RELEASE NOTES

STEP Trailblazer 8.2

Updated 12-September-2017

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Release Notes for STEP Trailblazer 8.2

Release Date: June 2017

Document Overview

Audience

This document is intended for use by active STEP users and serves to describe the new and enhanced features provided by the release. It does not serve as a replacement for the STEP online help, which includes additional information on previously existing system functionality, as well as more detailed explanations and step-by-step instructions for use when appropriate.

Content

This document describes the changes between the current and previous release.

Some functionality is controlled via licenses and may not be available on a particular system. Questions regarding licensing for any customer should be directed to the Stibo Systems account manager or partner manager.

Release Overview

Stibo Systems has enhanced the STEP platform in a number of areas, for example:

- Several integrations between STEP and third-party applications have been added or improved including a new data analytics integration, enhanced Loqate integration, new Experian email data quality solution, and enhancements to the GDSN solution.
- A new Matching and Merging solution is available and provides a new strategy for creating golden records and dealing with potential duplicates.
- The Web UI has been updated using Google Material Design concepts giving it a new look and feel.
- New functionality is available for bulk management of values in a List of Values (LOV) and a new global Web UI rule that controls how attribute values display.
- Improved security, including the ability to restrict user access to specific Web UIs.
- Enriched data exchange functionality.
- There is a new 'About STEP' icon on the WebStart page that allows users to view information about their STEP installation.
- Within the Admin Portal, there is a new 'User Activity' tab, and from this tab, system administrators can easily pull reports to determine which users have been active / inactive in the system within a specified time period.

This document describes the above, as well as a long list of other new functionality and improvements, in greater detail.

With every STEP release, typically some STEP components get deprecated, removed, or desupported for various reasons. Anything with a user impact has been called out in the applicable release note and may require special attention and user action before upgrading to STEP Trailblazer 8.2.

A summary list follows. Customers should also read the Platform and Software Support Changes release note for additional items not listed below.

- Top and Bottom child components and corresponding height parameters in Web UI Main Properties have been removed. See the Web UI Enhancements release note for more information.
- The Address Detail components in Web UI have been deprecated and Google Maps integration removed. For more information, see the Web UI Enhancements release note.
- Components and API functionality related to the old GDSN solution have been removed. Please see the GDSN Enhancements release note.
- The STEPXML attribute 'PMPublicationName' has been removed. Information can be found in the Data Exchange Enhancements release note.
- The various Web UI templates, previously available when creating new Web UIs, have been removed from the new Web UI options. See the Web UI Enhancements release note.
- **Stibo Systems is officially ending support for STEP Trailblazer 7.0 - 7.2 and 7.3, effective 1-Aug-2018. See the Platform and Software Support Changes release note for full details.**

In addition to the information above, if there are any known future deprecations or impending desupports planned, the information can also be found in the release note set.

Recipe

The baseline update can be installed with the following recipe:

to:step/trailblazer/step-8.2.spr

Please contact your Stibo Systems account manager or your partner manager for additional information on upgrading to or installing the Trailblazer 8.2 release.

Increased Security

Summary

Stibo Systems is dedicated to the task of continuously improving the security level of STEP. With Trailblazer 8.2, security assessments have been completed and several security enhancements have been made that, while improving the security of the STEP application, have no impact to end users. Those no-impact enhancements are not described in detail in the STEP Trailblazer 8.2 release notes.

Described below are the following security improvements that do affect end users:

- STEP administrators can now restrict access to specific Web UIs, ensuring that users only access the Web UIs they need
- STEP Workbench can now support SSO (single sign-on) on systems which already use SSO for Web UI authentication
- Security has been improved for passwords stored in STEP configuration objects
- A mandatory property change is required for clustered STEP systems

Details

Web UI security enhancements

With the release of Trailblazer 8.2, STEP administrators can now restrict access to specific Web UIs. For systems in which many specialized Web UIs exist, this new functionality ensures that users can only access Web UIs relevant to them.

To accomplish this, a new action called 'Access Web UI' is available, which when included in a Setup Action, grants appropriate users access to Web UIs. To specify which Web UIs can be accessed, a Setup Group can be defined with a setup privilege of the relevant user group.

Previously, users could only be granted / denied access to *all* Web UIs.

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

Improved login handling

Previously, users working in both workbench and Web UI were required to provide a username and password when logging in to each interface. Now, with STEP SSO activated via authentication plugins, accessing a STEP WebStart as an authenticated user allows access to both the workbench and Web UI applications.

The new SSO feature includes:

- Immediate workbench SSO functionality without further set up for existing Kerberos and TrustedHeader configurations. Note that custom SSO solutions may need adaptation to support the new workbench authentication flow.
- A greater level of security since access to all STEP data requires an authorized company login. When using workbench SSO, manual login for STEP Workbench is disabled.

- A reduced risk of a data breach since updating a user's company login credentials affects access to all company applications, including STEP.
- The option to implement a custom single log out solution, ensuring that when a user logs out of one STEP interface, they are logged out of all STEP interfaces.

An implication of these changes is that if the workbench cannot communicate with the STEP server every four hours (for example, due to no network connection, computer sleep mode, or a server restart), the session expires and the workbench terminates.

To ensure backward compatibility with existing configurations, workbench SSO will be disabled by default and will require a separate login for both workbench and Web UI. To enable the new SSO functionality using a Kerberos or TrustedHeader configuration, contact your Stibo Systems account manager or partner manager to engage the support needed to set up the desired STEP Workbench authentication plugin.

Improved password security

Starting with STEP 8.2, passwords stored in STEP configuration objects like Export Configurations, Inbound and Outbound Integration Endpoints, and Gateway Integration Endpoints will be encrypted and will become system specific. This means that it will no longer be possible to transfer such configuration objects from one system to another and have them working without re-entering the password.

To further strengthen the password encryption, the configuration property Security.PasswordEncryption.Seed can be set.

Mandatory property change

A new mandatory property (System.SystemShare.Root) needs to be configured on 8.2 systems. In clustered environments, this property must be set to an existing directory that is accessible by all STEP application servers in the cluster. In a single-server environment, the default value 'shared' will cause a directory named 'shared' to automatically be created in the STEP home directory. When changing the property value to a new directory, all directory content in the old location needs to be copied to this new location. Those customers patching to 8.2 will have to stop their system, add the property in the sharedconfig.properties file and set the shared directory destination, and then patch to 8.2.

For more information about configuration properties and how to access that information on a STEP system, see the Configuration topic in the Administration Portal documentation.

STEP API Enhancements and Updates

Summary

The STEP APIs have been enhanced with both new features and improved functionality. In addition, some previously existing functionality has been deprecated and will be removed in a future release. Users should be aware of the changes now so that they can plan accordingly.

Additional information, as indicated in this release note and when applicable to the enhancements / deprecations outlined below, is available in the STEP API documentation at [system]/sdk or access the STEP API Documentation from the WebStart page.

Details

General Scripting and Extension API improvements

Several new features have been added for the Java APIs, including:

- New functionality for sending emails (including emails with HTML body) available in both the Scripting and the Extension APIs. Additionally, a new 'Mail Home' JavaScript Bind replaces the previous 'Mailer" bind; see the JavaScript Binds topic in the Business Rules documentation for more info on binds. It is important to note that once a rule using the old mail binding is edited and the bind is changed, users cannot get the old Mailer bind back. Removing the old bind means the new Mail Home bind can only be used going forward.
- New Extension API functionality for retrieving workflow tasks for specific users
- New functionality for evaluating / executing business conditions and actions from extensions created via the Extension API
- New functionality for creating attributes via the Extension API
- New option for getting hold of asset content via the Scripting and Extension APIs
- New option for creating extensions with password field UI components (PasswordParameter is now a valid return type in 'Parameters' interfaces)
- New options for Stibo Systems Technology Consulting to make additional functionality available in the Extension API for specific customers

A complete list of all added and updated elements in the Scripting and Extension APIs from Trailblazer 8.1 to 8.2 is available from the STEP API Documentation page (via the Change History links).

