a bug in the Web UI where users were unable to interact with a dialog if it was opened from a context menu. This has been fixed.

ISSUE-380616 - In-Memory translation error fix

Fixed an issue with In-Memory where a user got an exception during translation status search if the result involved a translation for a table.

ISSUE-380747 - Thumbnail asset content download fix

Fixed a problem where a direct download of the Thumbnail asset content on the Web UI Multi Revision screen did not work for previous revisions; instead, the asset content from the last revision was downloaded.

ISSUE-381861 - IIEP meta files receiver file fix

There was a problem with Inbound Integration Endpoints configured with 'Hotfolder using meta files' receiver, where the processed files were no longer moved to the processed / failed folder. This has been corrected.

ISSUE-382078 - Create Collection action Details section fix

Fixed an issue where the Details section was shown on a Web UI Node List even when the Details section was not shown before, after the user performed Create Collection action.

ISSUE-382503 - Schedule recalculation now accounts for weekends

Fixed a bug where the functionality for recalculating a schedule in PLM did not always take weekends into consideration.

ISSUE-382595 - Translations loaded for baseline and components

New translations have been loaded for both the baseline and multiple components.

ISSUE-382623 - LOV values now shown

Fixed an issue where LOV values were not being shown in the Value Editor without Base Object.

GDSN Datapool Receiver file processing fix

When the GDSN Datapool Receiver was processing files from the hotfolder, only around 50% of them were moved to the 'Processed' folder. The rest of the files stayed in their original location, with "#" appended to their name. This was caused by faulty implementation of handling processed files, which has now been fixed so that all files are moved to the 'Processed' folder after successful processing. A hotfix is available for gdsn2-7.0.51.

Nested References Editor now honors read-only flag

The Nested References Editor in the Web UI has a read-only setting. This can either be used to make all tables in the editor read-only, or applied to specific levels of references. However, the setting was ignored so that only individual column

Broadened subscription GPC codes allowed in GDSN subscriptions and receiving messages

When creating GDSN subscriptions and receiving messages, subscription GPC codes other than the classification ID are now allowed. The new default is the classification 'GPCCategoryCode_GDS' attribute. There is a hotfix available for gdsn2-receiver-7.0.40.

In-Memory BGP issue fix

Fixed issues with In-Memory distributed locking, which could cause BGPs to not start or get stuck, affecting server load. There is a hotfix available for inmemory-7.0.42.

Kafka Sensor fix for SSL

The Kafka Sensor on the Admin Portal was not working correctly when using SSL. There is a hotfix available for audit-messaging-7.0.3.

PDS IIEP fix

When submitting a product with status Multiple in PDS and then invoking the PDS IIEP in STEP, the import was failing. New status for products from PDS (Multiple) has been added. Additionally, parsing of the messages from PDS no longer fails if a new status is added in PDS without updating the parser code. When that occurs, the status is set to Unknown.

Asynchronous translation business function fix

Now, Business Function object selection in Asynchronous Translations will allow the user to choose the translation type (data or setup) based on the first resulting node. Note that even though Filter Options are not enabled, they apply to Business Functions.

Hotfolder stability improved and better logging of GDSN Receiver 2

Improved the hotfolder stability of GDSN Receiver 2. If fatal hotfolder file operations (like moving files) fail, then the entire hotfolder processing will now fail in order to prevent processing files out of order. Logging has been improved to make it easier to debug hotfolder processing. A hotfix is available for gdsn2-receiver-7.0.39.

eCl@ss classification error fix

When importing eCl@ss, a classification error would occur if the units file was processed before the dictionary. This has been fixed, and a hotfix is available for eclassimporter-7.0.54.

OIEP empty email fix

The email delivery plugin, when configured for an outbound integration endpoint, will no longer send empty emails when receiving an empty feedback. Hotfixes are available for step-9.1-mp5 and step-9.1-mp6.

External validation script message fix

Fixed a bug that caused the script response message to not be included when using the External Validator option on the Attribute Value component of the Web UI. Hotfixes are available for step-9.1-mp5 and step-9.1-mp6.

GDSN to MDM post processor fix

Previously, the GDSN to MDM post processor only converted attribute values on top-level products in the exported output. This has been fixed so that it now converts attribute values on all products. This is still limited to the attributes specified.

Oracle special characters now included in indexing

Previously, Oracle interpreted certain special characters as word delimiters, which caused them not to be indexed. Now, these special characters are included in Oracle's full text index: & - % _ $ / ~. This is a change in default behavior. This effects only full text indexing and searching. Reverting this change is possible, but customers will need to work with Stibo Systems application support to do so.

PERFORMANCE ENHANCEMENTS

ISSUE-373476 - SingleAttributeQueryHome fix

When using SingleAttributeQueryHome.querySingleAttribute querying for products with a certain value for a LOV-based attribute, the performance of that operation could be affected by the number of values for other attributes based on the same LOV. This has now been fixed in order to provide more deterministic performance behavior.

GDSN import performance improvement

A customer-specific solution to improve the performance of importing GDSN CIN files in the GDSN Receiver in the case where each subscription in the system contains a large number of products was implemented. This is done by not creating a reference from the products to the matching subscription. Instead, the subscription that matches the product is recorded in a new, externally-maintained description attribute for the products. This attribute is created automatically when needed.