

# RELEASE NOTES

## Release 10.0

May 2020 (updated May 28, 2020)

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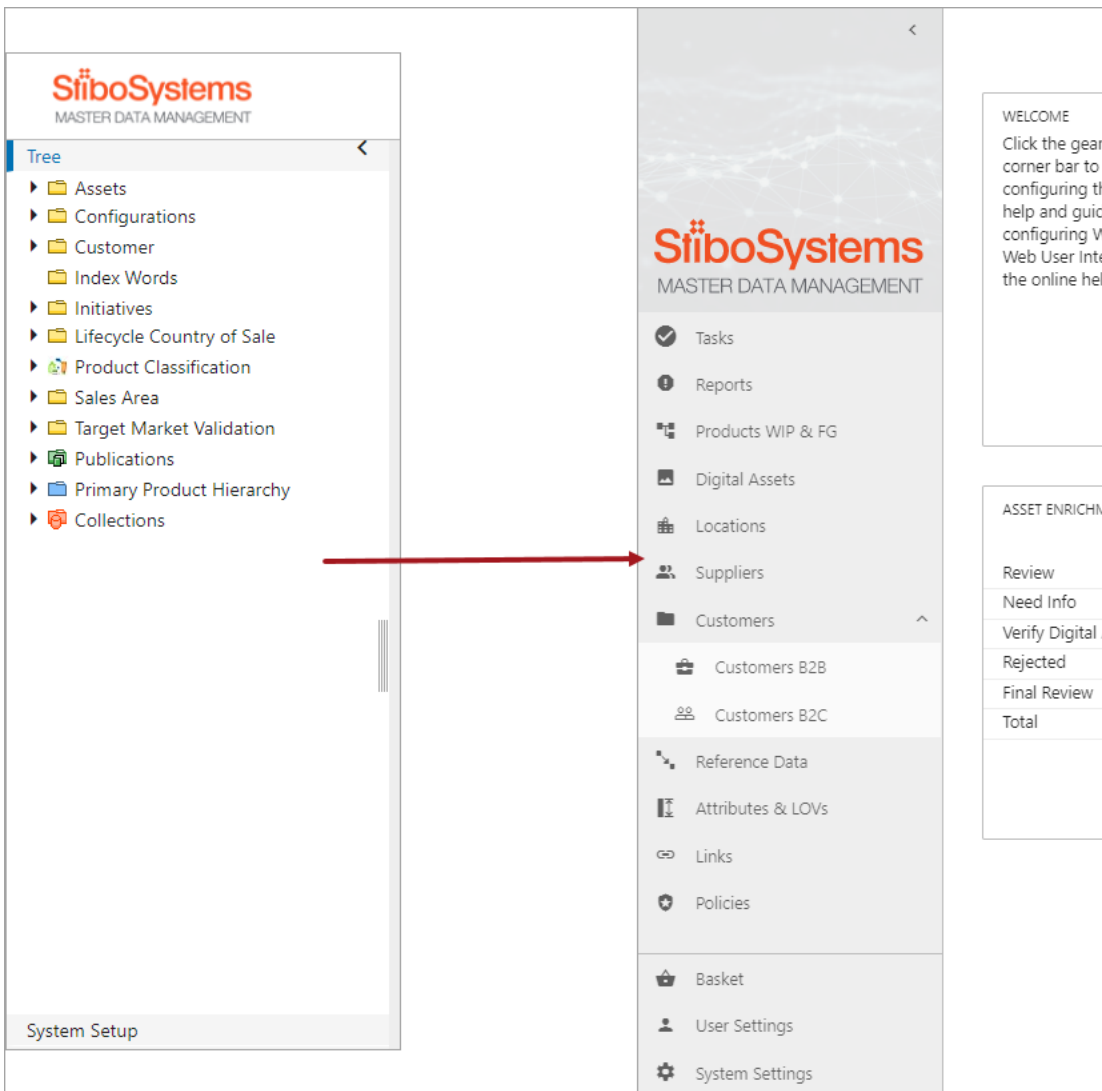
# 10.0 Release Notes

A wide variety of enhancements are included in the 10.0 release. A summary is provided below with expanded details within the release notes that follow.

Some functionality described within these notes is controlled via 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.

**Platform highlights include:**

- A new Global Navigation Panel for Web UI that provides simplified navigation, maximized Web UI work space, and makes the user experience consistent across domains and systems (i.e., Stibo Systems’ Product Data Syndication (PDS)).



**Product Master Data Management (PMDM) highlights include:**

- An improved Web UI display of PDS channels (e.g., 1WorldSync) when part of a Channel Group.

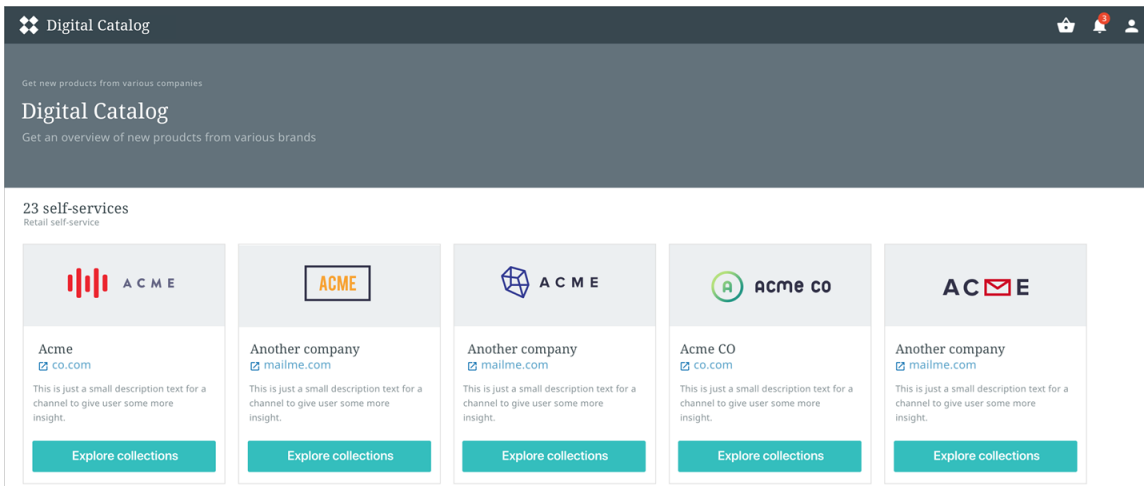
Channel	Date Time	External Status	Status	Status Details
Added to PDS	2018-11-15 16:00:55			
1WorldSync US	2018-11-15 16:28:15	GDSN Status: Registration sent	Submitted	
1WorldSync PreProd	2018-11-30 16:52:11	GDSN Status: CIC Rejected	Returned	CIC state: Rejected

Channel	Status Details	Date Time	External Status	Status
Added to PDS		2020-01-03 14:24:07		
▼ 1WorldSync		2020-01-03 15:05:02		Progress
▼ Canada		2020-01-03 15:05:02		Progress
Bunzi Distributi...		2020-01-02 14:17:20	GDSN Status: Registration...	Submitted
▼ 1WorldSync Pre-Prod		2020-01-10 10:40:10		Progress
▼ France		2020-01-10 10:40:10		Multiple
Pierre's Bistro		2020-01-10 10:40:10	GDSN Status: Registration...	Submitted
▼ United States of ...		2020-01-10 10:40:10		Multiple
Franklin's		2020-01-10 10:40:10	GDSN Status: Registration...	Submitted

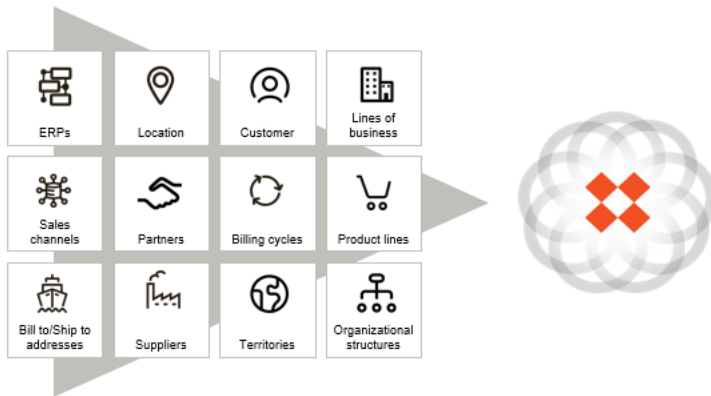
**Product Data Syndication (PDS) highlights include:**

- A new UI allows retailers to browse products by vendor and select and export products that they are interested in. Digital Catalog benefits vendors and retailers by helping to expedite the overall process for getting products to market faster and eliminating manual processes.



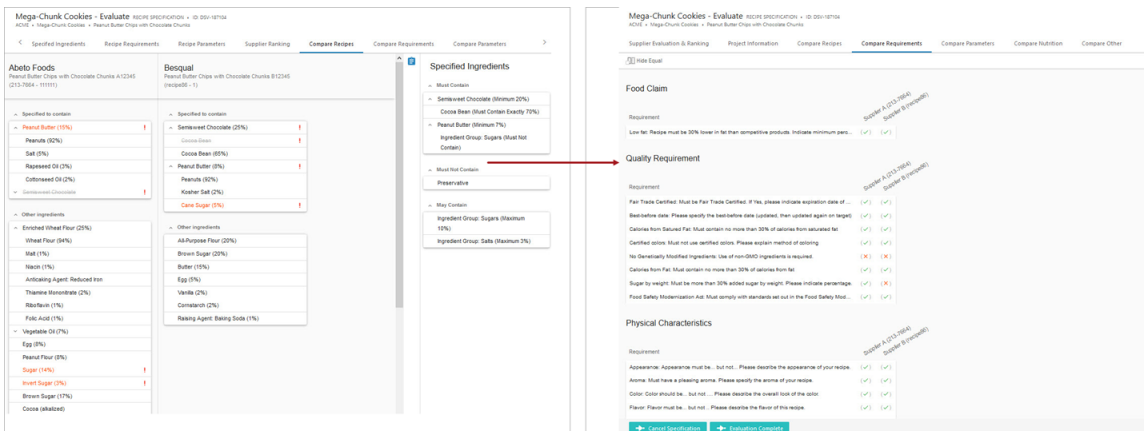
**Customer Master Data Management (CMDM) highlights include:**

- Improved support for Centralized MDM including accelerated customer / supplier onboarding and improved management and understanding of complex interactions across multifaceted customer or business partner ecosystems.



**Product Lifecycle Management (PLM) highlights include:**

- Composite products enhancements, giving decision makers visual tools that allow recipe developers to make profitable product decisions based on supplier proposals.



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.

**Upgrade Guide and Maintenance Patches**

In addition to the individual release notes, upgrading customers should read the **10.0 Upgrade Guide**. This guide provides information that existing customers will need to know prior to upgrading. This includes actions required for deprecated components and unsupported functionality, including the legacy web component changes referenced earlier in this topic.

If / when applicable at the time of your installation, read the maintenance patch notes for 10.0 to understand the full scope of changes for the 10.0 release and subsequent patches.



## Installation Recipe

The baseline can be installed using this command:

```
spot --upgrade=step:10.0
```

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 10.0 release.

# 10.0 Upgrade Guide

To enable users to take full advantage of the new and expanded functionality available with the release of 10.0, and to prepare users for a seamless platform and component-upgrade experience, a list of the 10.0 version's primary system improvements has been compiled for review by customers moving to 10.0 from an earlier version. The guidance described below is a top-level listing of the primary upgrade considerations. In addition to this guide, the 10.0 release notes are also available to provide customers with more detailed guidance prior to an upgrade. These release notes, as well as those for earlier versions, can be found in the customer portal (Jira).

It is recommended that a typical upgrade process should include the following steps:

1. Checking the Platform and Software Support information and evaluating new features and changes for 10.0 and any previous releases between your current version and 10.0. For example, if upgrading from 8.3 to 10.0, customers should be familiar with the features added in 9.0 - 9.3 and 10.0.
2. Evaluating the changes and making environment updates prior to installing 10.0 (e.g., switching to new Web UI components from those being deleted).
3. Reviewing configurations and verifying they still meet business needs and work as expected upon upgrade. Any withdrawn components still in use upon upgrade should be migrated to new components, as applicable, as soon as possible.

## Web UI-Specific Information

As with every release, the product team moves older, less-utilized components into or further through the component removal process. At each stage of the component lifecycle, components can be deprecated, removed, desupported, or replaced. In some cases, components are simply renamed; in others, components are given additional functionality that may require older versions of the component be removed so the improved component can be added. These changes contribute greatly to the overall improvement of a given system, but these changes also require customer review when preparing for an upgrade. As alluded to in the previous section, the Platform and Software Support Changes release note and the full complement of 10.0 release notes are available for review, and should be consulted for relevant items that may not be listed in this guide, such as future update considerations and software end-of-life notifications that may have an impact on your system configuration.

## Component Name Changes

Customers should have a clear understanding of these changes, which are listed below. Customers may need to **take action** by reconfiguring their Web UI prior to upgrade.

- The following Web UI components are being renamed for 10.0. If using these components, no action is needed.

Original Component:	Renamed To
Initiate Business Condition Action	Run Business Condition
Business Action with Web UI Bind	Run Business Action

Original Component:	Renamed To
Global Data Container Configurations	Global Data Container Representations
Default Data Container	Globally Configured Data Container
Advanced Merged Default Data Container	Globally Configured Data Container Header

- The following Web UI component remains superseded, and due to the change in the previous bullet, the alternate component has been renamed. Customers should be using the alternate component since Initiate Business Action will be withdrawn and deleted in the future.

Superseded component	Alternate component
Initiate Business Action	Run Business Action

## Component Lifecycle Changes

There are approximately 130 legacy Web UI components that are either entering the component removal lifecycle process, or moving into a new stage within it, with the 10.0 release. The purpose of these component status changes is to simplify the component list, minimize support on components that have an improved substitute, and to remove clutter and uncertainty as to which component(s) to use. **For users, this means that previously superseded components are now withdrawn, and all previously withdrawn components are now being removed (deleted). Alternate components have previously been announced, and it is very important for customers to make sure they are using those recommended components prior to upgrade. Details on how to identify these components are outlined in the intro section of this topic and at the end of this section.**

For detailed information regarding component lifecycle stages and to learn more about the customer benefits of this update, see the Web UI Enhancements and Changes release note later in this document.

The table below outlines the 40+ components that are changing status with the 10.0 release *and* that Stibo Systems has identified as currently being used by our customers. They are listed in alphabetical order by 'Affected Component' name. Each component's 10.0 status is shown as well as 'Alternative Component' components that can be used in their place (if applicable / known).

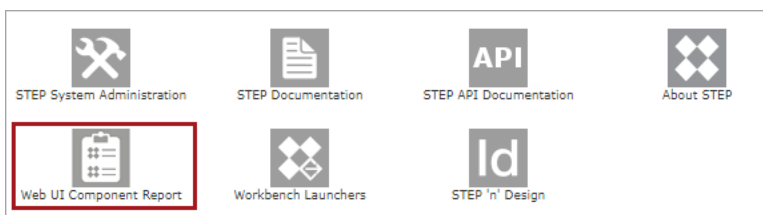
Affected Component	Status	Alternate Component
Actual Page Proof	Replaced	Actual Page Revision Compare Proof
Address Detail	Deleted	N/A - functionality removed in 8.2 due to third-party software security reasons
Address Detail Search	Deleted	N/A - functionality removed in 8.2 due to third-party software security reasons
Asset Details	Deleted	Node Details

Affected Component	Status	Alternate Component
Asset Mid Sized	Withdrawn	Referenced Asset Representation
Asset Thumbnail	Withdrawn	Referenced Asset Representation
Background Process Detail	Withdrawn	Background Process Node Details
Background Processes	Withdrawn	Background Processes Screen
Children of Type	Deleted	Children of Types
Classification Details	Deleted	Node Details
Corner Bar	Superseded	*Global Navigation Panel
Corner Bar Simple Search	Withdrawn	*Global Navigation Panel
Create Tab	Deleted	<i>N/A - withdrawn in 9.0 due to being inoperative</i>
Data Container Editor Ext API	Deleted	Data Container Popup Editor Ext API
Enrich Screen	Deleted	Node Details
Entity Summary	Deleted	Entity Summary Card
Excel Export Action	Deleted	<i>N/A - withdrawn in 9.0 due to the removal of Quicksheet functionality</i>
Excel Export All Action	Deleted	<i>N/A - withdrawn in 9.0 due to the removal of Quicksheet functionality</i>
External Validation	Deleted	<i>Use business rules for validation.</i>
Header	Deleted	<i>N/A - top bar removed with Global Navigation</i>
Mini Bar	Deleted	Global Navigation Panel
Mini Bar Design Mode Action	Deleted	Global Navigation Panel
Mini Bar Locale Selector	Deleted	Global Navigation Panel
Mini Bar Logout Action	Deleted	Global Navigation Panel
Mini Bar Navigation Action	Deleted	Global Navigation Panel
Mini Bar Show User	Deleted	Global Navigation Panel
Mini Bar Supplier Selector	Deleted	Global Navigation Panel
Mini Bar Workspace Selector	Deleted	Global Navigation Panel
Move Action	Withdrawn	Run Business Action

Affected Component	Status	Alternate Component
Node Hierarchy	Withdrawn	Parent Selector
Product Details	Replaced	Node Details
Quick Sheet Action	Deleted	N/A - <i>withdrawn in 9.0 due to the removal of Quicksheet functionality</i>
Referenced By	Withdrawn	Multi Reference
Referenced By Tab Page	Withdrawn	Multi Reference
Run Business Action Action	Withdrawn	Run Business Action
Run Server Script Action	Deleted	Run Business Action
Search List	Deleted	Node List
Smart Sheet Export	Withdrawn	Smart Sheet Export Widget
Stack Panel	Superseded	Global Navigation Panel
Stack Panel Item	Superseded	Global Navigation Panel
Status Selector	Withdrawn	Global Navigation Panel
Status Selector Widget	Withdrawn	Status Selector Homepage Widget
User Task List	Deleted	Task List

*\*The CornerBar and its contents are moving to the Global Navigation Panel. When Global Navigation Panel is configured, a new Message Area will appear in the upper right corner of the screen. The warning / error notification component and background process panel will be available in the Message Area without additional configuration.*

If any invalid configurations exist upon upgrade, the Properties dialog (displayed when entering Web UI Design Mode) will instruct users to go to the Web UI Component Report (new with 10.0) to view and address these configurations. Examples of invalid configurations are components and/or parameters that need to be updated or removed because they are no longer valid for your data structure. The Web UI Component Report will also be accessible via the Start Page.



Details about this new report can be found in the New Web UI Component Report release note. Specific information regarding how to read this list can be found in the Configuring Components topic in the Web User Interfaces / Web UI Setup and User Guide documentation.

Also, as referenced in multiple topics in online help, users can see all Web UI components and their statuses (with respect to the component removal lifecycle process) by visiting the 'Web UI component configuration reference' web page. This reference resource is available by navigating to [your system name]/webui/docs.

## Additional Web UI Changes

- The Web UI Home button has been removed. Users may click on the logo on the left side of the screen to get home. Location varies (top bar or in panel) depending on if a Stack Panel or Global Navigation Panel is displayed.
- The Multi Revision screens now feature an option called 'Revert to' that allows users to revert an object to a previous version in the Web UI. The 'Revert to' button is enabled by default, so users updating to 10.0 that do not want users to have access to that feature must disable 'Revert to' in the designer wherever a Multi Revision screen is configured.
- The Hide Equal / Mark Different options for certain Web UI Tables are now configurable. While these were automatically shown when certain screens were configured (e.g., Multi Context Screen), they will need to be configured upon upgrade.
- Web UIs with the Customer MDM Primary Navigation Panel configured will see an automatic migration of their configurations from the Primary to the Global Navigation Panel upon upgrading to 10.0. This migration requires no additional action from an admin user, however, customizations made to the Primary Navigation Panel (such as color and logo) may be lost. Admin users should review and make any configuration changes via the Web UI style tab in Web UI Design Mode. The Primary Navigation Panel is removed as a configurable Web UI component with the release of 10.0.
- Web UIs with the Stack Panel component configured will see that component persist following an upgrade to 10.0, and an admin user action will be required to enable the Global Navigation Panel. If both components are configured, only the Global Navigation Panel will display.
- For PLM users, if using the Project Navigator configured via the Stack Panel, then reconfiguration will be necessary within the Global Navigation Panel upon upgrade.
- The Global Header is deprecated for 10.0. Users with the Global Header Search component configured on their Web UIs are encouraged to transition to the Global Navigation Panel, which features a powerful Search Panel component.
- The functionality available in the Corner Bar component, with a few exceptions (e.g., Warning Notification Panel), has shifted to the Global Navigation Panel as indicated in the table found earlier in this topic. Details about this change can be found in the Web UI Enhancements and Changes release note.
- If using Acrolinx Sidebar, with the 7.0.7 version of the 'acrolinx' add-on component (available closer to / with 10.0-MP1), it can be configured via the Secondary Summary Card Section of the Product Summary Card Properties (a Node Details Screen Below Title Component).
- As part of the renaming of the Global Data Container Configurations component to Global Data Container Representations, configuration steps have been streamlined, and some elements have been renamed. Each representation now applies to only a single data container type, but otherwise the structure of the configuration is unchanged. Configurations created prior to 10.0 will need to be reviewed and adjusted in light of these updates. The main information on these specific data container updates can be found in the Customer MDM Updates and Enhancements release note.
- Excel 2007 is the new default output format for the Web UI Custom Export action. Users exporting current view (without accessing the mapper) will always have an Excel 2007 export.

## Support, Platform, and System Admin Information

- Support for these platform versions is ending as of the date shown: 8.2 (June 1, 2020); 8.3 (November 1, 2020); 9.0 (June 1, 2021).
- Adobe InDesign CC 2017 (Client and Server) is no longer supported. Adobe InDesign CC 2018 (Client and Server) will no longer be supported in the next feature release; customers should transition to a supported version.
- The 'Assign Row/Column Type to Row/Column Numbers' table transformation has been renamed to the 'Assign Row/Column Types to Rows/Columns.' See the Publisher Enhancements release note.
- The Execute Business Action for Event Batch Processing plugin component is now part of the baseline and the license included in the base STEP Information Server license. The functionality was introduced with 9.3-MP1 and previously controlled via a separate component and an additional license.
- Web Start is disabled. Only obsolete versions of Java contain Web Start, and all versions of STEP since 9.1 have been using Workbench Launcher instead. If directly upgrading from 9.0 or earlier to 9.3-MP3 or newer, then the upgrade of all clients to Workbench Launcher has to happen at the same time. This information was also published in the 9.3-MP3 Maintenance Patch Notes.

# New Global Navigation Panel

## Summary

Navigation in the Web UI is now faster and more focused on content with the new Global Navigation Panel. The Global Navigation Panel maximizes the Web UI's working space by displaying inessential on-screen elements only when needed, and unifies much of the Web UI functionality into a single, easily accessible location. The Global Navigation Panel makes content the center of attention by allowing the panel to expand to show a full list of data objects, or collapsed to display only a narrow ribbon configured with navigation and action buttons. Additionally, the Global Navigation Panel is now closely aligned, both in form and function, with the navigation component in the Product Data Syndication (PDS) tool, which makes switching between tools seamless.