REST API Improvements

A complete list of all added and updated elements in the REST APIs from Trailblazer 8.1 to 8.2 is available from the STEP API Documentation page (via the Change History links).

- With this release, basic information about a STEP user can be retrieved using a new REST resource. Previously, STEP only supported SOAP methods for polling user information.

- The configuration property 'RestAPI.ResultSize.Max' is used to prevent out-of-memory exceptions when the REST API GET resources /assets, /products, and /classifications are invoked. The default limit for how many nodes can be returned is now set to 20000 for anyone implementing or updating to an 8.2 STEP Trailblazer system. If the limit (any positive integer) is exceeded, an exception will be thrown. Setting the property to -1 indicates to the system that there is no maximum size limit.
- There is a new REST API: DataProfileResource. For more information about the API functionality, see the DataprofileResource section of the STEP REST API documentation.

Average Object Completeness Data Profile

A new REST Web Service is now available for the Average Object Completeness Data Profiling tool. The Average Object Completeness Data Profile web service makes it possible to extract completeness information stored in STEP data profiles. For more information about the Average Object Completeness Data Profiling tool, see the Object Completeness section of the Data Profiling documentation.

Attribute Values Data Profile

A new REST Web Service is now available for the Attribute Values Data Profiling tool. The Attribute Values Data Profile web service makes it possible to extract information about attributes values and their distribution as it is stored in STEP data profiles. For more information about the Attribute Values Data Profiling tool, see the Attribute Value Profiles section of the Data Profiling documentation.

Changed LOV to no longer auto validate units

The default value of the configuration property 'ListOfValuesValue.EnableUnitAutoValidation' is now 'false.' When set to true, the property allows values that contain invalid units (units not legal for the LOV) to be set for an LOV value when the ListOfValuesValue.setValue(String value, Unit unit) / setValue(String value, Unit unit, boolean dontForceLocal) are used.

GetSimilar Web Services enhancement

The getSimilarObjects Web Service API has been enhanced to make it easier to search for and identify existing similar records (entities) in STEP prior to initiating new ones. By providing better search functionality and more relevant search results, users can make a more qualified decision and eliminate duplication.

Previously, the getSimilarObjects response was limited to providing the ID, Name, Object Type, Super Type, Rank, and STEP URL of the identified objects. Drawing from only this limited set of data points, correctly identifying similar records could be a challenge. After a review of the results, users often had to retrieve and review additional information about the returned records to determine if they were truly duplicate. This process was slow and delayed the new record creation process.

Now, users can specify which data points will be returned from the web service scan. Developers can include a template specification (for entities only) in their requests that describes which data points they want returned, including data container types. This process gives users more control over their searches and enables faster creation of new records by eliminating multiple API calls and STEP searches when analyzing data.

Complete documentation for Web Services functionality related to GetSimilarObjects can be found in the STEP API documentation (SOAP services) at [system]/sdk.

New REST Extension API Features

JSON Support

When creating REST resources using the STEP Extension API, it is now possible to create resources that can use JSON.

The following types support serialization / deserialization:

- POJO
- Array
- List
- Set
- Map (string keys)
- Primitives / Boxed Primitives

Currently, polymorphic deserialization is not supported.

JAX-RS 2.0

The Extension API REST framework has been updated to meet the JAX-RS 2.0 specifications. REST extensions created on earlier STEP releases will continue to work given that the original 'Import-Package' instruction in the partner.gradle file for extension resources has not been modified. Note that the asynchronous processing features of JAX-RS 2.0 are not currently supported.

To update all existing REST extensions to use JAX-RS 2.0, please refer to the updated 'partner.gradle' file distributed in the Extension API Libraries, Javadoc and Examples ZIP file, found on the STEP API Documentation page.

Deprecation and removal notices

All REST resources relating to the Publication Manager (PM) and the STEP-director will continue to be available for the 8.2 release, but will be removed for the fall 2017 release of STEP Trailblazer. What follows are the REST resources that will be sunset:

/pm-director/

/pm-director/classifications/{id}

/pm-director/createDirectorAsset/{parentId}

/pm-director/uploadContent/{assetId}

/pm-director/queryNodes

/pm-director/queryAttributeSearch

As previously mentioned in the STEP Trailblazer 8.1 release notes:

- The core STEP REST API no longer produces Badgerfish-notated JSON. **Customers using the Badgerfish format for integrations should contact Stibo Systems for information on how to safely upgrade to Trailblazer 8.2 without any disruptions in service.**
- The package com.stibo.portal.componenttype.packaging and all its sub packages have been removed from the STEP Web Services API.
    - getPackagingHierarchyParentLinks
    - getPackagingHierarchyChildLinks
    - getPackagingHierarchyLink
    - setPackagingHierarcyLinkQuantity
    - createPackagingHierarchyLink
    - deletePackagingHierarchyLink

  The functionality was replaced in previous STEP releases, and the removal now is a part of the removal of the old GDSN solution. For more information about the removal of the old code from the GDSN solution, see the GDSN Enhancements section of the STEP Trailblazer 8.2 Release Notes.
- The STEPXML DTD (PIM.dtd) has been removed as communicated in the 8.1 release note. Please use the PIM.xsd file available at [host]/files for validation instead.

Bugfixes

ISSUE-268290 - Update to SDK documentation and issue fix for manager binding

Added to SDK documentation functionality from matching algorithm that can be used from JavaScript engine. Repaired problem with manager binding that was not working correctly for matching functionality from SOAP Web Services.

ISSUE-277685 - Calling getChildren with SOAP Webservice is now fixed for PublicationSection

Previously using SOAP Webservice, the getChildren request for publication sections returned information that this object type was not a tree node and was not supported. This has been fixed.

ISSUE-278857 - REST API call to fetch background processes has been fixed

The REST API call to fetch background processes would sometimes fail because some of the background processes were deleted concurrently with the REST request fetching them. A general fix to make STEP more robust when fetching information that happens concurrently now prevents this error from occurring.

In-Memory Database Enhancements

Summary

In an effort to increase performance in STEP, In-Memory optimizations have been made that include reducing In-Memory storage requirements for faster start-up time, improving single update mode (SUM) handling, and allowing more search plugins to utilize In-Memory.

Details

Reduced STEP start-up time and memory footprint

Starting with Trailblazer 8.2 on In-Memory-enabled systems, historical data—data for which newer values exist—will no longer be held in memory and current data only will be cached. These changes shorten the time it takes to populate the RAM during read-up(when the system starts). This will also limit the amount of RAM required to run In-Memory. The read-up time and the reduction of required RAM will be proportional to the amount of historical data in the STEP database. Tests on enterprise customer setups have shown that the memory footprint could be reduced by around 30 percent.

Operations accessing historical data will automatically fetch data from the database instead of from memory, ensuring the change will not affect existing STEP functionality.

Improved Single Update Mode handling

In previous releases, the STEP system required a complete read-up after an In-Memory Single Update Mode (SUM) period. Now, with certain SUM operations, only database tables used by these operations will be re-read. This method reduces the time the system is in SUM.

More search plugins utilize In-Memory

The following search plugins now utilize the In-Memory technology:

- Search from list (except unique key)
- Below entities search
- References search (except missing references and inherited; also, Referenced By search has not been accelerated)

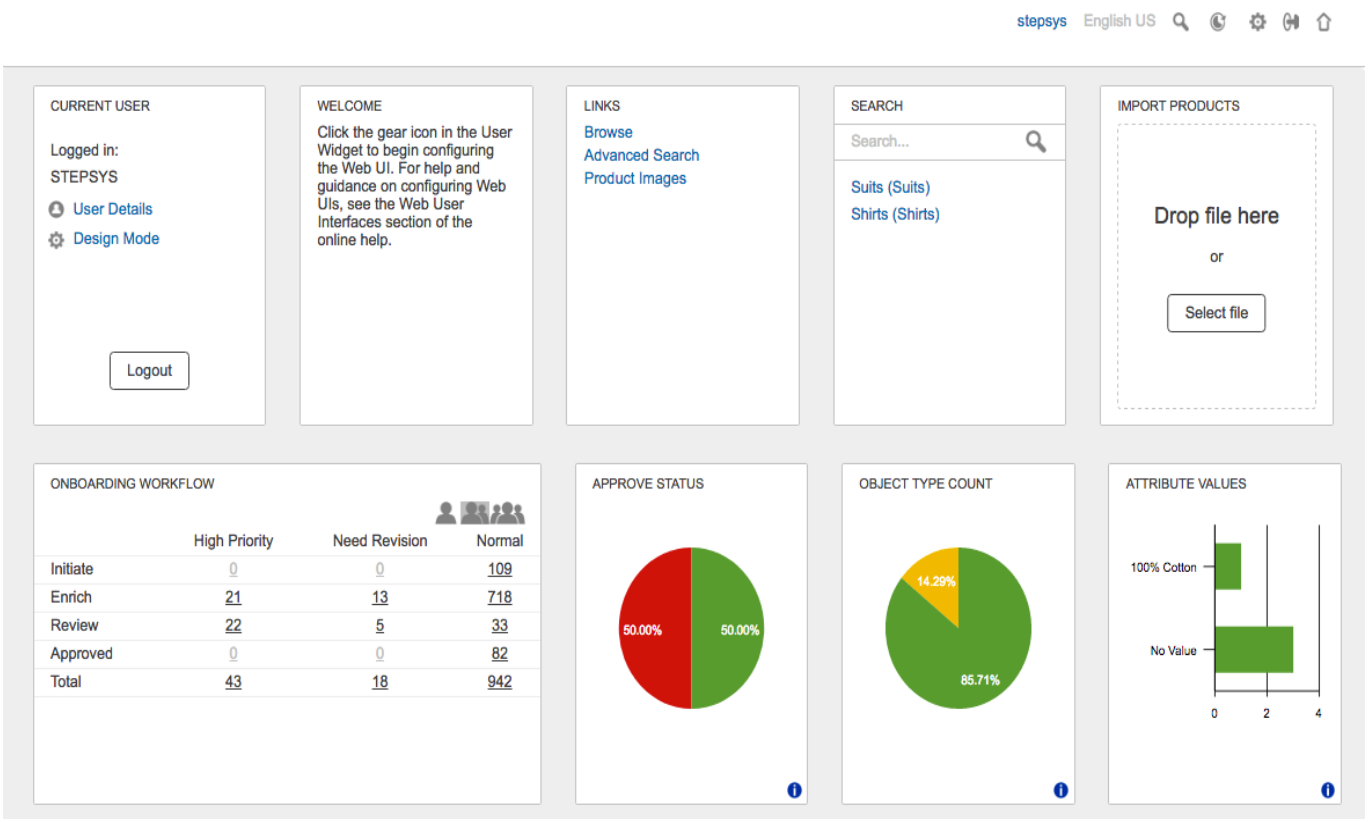
Miscellaneous performance and memory optimizations

Several smaller enhancements are included to reduce the memory footprint and improve performance of In-Memory systems. The changes, while improving In-Memory, have no impact to end users and are not described in detail in the STEP Trailblazer 8.2 release notes.

Enhanced Web UI Visual Design

Summary

The release of STEP Trailblazer 8.2 brings with it a dynamic redesign of the Web UI. Using the principles set forth in a design language created by Google called Material Design, the new look and feel touches on nearly every aspect of the Web UI. As a result of this redesign, the aesthetic of the STEP Web UI is more streamlined and the interface easier to navigate.

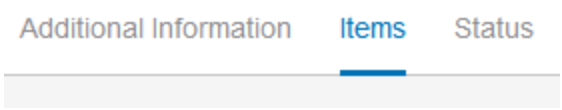


Details

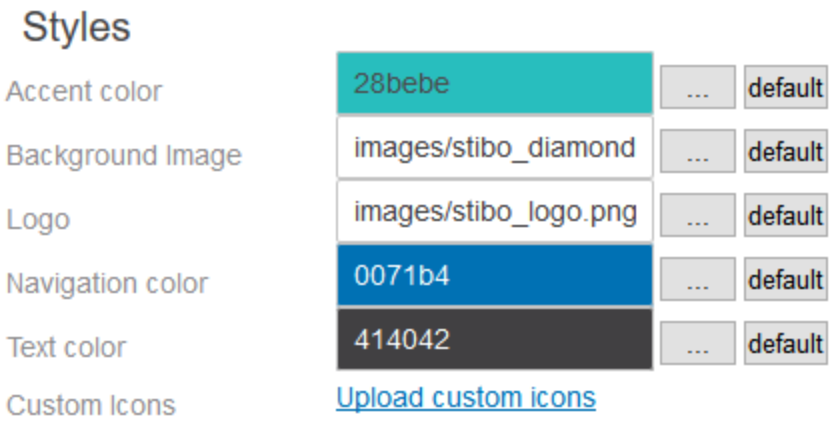
The fast pace of change in the digital realm challenges everyone who creates and maintains web-based interfaces to find ways to stay current. A large and growing number of web designers are turning to Google's Material Design to improve the look and feel of their digital offerings. Material Design focuses on clean, simple layouts that facilitate access to content by making interfaces more intuitive. In practice, this entails stripped-down color schemes, unobtrusive lines, improved white space use, elemental shapes, and easy-to-read text. By incorporating Material Design's motifs into the STEP Web UI, not only is the interface's look and feel more current, the overall usability is improved.

What follows are some of the visual changes users of the redesigned Web UI will see. None of the changes listed below require configuration adjustments by an admin user:

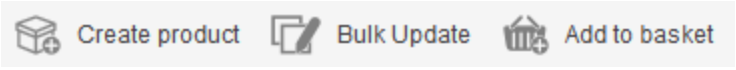
- Text size has increased. To improve the overall readability of text in the Web UI, both the font size and the space between lines of text has been increased.
- Tabs are more streamlined. On screens with tabbed viewing enabled, the active tab is now indicated by a bold line under the tab's header.



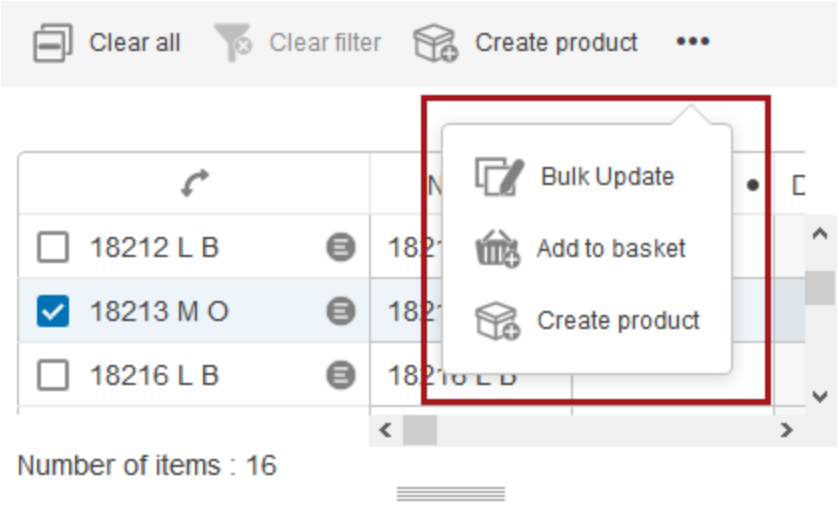
- Corner bar buttons are now on a global header accessible anywhere in the Web UI. The various buttons that can be configured to display in the upper right-hand corner of the Web UI can now be accessed in all Web UI pages, including the homepage.
- Default Web UI color scheme is more vibrant. Shifting away from the gray color scheme of earlier Web UIs, the new default color scheme makes limited but impactful use of colors like teal and blue.