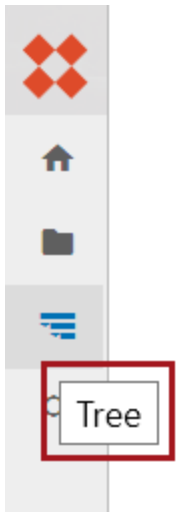
## Details

Development of the Global Navigation Panel was prompted by our customers: they wanted to use the Primary Navigation Panel component instead of the Stack Panel, but could not easily make the change because the Primary Navigation component was missing features they needed. With the introduction of the Global Navigation Panel, all functional features from both the Stack Panel and Primary Navigation components are now available in Global Navigation, along with extra features like direct navigation, search, and menu groups.



The screenshot displays the StiboSystems Master Data Management interface. On the left is a navigation sidebar with the following items: Tasks, Reports, Products WIP & FG (highlighted), Digital Assets, Locations, Suppliers, Customers, Reference Data, Attributes & LOVs, Links, Policies, Basket, User Settings, and System Settings. The main content area on the right is titled 'Products WIP & FG' and shows a hierarchical tree structure. The tree starts with 'Products' and includes sub-categories like Alarm Clocks, Alarms, Apparel, Automotive, Building Products, Camping, and Tents. Under 'Camping', there are two items: 'Coleman 10-Person Tent' and 'Coleman 2-Person Tent'. Below these are various product categories such as Displays, Electronics, Food, Food and Beverage, Footwear, Furniture, Hardware, Kitchen, Lunchboxes, Miscellaneous, Musical Instruments, Party Supplies, Safety, Wedding, Zildjian1, and Party Hats.

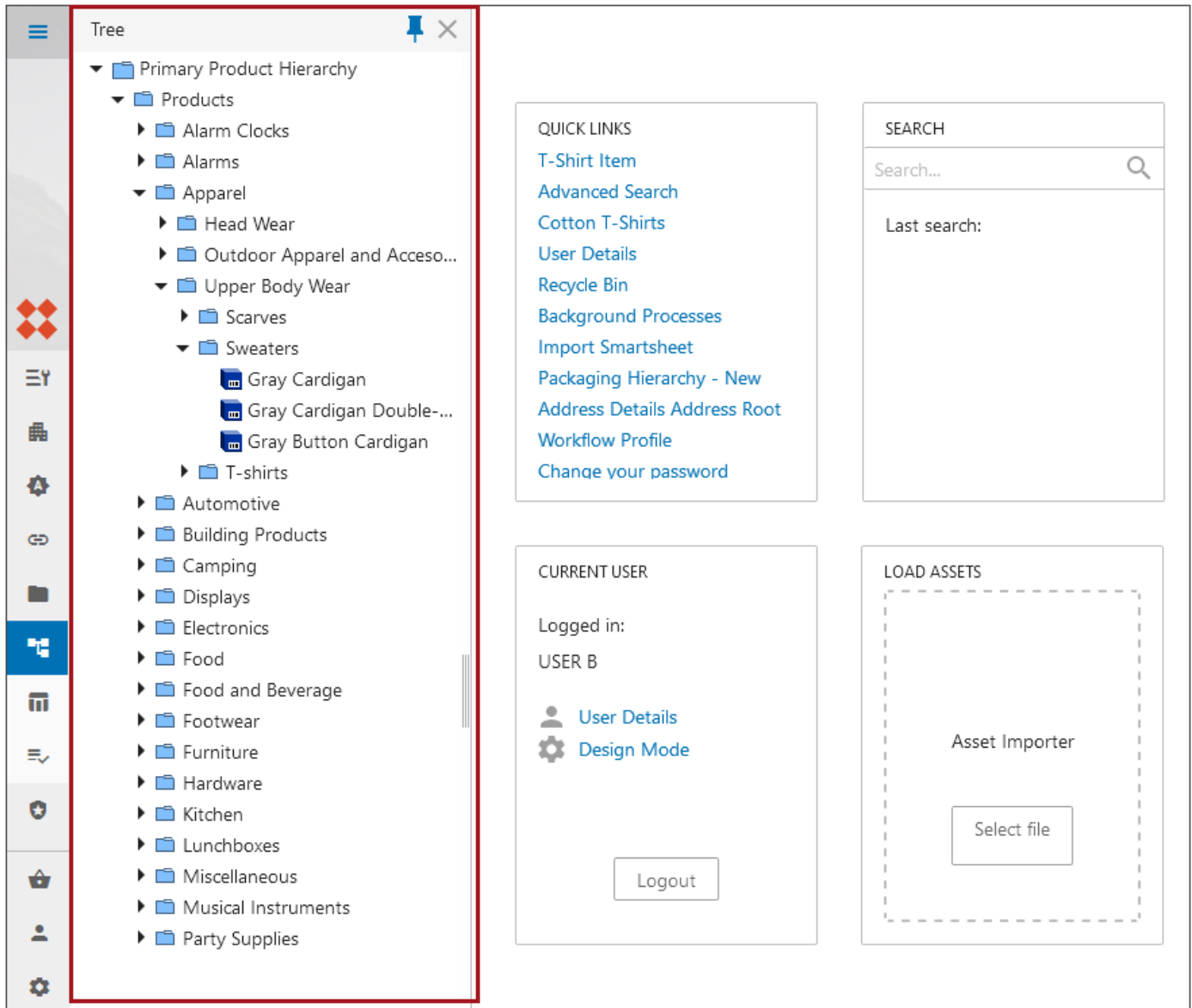
As shown in the screenshot above, the new Global Navigation Panel displays as a narrow ribbon flush to the left side of the screen. A constant presence in the Web UI, display of the panel persists regardless of which screen is being viewed. By hovering the cursor over a button in the collapsed panel, the configured button label displays.



Web UI behavior when a user clicks on a button in the Global Navigation Panel depends on the button itself. For example, clicking a configured 'Search' button displays a new column with a search field at the top. When search terms are added to the search field, search results display in a list beneath the field. Clicking a 'Direct Navigation' component set up to take a user to the homepage, for example, simply navigates the user to the Web UI homepage without opening a new column.

At the bottom of the Global Navigation Panel are a set of default buttons that will display on all Web UIs for which a Global Navigation Panel has been configured. They are 'User Settings' (👤), 'System Settings' (⚙️), and, provided the system has the appropriate component added to their system, 'Basket' (🛒). The ability to log out of the Web UI is accessible by clicking the 'User Settings' button, and the ability to access the designer, change the viewed workspace or the viewed context is accessible by clicking the 'System Settings' button.

Users can configure a Tree Navigator component to display in the Global Navigation Panel by adding the Tree Navigator to a 'Menu Group' component. When clicked, the Tree Navigator will show the configured part of the hierarchy in a column to the right of the Global Navigation Panel, and will default as pinned, meaning it will not collapse when the user starts working in the screen. Clicking the blue pin button at the top of the column disengages the pin, which will cause the column to retract when the user begins work on the current screen.



Previous to this release, the 'Stack Panel' component would display a browsable hierarchy at all times. It could be collapsed but would not display at all when minimized, so it was most often used fully expanded. This resulted in a significant reduction of screen space available to display screen content. Now, the Global Navigation Panel works to show users only what they need in the moment, while providing more flexibility in determining what displays on-screen.

Stibo Systems encourages all customers to start migrating to the Global Navigation Panel as all other components that manage navigation will be gradually phased out.

## Other considerations

With the introduction of the Global Navigation Panel, users updating to 10.0 can expect some additional changes related to navigation functionality in the Web UI:

- Web UIs with the Stack Panel component configured will see that component persist following an upgrade to 10.0. To enable the Global Navigation Panel, an admin user must take action to configure that component. If users have both a Stack Panel and a Global Navigation Panel component configured, the Web UI disregards the Stack Panel and displays the Global Navigation Panel.
- The Primary Navigation Panel has changed into the Global Navigation Panel with the release of 10.0. Web UIs with the Primary Navigation Panel configured will see an automatic migration of their configurations from the Primary to the Global Navigation Panel upon upgrading to 10.0, requiring no additional action from an admin user. Customizations made to the Primary Navigation Panel (such as color and logo) may be lost; admin users should review and make any configuration changes via the Web UI style tab in Web UI Design Mode.
- The Global Header is deprecated for 10.0. Users with the Global Header Panel component configured on their Web UIs will retain that component following an upgrade to 10.0, but are encouraged to transition to the Global Navigation Panel in the near term.
- Much of the functionality available in the Corner Bar component has shifted to the Global Navigation Panel. For instance, access to the designer is available in the Corner Bar when no Global Navigation Panel is configured, but is available under the Settings button when a Global Navigation Panel is configured for a Web UI.
- The Warning Notification and Background Process panels remain accessible in the same section of the screen as before; if the Global Navigation Panel is added, the Warning Notification and Background Process panel buttons will display.
- Though the Home button has been removed from the Corner Bar for 10.0 regardless of whether a Global Navigation Panel is configured, a Direct Navigation component can be configured as a Home button in the Global Navigation Panel; additionally, the logo image at the top of the Global Navigation Panel, if configured, can also navigate the user to the homepage.
- For additional items for consideration (e.g., PLM configuration), see the 10.0 Upgrade Guide section of these release notes.

For more information on the Global Navigation Panel, see the Global Navigation Panel topic in the Web User Interfaces / Web UI Getting Started documentation.

For more information on Web UI issues to consider when upgrading to 10.0, see the 10.0 Upgrade Guide: Web UI topic.

# Web UI Enhancements and Changes

## Summary

**It is important for customers to know that many legacy Web UI components are progressing through their lifecycle. This means that previously superseded components are now moved to withdrawn, and all withdrawn components have now been removed (deleted). Alternate components have previously been announced, and it is very important for customers to make sure they are using those alternate components before upgrading. Refer to the 10.0 Upgrade Guide for specific component details.**

Additionally, the following enhancements have been made to the Web User Interface:

- Additional information about the updates to components' lifecycle status, including descriptions of the various statuses, the benefits these changes provide customers, and some additional detail regarding the component removal process.
- The Search screen now includes a 'Show related results' button which allows the user to broaden the result set by including items that closely match the search criteria.
- Improvements to the Search screen make it easier to understand and manage the search result data and to efficiently work on a list of results. Search screen improvements include displaying a count of each value within a facet and saving the user's place in search results while working with other Web UI screens.
- A default search can now be set on the Search screen, and users can save and share searches. This functionality displays the results of the desired search query when opening the Search screen and enables the user to share a set of search criteria with others.
- The Elasticsearch database drives the Search screen results and improvements have been made to the configuration setup and maintenance. Now, a workbench wizard makes configuration easier and eliminates the need to modify a JSON file.
- A new configurable index name suffix solution is available to make deployment of Elasticsearch easier.
- Target history on references and links can now be viewed in Web UI, improving data auditing and reporting capabilities.
- The new Compare Records screen allows admin users to configure display of a product and multiple reference objects in a single view.
- Partial approval is now available in the Web UI; users can approve specific attributes, references, and data containers on an object without fully approving the object itself.
- Users can now use the Web UI to revert to previous versions of objects without opening the workbench.
- Admin users can now configure help text to display on reference components in the Web UI.
- The Hide Equal and Mark Different functionality is now available on Node Lists using specific Web UI view types.
- The Data Issues Report bind now supports improved error handling on references and metadata in the Web UI.
- Advanced Search screens in the Web UI now support the ability to restrict which attributes end users can select when searching via the 'Attribute' criteria.
- The Parent Selector can now be added to any Node Editor for use with products, entities, and classifications.
- Copying from one cell and pasting to many is now possible in Node Lists (where applicable), eliminating the need to open a value editor to paste / apply to selected cells.

## Details

### Web UI component lifecycle updates

A series of older components are entering new phases of the component lifecycle with this release, easing some Web UI configuration challenges, increasing the support team's focus on the most utilized components, and introducing more predictability into system upgrades as they relate to the Web UI.

With each release, Stibo Systems introduces new components. Some of these components perform the same tasks as existing components, but with additional functionality or other improvements. When possible, old components are automatically migrated into the new ones as part of an upgrade, but when the new component requires configuration, the older components are often kept in the system for subsequent releases. This is to ensure customers have adequate time to transition to the new components.

Over time, however, some components have persisted in the Web UI for more releases than our lifecycle typically prescribes. In an effort to bring our list of components into compliance with our lifecycle standard, many components are entering new phases with the 10.0 release.

The benefit to users of this lifecycle update effort is threefold:

- The process of configuring the Web UI is now more streamlined as users have only relevant components to choose from. In addition to decluttering the configuration windows, moving components out of active selection also removes some potential confusion stemming from similarly named components.
- With a more streamlined software solution, implementation questions and component maintenance / support are no longer needed for components that already have a substitute, benefiting both partners and customers.
- This lifecycle enforcement effort increases the platform's predictability and reliability; when a component enters the superseded status, users know roughly how long they have to make the needed adjustments, allowing them to plan more effectively.

Once a component has been replaced with a new component (provided the component cannot be automatically migrated into the new component), the older component enters the first part of a three-phase lifecycle. Below is a description of each phase:

**Superseded** - The first phase of the component removal lifecycle. Superseded components already configured will remain, and new instances of the component can be added if desired. The only change that occurs is that, in a component list where the relevant component is listed, the component description will indicate that the component is superseded and will list the component recommended to be used in its place.

**Withdrawn** - The second stage of the component removal lifecycle. Withdrawn components already configured will remain and function as always, but if removed, users are unable to add new instances of the component.

**Deleted** - The final stage of the component removal lifecycle. Deleted components that are configured on a system will be removed (no longer render or be shown) in the Web UI.

From the moment a component enters the 'Superseded' status to when it is finally deleted from the system represents approximately 12 months, or two release cycles

Not often used, there is also one other phase or 'Status' that customers will see: **Replaced**. Replaced is a status that will seamlessly exchange one component with another without requiring any user action. This can be done if the stored configuration has exact overlapping parameters so that the replacing component can be loaded with the

exact same parameters that has been stored for the old component. When this status is used there are no work to be done to update configuration as the system does this automatically.

Depending on metrics collected regarding usage of components in the Web UI, some outgoing components may skip the withdrawal step and be deleted directly. For example, if a component has dropped out of usage entirely because the functionality exists in a different component, Stibo Systems may delete the component outright. The standard lifecycle applies to most components, but there may be exceptions depending on customer impact.

For a full list of components that are entering these phases, and additional information regarding how to manage the transition away from these components following an upgrade to 10.0, see the 10.0 Upgrade Guide.

## Search screen new 'Show related results' button

A precise search experience helps users to accurately find products using Elasticsearch. When search results are displayed but additional results are available that *nearly match* the search criteria, the new 'Show related results' button is presented at the bottom of the screen. This feature allows the user to control when the result set should be broadened beyond the exact matches of the search criteria.

The screenshot shows the CultureClothing search interface. At the top, there is a search bar with the text 'bomber'. Below the search bar, there are several filters: GTIN, Brand, Date of creation, Color Detail, Segment, and Category. There is also an 'Add Criteria...' button, a 'Clear All' button, and a 'Search' button. Below the filters, there is a table with columns: View, Select, Sorting, Show as, Searches, and Actions. The table contains three rows of search results:

Id	Name	Primary image	Path	Brand	Category	Color Detail	Last updated	
<input type="checkbox"/>	GTIN_1197256	Nate J W bomber		Primary Pr...	Living in Color	Bomber Jacket	Black	2019-09-12T10:26:59
<input type="checkbox"/>	GTIN_1197252	Hangula bomber		Primary Pr...	Odd Style Apparel	Bomber Jacket	Black	2019-09-12T10:26:59
<input type="checkbox"/>	GTIN_1197247	Avi bomber jacket		Primary Pr...	ODD STYLE APPAREL	Bomber Jacket	Bordeaux	2020-02-05T12:18:22

At the bottom of the search results, there is a button labeled 'Show Related Results' which is highlighted with a red box. Below the button, there is a status bar that reads '3 items, 0 selected, sorted by Relevance'.

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

## Search screen enhancements

The Search screen has been improved with the following functionality, making it easier for users to work with search results.

- Displaying a facet now includes the number of results available for each value. This change allows the user to anticipate the impact on the search result set when including a value.
- The Search screen is now initially loaded with the user's favorite saved search, or in the absence of a 'favorite' search, with the available data based on the user's access privileges. Setting a favorite search enables the user to generate a list of required objects quickly without having to configure the search criteria each time.

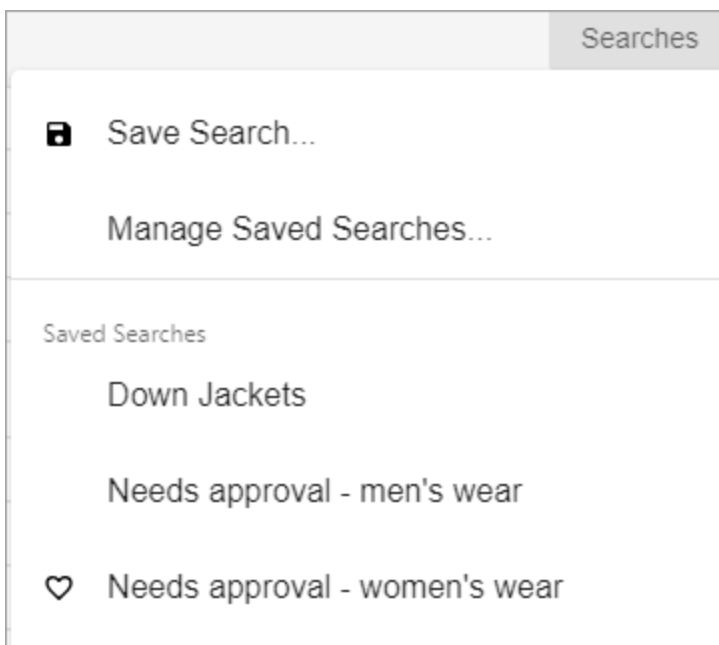
- Working on a list of products from the Search screen is now easier since the scroll position is retained when returning to the Search screen. This improvement allows the user to review or modify data, for example on the Product Editor screen, without losing their place in the Search result set.

For more information, see the Search screen elements defined on the Search Screen Details topic in the Web User Interfaces / Web UI Getting Started documentation.

## New save and share searches functionality

The new save and share options on the Search screen provide a personalized search experience for each user based on their role. Save and share options improves productivity by allowing users to work more efficiently and to collaborate with others on a task list with ease.

- After performing a search in the Search screen, a user can copy the URL and share it with other Web UI users. This ability allows the selected search criteria to be reproduced by other users without recreating the search. Once a shared URL has been run, the search criteria can be saved by the user for their own Web UI login.
- Creating the ideal search can be an involved process, and once achieved, saving the search stores the search bar text and the facet selections. A saved search allows the user to run the search again without having to reconfigure the criteria. The Searches menu includes all saved searches for the current user as well as the 'favorite' search. Marking a saved search as the 'favorite' runs it automatically each time the user opens the Search screen. Loading data based on the user's favorite search enables each user to control the starting point for their Web UI work on the Search screen.



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



## New Elasticsearch configuration wizard

Previously, using Elasticsearch with the Web UI Search screen involved manually modifying a JSON file. This requirement often produced unexpected search results due to misconfiguration. The new workbench Elasticsearch configuration wizard provides the administrator with an interface that is similar to the Event Processor wizard. Required elements are identified, and successfully completing the wizard publishes the data to the Elasticsearch database. Once published, Elasticsearch results are available on the Search screen in Web UI.

**Elasticsearch Configuration**

**Steps**

1. Initial configuration
2. Event Processor configuration
3. Object Type
- 4. Data specifications**

**Data specifications**

In this step, you define **data specifications** that represent STEP data in the Elasticsearch database. **Data specification** parameters allow you to configure your search experience using the Search Screen in Web UI.

[Add new](#)

Data Specification ID	Data Specification Type	Full Text	ID Query	Static Facet	
Last Revision Created Date	Node field	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
First Revision Created Date	Node field	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EndResult	Node attribute	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Name	Node attribute	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Indications	Node attribute	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
LongDescription2	Node attribute	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LongDescription	Node attribute	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Size	Node attribute	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AssetID	Link meta attribute (ProductImage)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CountryofSale	Link target attribute (SalesOrgRef...)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Count	Link meta attribute (Case_to_Child)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MarketingVariant	Child attribute	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
GlobalForm	Node attribute	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MarketBrand	Node attribute	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MarketingCopy	Node attribute	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Back Next Finish Cancel

For more information, see the Creating an Elasticsearch Configuration topic in the Web User Interfaces / Web UI Getting Started documentation.

## New configurable index name suffix solution for Elasticsearch

When using one Elasticsearch server instance for multiple non-production systems, a new property (Elasticsearch.IndexNameSuffix) is available and can be added to the sharedconfig.properties file. By default, it is empty. Admins can set this to prevent users from overwriting indexes by creating specific ones for their environment, and — most importantly — prevent product data from being overwritten. The index name is a combination of a prefix (defined in configuration), contextID, workspaceID and a suffix. For example, `Elasticsearch.IndexNameSuffix=staging` produces this index name: '{prefix}-{workspaceID}-{contextID}-staging'.

For more information, see the Initial Setup for Elasticsearch topic in the Search Screen section of the Web User Interfaces / Web UI Setup and User Guide.

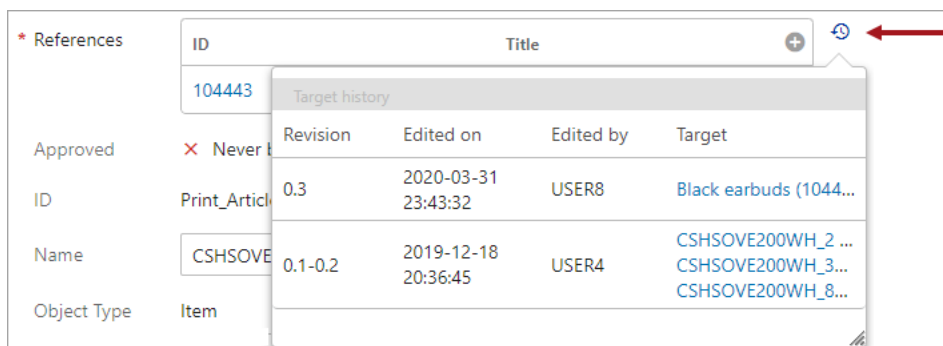
## New ability to see history on references in Web UI

The ability to easily view history information where references and links have been referenced to has been added to Web UI. This greatly streamlines the process of data auditing and reporting of revision changes by easily displaying this information to users in a similar fashion to that used for attribute revision history. Previously, this information could only be accessed in the workbench by using revision mode and in Web UI by using the Multi Revision Screen.

The following Web UI components, which are available as child components within Node Editors, have been updated to allow admin users to enable the option to view reference and link revisions via the 'Display Target History' parameter:

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

Revision history can be seen by clicking the history icon that appears to the right of the component field. The hyperlink Target values take users to the configured screen for that target.