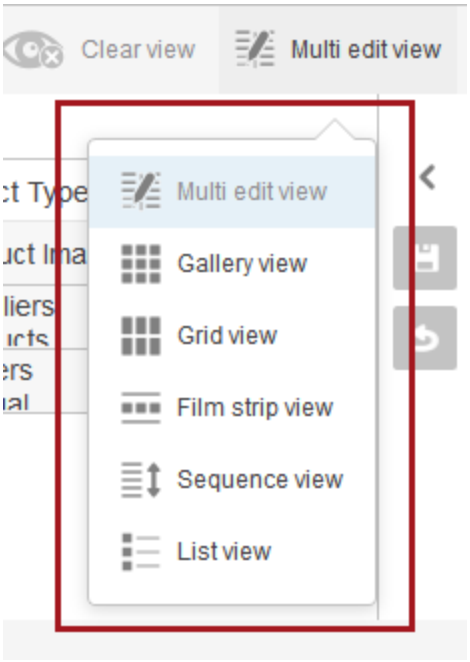
- Toolbar action button labels have moved. By repositioning the label from below the button icon to its right, the toolbar's height has been reduced, thus right-sizing the toolbar's prominence and allowing the data to stand out more clearly.



- Toolbar actions will overflow into a dropdown menu. If the number of actions configured on a screen exceeds the available space in the toolbar, those excess actions will now flow into a dropdown menu.



- Display Modes are available from a dropdown menu. All Display Modes added to a Node List on a Web UI screen are now bundled together in a dropdown menu accessible from the toolbar, leaving only the active Display Mode visible. Because of this change, more toolbar space is available for toolbar actions.



Other initiatives incorporated as part of the 8.2 Web UI restyling effort include updating the Multi Revision Screen filter dialog and overall Web UI efforts to reduce the prominence of less important screen elements, reclaim unused white space to take full advantage of the available screen real estate, and optimize the layout to aid easy viewing and interaction with the displayed data.

While the 8.2 release of STEP Trailblazer features a number of useful new features for Web UI, the redesign project in particular has affected none of the Web UI's baseline functionality. However, depending on the customer's setup, some minor configuration changes may be required to ensure

proper and uninterrupted operation of the Web UI following an upgrade to STEP Trailblazer 8.2. To that end, Stibo strongly recommends that customers create a plan for upgrading that evaluates the impact of upgrading prior to implementing 8.2 in a production environment.

For more information regarding other enhancements to the Web UI that are also part of this release, see the Web UI Enhancements section of the STEP Trailblazer 8.2 Release Notes.

For more information about how to configure and use Web UI, see the Web User Interfaces documentation.

Web UI Enhancements

Summary

The STEP Trailblazer Web UI features a number of improvements for the 8.2 release, significant enhancements to existing features, as well as the addition of new features.

- Enhancements to security allow user access to be restricted to designated Web UIs
- Simplified automated testing of Web UI
- New space-saving title parameter for several screen types
- New options for more efficiently managing how attributes display and behave in Web UI
- Simplified process for Web UI creation
- Enhancements to data imports through the addition of a new background process (BGP) side panel, improved BGP notifications, and import Summary Report
- Added freeze panes feature for node list tables
- Parameter changes in Main Properties improve both the STEP end user and admin user experience
- Improvements to searching nodes using a Search Node(s) dialog
- New toolbar action gives the ability to create a reference or link for multiple objects at the same time, making bulk updates of references and links faster and easier
- The Completeness Meter component can now display the contribution of both data container types and reference types, as well as the degree to which they contribute to the overall completeness score
- A new option to display a clickable content indicator for a workflow task has been added to the Status Selector Homepage widget and its sidebar component counterpart
- A new component called 'Corner Bar Search' has been added to Web UI, which via a new search plugin allows users to search for golden records created through Match and Merge via their source record IDs

In addition to the above, users should be aware that Google Maps has been desupported and the associated Web UI address components have been deprecated.

Details

Control user access to individual Web UI instances

STEP administrators can now restrict access to specific Web UIs. For systems in which many specialized Web UIs exist, this new functionality ensures that users can only access Web UIs relevant to them. For more information, see the Increased Security topic in the Trailblazer 8.2 release notes.

Simplified automated testing of Web UI

Automated testing of Web UI has been simplified with the expanded use of individual IDs on more elements and components. The IDs facilitate automated testing, and without them, automated testing is time consuming since scripts have to be written, and often times edited, each time screen layouts change.

New space-saving title parameter available for several screen types

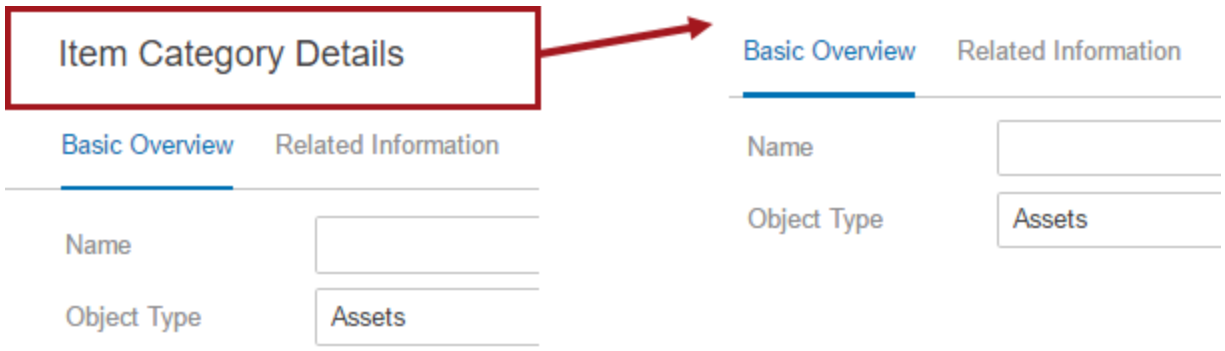
When displaying the title on some screen types, when configured with or as Sub Screen Tab Pages, the title becomes redundant to the user when working with objects in Web UI. Previously, designers could only remove the title by entering a space in the Title parameter. However, this did not eliminate the screen space reserved for the title.

A new Show Title parameter allows users to hide the title, and the associated white space, on the following screen types:

- Asset Preview
- Background Process Node Details
- Display Children
- Multi Context
- Multi Revision
- Node Details

By default the Show Title parameter is enabled. This ensures that users who currently have titles displayed will not experience a visual change upon upgrading.

The image below shows the difference between having the Show Title parameter enabled (on the left) and the Show Title parameter disabled (on the right). When disabled, the title and its white space are no longer visible and the other screen elements move up.



New options for managing how attributes display and behave

Many new options have been added for efficiently managing the display and behavior of attributes in Web UI. Enhancements to the Attribute Validation component deliver more extensive functionality to the Attribute Management screen, allowing users to control how an attribute displays throughout Web UI. A new global rule provides additional control over how attribute values display and behave, and a new Mandatory Group parameter has been added to the Attribute Value Group component.

For more information, see the Enhanced Attribute and Attribute Value Management topic in the Trailblazer 8.2 release notes.

Simplified Web UI creation process

The Web UI creation process has been streamlined with the release of STEP Trailblazer 8.2.

Previously, when admin users created a Web UI, they were required to choose one of six templates. Each template created a Web UI pre-configured with screens and components based on an assumption of what the Web UI would be used for. Admin users would then need to reconfigure the Web UI components to meet their needs. This reconfiguration often involved users removing many of the pre-configured components because they either did not meet business requirements or were outdated.

Now, rather than selecting from a template, STEP provides users with a single baseline Web UI. The new Web UI comes configured with basic necessities, including icons for design mode access and links for setting context and workspace. The interface can then be built to fit precise business requirements.

It is important to note that when creating a Web UI, it is recommended that each Web UI be created within its own setup group. See the Web UI Security Enhancements section of this release note for more information regarding the ability to set up user access to specific Web UIs versus all Web UIs for a STEP system.

For more information on how to create a new Web UI, see the Creating a New Web UI topic in the Web UI Getting Started section of the Web User Interfaces documentation.

Future of Print on Demand

Please note that the Print on Demand package, one of the main areas of functionality within the STEP Publishing Web UI template (removed for STEP Trailblazer 8.2 release), will be phased out according to the following schedule:

- No new features will be added to the package as of this release
- Support for the package will be discontinued by the end of 2019

Improvements to data imports using the enhanced Background Progress Notification

Previously, when importing data using the Data Import screen, it was possible to select the 'OK' button multiple times, causing more than one import background processes to start for the same import. Now, once an import starts, the 'OK' button cannot be clicked.

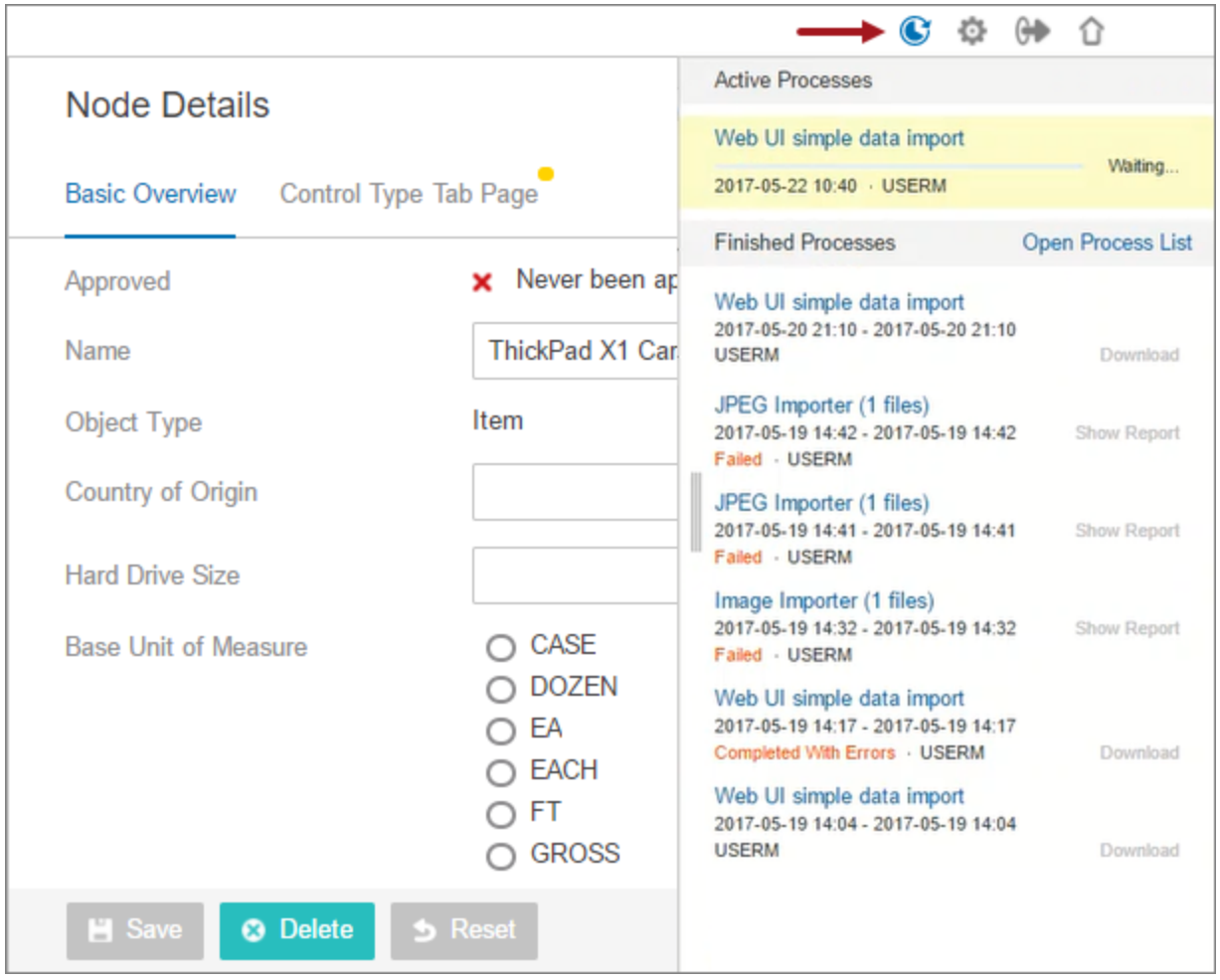
Previously, once a user initiated an import, if they needed to know when the import completed successfully (or failed), they could click on the Background Process Notification icon (configured in the top right Corner Bar) to view a brief overview of the user's last 10 background processes (BGPs). There was no way to notify the user when the status of their import changed. To see details, the user had to navigate away from their working screen to see an informative summary of their import process.

Now, managing the process of importing data is much more efficient and intuitive. Users can be automatically notified once an import has completed successfully (or with errors), and by clicking the BGP notification icon a new BGP side panel displays the overall status and some key details of their latest imports.

In a glance, the user has access to an improved overview, and convenient functionality (for up to 99 of their BGPs) that includes:

- An enhanced title that incorporates the BGP description, and links to the BGP Details screen (if one is configured)
- A progress bar along with a progress status of 'Waiting...' or an estimated percentage of completion
- A 'Show Report' link that displays the BGP Summary Report within the BGP side panel

Previously a Summary Report was available as a floating dialog when the Assets Importer was used, or when GDSN validation errors occurred. Now the BGP Summary Report is also available for data imports, and provides easy access to the import and/or validation processes, as well as improved error messages within the convenient BGP side panel. Where the error message previously reported, as an example, 'Rejected new product on source position: Line 780,' it now displays more detailed information like 'Part XYZ rejected new Product.' This allows users to more easily understand why the data import is failing, and then correct data in real time, because they can view (or edit) the detail page of the imported object (e.g., product details page), while viewing the data import error messages all in one place.



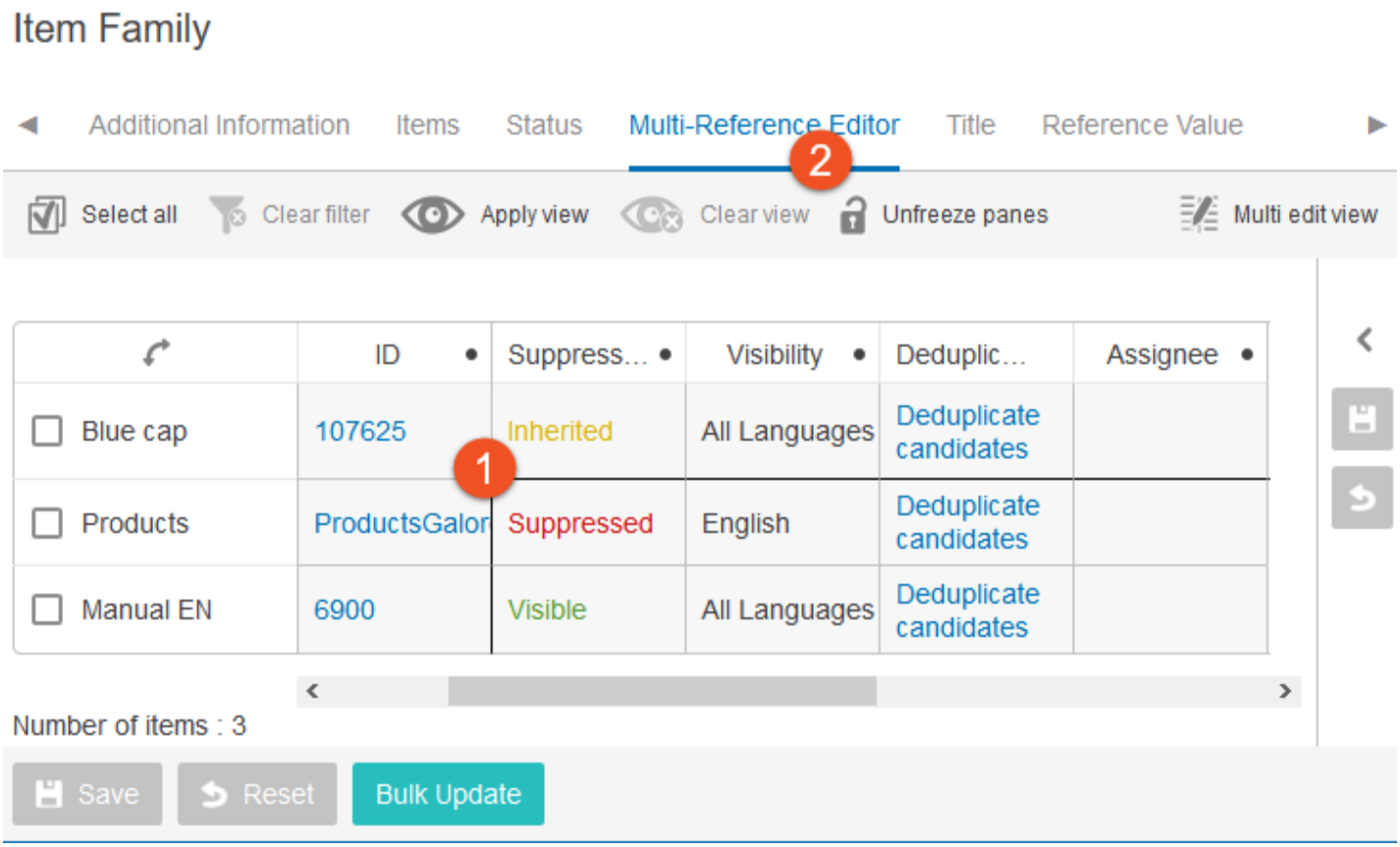
For more information, see the Background Process Notification Component section of the Corner Bar Component topic within the Web UI Getting Started documentation.