For more information, see the References and Links Target History topic in the Web User Interfaces / Web UI Setup and User Guide documentation.

## Compare Records screen

A new Web UI screen type is now available called the Compare Records screen. This screen enables users to create a single comprehensive side-by-side view of a selected object and any objects the selected object either references or is referenced by. While the screen supports this generic use case, it also supports a more targeted use case in which customers require a single view of an enrichment record and the associated golden records, or a sell-side item and the associated buy-side items. Previously, this functionality was only available for users with a customer-data focus.

Product view  
 T-shirts > T-shirts Items > Cotton T-Shirts  
 Ultra-Flex T-Shirt Relaxed Fit  
 297241 • Partly Approved • 0.11 • Last edited April 8, 2020 at 2:19:27 PM UTC-4

Revisions Data Containers Reference Editors Revisions Compare Records

Clear filter Apply view Clear view Mark Different Hide Equal

	Ultra-Flex T-Shirt Relaxed Fit	T-Shirt M Burgundy Relaxed Fit	Standard Production Tee	Medium Tee, Mens
ID	297241	100812	114509	181951
Approval	✗ Last Approved on Mon Apr 06 10:43:05 EDT 2020	✗ Last Approved on Sun Mar 29 17:36:11 EDT 2020	✗ Last Approved on Tue Nov 20 16:48:51 EST 2018	✗ Last Approved on Fri Apr 19 08:59:01
Primary Color	Burgundy	Burgundy		
Long Item Description for Mktg	Zeta Beefy-T short sleeve T-shirt in 100% polyester that resists shrinkage.	Zeta Beefy-T short sleeve T-shirt in 100% polyester that resists shrinkage.	Rumor has it this comfortable gray woolen cap will soon be your favorite! Available in 15 colors, it is easy to accessorize.	
Material	50% cotton / 50% polyester	Cotton/Poly blend	Poly	50% cotton / 50% poly
Neck Style	Crew Neck	Crew Neck		
Size	M	M		L

Number of items: 8

Reset Save Delete Review & Approve ...

The first column displays information specific to the selected item, and is locked in place: users cannot scroll to the right and cause the column to scroll out of display. This is done to ensure the screen's efficacy as a comparison tool, with emphasis placed on the selected object.

As one example of how this screen might be applied, a product steward is tasked with editing an internal data record for a t-shirt product. To do so, the steward must reference the various supplier records that auto-populate the internal data record. Because the internal data record updates the t-shirt product page on the website, the product steward must simultaneously reference the supplier and golden records to make informed changes to the internal data record, which in turn updates the website. The Compare Records screen gives the product steward an efficient way to compare and maintain the internal source record against the other contributing objects.

The Compare Records screen supports user configurable views, to provide even greater control over which data is displayed on the screen, as well as 'Hide equal' and 'Mark different' functionality. Additionally, auto-save is enabled on the Compare Records screen by default, so changes made in this screen are saved without having to click a 'Save' button.

For more information on the Compare Records screen, see the Compare Records Screen topic in the Web User Interfaces / Web UI Getting Started documentation.

## Partial approval in the Web UI

The ability to partially approve objects in the Web UI has been implemented with the 10.0 release. Previously, similar functionality only existed in the workbench. Partial approval gives users the ability to approve just the attributes, attribute link data, data containers, and references that make up an object, rather than enforcing a

single approve action on the entire object. In addition to further building out the Web UI's range of functionality with this important feature, adding Partial Approve to the Web UI now makes it easier for customers to transition their users to the Web UI.

The new 'Partial Approve' button (the default button text is 'Review & Approve') can be added to the bottom of Node Details screens.



Following a click on the 'Partial Approve' button, a full-screen overlay displays:

- all unapproved changes to attributes, attribute link data, data containers, and references
- the object type of the changed object
- the name of the specific object
- the new value
- information related to the user who made the change, including the user's name and a timestamp of when the change was made

Review & Approve Changes for Ultra-Flex Tee (297241)

My Unapproved Changes

<input type="checkbox"/>	Buyer, View	Type	Label	Value	Change Information
<input type="checkbox"/>	Attribute	Attribute	Long Item Description for Mktg	Zeta Beefy-T short sleeve T-shirt in 100% polyester that resists shrinkage. Men's Medium.	Made by <b>USERB</b> on 3/25/2020 12:28:20 PM

<input type="checkbox"/>	Category Specific Attributes	Type	Label	Value	Change Information
<input type="checkbox"/>	Attribute	Attribute	Primary Color	Acid Green	Made by <b>USERB</b> on 3/25/2020 12:28:20 PM
<input type="checkbox"/>	Attribute	Attribute	Seasonal	Yes	Made by <b>USERB</b> on 3/25/2020 12:28:20 PM

0 changes selected

Users can select all of the unapproved changes and either approve all changes displaying on the screen, (which moves the object to full approval), or select and approve a group of changes to approve, or approve each change one-by-one. Once the users make their selections and click 'Approve', the approved changes will display in the approved workspace.

This feature can be used in a broad variety of applications; for example, if a workflow sends a fully approved product directly to a customer-facing website, it can be beneficial if users from different departments are allowed to

approve only those product attributes over which they have authority, as it may not fit within a company's workflow to have any one department given approval rights for an entire product. This provides customers another tool to better align their Web UIs with their established workflows.

For more information on the Partial Approve button, see the Action Buttons topic in the Web User Interfaces / Web UI Getting Started.

## Ability to revert objects to previous versions in Web UI

Users can now use the Web UI to revert to previous versions of objects. This allows users to return an object to a previous version of itself without opening the workbench. This functionality can be added via a new 'Revert to' toolbar action which can be enabled via parameter selection when configuring a new or editing an existing Multi Revision screen.

The screenshot shows a dialog box titled "Select Version". Below the title is the instruction: "Select which version to revert to. This action will duplicate the selected version and create a new version." There is a dropdown menu with the text "Select version" and a downward arrow. At the bottom right of the dialog are two buttons: "Cancel" and "Revert".

By clicking the 'Revert to' toolbar action button, a dialog displays enabling users to select any previous version of that object to overwrite the current version. Once reversion is complete the object displays with the values and references associated with that selected version.

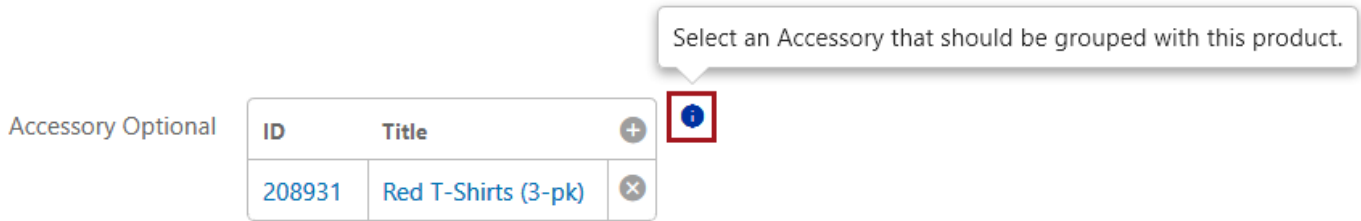
The 'Revert to' functionality will default to enabled on Multi Revision screens following an update to 10.0. If this functionality should not be enabled for users, admins must go into the designer to disable this setting.

For more information on reverting to previous versions in the Web UI, see the Multi Revision Screen topic in the Web User Interfaces / Web UI Getting Started documentation.

## Context help on references

Admin users now have the ability to configure help text to display on reference components in the Web UI via configuration of the reference type in the workbench. Applying consistency to this functionality enables admins to assist their users with timely guidance in the Web UI.

The components themselves have not changed with this release; however, the most commonly used reference components now support context help via a metadata attribute added to the reference itself. By adding a universal help-text attribute to the basic reference object type, and then adding custom help text to that attribute on the specific single-reference reference type, admin users can enable context help to automatically display in the Web UI for references. It should be noted that this method of adding context help to references aligns with the method already available for attributes.



Context help has been enabled in the Web UI for the following Node Editor reference components: Reference Value, References, Referenced Asset Representation, and Classification Product Links. On the Node List, the Reference Header component now supports context help.

For more information on help text on references in the Web UI, see the Reference Help in Web UI topic in the Web User Interfaces / Web UI Getting Started documentation.

### Add Hide Equal and Mark Different to Node Lists

The 'Hide Equal' and 'Mark Different' functionality in the Web UI has been expanded and is now available on Node Lists using the 'Table,' 'Compare,' and 'Multi Edit' views. The 'Hide Equal' and 'Mark Different' actions enable users to easily highlight differences between objects by obscuring columns in which all values are equal, and highlighting columns that contain dissimilar values. Previously, these buttons could only be added to a select number of screens, but now users can add them to all Node Lists to solve for a wide range of business cases.

The 'Hide Equal' and 'Mark Different' buttons can now be added either together or separately. Previously, these buttons were added automatically (on specific screens, like Multi Context) when any other toolbar action was configured.



Because running this comparison task can tax system resources, these buttons are only active when 25 or fewer objects are displayed. The 25-object maximum prompts the user to filter an object list down to a more manageable size before running the 'Hide Equal' or 'Mark Different' processes.

On the Multi Revision and Multi Workspace screens, 'Hide Equal' and 'Mark Different' can be added via a checkbox in the designer by checking the parameters for 'Show Hide Equals Button' and 'Show Mark Different Button', respectively. For the Display Children, Task List, Collection List, Collection Content, and Multi Selection screens, the 'Hide Equal' and 'Mark Different' buttons can be added as toolbar actions in the designer.

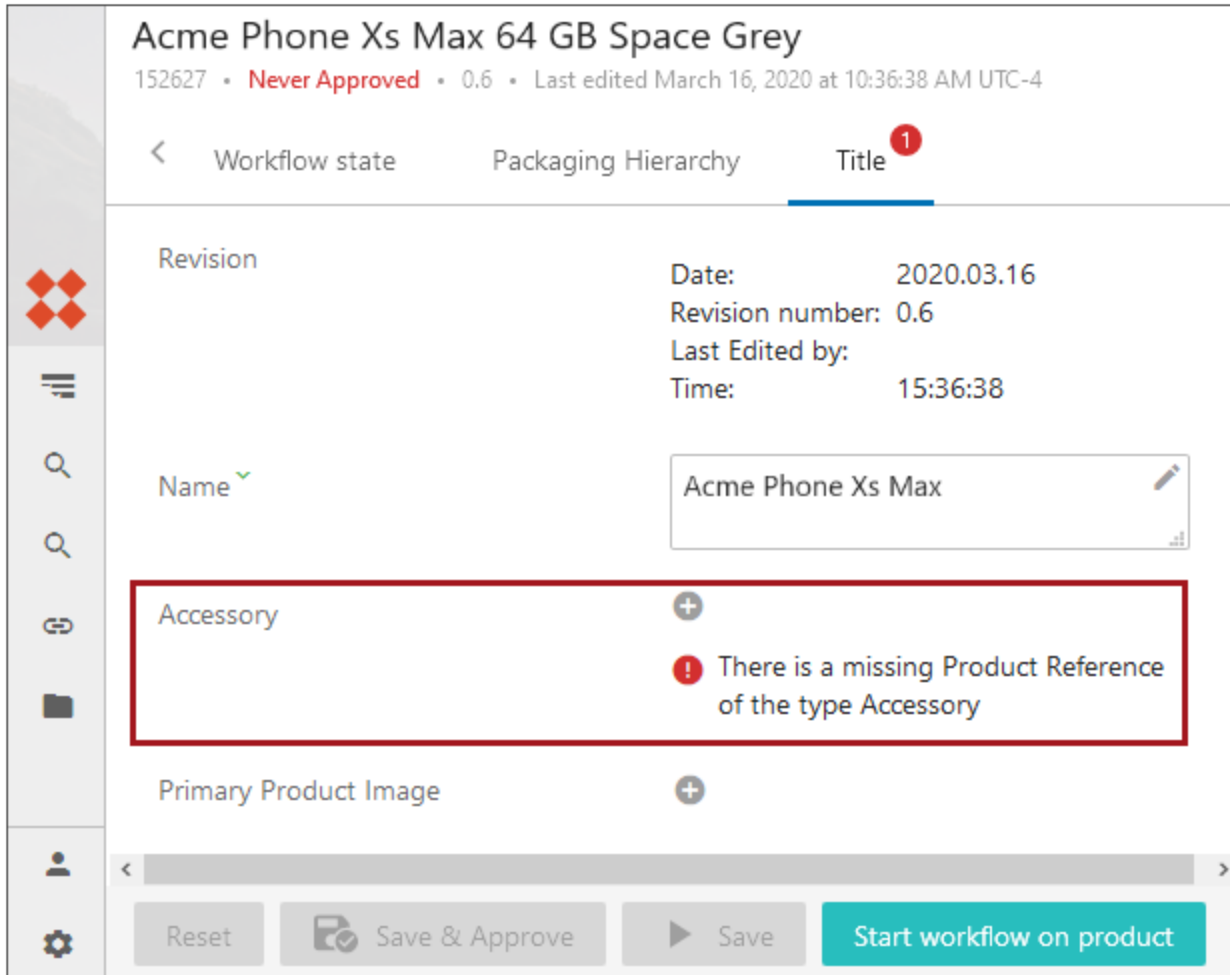
For more information on this functionality, see the Comparing Data Using Hide Equal and Mark Different topic in the Web User Interfaces / Web UI Getting Started documentation.

### Extended error handling for references and metadata using the Data Issues Report bind

The Data Issues Report bind now supports improved error handling on references and metadata in the Web UI. When used with either the Run Business Action (previously called the Business Action with Web UI Bind component), Submit, Approve, or Node Details Validation components, the Data Issues Report bind now enables

users to see error messages at the point of greatest impact: directly below the relevant on-screen component, or within the relevant table.

For instance, error and warning messages generated from running the Data Issues Report bind within business rules on Node Details screens now display under the References component (as shown in the screenshot below). Previously, this bind could only be applied to attribute data. The Data Issues Report bind can also be used to configure business conditions that run in the background to, for example, perform validation checks on references and metadata.



For the References component showing reference metadata, the Data Issues Report Bind can be used to show errors directly in the Reference table. As shown in the screenshot below, specific cells with errors can be shaded orange with a yellow caution triangle icon in the upper right-hand corner of the cell (for warnings) or shaded pink with a red circle icon in the upper right-hand corner of the cell (for errors), or the entire row can be shaded depending on whether an error or warning is applicable.

\* Accessory

Title	LOVY/N	TNum		
Ultra-Flex T-Shirt Released Fit		10		
Standard Production Tee	N			
Mens Comfy Tee - Medium				
T-Shirt M Burgundy Relaxed Fit				

Select a product of type Product.

For more information on the Data Issues Report bind, see the Data Issues Report Bind topic in the Resource Materials documentation.

For more information on the components mentioned in this release note, see the Web User Interfaces / Web UI Getting Started documentation.

### Improved attribute selection restriction in advanced search

Admin users configuring Advanced Search screens in the Web UI now have the ability to restrict which attributes end users can select when searching via the 'Attribute' criteria.

Previously, when searching for an attribute using the 'Attribute' criteria, all configured attributes could potentially display in search results, including attributes not relevant to the user. With the addition of a new parameter on the 'Attribute' criteria called 'Restrict to Attribute Groups,' admins can now select the appropriate attribute groups to which an 'Attribute' search will be limited. If a user attempts to select a restricted attribute, an error message displays explaining why the attribute cannot be searched. If all attributes should be accessible to end users, administrative users can simply leave the new parameter blank.

For more information on configuring advanced search in the Web UI, please see the Advanced Search Initial Configuration topic in the Web User Interfaces / Web UI Getting Started documentation.

### Parent Selector updates

The Parent Selector, a Web UI component that allows users to move the current object to a new parent object of their choosing, has been expanded for the 10.0 release.

The Parent Selector can now be added to any Node Editor, and can be used with products, entities, and classifications. Previously, the Parent Selector could only work when added to an Item Initiate screen as part of a workflow. Though this supported a prime use case for this component, the Parent Selector could not easily be deployed for other requested business cases.

Additionally, the Parent Selector now features the standard Node Picker component, which has more powerful configuration capability. Previously, the Node Picker included only the ability to select a specific node from which the desired parent could be selected.



For more information on the Node Picker component, please see the Node Picker Dialog topic in the Web User Interfaces / Web UI Getting Started documentation.

### **Added ability to copy and paste one cell to many**

In Web UI Node Lists, it is now possible to copy from one cell and then paste into multiple cells for any header types where copy / paste of one cell to another was previously supported.

# New Web UI Component Report

## Summary

Admin users responsible for maintaining the Web UI through various upgrades now have a powerful tool to make their task easier. To help users replace outdated components and update configurations, the new Web UI Component Report provides an in-depth look at the components configured for all Web UIs, specifically those in the end-stages of their lifecycle. This clear-cut report is another step towards making customer upgrades smooth and seamless.

## Details

The Web UI Component Report, accessible on the system Start Page and when accessing the designer in Web UI, lists all components configured on all Web UIs added on a given system. The components shown are those that have been deleted entirely (will not render), withdrawn (if removed, cannot be added again), or superseded (will work as usual, but a new and improved component is available). When available, the recommended replacement component is listed alongside the unsupported component; this gives the admin user ready access to information about which parts of their Web UI configuration have improved and require action, and also speeds the process of updating the Web UI for those components that require it.

Previously, the list of components that were no longer supported was only available through a pop-up that displayed when accessing the designer. The presentation of unsupported components in that pop-up could be challenging to review and act on. The new Web UI Component Report improves on the old method both in ease of access and the detail of information provided.

The Web UI Component Report button is displayed at the bottom of the system Start Page. Users must log in to see the report. Those with administrative privileges are able to access the report, while standard users will receive a 'You do not have privileges to access the Component Status Report' message upon entering their STEP username and password.



STEP System Administration



STEP Documentation



Component Status Report



Workbench Launchers

Upon entering Web UI Design Mode, if applicable, users will see this message:

This Web UI is configured with components that are no longer supported and/or components that have been removed. ✕

Click the link below to get a report on which of your current components are no longer supported. In this report, you will also find our recommended replacements (if available).

The report will open in a new tab.

[📄 Open report in new tab](#)

The same privilege that allows users to enter Web UI Design Mode also allows users to log in and access this report. Once logged in, the Web UI Component Status Report, shown below, displays.

**Configured Web UIs**

- ✖ Admin Web UI
- ✖ Bus. Marketing Web UI
- ✖ Co. Product Enrich

✖ **Bus. Marketing Web UI**

**Deleted** ⓘ

Deleted	Recommended replacement
Run Server Script Action <ul style="list-style-type: none"> <li>• NodeDetails (Item detail) → Buttons</li> <li>→ Actions (Run Server Script Action)</li> </ul>	Run Business Action

**Superseded** ⓘ

Superseded	Superseded to
Corner Bar <ul style="list-style-type: none"> <li>• Main (main) → CornerBar (Corner Bar)</li> </ul>	Message Area is introduced in 10.0 as a replacement for the corner bar when a Global Navigation Panel is configured . Message Area is not configurable and thus not an alternative to cornerbar .
Corner Bar Context Selector <ul style="list-style-type: none"> <li>• Main (main) → CornerBar (Corner Bar)</li> </ul>	The corner bar and its contents are moving to the Global Navigation. The

All Web UIs configured on a system are listed along the left side of the screen in alphabetical order. Clicking any one of the Web UIs will auto-scroll the user to the position on the page where the selected Web UI's unsupported components are listed. Each Web UI that contains unsupported components will list those components (again, in alphabetical order) in one of the three aforementioned groups, if applicable: deleted, withdrawn, and superseded. Each component in these groups will be listed in a column with the location of the configured component displayed in gray text below. A second column called 'Recommended replacement' lists the component best suited to replace the unsupported component.

Superseded	Superseded to
Stack Panel Item <ul style="list-style-type: none"> <li>• Main (main) → Left (Stack Panel) → Items (Stack Panel Item)</li> <li>• Main (main) → Left (Stack Panel) → Items (Stack Panel Item)</li> <li>• Main (main) → Left (Stack Panel) → Items (Stack Panel Item)</li> </ul>	Global Navigation Panel

For more information on the new Web UI Component Report, see the Configuring Components topic in the Web User Interfaces / Web UI Getting Started documentation.

# New GraphQL API

## Summary

A new public GraphQL API is now available. It allows developers to create tailored applications that integrate with STEP, which opens up more opportunities for both customers and partners.

## Details

Starting with 10.0, it is possible to create web applications and mobile apps that integrate with STEP via a new GraphQL API. This API is also what Stibo Systems uses in our new user interface, Instrument, which is currently in ramp-up status.

GraphQL is a query language invented by Facebook that allows client applications to retrieve the data required for a given screen or view with a minimum of client-server interaction. General information about GraphQL can be found at the GraphQL website <https://graphql.org> while STEP-specific information can be found in the API Documentation at [system]/sdk or accessed from the Start Page.

With this release, the API exposes functionality for working with core STEP data objects, workflow tasks, and for executing searches. The STEP-specific GraphQL schema can be inspected via the GraphiQL UI.

The GraphQL is available with the STEP.SDK.WebService license. Contact your account manager to begin the process of enabling a license or licenses for your system.

# Customer MDM Updates and Enhancements

## Summary

For the 10.0 release, the following updates and enhancements have been made to the Customer Master Data Management (Customer MDM) product line:

- Introduced new functionality to unmerge golden records in the system. This feature also includes the ability to maintain source records as a point for which users may revert.
- A new reference editor has been added to the Web UI that provides a streamlined view of the references on a node and a centralized source of configuration.
- Configuration steps for the Global Data Container Representations component have been streamlined, and a number of related components have had their component names changed.
- Introduced new functionality to match objects on data container keys.

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

## Details

### New Unmerge functionality

When a data management system imports records from other systems and channels, automation is often set up to merge records the system understands to be the same. Through the course of this record merging, some records may be merged incorrectly. Incorrectly merged records could result in negative consequences, such as shipping orders to the wrong person or writing incorrect personal information to a customer record. Manually unmerging these records requires a high level of familiarity with the relevant records, as well as the enterprise's business operations and logistics.

With new unmerge functionality, the ability to store source records has been introduced. This feature allows users to revert back to values that did not originally survive on the golden record.

To support the unmerge process, an Unmerge Wizard Screen is now available which can be directly opened from a Node Details Screen or a Source Traceability Screen. It may also be opened as part of an unmerge workflow. Configuration for the unmerge action requires creating a new Unmerge Wizard Screen and setting up the algorithms used to match and reverse any matched records.

Unmerge: Oliver Johnson ID: 238732

Reset all → Move to → Reactivate Golden Record

	Original Golden Record 238732	Reactivated Golden Record 248854
	<input type="checkbox"/> SAP US - 38244430-7946	<input type="checkbox"/> Dynamics Europe - 179610-4248 <input type="checkbox"/> SAP London - 16840504-2501
Surviving Values		
Name	Olivia Johnson	Oliver Johnson
First Name	Olivia	Oliver
Last Name	Johnson	Johnson
Main Address	101 Main St, Apt 5 Hadley, KY, 42101 US	101 Main St, Apt 7 Hadley, KY, 42101 US
Individual Is Relative Of	Evangeline Garrison	Eliana Nathan Evangeline Garrison
Phones	555-6412 514-7258 Phone Number: 514-7258 Phone Type: Private Is Primary: Yes Last External Edit Date Phone: 2020-01-12 11:50:42	555-6412 514-8139 Phone Number: 514-8139 Phone Type: Private Is Primary: Yes Last External Edit Date Phone: 2020-03-07 09:41:56
Emails	olivia.johnson@yahoo.com	oliver.johnson@yahoo.com

Cancel Unmerge Complete Unmerge

For more information, see the Unmerging Golden Records documentation.

### New References Editor for Web UI

A new reference editor called the Globally Configured Reference component has been added to the Web UI. This new component provides users with a streamlined view of the references on a node, and a simple method of adding and removing references from it via a typeahead field. Similar to the Globally Configured Data Container component introduced in 9.3, display settings for the Globally Configured Reference component are determined by a centralized component in MAIN called Global Reference Representations.

Customer Reference

(MergeGR32395)	
(MergeGR32401)	
ACMF Hotels (175720)	
ACME Bangladesh Limited / Dhaka / BD / Subsidiary (731493581)	
ACME Bank Gmbh / München / DE / Subsidiary (341607206)	
ACME Ba	

Previously, any time a reference component was added to a node details screen it needed to be separately configured. By using the Global Reference Representation component, users can configure a multitude of different reference components that are all tied to the same configuration settings. Additionally, the Globally Configured Reference editor reliably communicates whether a reference has been inherited, suppressed, or overridden with a local value.

For more information on the Globally Configured Reference component, see the Globally Configured Reference section of the Web User Interfaces / Web UI Getting Started documentation.

For more information on the Global Reference Representations component, see Global Reference Representations section of the Web User Interfaces / Web UI documentation.

## Updates to Global Data Container Web UI components

The Global Data Container Configurations component has been renamed to the Global Data Container Representations component. This component is configured within the Global Representation List parameter on Main Properties.

Along with this change, the configuration steps have been streamlined and some elements have been renamed. Each representation can now only apply to a single data container type, but otherwise the structure of the configuration is unchanged.

The screenshot shows a web-based configuration window titled "Edit component" with the subtitle "Data Container Representation Properties". Below the title is a "Component Description" section stating: "This describes how a Data Container type is viewed in different parts of the UI." The main configuration area is highlighted with a light green background and contains a dropdown menu for "Data Container Type" with "Address" selected. Below this is a "Views" section with a text area containing "Title with Dialog View [\*]". At the bottom of the views section are buttons for "Add...", "Edit...", "Remove", "Up", and "Down". At the bottom right of the window are "Cancel" and "Save" buttons.



**Note that configurations created prior to 10.0 will need to be reviewed and adjusted in light of these updates.**

Additionally, two components that derive their configurations from this one, the Default Data Container and Advanced Merged Default Data Container components, have been renamed to the Globally Configured Data Container and Globally Configured Data Container Header components, respectively.

For more information, see the Global Data Container Representations section of the Web User Interfaces / Web UI documentation.

### **Updates to matching with data containers**

Objects can now be matched based on the key values of their data containers. For more information on these updates, see the Data Container Updates and Enhancements release note.

# Data Integration Enhancements

## Summary

The following Data Integration Enhancements have been made for the 10.0 release:

- An update to the PDS Channel Status in Web UI that provides more detailed information regarding product status within channel groups.
- Improved performance of the asynchronous translations framework via the background handling of the Web UI Translation Status widget.

## Details

### Enhancements to the PDS Channel Status in the Web UI

The PDS Channel Status data container has been enhanced to display information regarding the status of products that have been submitted to channel groups within PDS in a clearer and more user-friendly manner.

Channel	Date Time	Product Channel URL	Status	External Status	Status Details	Added For Syn...
Added to PDS	2019-12-11 12:17:44					
▼ 1WorldSync Pre-Prod	2019-12-11 12:20:43	https://pds-qa.stibosys..	Progress			
▼ France	2019-12-11 12:20:43	https://pds-qa.stibosys..	Progress			
Carrefour	2019-12-11 12:20:43	https://pds-qa.stibosys..	Ready			
▼ United States of ...	2019-12-11 12:20:43	https://pds-qa.stibosys..	Multiple			
Stibo	2019-12-11 12:20:43	https://pds-qa.stibosys..	Submitted	GDSN Status: Re...		
ACME paper su...	2019-12-11 12:20:43	https://pds-qa.stibosys..	Ready			
1WorldSync US	2019-12-16 10:40:58	https://pds-qa.stibosys..	Ready			
Brandbank	2019-12-16 11:02:19	https://pds-qa.stibosys..	Progress			
Kwikee	2019-12-11 12:18:52	https://pds-qa.stibosys..	Progress			

To access the PDS Channel Status data, the 'productdatasyndication-integration' and 'pds-channel-status' add-on components must be installed on your system. Instructions for installing components can be found in the SPOT Program topic in the System Administration documentation.

The X.Adapter.ProductDataSyndication license must also be enabled. Contact your account manager to begin the process of enabling a license or licenses for your system.

For more information, see the PDS Channel Status Monitoring in Web UI topic in the Product Data Syndication documentation.

## **Improved performance to asynchronous translations framework**

Improvements to caching and processing cached information have been implemented to enhance performance when the Translation Status Web UI widget is loaded. These improvements have reduced the overall asynchronous framework computation time, which is especially important when the number of asynchronous jobs background processes increases. To take advantage of these improvements on an existing system, the add-on components and associated framework should be updated.

For more information, see the Asynchronous Translations section of the Data Integration documentation.

# Product Data Syndication Enhancements

## Summary

Product Data Syndication (PDS) enhancements in 10.0 are primarily manufacturer and distributor focused. These enhancements include the following new functionality:

- Product comparison and scoring
- Digital Catalog
- Stibo Systems' Managed Channels

And, the following extended functionality:

- 1WorldSync functionality
- Vendor Managed Channels (VMC) functionality
- Import functionality



For more information about PDS, visit Stibo Systems' Product Data Syndication page at <https://www.stibosystems.com/solution/product-data-syndication>. Or, log into the PDS platform: <https://pds.stibosystems.com>.

## Details

### New product comparison and scoring

As manufacturers integrate with online retailers, they need a way to maximize their sales performance. The option to have a quality score on their content as well as a fidelity score of their product data versus what is currently on the retailer's site will give the vendor the ability to make decisions about what actions to take to optimize their product data.

Users now can visually compare the product content of what is online with what is in PDS. Users want to know how complete the product is, beyond simply meeting the minimum requirements of the retailer, plus they want to be able to see how much of their data (that they have in PDS / submitted) is used versus what is shown on the retailer's site.

Compare product versions		
ATTRIBUTE NAME	SYSTEM Last edited: Mar 18, 2019, 1:37:04 PM	ONLINE Feb 02, 2019, 3:42:25 PM
Main image		
Product name	Top Control Dishwasher in Stainless Steel with Steam Cleaning	Top Control Dishwasher in Stainless Steel with Steam Cleaning
Length	123 cm	123 cm
Capacity	▲ 12 kg	13 kg
Description	If you are in the market for a computer, there are a number of factors to consider. Will it be used for your home, your office or perhaps even your home office combo?	If you are in the market for a computer, there are a number of factors to consider. Will it be used for your home, your office or perhaps even your home office combo?
Country of origin	▲ China	Taiwan
Color	White	White
Sellable in store	Yes	Yes

[Close](#)

Additionally, a Quality Score will be generated for a given product, which can be used to quickly identify products that need attention. This score is visible for products in any state, regardless of whether or not they have ever been submitted. The system can make suggestions to the vendor so they can improve their quality scores.

**Product scores**

Fidelity score  4.3

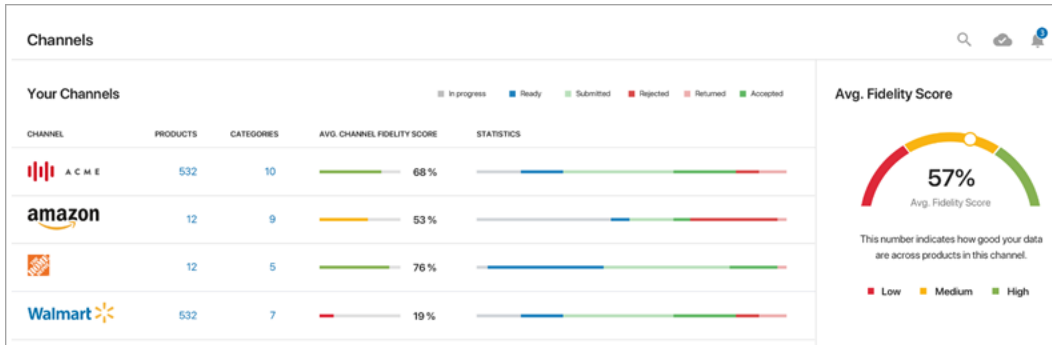
Quality score  6.2

**How to improve your quality score?**

- ✔ **Add more marketing bullets**  
to make your product sell better at Amazon
- ✔ **Add minimum 4 product images**  
to make your product sell better at Amazon
- ✔ **Make product title more precise**  
to make your product sell better at Amazon
- ✔ **Write a longer product description**  
to make your product sell better at Amazon
- ✔ **Fill out all product attributes**  
If you add more data the product might show up more

Also generated is a Fidelity Score, which is a quantification of how much of the vendor's data is being used in the customer facing data on the retailer's site. The Fidelity Score will exist for any 'live' product, without a special 'Scrape/Compare' action needing to be performed by the user.

Finally, the scores are rolled up so users can see which channels / categories need the most attention due to low scores. These scores will be added to the dashboard so users can see their Overall Scores by channel and aggregated across all channels



Users can view their products in a channel and filter based on scores so that they can prioritize products that require the most attention.

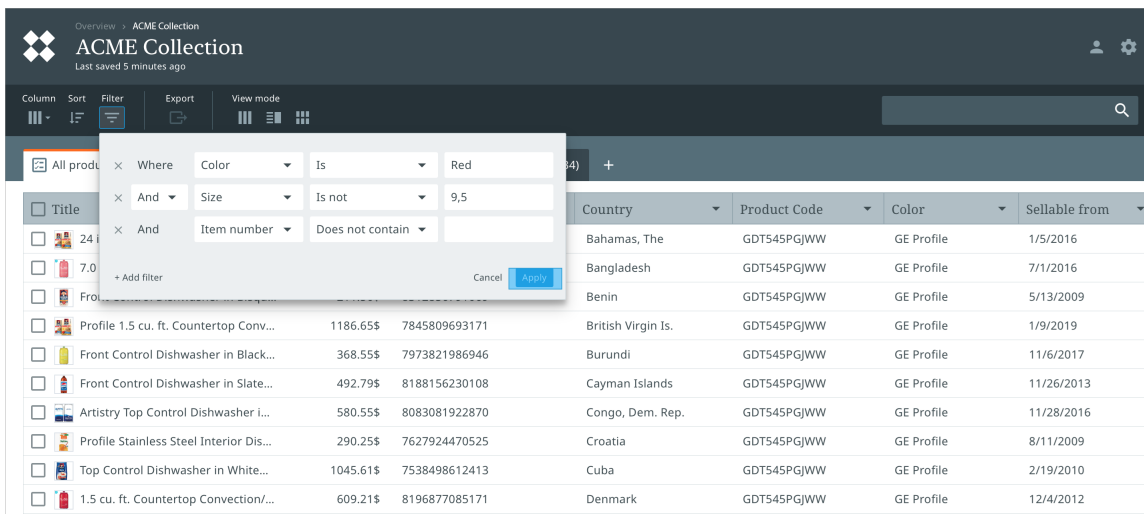
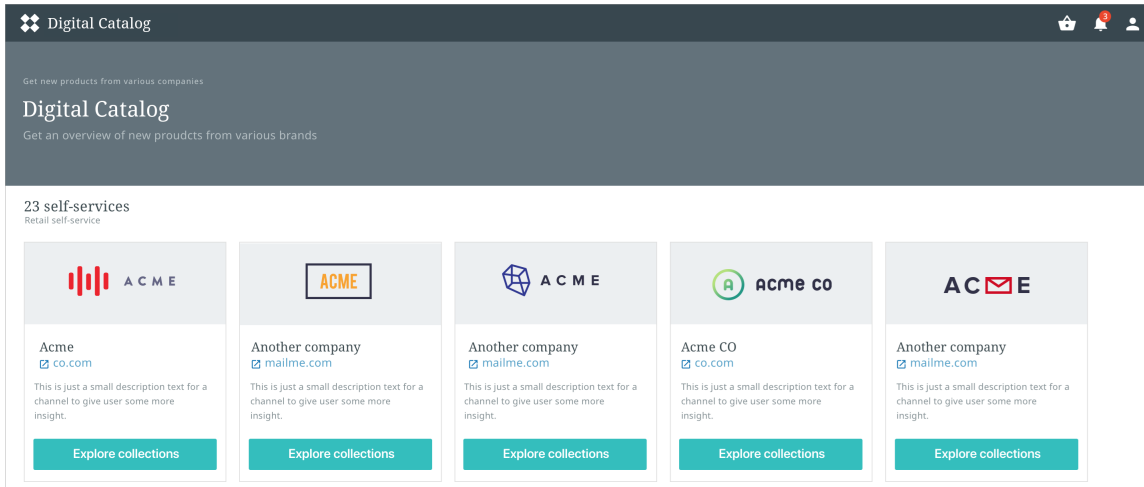
The screenshot shows a product list for 'The Home Depot' with columns for ID, STATUS, NAME, FIDELITY SCORE, QUALITY SCORE, GTIN-13, PRICE, and COUNTRY OF ORIGIN. A red arrow points to the 'Filters' button in the top navigation bar.

ID	STATUS	NAME	FIDELITY SCORE	QUALITY SCORE	GTIN-13	PRICE	COUNTRY OF ORIGIN
142-TG-00009	SUBMITTED	24 in. 10.5 cu. ft. Bottom Freezer Refrigerator in Stal...	43%	67%	8157423203667	1191.31\$	Albania
142-TG-00016	IN PROGRESS	Profile 1.5 cu. ft. Countertop Convection/Microwave...	94%	43%	7805203434297	1186.65\$	Antigua & Barbuda
142-TG-00103	SUBMITTED	Top Control Dishwasher in White with Stainless Stee...	43%	67%	7953619356774	44.91\$	Macedonia
142-TG-00115	SUBMITTED	Stainless Steel Interior Dishwasher with Hidden Top...	94%	43%	8456338598829	492.79\$	Saudi Arabia
142-TG-00113	SUBMITTED	Top Control Dishwasher in Slate with Hybrid Stainle...	43%	67%	8050835847321	192.57\$	Reunion

## New Digital Catalog

Currently, the PDS syndication model is based around a manufacturer pushing a set of products to a variety of retailers. However, many of our customers and potential customers have a different relationship with their retailer partners than our current model supports. Manufacturers want to stage products and let retailers (usually smaller ones) access product content that was previously unavailable to them. Retailers would then be able to use the content to update their own internal systems / websites as needed.

In order to accomplish this, a new process has been created (i.e., vendor sets up a 'Generic Product Content' channel) for a customized UI for retailers to browse / filter / search a vendor's product assortment to look at the relevant data and export the desired products in their preferred format.



## New Stibo Systems' Managed Channels

- Wayfair.com
- AAFES (Army and Air Force Exchange Service)
- Overstock.com

## Extended 1WorldSync functionality

These improvements will help ensure customer success with the 1WorldSync (1WS) channel, allowing customers to efficiently work with their products in the channel throughout the entire flow.

Users can now:

- Choose a subset of the complete data model for use in PDS.  
Instead of working with thousands of attributes that are unnecessary given a vendor's product assortment, the user can pick the relevant attributes (and thus related attributes) during initial client setup.
- Manage receiver groups.

Allows the user to group and name a set of GLNs within a market, so that they can add and submit to a named set of receivers rather than having to multi-select each time.

- See the statuses of the markets / receivers when at a higher level to provide a better view of their product status.
- Log of 1WS submission messages for troubleshooting.

### **Added asset transformations for Vendor Managed Channels**

Additional functionality has been added to the Vendor Managed Channels functionality that will allow for asset transformations to be completed to ensure assets meet the individual requirements of the channel.

Transformations will be available to:

- Rename file extensions, for example from .jpg to .png
- Rename the files
- Resize files (down)

### **Improved import functionality**

Manufacturers want options as to what level of data they can use to import product data into PDS. Because users, especially in soft lines, maintain their marketing data / price data at a higher level, a user should be able to define the 'level' that they are using for importing by defining an attribute that is common to all children in the family. Previously, a user could only import data into PDS at a GTIN / UPC level.

A pre-requisite of this functionality requires the user to import a file of products with the defined attribute value that establishes the relationship between parent and child at the UPC level. The 'attribute' will be used as the base for PDS to understand what children belong to a parent to be able to 'push' data to the children.

Auto-assignment, auto submit, and language are not currently supported with this import method.



# New Features for PLM

## Summary

Using the private label food solution to create recipes from the ground up, customers and their suppliers have been able to collaborate to streamline their data 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 on 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, private-label-food, and change-reports components.

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

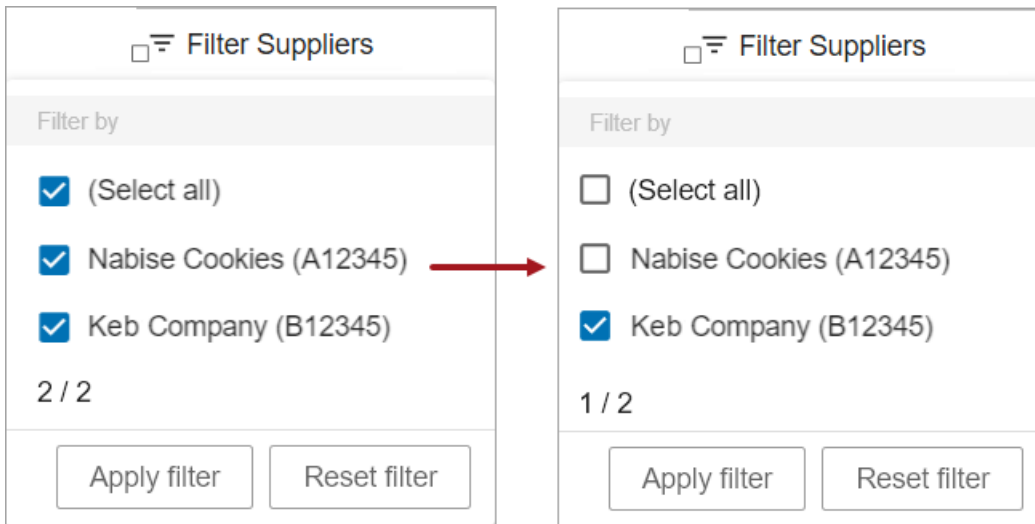
- Compare tabs navigation: Users now have the option to map and immediately view all of the Private Label Food Solution compare tabs instead of clicking on the Compare BOMs Action or Compare BOMs Condition and then viewing the compare tabs.
- Comparing composite products on a Compare Ingredients Tab: The Compare Ingredients Tab now supports the comparison of more than one recipe associated with a single marketed product.
- Packaging requirements on the Compare Requirements Tab: The Compare Requirements Tab has been extended to support the comparison of supplier responses to packaging requirements.

## Details

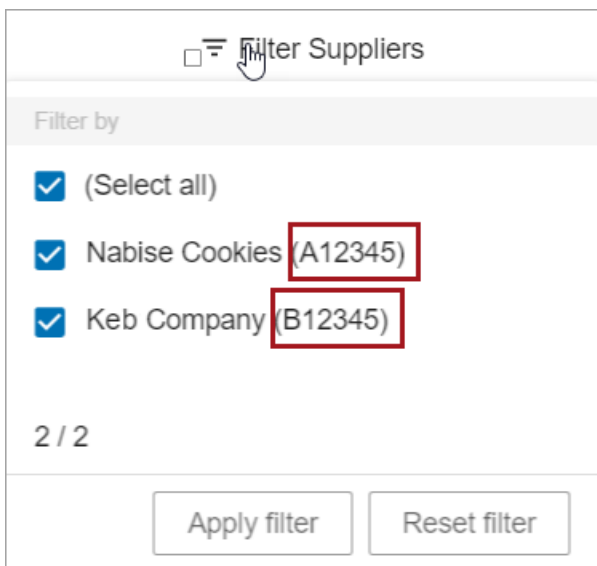
### Compare tabs navigation

Through mapping in Web UI, customers now have the option to immediately view any of the configured compare tabs in the Private Label Food solution without having to first select the Compare BOMs Action. This mapping takes place within the MAIN or Forwarding Switch Screen Properties where objects can be mapped via object type, through workflow state, etc.

If this option is utilized, when users select the mapped object and click on either the Compare Ingredients Tab, Compare Parameters Tab, or Compare Requirements Tab, they will see all available supplier samples associated to that object. A 'Filter Suppliers' toolbar option has been added to further refine their view if needed.



Additionally, when configuring each of the compare tab screens in the Web UI designer, an administrator has the option to select an attribute for the 'Supplier Additional Attribute' parameter which displays after the supplier's name everywhere the supplier's name appears on that tab. In the example below, the 'Supplier ID' displays after the supplier's name.



Customers can still choose to use the Compare BOMs Action and Compare BOMs Condition mapping if desired. For more information, see the Adding and Mapping Tabs for Private Label Food Solution topic in the Private Label Food Solution segment of the PLM for Admins section in the Product Lifecycle Management documentation.

### Comparing composite products on the Compare Ingredients Tab

Private label food retailers can now compare composite products, which contain more than one recipe for a single product, with proposed ingredients from multiple suppliers on the Compare Ingredients Tab. For example, if a customer wants to sell a box of macaroni and cheese, the macaroni and the packet of cheese each have their own

recipe on different recipe cards. These cards appear on the recipe panels with each recipe card under the appropriate supplier column.