Freeze panes in Node List tables

Web UI users are now able to freeze columns and rows in tables when working in Multi Edit Display Mode and Compare Display Mode within a Node List. This functionality enables users to freeze a section of a table, allowing for a more customized scroll either vertically or horizontally. For users familiar with Microsoft Excel, this feature resembles its 'Freeze Panes' feature in a number of ways.

One of the prime benefits of this new feature applies in cases where users review and compare information in very large tables in the Web UI. In earlier iterations of the Web UI that did not have the ability to freeze columns and rows, the likelihood that users could misread tabular data and make an error was much greater. The added flexibility this feature provides significantly lessens the possibility of this outcome.

When working in a Node List displayed in multi-edit or compare view, where the toolbar action has been configured, users simply click into the cell upon which they want the table to freeze both vertically and horizontally. To complete the selected freeze, users must then click the Freeze Panes toolbar button ( ). With the freeze action complete, all visible rows above and all visible columns to the left of the selected cell will always display while all rows below and all columns to the right of the selected cell can be scrolled. The scrollable area of the table is made visible by a darker rule going both horizontally and vertically.



Changes to Main Properties

To improve user experience within the Web UI, these Main Properties parameters and components have been eliminated and are no longer applicable to Web UIs created in a STEP 8.2 system:

- Resizeable—This parameter applied to the child components and determined whether or not to display a drag handle so the components could be resized manually. Now, the drag handle is automatic and there is no need for an admin user to enable the functionality.
- Top and Bottom Child Components —These components are rarely used since most components are better suited to be displayed on the right or left side of the screen or via the Corner Bar.
- Top and Bottom Height—These settings control the Top and Bottom Child Components.

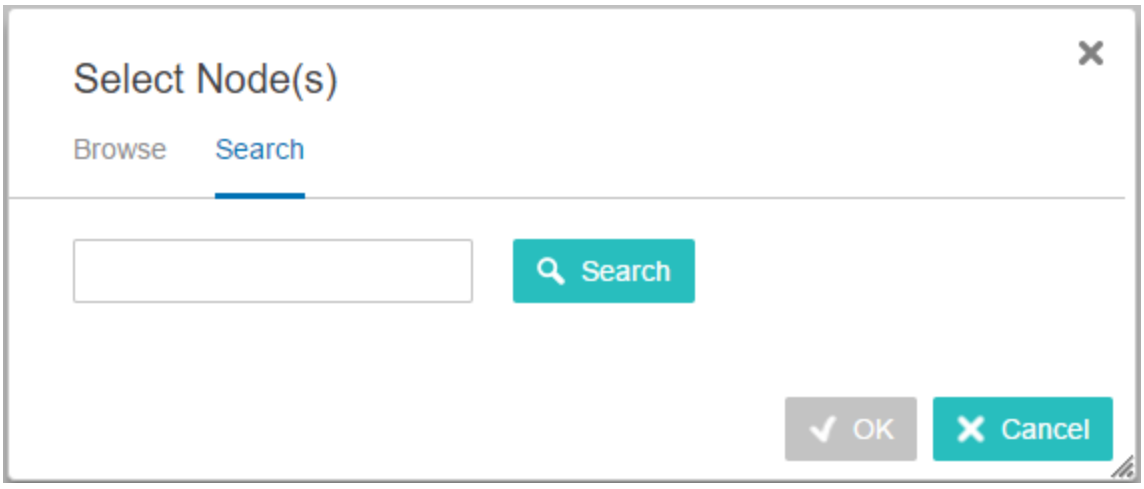
If the Top and/or Bottom Child Components and Height parameters are populated for customers upgrading to 8.2 from a previous STEP version, then nothing changes. The parameters are grayed out, but remain populated, to indicate that the parameters are deprecated. If the parameters are cleared at any time and changes are saved, then the parameters will not display in Main Properties the next time it is displayed.

Additionally, the Representation List has been renamed to the Global Representation List to better describe the global impact of the functionality configured within this parameter.

For more information on configuring the Main Properties, which determine the overall behavior of Web UI, see the Main Properties topic in the Web User Interfaces documentation.

Node picker search results expanded

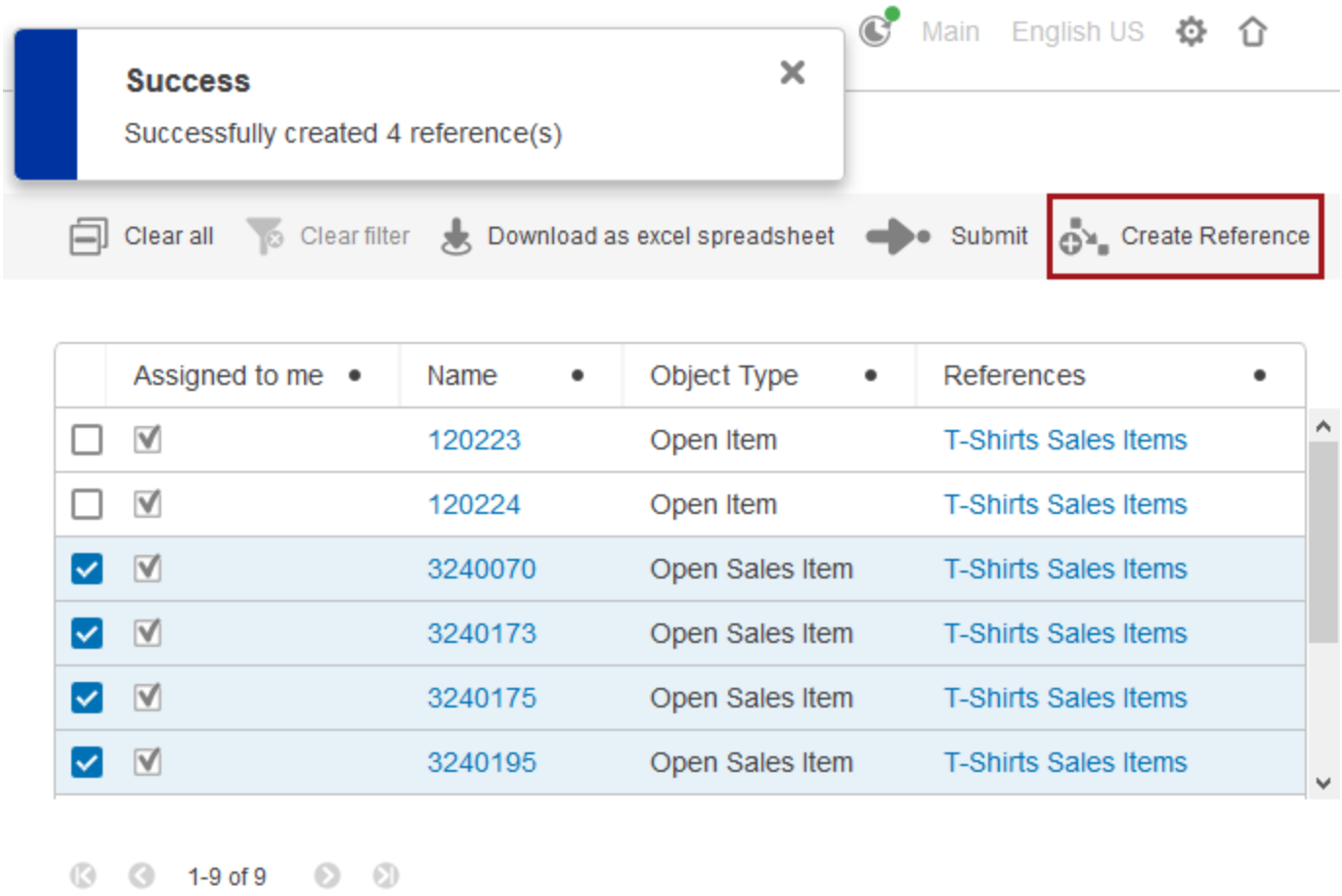
In previous versions of STEP, the majority of the node pickers (node selectors) in Web UI had a 25 entry maximum and presented a 'Search response truncated' message when that number was exceeded. The node picker Select Node(s) Search functionality has been updated to now return a max of 100 entries with no message presented in the dialog. The expanded number of entries is especially useful to those users doing wildcard searches to complete an action (for example, add a reference target to an object).



Create a reference or link to multiple objects with toolbar action button

Previously, when a reference or link was required for multiple objects being displayed in Web UI, for example on a Task List, it had to be created individually for each object.

Now in Web UI, a new toolbar action button can be configured that enables the user to create references or links between selected objects and one or more targets for the configured reference or link type. The available reference and link types include Classification, Entity, Image and Document (assets), or Product reference types, or the Product to Classification link type.



The new 'Create References Action' can be used to display browse and/or search options for identifying a target. Proper configuration of the action parameters enables the end user to easily identify the intended target(s) for the new reference or link, for example, by searching values on metadata attributes that are valid for the reference or link type. For a reference or link type that allows multiple targets, the user chooses to replace the existing specified reference or link altogether, or to add the new reference or link. When a single target is allowed, the existing reference or link is replaced. An additional action button can be configured for each required reference or link type needed.

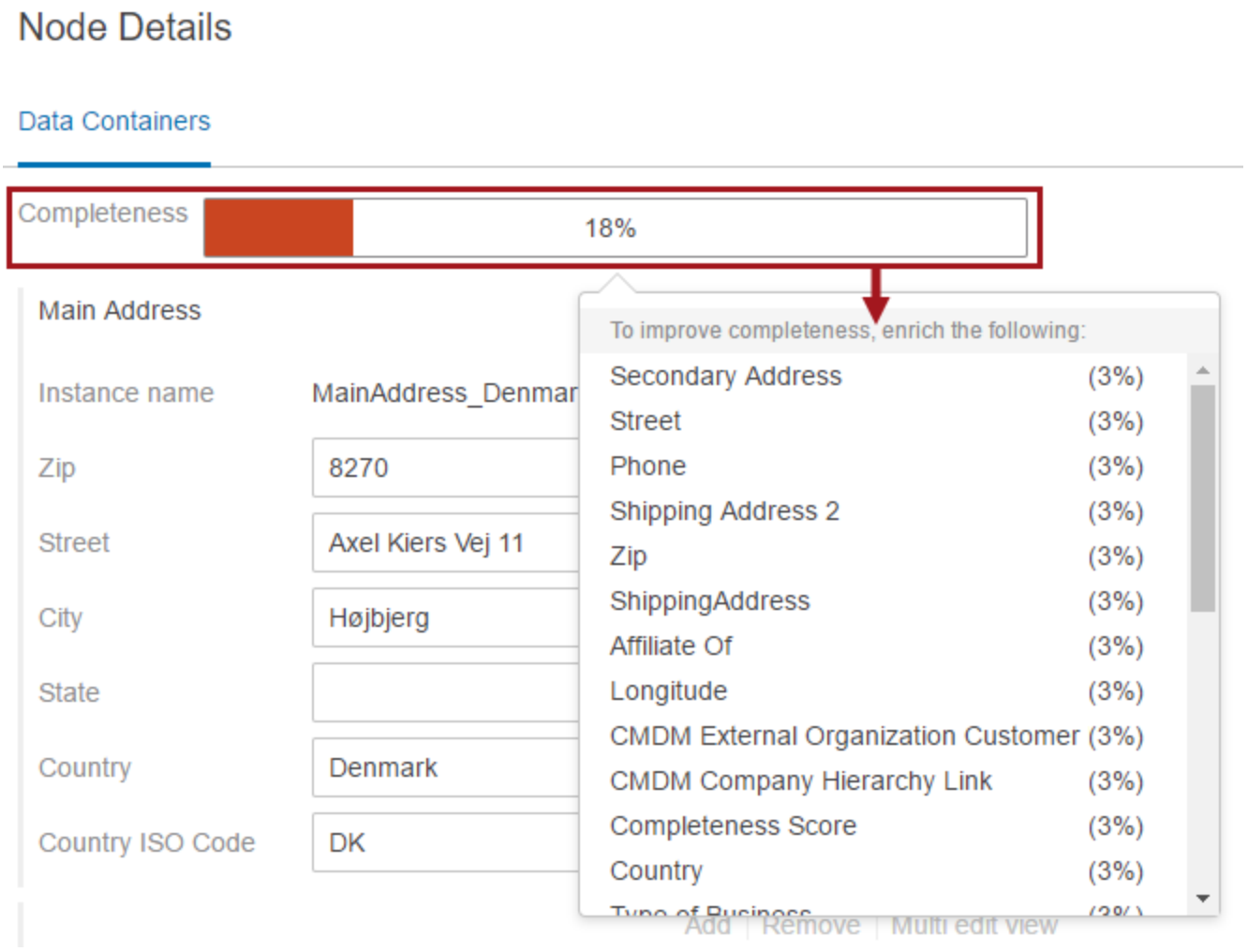
The Reference Header results have been updated to include link targets, in addition to an object's reference targets. Additionally, new filtering allows the user to identify the objects without a reference or link.

For more information, see the Action Buttons topic of the Web User Interfaces documentation.

Completeness scores display data container types and reference types in Web UI

Previously, the Completeness Meter component in Web UI only displayed relevant attributes that were missing values along with their contribution to the overall completeness score.

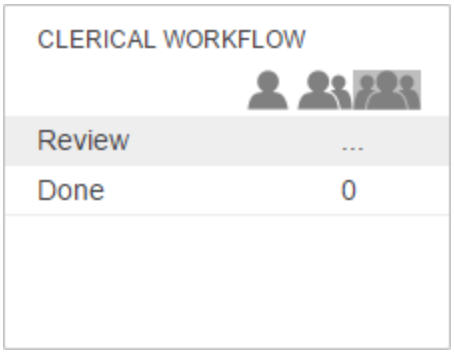
Now, this component can also display the contribution of both data container types and reference types, as well as the degree to which they contribute to the overall completeness score. Data container completeness percentages are displayed in a similar manner to the workbench.



For more information, see the Object Completeness in Web UI section of the Data Profiling documentation.

New content indicator for the Status Selector Homepage Widget and Status Selector Sidebar Widget components

A new option to display a clickable content indicator for a workflow task rather than the exact workflow task count has been added to the Status Selector Homepage widget and its sidebar component counterpart. This option can be found under the Advanced flipper in the designer, and is called 'Use Content Indicator.'