**Macaroni & Cheese Dinner** DESIGN SPECIFICATION COMPOSITE VARIANT • ID: DSCV219681

Dinner Meals • Macaroni & Cheese Dinner

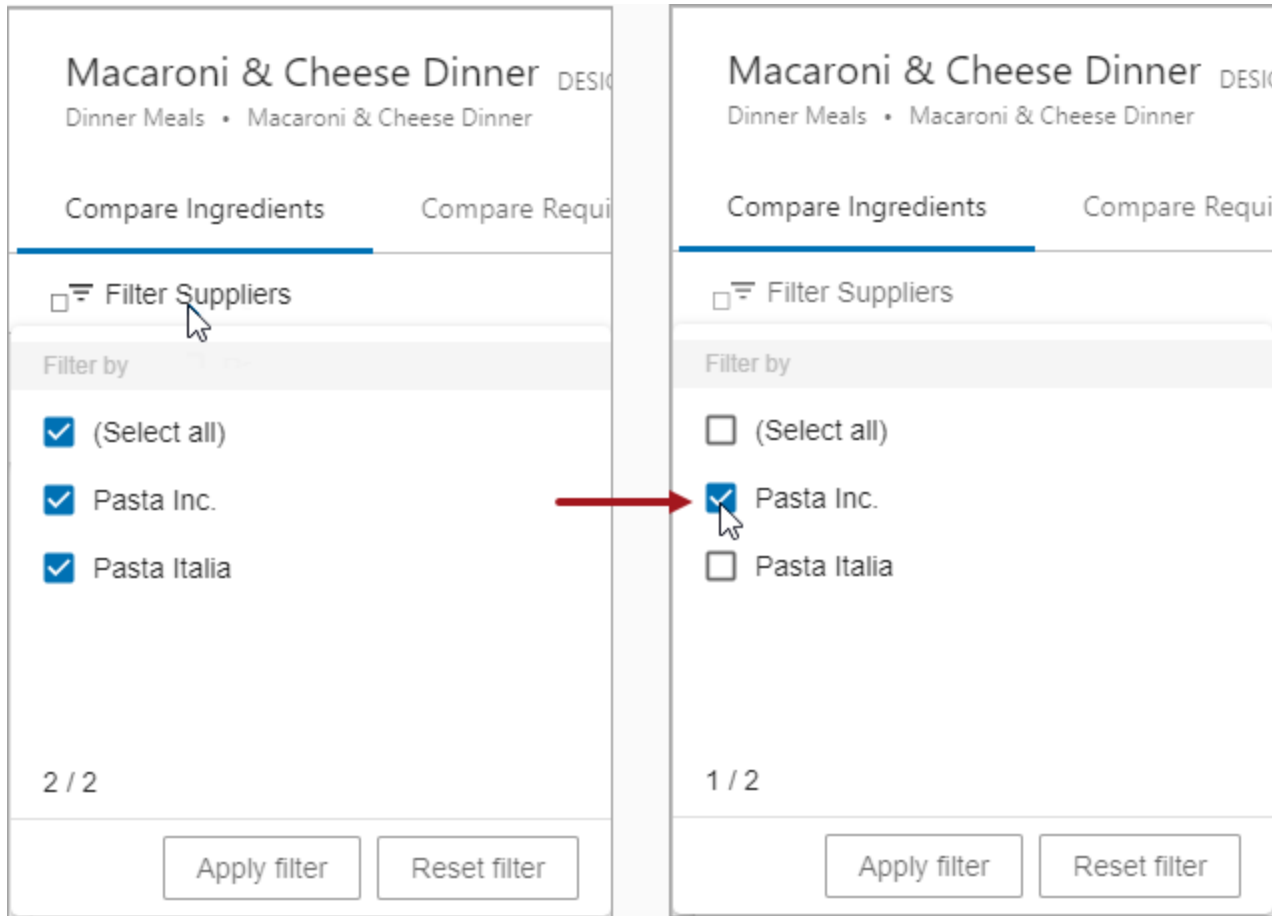
Compare Ingredients   Compare Requirements   Compare Parameters   Project Information

Filter Suppliers

Pasta Inc.	Pasta Italia	Specified Ingredients
<p>Cheese Sauce Mix A12345 (654-87635...)</p> <ul style="list-style-type: none"> <li>Specified to contain           <ul style="list-style-type: none"> <li>Whey (75%) <span style="color: red;">!</span></li> </ul> </li> <li>Other ingredients           <ul style="list-style-type: none"> <li>Sea Salt (7.5%) <span style="color: red;">!</span></li> <li>Powdered Milk (13.9%)</li> <li>Color: Annatto Extracts (5%) <span style="color: red;">!</span></li> </ul> </li> </ul>	<p>Cheese Sauce Mix B12345 (76587213...)</p> <ul style="list-style-type: none"> <li>Specified to contain           <ul style="list-style-type: none"> <li>Whey (85%)</li> </ul> </li> <li>Other ingredients           <ul style="list-style-type: none"> <li>Color: Annatto Extracts (3%) <span style="color: red;">!</span></li> <li>Celtic Sea Salt (8%) <span style="color: red;">!</span></li> </ul> </li> </ul>	<p>Cheese Sauce Mix</p> <ul style="list-style-type: none"> <li>Must Contain           <ul style="list-style-type: none"> <li>Whey (Minimum 80%)</li> </ul> </li> <li>Must Not Contain           <ul style="list-style-type: none"> <li>Color</li> </ul> </li> <li>May Contain           <ul style="list-style-type: none"> <li>Ingredient Group: Salts (Maximum 5%)</li> <li>Acidity Regulator: Lactic Acid, L-, D- And DI- (Maximum 5%)</li> </ul> </li> </ul>
<p>Enriched Macaroni A12345 (547-66473...)</p> <ul style="list-style-type: none"> <li>Specified to contain           <ul style="list-style-type: none"> <li>Enriched Wheat Flour (3%) <span style="color: red;">!</span></li> <li>Semolina <span style="color: red;">!</span></li> </ul> </li> <li>Other ingredients           <ul style="list-style-type: none"> <li>Brown Sugar (1%)</li> <li>Acai (4%)</li> <li>Carrier: Agar (3%)</li> </ul> </li> </ul>	<p>Enriched Macaroni B12345 (abc77633...)</p> <ul style="list-style-type: none"> <li>Specified to contain           <ul style="list-style-type: none"> <li>Enriched Wheat Flour (10%) <span style="color: red;">!</span></li> <li>Semolina <span style="color: red;">!</span></li> </ul> </li> <li>Other ingredients           <ul style="list-style-type: none"> <li>Duram Flour (95%) <span style="color: red;">!</span></li> <li>Celtic Sea Salt</li> <li>Egg Yolk (25%)</li> </ul> </li> </ul>	<p>Enriched Macaroni</p> <ul style="list-style-type: none"> <li>Must Contain           <ul style="list-style-type: none"> <li>Enriched Wheat Flour (Minimum 95%)</li> <li>Semolina (Minimum 50%)</li> </ul> </li> <li>May Contain           <ul style="list-style-type: none"> <li>Duram Flour (Maximum 50%)</li> <li>Egg (Approximately 20%)</li> </ul> </li> </ul>

Customers can compare each individual recipe proposed by suppliers for the composite product against their recipe specifications and against other suppliers' proposed recipes.

A 'Filter Suppliers' button on the toolbar can be enacted to further refine the view of suppliers if needed.



For more information on configuration, see the [Configuring the Compare Tabs](#) topic in the Private Label Food Solution segment of the PLM for Admins section in the Product Lifecycle Management documentation.

For more information on how to use the [Comparing Ingredients Tab](#) topic, navigate to the Private Label Food Solution segment of the PLM for Users section in the Product Lifecycle Management documentation.

### **Packaging requirements on the Compare Requirements Tab**

The Compare Requirements Tab has been extended to handle the comparison of supplier responses to packaging requirements. All functionality on the tab remains the same as when accessing it for the recipe samples. Depending on mappings, the Compare Requirements Tab can be accessed a number of ways, including clicking the 'Compare BOMs Action,' by object type, workflow state, through a task list, or by other methods.

**200 g Pouch** PACKAGING SPECIFICATION • ID: DSV-168352  
Acme • Cookies Galore

Compare Packaging Requirements    Project Information    Packaging Specification    Uploaded Files

Hide Equal    Filter Suppliers

### Sustainability

Requirement	Supplier A (A55533)	Supplier B (B55533)	Supplier C (C55533)	Supplier D (D55533)	Supplier E (E55533)
Recycled content: Packaging must be made of at least 50% recycled content. Please specif...	(✓)	(✗)	(✓)	(✗)	(✓)
Bio-degradable materials: Materials must be made of at least 90% biodegradable content. PI...	(✗)	(✓)	(✗)	(✗)	(✗)
FSC certified: Paperboard must be FSC Certified. If Yes, please indicate the date that the cer...	(✓)	(✓)	(✗)	(✓)	(✓)

### Packaging Function

Requirement	Supplier A (A55533)	Supplier B (B55533)	Supplier C (C55533)	Supplier D (D55533)	Supplier E (E55533)
Ability to reseal: Packaging must be easy to open without damaging the ability to reseal. Ple...	✓	✓	✓	✓	✓
Originality Seal: Please indicate how the originality seal is ensured.	(i)	(i)	(i)	(i)	(i)

### Packaging Material

Requirement	Supplier A (A55533)	Supplier B (B55533)	Supplier C (C55533)	Supplier D (D55533)	Supplier E (E55533)
Plastic in packaging: Plastics must be able to take microwave preparation without leaching c...	(✓)	(✓)	(✓)	(✗)	(✓)
Bisphenol A: Materials in contact with food must be free of bisphenol A.	(✓)	(✓)	(✗)	(✓)	(✗)

A user can click on a row, a green check mark with parenthesis, a red 'X' with parenthesis, or the 'i' icon to render the Response Details dialog. The dialog displays further information about the package sample by displaying any values associated with the sample from the prospective supplier.

**200 g Pouch** PACKAGING SPECIFICATION • ID: DSV-168352  
Acme • Cookies Galore

Compare Packaging Requirements | Project Information | Packaging Specification | Uploaded Files | Packaging Information

Hide Equal  Filter Suppliers

### Sustainability

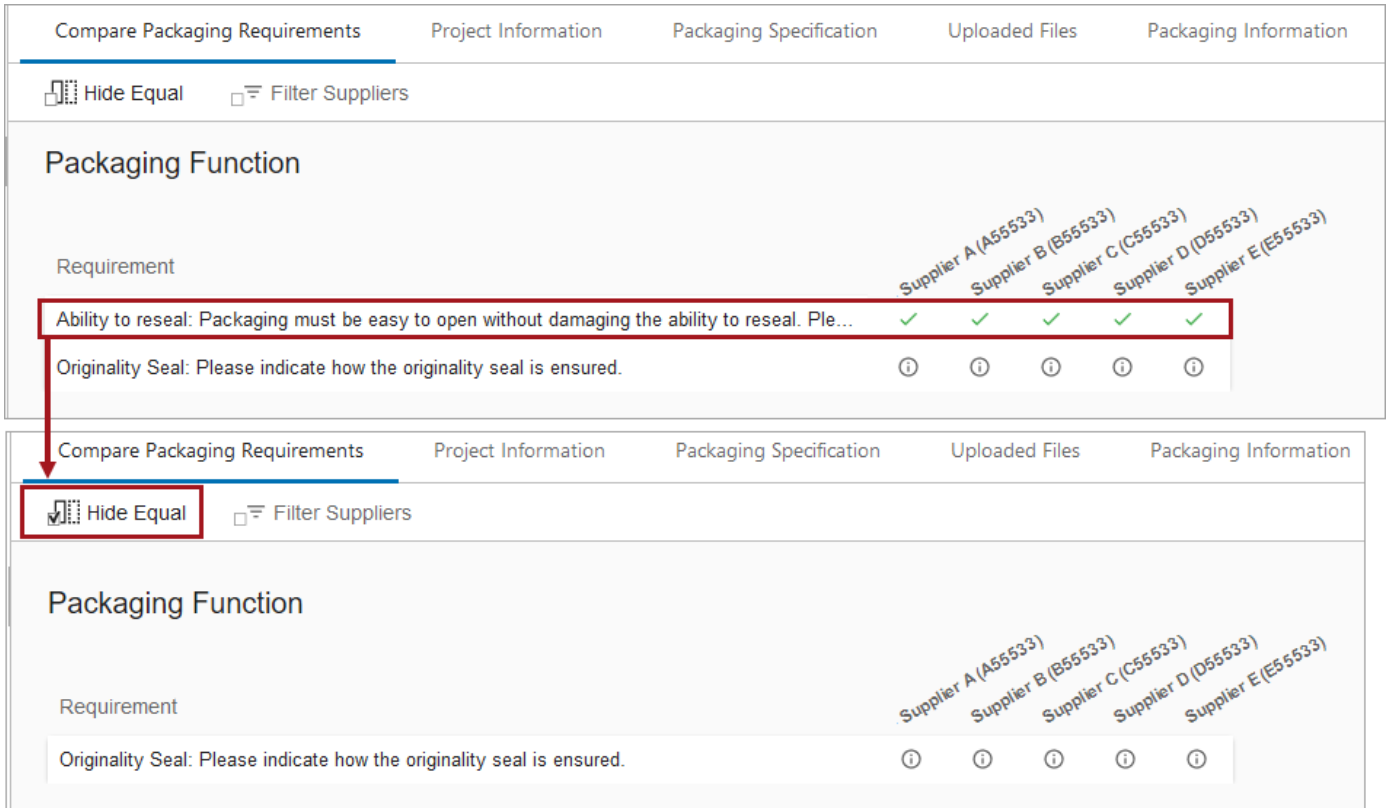
Requirement	Supplier A (A55533)	Supplier B (B55533)	Supplier C (C55533)	Supplier D (D55533)	Supplier E (E55533)
Recycled content: Packaging must be made of at least 50% recycled content. Please specif...	(✓)	(✗)	(✓)	(✗)	(✓)
Bio-degradable materials: Materials must be made of at least 90% biodegradable content. Pl...	(✗)	(✓)	(✗)	(✗)	(✗)
FSC certified: Paperboard must be FSC Certified. If Yes, please indicate the date that the cer...	(✓)	(✓)	(✗)	(✓)	(✓)

### Response Details

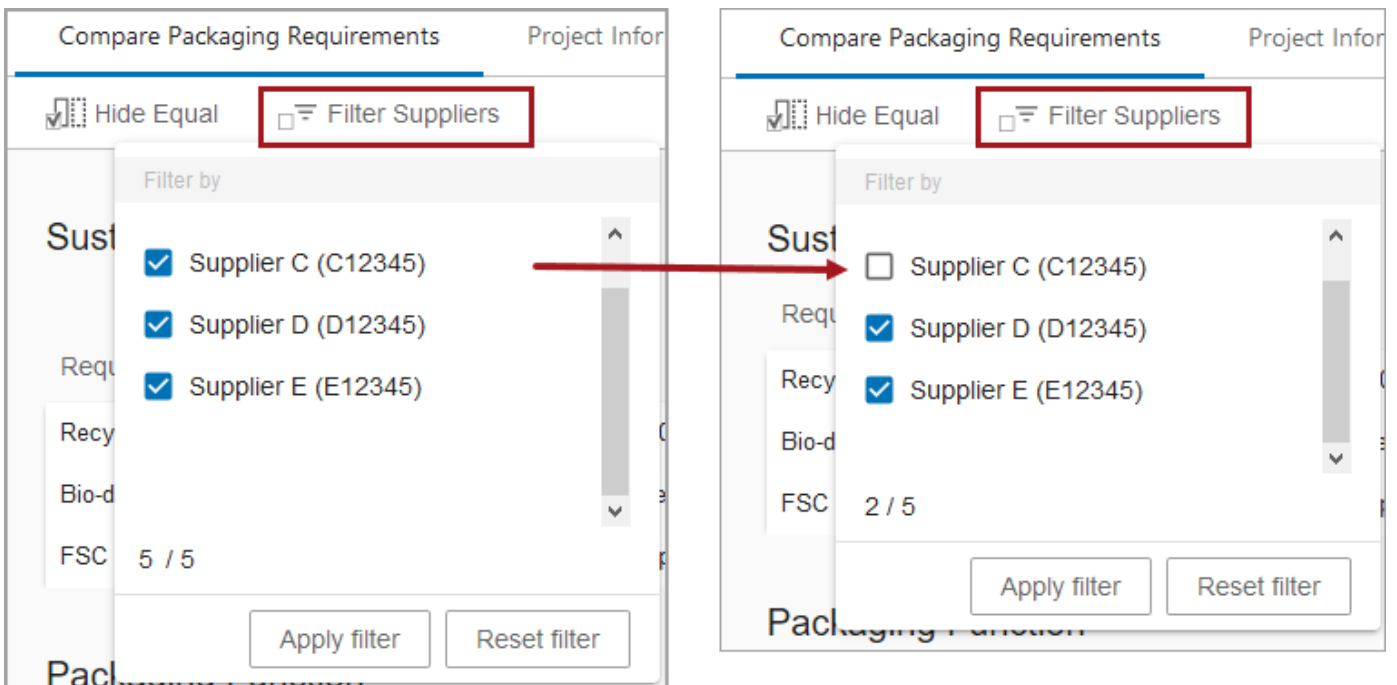
FSC certified: Paperboard must be FSC Certified. If Yes, please indicate the date that the certification was obtained.

Supplier	Supplier A (A12345)	Supplier B (B12345)	Supplier C (C12345)	Supplier D (D12345)	Supplier E (E12345)
Status	(✓)	(✓)	(✗)	(✓)	(✓)
Response Detail	2020-06-15	2020-06-15	-	2020-06-15	2020-06-15
Additional Supplier Comments	-	-	We expect certification within the next 90 days	-	-

Users can also click the 'Hide Equal' toolbar action to hide or reveal any row where all suppliers have replied 'YES' to the 'Meets Requirements?' field, indicated by the green check mark, with no further details.



Additionally, it is possible to filter suppliers using the 'Filter Suppliers' button to further refine the view.



For more information on comparing packaging samples, see the Compare Requirements Tab topic in the Private Label Food Solution segment of the PLM for Users section in the Product Lifecycle Management documentation.

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



# Data Container Updates and Enhancements

## Summary

When updating an existing data container from an external system, data containers can now be identified via a key. The data container key serves as a unique identifier and can be based on the values of selected attributes and/or the target object IDs of selected reference types. These unique identifiers ensure that duplicate data container objects are not created, and allows multivalued data containers to be imported using Auto-ID. Additionally, reference types can now be mapped during import when they are part of a data container key.

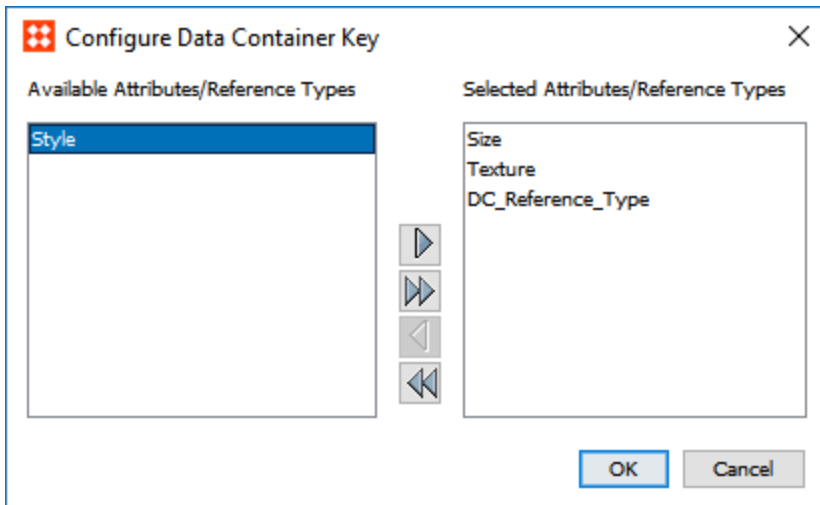
## Details

### Ability to create data container keys in the workbench

To be able to update an existing data container from an external system, the data container needs a unique ID separate from the internal STEP ID, which is not always known to external systems. Now, users can create data container keys within the workbench using the 'Configure Key' feature, located within the Key Definition flipper parameter.

Data Container Type	References	Validity	Log
Description			
Valid Attributes			
ID			
Style			
Texture			
Size			
Add Attribute			
Key Definition			
ID	Name		
Configure Key			

These data container keys can be created using a combination of valid attributes and reference types.



For more information, see the Data Container Keys topic in the Data Containers documentation.

### New STEPXML tag for data container key definition

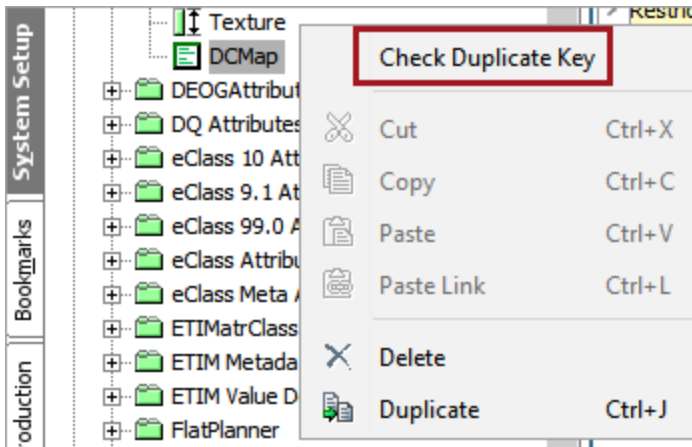
The '<KeyDefinition>' tag is needed when a Data Container Type that includes a key definition is imported. This tag should be included in the STEPXML for Data Container Type definition.

```
<KeyDefinition>
  <Attribute ID="Size"/>
  <Attribute ID="Texture"/>
  <ReferenceType ID="DC_Reference_Type"/>
</KeyDefinition>
```

For more information, see the Data Containers in STEPXML topic in the STEPXML Format documentation.

### Ability to identify duplicate keys

After applying a key definition to existing data within a data container, users now have the option to identify duplicate keys for pre-existing data containers using the 'Check Duplicate Key' option. A duplicate key can occur in the instance where a key definition is added to / changed on an existing data container type that already has duplicate values for that key definition.

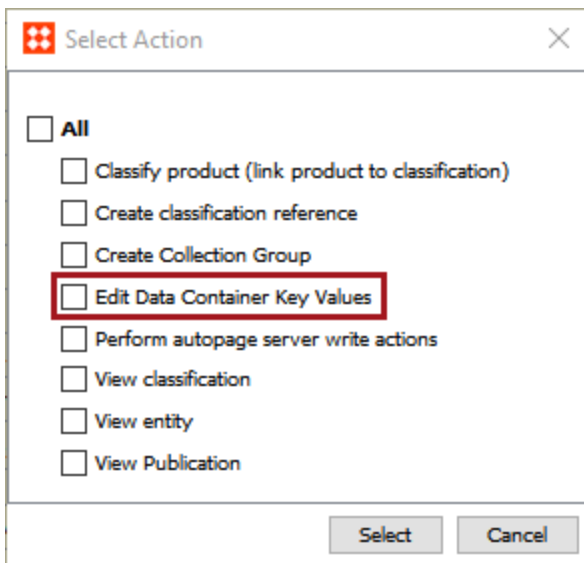


A background process is run when 'Check Duplicate Key' is clicked; any objects that contain data containers with duplicate keys are placed in a collection where they can be modified.

For more information, see the Data Container Keys topic in the Data Containers documentation.

### New privilege allows modification of data container key values

Administrators with the 'Edit Data Container Key Values' privilege are able to edit data container key values after they have already been assigned to a data container. It is recommended that only select admin users have this privilege added to their user profile and that this privilege be used sparingly.



For more information, see the User Actions topic in the Action Sets documentation.

## **Support for data container reference type mapping**

Users can now map reference types during import mapping of data containers. This feature is beneficial when importing data containers that have unique keys assigned to them, as these can be made up of a combination of attributes and/or reference types.

For more information, see the Data Container - Map Inbound topic in the Data Exchange documentation.

## **Matching on data container key value**

Objects can now be matched based on the key values of their data containers. In addition, which data container values survive a merge can be determined by the data container key. Configuring survivorship rules to account for data container key values in this way eliminates the need for a comparison business condition in default survivorship rules.

For more information, see the Golden Record Survivorship Rule Types section of the Matching, Linking, and Merging documentation.

## **Updates to Global Data Container Web UI components**

The Global Data Container Configurations component has been renamed to the Global Data Container Representations component and has been updated in various ways. For more information, see the Customer MDM Updates and Enhancements section of the 10.0 release notes.

# Data Exchange Enhancements and Changes

## Summary

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

- Excel 2007 is the new default output format for the Web UI Custom Export action.
- OIEPs can now transform output files via an XSLT postprocessor, allowing for the export of SAP iDoc formats.
- Smartsheet error handling has been improved to highlight errors and warnings at the cell level.
- Two new parameters are available for SFTP delivery via Export Manager.

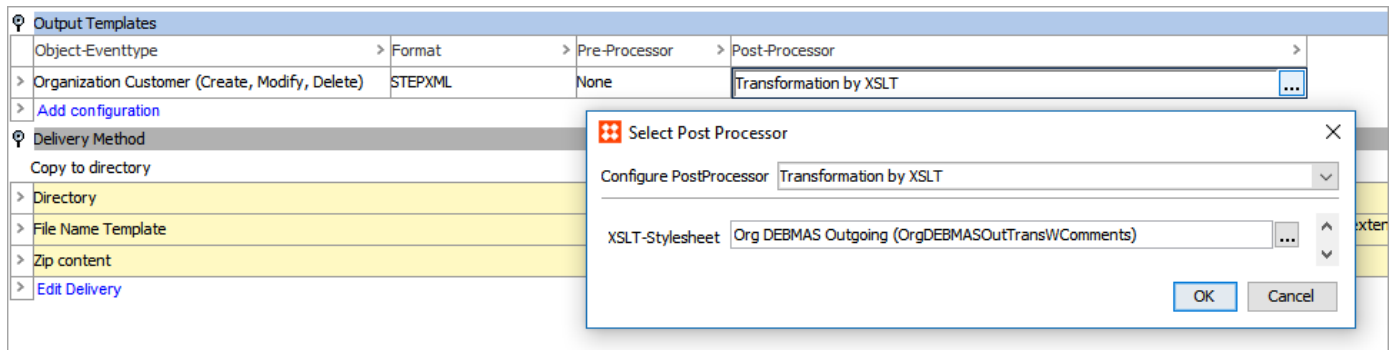
## Details

### Default Custom Export to Excel 2007

Custom Export in Web UI now defaults to Excel 2007 as the output format. It previously defaulted to Excel 97/2003. Users who have access to the mapper will still be able to change the export format and version, while users exporting current view (without accessing the mapper) will always have an Excel 2007 export.

### New XSLT output plugin available for OIEPs

A new postprocessor plugin that transforms data via an XSLT stylesheet is now available for outbound integration endpoints. With this plugin, OIEPs can export SAP iDoc formats, as well as message formats utilized by other business support systems (such as ERP and CRM), all without the need for middleware.



Previously, the XSLT transformation could only be configured in the preprocessor of an inbound integration endpoint.

For more information, see the OIEP - Post-Processor - Transformation by XSLT section of the Data Exchange documentation.

### New Smartsheet cell-level error handling

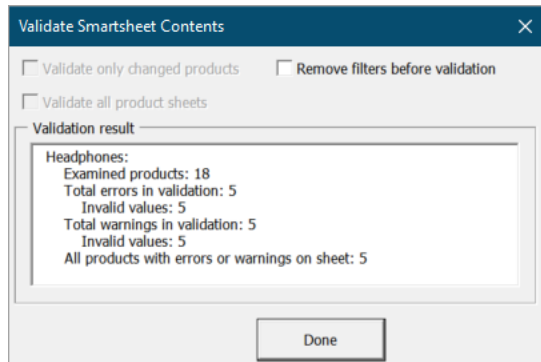
Users of Smartsheets, such as vendors and data stewards, can now pinpoint errors and warnings in Smartsheets at the cell level. This includes JavaScript business rule-based validation errors which can be customized when using the Data Issues Report bind. Cell-level presentation of errors and warnings, and the 'Next error' button that

takes users to the next relevant error / warning cell, greatly streamlines the ability of users to locate and quickly fix data issues.

Upon validation, Smartsheet errors display with a red background as before, both at the row level and the cell level.

Warnings can now be applied to attributes and references and identified via orange-highlighted cells. If both an error and a warning are found in the same row, the error will supersede the warning and the first cell in the row will display with a red highlight (as shown in the example below).

Errors and warnings are both displayed in the validation results summary upon clicking 'Validate sheet.'



Within this basic example image below, two screenshots were combined to simultaneously show the associated error and warning messages that were configured / coded within the business rule. Typically, these messages only display one at a time depending on the cell you hover over / are in.

Using the 'Next error' button will navigate users to each error or warning cell throughout the sheet, which is extremely useful when dealing with larger data sets.

	B	C	D	E	F	G
	Validate sheet	Next error				
	Duplicate row	Delete row				
9						
10	* <Name>	Bluetooth Range	Connection	Connectors	Sound Input	Type
11	CSHSOVE200WH 7	Up to 33 feet (10)	Wired (10)	3.5 mm	Mono (10)	Over-Ear (20)
12	CSHSOVE200WH 8	Up to 333 feet (20)	Wireless (20)		Stereo (20)	Over-Ear (20)
13	CSHSOVE200WH 9	Up to 33 feet (10)	Wired (10)	3.5 mm	Stereo (20)	Over-Ear (20)
14	CSHSOVE200WH 10	Up to 33 feet (10)		Please enter a value.	Mono (10)	Over-Ear (20)
15	CSHSOVE200WH 11	Up to 333 feet (20)	Wired (10)	3.5 mm	Stereo (20)	Over-Ear (20)
16	CSHSOVE200WH 12	Up to 33 feet (10)	Wireless (20)		Stereo (20)	Over-Ear (20)
17	CSHSOVE200WH 13	Up to 33 feet (10)	Wired (10)	3.5 mm	Mono (10)	Over-Ear (20)
18	CSHSOVE200WH 14	Up to 333 feet (20)		Verify this value when you populate Connection.	Stereo (20)	Over-Ear (20)
19	CSHSOVE200WH 15	Up to 33 feet (10)	Wired (10)		Stereo (20)	Over-Ear (20)
20	CSHSIE200BLK 7	Up to 33 feet (10)	Wireless (20)		Stereo (20)	In-Ear (10)
21	CSHSIE200BLK 8	Up to 333 feet (20)		3.5 mm	Mono (10)	In-Ear (10)
22	CSHSIE200BLK 9	Up to 33 feet (10)	Wired (10)	3.5 mm	Stereo (20)	In-Ear (10)
23	CSHSIE200BLK 10	Up to 33 feet (10)	Wired (10)		Stereo (20)	In-Ear (10)
24	CSHSIE200BLK 11	Up to 333 feet (20)	Wireless (20)		Mono (10)	In-Ear (10)
25	CSHSIE200BLK 12	Up to 33 feet (10)	Wired (10)	3.5 mm	Stereo (20)	In-Ear (10)
26	CSHSIE200BLK 13	Up to 33 feet (10)		3.5 mm	Stereo (20)	In-Ear (10)
27	CSHSIE200BLK 14	Up to 333 feet (20)	Wireless (20)		Mono (10)	In-Ear (10)
28	CSHSIE200BLK 15	Up to 33 feet (10)		3.5 mm	Stereo (20)	In-Ear (10)

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

For more information specific to the Data Issues Report Bind, see the JavaScript in STEP > JavaScript Binds section of the Resource Materials documentation.

### New Passphrase / SSH Key options for SFTP delivery

It is now possible to use a Passphrase and SSH Key when using SFTP as the delivery method via Export Manager. Both values are optional, and Passphrase is only used when an SSH Key is entered.

These new parameters are currently available within the 'Select Delivery Method' step of the Export Manager. They will also be options for the outbound integration endpoint (OIEP) SFTP delivery method in the first 10.0 maintenance patch.

The screenshot shows the 'Export Manager' window with the 'Select Delivery Method' dialog box open. The 'Steps' sidebar on the left lists: 1. Select Configuration, 2. Select Objects, 3. Select Format, 4. Map Data, 5. Advanced, and 6. Select Delivery Method (which is highlighted). The main area shows the 'SFTP' method selected in a dropdown menu. Below the dropdown, there is a text box stating: 'Delivers exported data to a remote server via the SSH File Transfer Protocol (SFTP)'. The form contains several input fields: 'Host name' (sftp.acme.com), 'Proxy host name', 'User name', 'Password', 'Passphrase', and 'SSH Key'. The 'Passphrase' and 'SSH Key' fields are enclosed in a red rectangular box. Below these are 'File name template' (\$filename-\$timestamp.\$extension) and 'Zip before upload' (No). At the bottom, there is an 'Export Process Template' field (Exporter) and four buttons: 'Back', 'Next', 'Finish', and 'Cancel'.

For more information about exporting via SFTP, see the SFTP Delivery Method topic in the Export Manager - Select Delivery Method section of the Data Exchange documentation.



# New Value Generators

## Summary

Customers often need to be able to create and assign unique values in the form of numbers and/or identifiable characteristics for a product's attributes in STEP, so these values can be used as identifiers when working in tandem with other systems. The newly created Value Generators will allow administrators, when granted the required privilege 'Maintain Value Generator,' the ability to generate and assign unique values to attributes. Depending on the specific Value Generator, administrators can:

- Create and assign unique IDs as values for an attribute
- Determine how values are structured
- Determine which attributes the values should be assigned to
- Configure how values are assigned to attributes
- Receive notifications when a configured threshold is exceeded

## Details

### List Value Generator

The List Value Generator allows users to import values from a specified list (e.g., a list of GTIN numbers) and assign those values to an attribute of a product. Additionally, if a user decides that they do not want to retain a value that has been assigned to an attribute, the value can be returned to the list for later use.

### Sequence Value Generator

The Sequence Value Generator allows users to assign unique values (in the form of sequential numbers) to attributes. The Sequence Value Generator accomplishes this by incrementing the value by '1' each time a value is generated, thereby ensuring that only unique values are assigned to attributes.

### Algorithm Value Generator

The Algorithm Value Generator uses business logic to generate a value based on product characteristics or product categorization (e.g., concatenating two or more attribute values to create a new value). Additionally, the Algorithm Value Generator can create unique values produced by List Value Generators and/or Number Sequence Value Generators.

To access value generators, the 'value-generator' add-on component must be installed on your system. Instructions for installing components can be found in the SPOT Program topic in the System Administration documentation.

For more information regarding value generators, see the Value Generators documentation.

# Analytics Enhancements

## Summary

The following enhancements have been made to Stibo Systems' Multidomain MDM analytics offerings:

- The Embedded Analytics Platform solution can be configured to include fly-out panels so that content and analytics can be seen within the same screen, helping businesses make better decisions.
- The Audit Message Framework supports JDBC feeds to external Cassandra databases, eliminating the need for additional third-party software.

## Details

### New flyout panel for Embedded Analytics Platform

Buyers, merchants, and product managers in businesses continuously need to monitor the performance of their product ranges in the market — what sells, what does not sell, and why. The new Embedded Analytics Platform (EAP) flyout panel, a key component to bring together transparent master data and item performance analytics, will deliver the ability for these critical user roles to perform their daily analytical tasks. By presenting analytics information in context with the content being analyzed, the new EAP flyout panel provides users a seamless, contextual interface to help in their decision-making processes.

The flyout panel displays widgets from an EAP dashboard that can be expanded / resized and is scrollable, and users can toggle between multiple dashboards, based on setup and user permissions. The flyout panel can be added to either a Node Details screen, or in support of a new use case (i.e., allowing analytics from a selection of items in a list), the panel can also be added to a Node List component.

The below screenshot shows the Analytics button that is used to access the flyout panel via a Node Details screen (labeled '1'), a sample EAP flyout panel (2), and the dropdown list that allows users to select different panel dashboards (3).

The screenshot displays the StiboSystems Master Data Management interface. On the left, the 'Product Details' page for 'Burton AK Backpack' (ID: 21345) is shown. The product is marked as 'Partly Approved' and was last edited on December 19, 2019. The primary image is a red backpack. The form includes fields for Name, Object Type (Product), Brand Name (Burton), UPC Code, and NumberRegEx (123). At the bottom, there are buttons for Save, Reset, Approve, Delete, Proof View, and Move.

On the right, an embedded analytics flyout panel is open for 'Sample - Ecommerce'. It features three main sections:
 

- TOTAL UNITS SOLD:** A gauge chart showing 1,088 units sold out of a 250K scale.
- AGE RANGE BREAKDOWN:** A pie chart showing the distribution of sales by age group: 0-18 (16%), 19-24 (26%), 25-34 (13%), 35-44 (19%), 45-54 (12%), 55-64 (12%), and 65+ (16%).
- TOTAL SALES:** A gauge chart showing 829 sales out of a 100,000 scale.

Red annotations with numbers 1, 2, and 3 are present: '1' is above the Analytics icon; '2' is above the 'TOTAL UNITS SOLD' gauge; and '3' is above the flyout panel's title bar.

The Embedded Analytics Platform functionality is enabled via the X.EmbeddedAnalyticsPlatform.Standard license and embedded-analytics-platform and audit-messaging components. Instructions for installing components can be found in the SPOT Program topic in the System Administration documentation. Contact your account manager to begin the process of enabling a license or licenses for your system.

For more information, see the Embedded Analytics Platform Flyout Panel topic in the Embedded Analytics Platform section of the Analytics documentation.

### Cassandra support added to Audit Message Framework

The Audit Message Framework (AMF) now supports the delivery of audit messages from STEP to external Cassandra databases, further expanding the ability of the AMF to deliver preconfigured database schema configurations to users out of the box. Previously, the AMF only supported message delivery to external JDBC-compliant databases.

Cassandra support has been added through the introduction of the Audit Message Receiver Cassandra Delivery Plugin, which works in the same manner as the Audit Message Receiver JDBC Delivery Plugin except that it writes messages to a Cassandra database instead of a JDBC-compliant database. This new plug-in allows users to persist information to a local or remote Cassandra database without the need for additional third-party software.

Audit Message Framework enablement is done via the X.AuditMessaging license and the audit-messaging component. See the EAP info above for instructions on installing components and enabling licenses.

For more information, see the Audit Message Framework section of the Analytics documentation.

# Publisher Enhancements

## Summary

The following updates have been made for the Publisher solution for the 10.0 release:

- Added InDesign CC 2020 support
- Updates to tables / renaming of a transformation
- Security updates

Publisher functionality is accessible upon the enablement of specific licenses. More information can be found in the introduction topic of the Publisher documentation.

## Details

### Updated InDesign version support

As Adobe continually releases new versions of InDesign through its Creative Cloud subscription service, STEP'n'design plugins must continually be updated to support these versions.

- Support for Adobe InDesign CC 2020 is added with this release.
- Support for Adobe InDesign CC 2017 is discontinued with this release.
- Support for Adobe InDesign CC 2018 and CC 2019 continues; however, CC 2018 (Client and Server) will no longer be supported as of the next feature release.

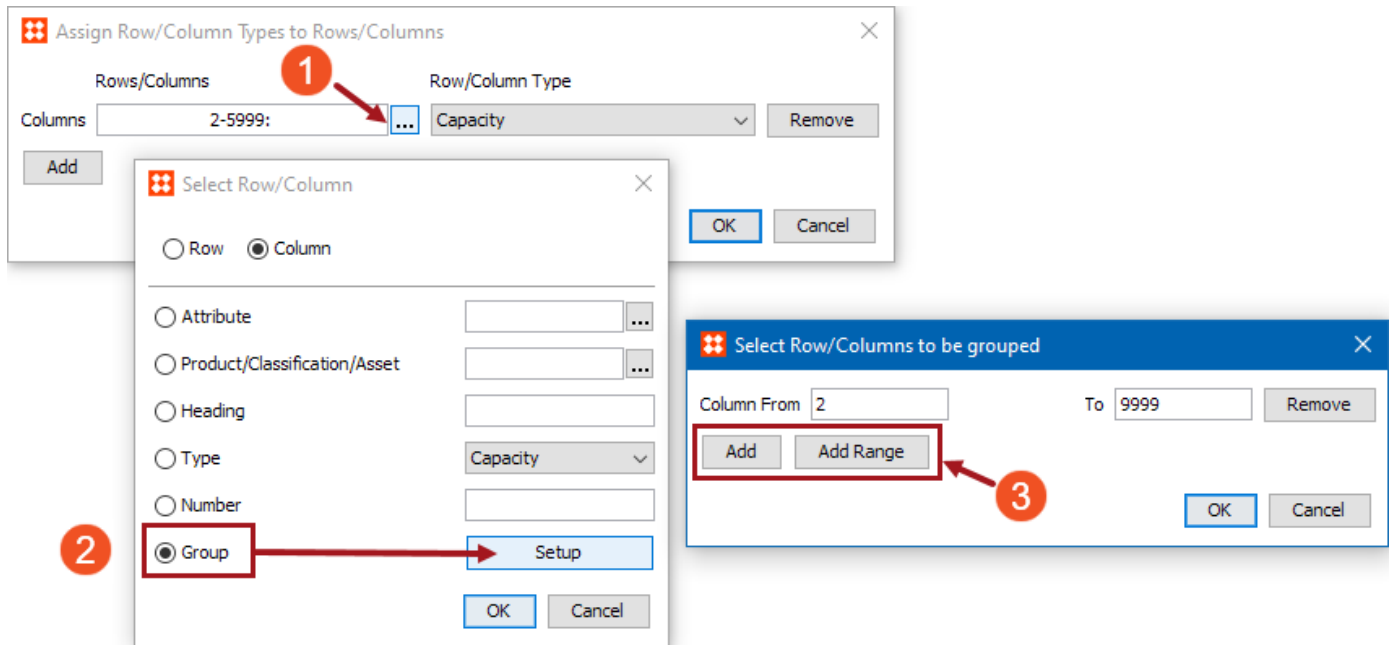
See the 10.0 Platform and Software Support topic for version details.

### Tables updates

Enhancements have been made to table transformations, improving usability and reducing complexity for users who build complex tables in workbench, including tables for the PMDM for Automotive solution.

- The 'Assign Row/Column Type to Row/Column Numbers' table transformation has been renamed to the 'Assign Row/Column Types to Rows/Columns.'
- The ability to assign row / column types to a group or range of rows and/or columns has been added to the newly renamed 'Assign Row/Column Types to Rows/Columns' table transformation. Previously, rows or columns had to be assigned on a one-by-one basis, a method that did not cover scenarios where the number of rows or columns would dynamically increase after the transformation was initially applied. Assigning a high number as the top range, e.g., 9,999, ensures that the assigned row or column types are always applied to new rows or columns as long as their count remains within the specified range.

To access this functionality, two new dialog windows have been added to the 'Assign Row/Column Types to Rows/Columns' configuration wizard. The first new window, 'Select Row/Column,' is launched by clicking on a new ellipsis button on the initial window (labeled as '1' in the screenshot below). Selecting Group > Setup on the 'Select Row/Column' window (2) launches the 'Select Row/Columns to be grouped' window, where users can add groups and/or ranges of rows or columns by clicking 'Add' or 'Add Range' (3).



For more information, see the Assign Row/Column Types to Rows/Columns topic in the Tables documentation.

- A new option to prevent localization of cell settings has been added to the Pivot Transformation. This new feature, 'Do Not Localize Cell Settings,' has been added as a checkbox option on the 'Settings' step of the Pivot Transformation wizard.

**Pivot Transformation**

**Steps**

1. Left Common Values
2. Top Pivotal Values
3. Compacted Values
4. Column Headings
5. Right Common Values
6. Bottom Pivotal Values
7. Corners
8. Sorting
- 9. Settings**

**Settings**

- Merge Equal Cells in the Left Common Values Rows
- Merge Equal Cells in the Right Common Values Rows
- Merge Equal Cells in the Top Pivotal Values Columns
- Merge Equal Cells in the Bottom Pivotal Values Columns
- Remove Empty Value Rows
- Remove Empty Value Columns
- Allow More Than One Product in Each Pivot Value
- Do Not Localize Cell Settings

Update Preview     Show Guide     Show Preview     Show Original

Ordering Information		Brand Material	Acme Drill Co.				PSV Co.		More Sizes Available Online	
Diameter	Length	# Flutes	HSS		Titanium		Carbide Tipped		Angle	Grade
1.5 mm	12 mm	2	8J5H1	13.99	8J5F4	14.99	8J6S4	16.99	82°	C7
2.0 mm	16 mm		8J5H2	16.99	8J5F5	17.99	8J6S5	18.99		
2.5 mm	20 mm	3	8J5H3	18.99	8J5F6	20.99	8J6S6	21.99		90°
3.0 mm	24 mm		8J5H4	22.99	8J5F7	22.99	8J6S7	22.99		
3.5 mm	28 mm	2	8J5H5	23.99	8J5F8	27.99	8J6S8	24.99	C5	
4.0 mm	30 mm		8J5H6	25.99	8J5F9	31.99	8J6S9	25.99		
Quantity = 100/Box		Box Type	Pop-Open Plastic				Wooden Case		??? Call Us	

Back    Next    **Finish**    Cancel

This setting is especially useful because the default behavior of the Pivot Transformation is to rebuild tables cell by cell, applying localized cell properties in the process. As such, applying another row or column type transformation after a Pivot Transformation (such as 'Assign Row/Column Type to Row/Column Numbers') does not override all local cell settings. By checking 'Do Not Localize Cell Settings,' the pivot table will build without localized cell settings, providing a 'blank canvas' to apply cell settings after the transformation.

For more information, see the Pivot Transformation Step 9 Settings topic in the Tables documentation.

## Security updates

Internal libraries were upgraded to benefit from the latest enhancements, including security fixes.

# API Enhancements and Updates

## Summary

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

- Partners and customers can use the new public GraphQL API to develop applications that integrate with STEP.
- Users can now develop asynchronous services using the Extension API.
- Data container types that have assigned key definitions can now be modified via Rest API V2.
- Changes from the Main workspace can now trigger events.
- Users can now retrieve information about missing mandatory attribute values and reference links for objects in workflows via the Scripting API and Extension API.

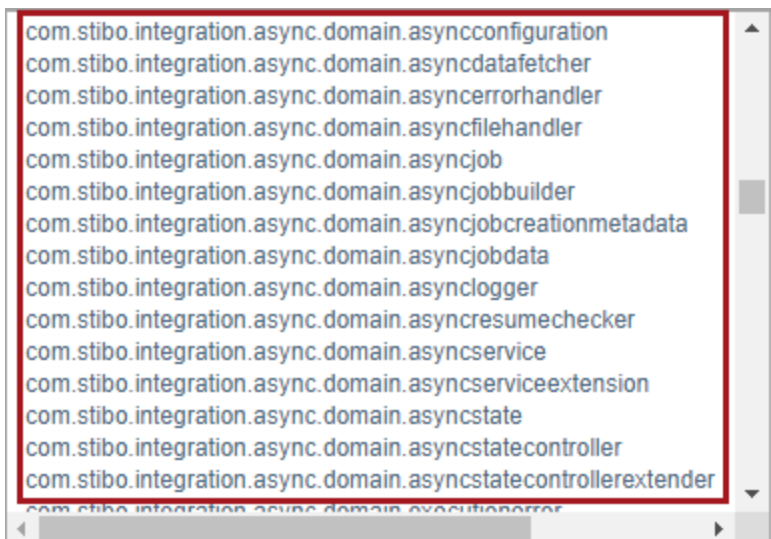
## Details

### New GraphQL API

It is possible to create web applications and mobile apps that integrate with STEP via a new GraphQL API. See the New GraphQL API release note in this PDF for more details.

### Extension API enhancements

Asynchronous framework is now part of the Extension API, which allows users to develop new asynchronous services based on their specific requirements. As an example, users can develop new asynchronous integrations to translation services that are not yet part of the existing suite of translation services offered by Stibo Systems.



An example of this extension API is included in the 'Extension API Libraries, Javadoc and Examples' file, which can be accessed in the STEP API documentation, as described in the summary section of this topic. To view this



information, the X.ExtensionAPI license must be enabled. Contact your account manager to begin the process of enabling a license or licenses for your system.

## REST API V2 enhancements

With the new data container key functionality, It is now possible to alter existing data container objects via REST API V2 when the data container type has an assigned key definition. Additionally:

- If key attributes / reference types are missing, the API will return an error message.
- If the data container contains duplicate key values, the API will return an error message.

The documentation of the API calls can be looked up via the swagger-ui. The swagger-ui URLs to the six relevant API calls that can add/replace data container objects are:

### Entity

- POST: [STEP-server]/restapiv2/swagger-ui/#/Entities/post\_entities
- PUT: [STEP-server]/restapiv2/swagger-ui/#/Entities/put\_entities\_id
- PATCH: [STEP-server]/restapiv2/swagger-ui/#/Entities/patch\_entities\_id

### Product

- POST: [STEP-server]/restapiv2/swagger-ui/#/Products/post\_products
- PUT [STEP-server]/restapiv2/swagger-ui/#/Products/put\_products\_id
- PATCH [STEP-server]/restapiv2/swagger-ui/#/Products/patch\_products\_id

To access the REST API v2, the 'restapiv2' add-on component must be installed on your system. Instructions for installing components can be found in the SPOT Program topic in the System Administration documentation.

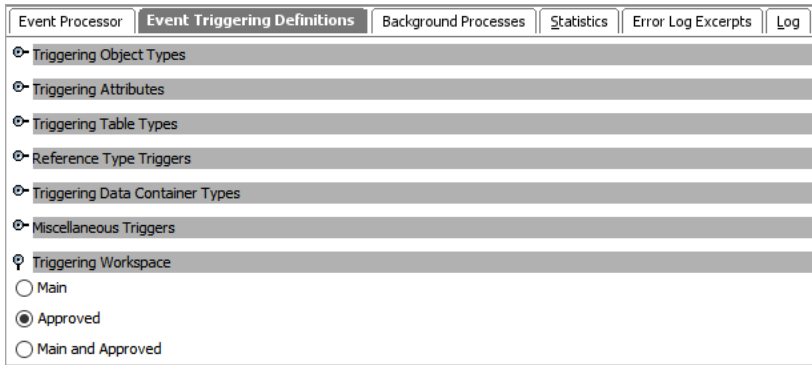
For more information on data containers keys, see the Data Container Keys topic in the Data Container Keys documentation.

## New event generation and processing from Main workspace

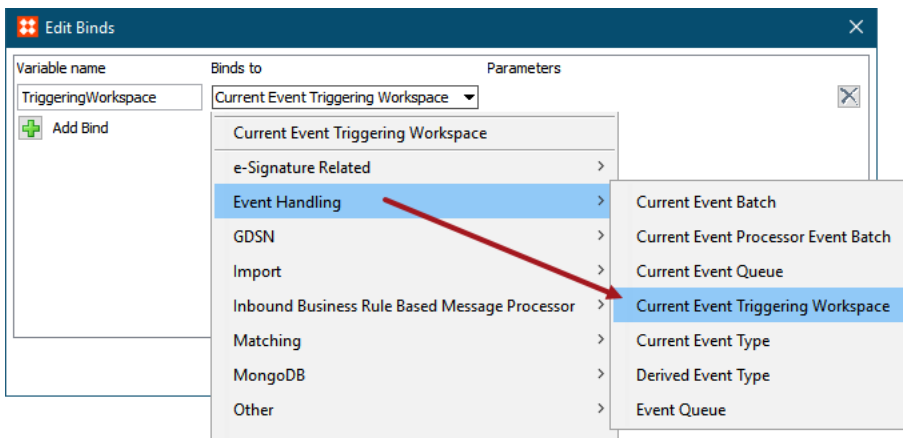
*The functionality described below is currently in ramp-up status. See the License and Component Lifecycle topic for details about what this status means.*

It is now possible to easily configure which workspace or workspaces to trigger events from when publishing data to the Elasticsearch search engine for display on the Web UI Search Screen. For those systems that have the functionality enabled, event-based outbound integration endpoints (OIEPs) and event processors (EPs) will see a Trigger Workspace flipper displayed within the Event Trigger Definitions tab. The options are Main (which is new for 10.0), Approved (the default option), and Main and Approved (typically used with in-house EPs).

This functionality is primarily intended for keeping Elasticsearch indexes up to date. Processing each and every event from the maintenance workspace can lead to bottlenecks, and in worst case, to overall performance decrease of the entire system. In particularly, **never tie business rules doing complex processing to events reflecting frequent activities done in the maintenance workspace.**



A new JavaScript Event Handling bind (Current Event Triggering Workspace) supplies the TriggeringWorkspace for the current event that is about to be generated. Previously, this bind was only applicable when execution rules on 'Event Filter' and 'Generate Event' were done.



To make it possible to identify which workspace(s) the event in question is generating changes from, the TriggeringWorkspace enum has been added to the Scripting API and Extension API. Also added to the API is `com.stibo.core.domain.eventqueue.event.Event#getTriggeringWorkspace()`, making it possible to identify which workspace(s) from which the event in question is generating change.

For more information, see the Triggering Workspace Flipper information for event-based OIEPs and EPs that can be found in the Data Exchange documentation. Additional information can also be found in the Event Handling Binds topic in the JavaScript in STEP section of the Resource Materials documentation.

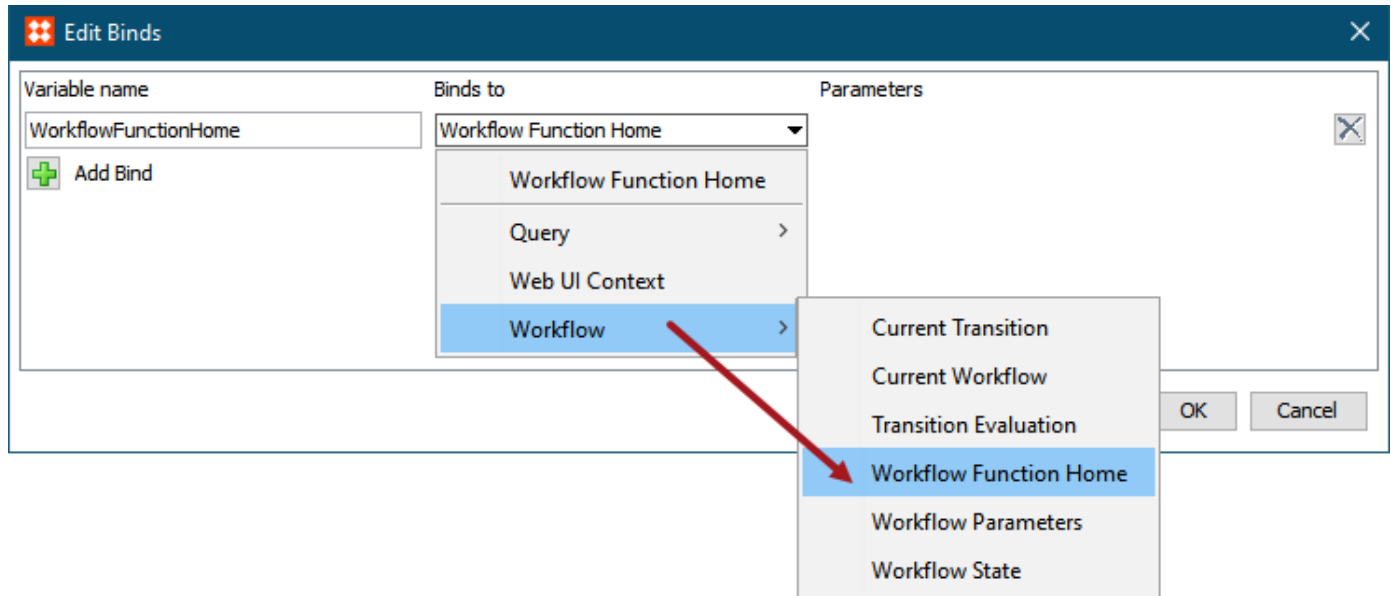
Scripting API and Extension API information can be found in the STEP API Documentation available at `[system]/sdk` or accessible from the system Start Page. Search Screen documentation can be found in the Web User Interfaces / Web UI Setup and User Guide documentation.

## **New API methods to query missing mandatory attributes and reference links for workflow states and transitions**

Developers now have the ability to retrieve information about missing mandatory attribute values and reference links for objects in workflows via Scripting API and Extension API methods. Exposing this functionality allows customers to programmatically query this type of information as needed. Previously, an object had to be submitted

with missing values to acquire equivalent information. And, once submitted, customers were unable to access conditionally mandatory attributes, references, and links.

A new bind named Workflow Function Home has been added to the Workflow category for business rules in the Business Rule Editor, as shown in the screenshot below.



To query an object's mandatory and conditionally mandatory attributes or references that are missing values, the following four methods are now available via the WorkflowFunctionHome interface:

- getStateMissingMandatoryAttributes
- getStateMissingMandatoryLinkTypes
- getTransitionMissingMandatoryAttributes
- getTransitionMissingMandatoryLinkTypes

It should be noted that an object need not be in the specified workflow to execute these checks. For those wanting to check whether or not the current object / node is valid for the specified workflow, a new WorkflowableNode method (isValidForWorkflow) is also available.

The functionality described above has been backported and can now be used in 9.3-MP3.

For more information, see the Workflow Binds topic in the JavaScript in STEP section of the Resource Materials documentation. Additional information is also available in the Scripting API and Extension API sections of the STEP API Documentation available at [system]/sdk or accessible from the system Start Page.

# Software-as-a-Service (SaaS) Enhancements

## Summary

The following updates have been made within the software-as-a-service (SaaS) STEP cloud-solution functionality:

- General availability of Cassandra database for Product MDM SaaS customers.
- Unified login across all STEP user interfaces.
- Ability to update configuration for SaaS systems through a REST interface.

## Details

### Cassandra database generally available for Product MDM on Azure

With the release of 10.0, Product MDM (PMDM) customers using our Software-as-a-Service (SaaS) services on Microsoft Azure will start to be deployed on a multi-tenant Cassandra database cluster. The exception will be customers using the Automotive component, which is not yet available on Cassandra.

Our support for the Cassandra database is based on using our In-Memory database technology to ensure superior performance. Customers will also benefit from the distributed nature of the Cassandra database, which means less planned downtime for OS patching, for example, as well as the ability to survive the failure of individual database nodes without downtime. Strict segregation between data belonging to different customers is enforced using the Cassandra keyspace concept.

Customers on Cassandra will also benefit from the ability to do schema changes without going into single update mode. Execution of a schema change will run as a background process, so that customers can continue to work while the change is happening. It is only possible to have one change executed on a given schema object at the time; multiple changes to the same or depending objects will be queued.

In the future use of the Cassandra database will be extended to cover more use cases that take advantage of its inherent capabilities for storing huge amounts of data.

The Cassandra database will be available to both new and existing customers on our SaaS offering. Existing customers will need to go through a separately planned upgrade process.

### Improved and token-based single sign-on

From 10.0, SaaS customers will have OAuth2-based single sign-on (SSO) across all STEP user interfaces, meaning that all interfaces will be password protected, and that users, once authenticated, will not have to re-supply credentials when switching between the different interfaces.

Authentication and user management can either be handled by STEP or by an external identity provider supporting SAML or LDAP, e.g., Microsoft Active Directory.

If customers want to write their own web / mobile user interfaces, e.g., using the new GraphQL API, STEP will serve as OpenID Connect provider allowing the applications to obtain an access token to be passed with the HTTP requests. This also works for REST and SOAP APIs.

For machine to machine integrations, external systems can trade user credentials for an access token via an additional STEP endpoint. However, this only works if such 'machine' user accounts are managed in STEP.

For backwards compatibility, pre-10.0 API authentication mechanisms (e.g., Basic Authentication) can be enabled on request.

API documentation is accessible from [server]/sdk or by clicking the STEP API Documentation button on the Start Page.

## Remote system re-configuration

It is now possible to reconfigure SaaS systems through a REST interface, so customers can—without the assistance of Stibo Systems—deploy a new extension or to, for example, introduce a new gateway integration endpoint. The following operations are available:

- Retrieve and change configuration properties
- Prepare and deploy server extensions based on the Extension API
- Restart the environment in order to make deployments and apply certain changes (e.g., config property changes)
- Retrieve STEP system status to see if a restart has been completed

All operations described above are privileged under a new setup action called 'System Administration,' that should only be given to trusted system administration users. Swagger REST API documentation is available to users with the System Administration privilege.

# Additional Enhancements and Changes

## Summary

The following enhancements and changes have also been made as part of the 10.0 release. These are outlined below and described in the Details section that follows.

- It is now possible for objects to reference themselves.
- Asset object types can now be changed for assets created using an external DAM system.
- A new version of the GDSN Receiver is available, which includes stability and performance improvements.
- A new processing plugin, Execute Business Action for Event Batch, is now available as part of baseline functionality.
- Bulk update functionality now enables users to edit a previously scheduled bulk update; additional usability enhancements to the configuration interface have also been added.
- There are two new JavaScript binds available that can be used for business rules.
- Online help has been expanded, and key updates outside of standard feature release functionality updates are listed.

## Details

### Enhanced referencing capabilities

It is now possible for objects to reference themselves. Previously, some UI components would prevent the user from doing this action.

### New ability to change asset object type when using an external DAM system

Users who store assets in an external DAM system now have the ability to change the object types of externally maintained assets in both the workbench and Web UI after they are initially created and synchronized with the MDM platform. The ability to change the object type after initial creation greatly improves the synchronization process between both systems and vastly reduces the time spent by users in error handling and making corrections to existing assets.

Previously, the Object Type field in the workbench Images & Documents editor and in the Web UI Object Type component was always read-only for external asset object types. Now, the object type / asset type (labeled as '1' in the screenshot below) can be changed to any external object type that is specified in the External Stored Assets Model component model (2).

Tree

- Products
- Product Images
- Logos
- Media Asset Management
  - External Images
    - 359337
    - 364368
- Icons
- Entity Root
- Publications

English US

### Asset Detail

ID: 359337

Asset Type: External Stored DAM Asset

Name: DAM Asset

Asset Keywords:

### System Setup

- Component Models
  - Address Component Model
  - Auto Classification Model
  - Country Aliases
  - D&B Integration
  - External Stored Assets Model
  - GDSN Provider model
  - GDSN Receiver model

### External Stored Assets Model - Component Model Configuration

Name	Value	Description
External Stored Asset	DAM Asset	The asset is stored in a system external to STEP
	External Stored DAM Asset	
External asset identification	External Asset	Holds the identification of an asset if the asset is stored in a system external to STEP

For more information on using External DAM solutions with STEP, see the Storing Assets Externally section of the Digital Assets documentation. For specific information about the External Stored Assets Model component model, see the Initial Setup for an External DAM topic in the Storing Assets Externally documentation.

Additionally, the X.Adapter.Scene7 license must be enabled on your system to access the External Stored Assets Model. Contact your account manager to begin the process of enabling a license or licenses for your system.

## Improved performance for GDSN Receiver

To increase the rate of file consumption and speed up import performance, several enhancements have been implemented in regards to the GDSN Receiver. For details, refer to the Performance Enhancements section of the 9.3-MP1 Maintenance Patch Notes. If already using this functionality, these enhancements do not require any further configuration actions from the end user beyond installing the updated 'gdsn2-receiver' add-on component in addition to normal update procedures for 10.0.

## Execute Business Action for Event Batch processor plugin

With the existing Execute Business Action processor plugin, it is possible to have a business action executed for each event queued on an event processor queue. While applicable for many use cases, this functionality is limited in that:

1. The action is executed one per event and therefore cannot do batch processing.
2. The action does not have access to the event information, but instead works on the Node associated with each event (available via the 'Current Object' bind in JavaScript).

For cases where batch processing is required, a new Execute Business Action for Event Batch plugin has been introduced. With this plugin, the configured business action will be executed once per event batch instead of once per event and can access the event batch via a new Current Event Processor Event Batch bind that resolves to 'com.stibo.core.domain.eventprocessor.batch.EventBatch.'

The business action referenced from the Execute Business Action for Event Batch plugin has no concept of 'current object.' Therefore, the JavaScript Current Object bind and most non-JavaScript business action plugins cannot be used. Also, business actions referenced from the plugin must be made applicable for all object types.

The following JavaScript example iterates the events in a batch and logs the ID of each associated node:

```
// logger bound to Logger
// batch bound to Current Event Processor Event Batch
var it = batch.getEvents().iterator();

while (it.hasNext()) {
    var event = it.next();
    var node = event.getNode();
    if (node) {
        logger.info("Handling " + event.getNode().getID());
    }
}
```

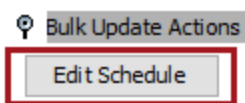
It is not recommended to have long running business actions. The new plugin should only be used for cases where it is critical that the business action can work on a batch of events.

The functionality described was introduced in 9.3-MP1. For 10.0, the Execute Business Action for Event Batch Processing plugin component is now part of the baseline and the license is included in the base STEP Information Server license, which is a change from 9.3, where the functionality was controlled via a separate component and an additional license.

## Bulk update usability improvements

A number of enhancements have been made to the existing bulk update functionality, including enabling users to edit a previously scheduled bulk update and providing some minor usability enhancements to the configuration interface.

Previously, users could not edit a bulk update's schedule, or change any of the settings available in the scheduling interface; if a change to the bulk update's schedule was required, users would have to delete the scheduled process and re-create it. Now, users can click on a scheduled bulk update (found in the Background Processes tab in the workbench), where a new button called 'Edit Schedule' is available on the queued process. By clicking this button, the bulk update scheduling wizard opens, allowing users to make any needed adjustments to when and how often the bulk update should be run, as well as whether the collection is refreshed before each bulk update is performed, and whether the bulk update's changes are auto approved.





Other updates include expanding the attribute selection field length in the 'Set Value' operation so that users can see the full attribute name when configuring a bulk update. Additionally, workflow-based operations have been aligned to display workflow and state names rather than, in some cases, IDs.

For more information on scheduling bulk updates, see the Scheduling Bulk Updates for Collections topic in the Bulk Updates documentation.

## **New JavaScript binds**

There are two new JavaScript binds available:

- Current Event Trigger Workspace (Event Handling)
- Workflow Function Home (Workflow)

Details can be found in the API Enhancements and Updates release note.

## **Online Help / Documentation updates**

- To better explain the typical software release lifecycle that Stibo Systems' functionality takes from introduction to end-of-life (Ramp Up, General Availability, Deprecated, and Discontinued), a new License and Component Lifecycle topic is available under the Systems Release and Patch Notes section. Customers will see this lifecycle information incorporated into the 10.0 release notes where applicable.
- A new Machine Learning-Based Auto Classification Integration section can be found in the Data Integration documentation. This section better explains the machine learning-powered auto classification capabilities introduced within the 9.3 release notes.
- Background processes documentation within the Getting Started / User Guide and System Setup / Super User Guide sections of documentation has been updated to address background process queue multi-threading settings and the config.properties file.
- Solution enablement material has been updated, and there is also a new section dedicated to GDSN Receiver Solution Enablement. For more information, see the Solution Enablement section. The GDSN Receiver information *and* the GDSN Provider information previously located within the online help topics and Downloadable Documentation have been removed.

# 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 10.0 are implemented as solutions to these requests.

The list below highlights many of the enhancement requests that were completed in 10.0, 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 and include a cross-reference to a detailed release note where feature benefits are outlined.

- Users can now create unique identifiers for data containers based on the values of selected attributes and the IDs of selected reference types and allows multivalued data containers to be imported using Auto-ID. For details, see the Data Container Updates and Enhancements release note.
- Enhancements were made to table transformations, benefiting users who build complex tables in workbench, including tables for the Automotive solution. Refer to the Publisher Enhancements release note for more information.
- Users can now retrieve information about missing mandatory attribute values and reference links via the Scripting API and Extension API. For more information, see the API Enhancements and Updates release note.
- It is now possible to add an XSLT post-processor in outbound integration endpoints. For more information, see the Data Exchange Enhancements and Changes release note.

Unless indicated, the following Web UI changes are described further in the Web UI Enhancements and Changes release note.

- Web UI navigation has been enhanced via the new Global Navigation Panel—available for all domains.
- History on references can now be viewed.
- Custom Export defaults to Excel 2007.
- Admin users can configure help text to display on reference components in Web UI via workbench reference type configuration.
- The Parent Selector can now be added to any Node Editor and can be used with products, entities, and classifications.
- Admin users configuring Advanced Search screens now have the ability to restrict which attributes end users can select when searching via the 'Attribute' criteria.
- Users can now use Web UI, rather than the workbench, to revert to previous versions of objects.
- A number of enhancements have been made to the existing bulk update functionality, including enabling users to edit a previously scheduled bulk update and providing some minor usability enhancements to the configuration interface.

- The 'Hide Equal' and 'Mark Different' functionalities have been expanded and are now available on Node Lists using the 'Table,' 'Compare,' and 'Multi Edit' views.
- Users now have the ability to partially approve objects in the Web UI.
- A new Compare Records screen allows users to view and edit a selected object and any number of referenced objects side by side, for example, an enrichment record and the associated golden records, or a sell-side item and the associated buy-side items.
- Improved error handling on references and metadata can be seen when using the Data Issues Report bind.
- A number of Node List updates were made around multi-selection of objects and scrolling. These updates were included in 9.3-MP3. Refer to the maintenance patch notes for details.
- Copy / paste of one cell to many is now supported in Web UI Node Lists for any header types where copy / paste of one cell to another was previously supported.

For more information on the two projects below, see the Additional Enhancements and Changes release note.

- Smartsheet error handling has been improved to highlight errors and warnings at the cell level.
- Asset object types can now be changed for assets created using an external DAM system.

# 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 10.0 Platform and Software Support section of the System Release and Patch Notes documentation.

## Baseline Functionality

- Information about changes that may impact upgrading customers can be found in the 10.0 Upgrade Guide.

## Current Updates

The changes in platform and software support from version 9.3 to 10.0 are listed below:

- Adobe InDesign CC 2020 (Client and Server) is supported with this release.
- Adobe InDesign CC 2017 (Client and Server) is no longer supported with this release.

## Future Updates and End-of-Life Notifications

Supported in an upcoming maintenance patch:

- Red Hat Enterprise Linux 8
- Oracle Enterprise Linux 8

Desupported in the next feature release:

- Adobe InDesign CC 2018 (Client and Server)
- Windows 2012 R2
- Oracle 12.2.0.1
- Office for Mac 2011 Excel
- Excel Office 2003

The following baseline versions will no longer be supported as of the dates listed:

Version	Effective
8.2	June 1, 2020
8.3	November 1, 2020
9.0	June 1, 2021

Customers should update as soon as possible to the latest release of STEP.

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.

Please contact your Stibo Systems account manager or partner manager, or the support department, if you have questions and/or to receive help and guidance on how to update to a supported release.

## Miscellaneous Bugfixes

A number of bugfixes have been applied as part of this release. Separate notes are generated for each maintenance patch. Refer to the entire set of 10.0 release and maintenance patch notes prior to installing or upgrading.



### BUGFIXES

#### ◆ **ISSUE-271696 - Character fix for typeahead on Homepage Search Widget**

Fixed a problem when typeahead suggestions were not shown for IDs / Names containing braces – ‘(, ’)’ or ‘<, ’>’ – tags on the Web UI Homepage Search Widget.

#### ◆ **ISSUE-353690 - Selected cell border visibility fix**

In Web UI, a selected cell in a Node List table viewed using Multi Edit Display Mode has a blue border. When zooming out, this thin, blue border was invisible. Now, the border width is dependent on the zoom level, so that the border is visible even when zoomed out.

#### ◆ **ISSUE-356916 - Warning icon fix on Mass Creation Screen**

Fixed a problem when clicking on the warning icon on the Mass Creation screen in Web UI caused an uncaught exception to appear.

#### ◆ **ISSUE-357200 - Context results fix**

Fixed a problem where In-Memory was enabled and contexts were returned twice on a Web UI Multi Context screen when searching for contexts in Select Contexts action Node Picker.

#### ◆ **ISSUE-360209 - Approval status icon color fix**

Fixed inconsistencies in approval status icon colors between Web UI and workbench.

#### ◆ **ISSUE-374100 - InDesign table split fix**

Previously, splitting a table failed when it was placed in InDesign. The table used a header-repeating plugin which had 'Keep with Next' for the first x rows, meaning that at least x+1 rows would be placed in a frame before a split. However, there was not enough space in the frame for more than x rows, which caused a large empty frame on the next page. This has been fixed so that a table no longer splits if there is not enough room.

◆ **ISSUE-378926 - Request Translation Wizard error fix**

Previously, the Request Translation Wizard was throwing an error on the Feedback step. This has been fixed.

◆ **ISSUE-380193 - Additional logging for authentication**

Logging has been added to detect how user authentication is performed. A hotfix is available for step-9.2-mp4.

◆ **ISSUE-382313 - Multi Edit Display Mode error fix**

In Web UI, when using Multi Edit Display Mode in specific situations (transposing and filtering while having attribute groups with invalid attributes for the object type), an error is no longer thrown.

◆ **ISSUE-383513 - Confirmation dialog added to Run Business Action components**

Run Business Action components, configured on the Web UI Node Editor, will now display a confirmation dialog if there are unsaved changes on a Node Editor and the 'Save Before Execute' parameter has not been set.

◆ **ISSUE-383540 - Permissions fix for attribute selection in Smartsheets**

Fixed an issue where the user was able to choose values for read-only conditional attribute cells from a List of Values picker by clicking on the column header in a Smartsheet. A hotfix is available for step-9.3-mp2.

◆ **ISSUE-383869 - Workbench text fix for certain characters**

An exception was thrown when inputting text into workbench that began with one-byte characters and then switched to two-byte characters, as typically found in languages such as Japanese and Chinese. This has been fixed.

◆ **ISSUE-387615 - Healthcheck status fix**

Previously, some healthchecks in the Healthcheck tab of the admin portal could get stuck in 'Running' or 'Pending' statuses after STEP was restarted. Now, those 'Running' and 'Pending' statuses will be removed from healthchecks after restart.

◆ **ISSUE-387634 - STEPXML cross-reference fix**

When exporting STEPXML in cross-context-mode, filtering and inheritance-resolving is not carried out at export time, but is postponed to parsing-time of the file when one or more concrete contexts of interest are known.

For cross-references, it was previously not possible to determine if the reference was local or inherited (and from where). This has been changed by adding a new XML-attribute to each reference, enabling them to be distinguished from another. Please refer to PIM.xsd for the details.

◆ **ISSUE-388035 - Fix for large datasets memory issue with toolbar actions**

A restriction has been made on Web UI toolbar actions which do not use a collection and a background process to handle the actions on the server. Now, such actions are disabled when the number of selected nodes exceed 10,000.

◆ **ISSUE-388400 - Reference import attribute value fix**

Previously, when importing a reference to an object that did not exist in the database but was defined later on in the import file, and within the reference definition, an attribute value on the reference was defined previously, the attribute value was not set. This has been corrected so that the attribute value is populated.

◆ **ISSUE-388590 - NPE fix for STEP API**

Fixed a NullPointerException (NPE) in getSimilarObjects StepWS request (STEP API), when matching algorithm from the request uses decision table with normalizer, which uses a LookupTableHome bind to retrieve attribute values.

◆ **ISSUE-390038 - Email business rule fix**

Fixed an issue with email business rules not resolving selected objects correctly.

◆ **ISSUE-390123 - SAML authentication exception fix**

In SAML authentication, an exception was thrown when logging out of Web UI after being authenticated. It is now possible to create a custom rule to prevent the exception being thrown.

◆ **ISSUE-390309 - Additional logging for importing unique keys**

Additional logging has been added to the thread used in relation to importing unique keys in order to determine root cause. This is because the thread is suspected of failing, which causes the main import thread to fail. A hotfix is available for step-9.2-mp3.

◆ **ISSUE-390556 - Publications menu scroll fix**

Users are now able to scroll through the menu items when right clicking on Publications on the workbench Tree navigator. Hotfixes are available for step-9.1-mp5, step-9.1-mp6 and step-9.2-mp3.

◆ **ISSUE-390646 - Background Process titles localization fix**

Previously, Background Process titles on the Background Process List screen in Web UI were cached, which caused the wrong localizable title to be displayed when viewing in a different locale. This has been fixed so that the title will respect the current Web UI locale.



◆ **ISSUE-391917 - Asset Matcher fix**

When matching with the Asset Matcher and the template resolved value equals the asset name of the imported asset, the difference between the matching name and the asset name will now be taken into account.

◆ **ISSUE-392335 - ISODate attribute fix**

Web UI data containers now display ISODate attributes in ISO format.

◆ **ISSUE-392409 - Reference object link fix**

An intermittent error occurred when the reference object link was clicked. This has been fixed.

◆ **ISSUE-392989 - Mandatory marking fix for Advanced Search**

Fixed a problem where the mandatory marking was missing for workflow mandatory attributes on the Advanced Search screen with the workflow search description.

◆ **ISSUE-393117 - Create / Update data profile privilege fix**

Previously, it was not possible to create / update a data profile on a collection if the current user did not have 'Empty Recycle Bin' and 'Force Delete and Purge' privileges from Setup Actions. Now, it is possible to create / update a data profile without these privileges.

◆ **ISSUE-393144 - PIM.xsd Metadata tag fix**

Now, PIM.xsd will accept the MetaData tag under the Delete Reference tags, such as DeleteProductCrossReference, DeleteAssetCrossReference etc.

◆ **ISSUE-393179 - PIM.xsd missing elements fix**

Fixed an issue with PIM.xsd by adding the two missing elements: stbEmbed and stbEmbedded.

◆ **ISSUE-393339 - XSD validation fix**

Fixed an XSD validation issue that occurred when exporting products with deleted Classification to Product Links via OIEP with In-Memory enabled. Hotfixes are available for step-9.1-mp5 and step-9.1-mp6.

◆ **ISSUE-393446 - OEIP timeout fix**

OEIP – REST Direct Delivery can sometimes experience a 'Connection Reset' or a 'Connection timed out' message when trying to transfer large files. The private config property 'RESTDirectAndDelivery.TimeoutSeconds' can now be set to use a longer timeout to alleviate this. This config property impacts requests from both the RESTDirectDeliveryPlugin and the RESTDeliveryPlugin. A hotfix is available for step-9.3-mp2.

◆ **ISSUE-393679 - Localized messages in JavaScript business condition fix for workbench**

Fixed a problem where localized messages for JavaScript business condition with Data Issues Report bind was not shown in the workbench. A hotfix is available for step-9.3-mp3.

◆ **ISSUE-393897 - Merge message fix**

Changed confirmation messages on Advanced Merge and Clerical Review Task List screens. Instead of 'Are you sure you want to merge these two records?', the message is now 'Are you sure you want to merge selected records?'

◆ **ISSUE-393993 - Bulk Update Configuration action selection fix**

Previously, it was not possible to select a Bulk Update Configuration for the Run Bulk Update Action when the action was in the 'Show More' dropdown. This has been resolved.

◆ **ISSUE-394133 - Mandatory ISO Date validation warning fix**

Fixed a problem where mandatory ISO Date validation of attributes, configured on Web UI Node Editor, displayed the mandatory warning upon loading the Node Editor instead of displaying the warning when trying to save changes on a Node Editor.

◆ **ISSUE-394227 - Alert popup page reload fix**

In Web UI, when the Use Details Overlay option was selected in Node List Screen and the user clicked the Submit button on a Node Details screen, an alert popup disappeared if the page was reloaded. This has been fixed so that the alert will not be cleared if the page is reloaded.

◆ **ISSUE-394366 - Run Business Action disabled for invalid object types**

Run Business Action on the Web UI Node Editor will now be disabled if the configured Business Rule is not valid for the selected item's object type. Please note that this change is only related to the Node Editor component and not to the Node List action.

◆ **ISSUE-394632 - Video Asset Widget full-screen fix**

Fixed a problem where the Video Asset Widget on the Web UI Homepage was not correctly showing full-screen videos in Google Chrome. Hotfixes are available for step-9.3-mp2 and step-9.3-mp3.

◆ **ISSUE-394657 - Value fix for Rich Text Editor**

Fixed an issue where it was not possible to save values with <lt> and <gt> tags on the Rich Text Editor on the Web UI Node Editor.

◆ **ISSUE-394669 - Comma separators for single value text attributes**

A customer-specific solution was put in place to allow comma separators when copying and pasting data for single value text attributes.

◆ **ISSUE-394978 - Import Image and Documents Object Type fix**

In the Import Image and Documents wizard in workbench, if a user selected an object type for uploaded assets, then Object Type on the Asset Upload Dialog details section was shown as 'Detecting...' even though it had already been chosen. This has been fixed, and a hotfix is available for step-9.2-mp3.

◆ **ISSUE-394994 - Workflow Historical Line Dashboard error fix**

Fixed a problem where clicking on the Workflow Historical Line Dashboard chart on the Web UI Homepage caused an exception to be thrown instead of redirecting to configured Sub Screen. A hotfix is available for step-9.3-mp2.

◆ **ISSUE-395020 - Exporter fix**

Fixed a problem in exporter when not running In-Memory. The error would only happen if the export was using product sequences and filtering on classification object types at the same time. Below is an example of an advanced STEP XML template that would cause the problem:

```
<?xml version='1.0'?>
<STEP-ProductInformation FollowOverrideSubProducts="true">
  <Classifications>
    <Classification/>
    <FilterUserType ID="Classification 1 user-type root"/>
  </Classifications>

  <Products ExportSize="Minimum">
    <Product>
      <Name/>
      <SequenceProduct/>
    </Product>
  </Products>
</STEP-ProductInformation>
```

A hotfix is available for step-9.2-mp3.

◆ **ISSUE-395101 - Fix for new configuration not being recognized**

STEP and the load balancer automatically loads configuration changes that happen in config.properties. This feature has now been extended to files included by config.properties as well.

The usual pattern is to have a config.properties file that configures the node-specific settings on each app

server and then use a @include line to include properties from a shared.properties file, which then contains the cluster-global properties.

◆ **ISSUE-395154 - Workbench memory fix**

In workbench, an Out of Memory exception was thrown when comparing package content with data when workbench memory size was limited. This has been fixed.

◆ **ISSUE-395341 - Multi Value Editor lock fix**

Fixed a setback where adding a new multi-value after an empty one on the Multi Value Editor caused an infinite loop, locking the Web UI tab completely. This issue would occur on the Web UI Node List Multi Edit Display Mode while editing a multi-value attribute cell.

◆ **ISSUE-395438 - Character fix for Smartsheet Node Picker**

Fixed an issue where classification or product names that contained '&' in the ID or name were shown as '&' in Smartsheet Node Picker for references and classification to product links. A hotfix is available for step-9.2-mp3.

◆ **ISSUE-395461 - Publication export fix**

In the workbench, the selected publication object will no longer be replaced when publication objects or products are exported. A hotfix is available for step-9.2-mp3.

◆ **ISSUE-395500 - Create References Action fix**

Now, the Create References Action will not delete inherited links when creating references or Classification - Product links on the Web UI Node List screen for child objects.

◆ **ISSUE-395540 - Advanced Search Node List details fix**

There was an issue in Web UI when the Node List details section of the Advanced Search screen expanded after each search when a user clicked on a single item on the list. In this case, the node list had a space for details that should not be shown. This has been fixed.

◆ **ISSUE-396092 - NPE fix for auto classification rules**

Fixed a NullPointerException (NPE) in the workbench when loading auto classification rules.

◆ **ISSUE-396224 - Smartsheet export LOV value fix**

Previously, during a cross context Smartsheet Export, LOV values inherited from std.lang.all (GL) dimension point were not shown in the LOV dropdown. This has been fixed, and hotfixes are available for step-9.1-mp5 and step-9.1-mp6.

◆ **ISSUE-396668 - Improved exception handling for business rules**

Improved the handling of exceptions from business rules running JavaScript. This improvement will prevent optimistic locking errors from being ignored, which caused 'the transaction will be rolled back instead' errors at a later stage.

Additionally, the runtime exceptions thrown in business logic are no longer wrapped as business exceptions.

Hotfixes are available for step-9.3-mp3 and step-9.3-mp4.

◆ **ISSUE-396756 - Global Data Container fix**

Fixed a problem where the default Global Data Container Representations configuration was used instead of the one desired on a tab page with lazy loading enabled on the Data Container component of the Web UI Node Editor.

◆ **ISSUE-396783 - Mac OS scrollbar error fix**

Fixed an unhandled exception for Mac OS users relating to adding scrollbars to menus in workbench. A hotfix is available for step-9.3-mp3.

◆ **ISSUE-396839 - Orphan attribute warning alignment fix**

In Web UI Node Editor, an orphan attribute warning was not correctly aligned in Internet Explorer. This has been fixed, and a hotfix is available for step-9.2-mp3.

◆ **ISSUE-397369 - Multi Edit Display Mode details fix**

Previously, when the 'Show Details' option was selected in the advanced options for Multi Edit Display Mode for a Node List, the details were moved and hidden under other components. This has been fixed so that the scrollbar is shown when needed.

◆ **ISSUE-397486 - Exception handling improvement for Asset Representation component**

Previously, a NullPointerException was thrown during asset replacement on the Web UI Node Editor's Asset Representation component. Now, the exception thrown will be more informative and logged in the app server logs.

◆ **ISSUE-397577 - Rich Text Editor tag fix**

Fixed a problem where it was not possible to save values with a <lt> and <gt> and/or <br>/<li> tags on the Rich Text Editor on the Web UI Node Editor. A hotfix is available for step-9.3-mp3.

◆ **ISSUE-397719 - Active item count fix for workflow**

Fixed a problem in workbench where the amount of active items in a workflow was not shown on the Workflow Profile screen with STEP Workflows as the configured domain. Hotfixes are available for step-9.3-mp3 and step-9.3-mp4.

◆ **ISSUE-397765 - LOV Typeahead fix for Attribute Value component**

Fixed a problem when LOV suggestions were not shown on the Attribute Value component when configured with LOV with ID attributes and the Typeahead Override Control Type component on the Node Editor in Web UI.

◆ **ISSUE-397923 - In-Memory export attribute link fix**

An error occurred occasionally when performing In-Memory exports of attribute links while the links were being updated or deleted. This has been fixed.

◆ **ISSUE-398061 - Status Selector Widget scroll fix**

Fixed a setback where scroll was not available on the Status Selector Home Page Widget when the property was set.

◆ **ISSUE-398149 - Data Container Default Editor fix**

Fixed a problem when the Data Container Default Editor in Web UI was throwing an exception when it was configured to show Data Container References.

◆ **ISSUE-398246 - Trusted Source Multi Context fix**

Fixed a problem where unnecessary deleted values were retrieved in the Trusted Source Multi Context plugin during the matching process, which caused an uncaught exception to be thrown. Additional logging has been added to the plugin for improved diagnostics. Hotfixes are available for step-9.3-mp3 and step-9.3-mp4.

◆ **ISSUE-398311 - LOV Typeahead fix for Multi-Valued attributes**

Fixed a problem where the LOV value ID was shown instead of the LOV value and ID on the Web UI Node Editor for Multi-Valued attributes with the Typeahead Override Control Type component configured. A hotfix is available for step-9.3-mp3.

◆ **ISSUE-398361 - Web UI side panel fix**

Fixed the Web UI side panel, which was expanding and retracting when it was not intended.

◆ **ISSUE-398473 - NPE fix in SurvivorshipContext STEP API method**

A NullPointerException (NPE) was thrown in the SurvivorshipContext.getMostRecentDCAttribute STEP API method if source or target revisions are null. This has been fixed, and hotfixes are available for step-9.3-mp3 and step-9.3-mp4.

◆ **ISSUE-398605 - Redirect fix for Node Editor with Details Overlay**

Now, the user will be redirected back to the Web UI Task List if the last item has been submitted from the selected state on the Node Editor with Details Overlay parameter.

◆ **ISSUE-398708 - Classification export only selected object**

When exporting classifications and selecting 'Export selected object only,' the parent or child objects are no longer exported too. Only the object(s) selected are exported. Hotfixes are available for step-9.3-mp3 and step-9.3-mp4.

◆ **ISSUE-398825 - Workbench menu fix**

Workbench menus now fit within the workbench window or within the display (min. 600 pixels). However, the user will still need to manually resize the workbench window to have the menu re-rendered to fit, e.g., it is not enough to move the window between screens. Hotfixes are available for step-9.1-mp5, step-9.1-mp6, step-9.2-mp3, and step-9.3-mp3.

◆ **ISSUE-398902 - Localizable Servlet security fix**

A security fix was made to the Localizable Servlet.

◆ **ISSUE-399016 - Rich Text Editor tag fix**

Fixed a problem where it was not possible to save values with a <lt> and <gt> and/or <br>/<li> tags on the Rich Text Editor on the Web UI Node Editor. A hotfix is available for step-9.3-mp3.

◆ **ISSUE-399134 - Error message clarity fix for In-Memory errors**

Error messages that occur during read-up of In-Memory data now have more information included in them, allowing for better troubleshooting of data inconsistencies that cause the server to fail during start up. There is also a hotfix available for this solution for step-9.3-mp4.

◆ **ISSUE-399733 - Placeholder added to Reference View**

Added a placeholder to Reference View on the Web UI Data Container popup, stating 'Type to search for suggestions' for better user experience. Hotfixes are available for step-9.3-mp3 and step-9.3-mp4.

◆ **ISSUE-399797 - Use Auto-ID import fix**

An exception was thrown during a data container import with In-Memory when 'Use Auto-ID' was enabled and no ID was specified. This has been fixed, and hotfixes are available for step-9.3-mp3 and step-9.3-mp4.

◆ **ISSUE-399817 - Business rule exception message fix**

Fixed a problem when a business rule exception message was not shown in Web UI during approval via Approve Action on the Node Editor.

◆ **ISSUE-399956 - Ingredient calculation fix**

Fixed a calculation error when any ingredient returned a 'Not a Number' result. Hotfixes are available for step-9.3-mp3 and step-9.3-mp4.

◆ **ISSUE-400009 - Linkage error fix for Integration Endpoint editor**

Fixed a problem in workbench when the Integration Endpoint editor was throwing a linkage error.

◆ **ISSUE-400588 - Recycle Bin error fix**

Emptying the Recycle Bin for objects queued for processing by event processors and the Outbound Integration Endpoint sometimes caused temporary consistency errors due to the timing of events. These errors are now ignored, allowing for the endpoints to continue. Hotfixes are available for step-9.1-mp5 and step-9.1-mp6.

◆ **ISSUE-400736 - Hierarchy Search Descriptor typeahead suggestion fix**

Fixed an issue where the typeahead suggestions on the Advanced Search screen Hierarchy Search Descriptor were incorrectly sorted.

◆ **Additional logging for importing unique keys**

Additional logging has been added to the thread used in relation to importing unique keys in order to determine root cause. This is because the thread is suspected of failing, which causes the main import thread to fail. A hotfix is available for step-9.2-mp3.

◆ **XML file import for GDSN fix**

When trying to import an XML file in Inbound Integration Endpoint for GDSN in the workbench, STEP would return an error in the Background Process because of invalid content of the file. This has been corrected, so now a warning will be logged in the Background Process, and the invalid document will be ignored during the import process.



◆ **Deleted nodes fix for export**

Corrected OIEP event-based handling of deleted nodes which the export-user does not have permission to view. There is also a step-9.3-mp4 hotfix for this solution.

◆ **Business condition approval message fix**

Fixed a problem when business condition approval messages were not shown in Web UI during approval via Approve Action on the Node Editor. Hotfixes are available for step-9.3-mp3 and step-9.3-mp4.

◆ **BMEcat format import fix**

The problem occurred when importing a product by an XML file in BMEcat format. If an attribute for the product is multi-valued and the values for the attribute are delivered in the XML file as a number of tags instead of one tag with separated values, then only the last value was imported.

Example 1:

```
<KEYWORD>Val1</KEYWORD> <KEYWORD>Val2</KEYWORD>  
<KEYWORD>Val3</KEYWORD> <KEYWORD>Val4</KEYWORD>
```

Example 2: <KEYWORD>Val1;Val2;Val3;Val4</KEYWORD>

This has been resolved to permit both ways to specify the values for a multi-valued attribute.

◆ **Hotfolder hardware configuration fix**

For some hotfolder hardware configurations, the detection of whether a file was finished uploading could fail. This resulted in corrupt files that had only been processed halfway when the upload was very slow. This type of corruption could lead to very high memory usage when metadata parsing the file.

This has been improved so that the detection now works, and so that halfway-uploaded corrupted image files may skip the metadata parsing. Hotfixes are available for step-9.3-mp2, step-9.3-mp3 and step-9.3-mp4.