New Web UI Corner Bar Search component

A new component called 'Corner Bar Search' has been added to Web UI. This component functions in a similar fashion to the 'Corner Bar Simple Search' component, but can be configured with search plugins (as per the Home Page's Search Widget) like 'Name Or Id Or Attributes.' For Merge Golden Record, a new search plugin called 'Golden Record - Source Record ID' has been introduced and can be configured on the Corner Bar Search. This plugin allows users to search for golden records via their source record IDs.

Note that when searching via source record IDs, only active golden records will be found.

For more information, see the Corner Bar Search Component section of the Web User Interfaces documentation.

Removal of Google Maps integration and associated address components

The Google Maps view and search have been removed from the Web UI for security reasons related to third-party software. As a result of this desupport, the Address Detail components have been deprecated. This includes the 'Address Detail' component as well as the 'Address Detail Map' and the 'Address Detail Search' components.

This change will not affect versions up to and including STEP Trailblazer 8.1. Integration with another address service is planned for a future version of STEP.

For STEP users upgrading to 8.2 who are currently using the Google Maps view in Web UI, the `Portal.GoogleMap.Channel` property must be removed from the sharedconfig.properties file to prevent errors when restarting the system after installing the 8.2 release recipe.

For those STEP users with child components (attribute values / group values / data containers) configured within the Address Detail component, these can simply be reconfigured to display via the Node Editor component. This does take advanced planning to coordinate, so setting it up before upgrading to an 8.2 system—and before losing access to the Address Detail component and its child components—is recommended.

Upon upgrade to 8.2, if any screens remain with the deprecated Address Detail components, users will receive an alert when entering design mode that says 'The Web UI configuration contains components that are no longer supported.' As an example, if the alert says [NodeDetails {Address Detail Screen} -> [additional info], the screen name is 'Address Detail Screen' and the information after the screen name further details where the address detail component was originally located. To remove the alert, an admin user should select the impacted screen within the designer and then save it (as is) or delete it, if not reconfiguring as described in the paragraph above. Once this has been done, the screen info will disappear from the alert. If multiple screens are impacted, then the alert will no longer appear after all screens are resaved / deleted.

For more information about setting up a Node Editor to display address information, see the Node Editor Component section of the Web User Interfaces documentation.

Bugfixes

- **ISSUE-251244 - Corrected an issue in Web UI when filtering attributes in grids**

  Made attribute filtering in Web UI grids more predictable with regard to resource usage, preventing prolonged waiting times.

- **ISSUE-261527 - Fixed a problem with selecting multiple nodes in a table display mode in the Web UI**

  In Web UI, when one or more nodes were already selected in a Node List in Table Display Mode, selecting another node caused the focus to change to the first selected node. This has now been fixed.

- **ISSUE-262466 - Corrected the visibility of data from a Follow Single Reference component on a Tab Page in Web UI**

  There is a component in Web UI called Follow Single Reference that can be added as a Tab Content property for a Tab Page component. In some cases the Follow Single Reference component displays data that does not fit in the Tab Page height, and the data goes outside of visible part of the page. It could not be viewed and edited, and there was no possibility to scroll through it. The error has been fixed, and a vertical scroll bar appears when data goes outside of a Tab Page.

- **ISSUE-263417 - Enlarged images in Web UI are now shown in the center of the available space of the browser window**

  In the Web UI if a user enlarged an image with a popup window that had a bigger image, sometimes the thumbnail was not shown completely. Instead it was moved partly outside the browser window. This has now been corrected so that if the enlarged image cannot all fit into the window, it will be shown in the center of the available space of the browser window.

- **ISSUE-264736 - Updated the placeholder text for the Advanced Search Screen in Web UI**

  The value criteria in the Web UI's Advanced Search Screen had been updated in a previous release to allow searching for multiple values. The placeholder text said 'Select options...,' even if the user had to type in values (i.e., non-LOV attributes). The text has been updated to make more sense.

- **ISSUE-265184 - Using the Multi Reference component in Web UI to work with references now shows the correct object types**

  In the Web UI, the Multi Reference component can be configured to work with references in both directions, such as when a product makes 'references to' or when it is 'referenced by.' When using the Add Reference Action, it is possible to add a new reference and choose which target object to refer to. Previously, when using search to find the existing object to refer to, there should have been objects with the supported types only, but this was not the case. The component configured with 'references by' showed the wrong object types. This error has now been fixed.

- **ISSUE-273897 - Corrected a bug in the node selection when adding a reference**

  When adding a reference via the Multi Reference Editor in Web UI, when a user added a reference target of one type (Reference Type) and then added a reference target of different type, then the 'Select Node(s)' window displayed an incorrect 'Reference Type' tree of nodes. This has now been corrected by refreshing validations (tree node) on 'Select Node(s)' window while opening the Add Reference dialog.

- **ISSUE-274253 - Updated user privileges to hide the Create Collection button when the privilege is not given**

  In Web UI, the user who did not have the privilege to create collections was still able to select the 'Create Collection' button. This has now been corrected by hiding the 'Create Collection' button if the user does not have the privilege to create collections.

- **ISSUE-274484 - Fix display of long text attributes**

  Previously, only the initial part of an attribute value was presented in the Attribute Value component. The problem occurred for long text attributes within a Node Editor. This problem has now been fixed.

- **ISSUE-274617 - Removing references is now fixed on the Multi Reference Editor in Web UI**

  In Web UI on the Multi Reference Editor, when a user tried to remove a reference by clicking 'Remove reference,' they could not do so because the 'Remove reference' button was not enabled. This happened when trying to remove references from classification to product. This has now been corrected by enabling the 'Remove reference' for 'reversed' reference (classification to product).

- **ISSUE-275218 - Updated the hour range to show changes in 0-23 hour intervals in Web UI**

  The component used to show revisions in the Web UI would only show hours in the 1-12 range, with no AM / PM indication. This has been change to 0-23 hour intervals.

- **ISSUE-275494 - Nodes now display in the order they are in Tree when selected using the Multi Selection Screen in Web UI**

  Previously when using the Multi Selection Screen in Web UI to select multiple nodes, the selected nodes would be displayed in seemingly random order by default. This has been fixed such that the nodes are ordered resembling the way they are ordered in the Tree Navigator.

- **ISSUE-275557 - Product now automatically shows in the left Tree panel of Web UI when searched for in the Search Widget**

  In Web UI when a user searched for a product from the 'Search Widget' on the Homepage, the product selected was not always visible on the left Tree panel. Instead the user would have to manually scroll through the Tree to find it. This has now been corrected to scroll automatically through the left Tree panel, and unveil the selected product.

- **ISSUE-275608 - Fixed a filtering bug occurring within a task list**

After applying a filter on any one attribute column in a Web UI workflow task list in Multi edit view (Multi Editor), then non-editable attribute columns (which are present under the attribute group) will be hidden / disappear. This has now been corrected so after applying the filter on one column, the non-editable columns remain visible.

- **ISSUE-275631 - Corrected a bug related to how tab pages behave when nested**

  The Web UI allows nesting tab controls. For example, a Node Details screen may have a Tab Control configured to point to a Tab Page, then that Tab Page is set up to point to a Tab Control that points to a Tab Page, etc. In this case, if selecting a tab page down further in the hierarchy of tab controls / tab pages, the selected tab was not properly saved when navigating to other tab controls after refreshing the page or running a command that would cause the page to reload. This has been fixed so that each tab page has its own key and actions work as expected. This fix was also hotfixed back to STEP Trailblazer 8.1-mp5.

- **ISSUE-275648 - Editing LOV attributes in Multi Edit View in Web UI is now fixed**

  When selecting LOV attributes in Multi Edit View in Web UI for multiple rows, the system was closing the popup after picking up the original value when using either the keyboard arrows or a mouse click. This has now been fixed.

- **ISSUE-275660 - Selecting multiple cells while holding the shift key down when in tables is now possible in Web UI**

  In Web UI users were unable to select multiple rows / cells in tables while holding the shift key. This has now been corrected so that when a user selects the first cell, and scrolls the table down to select the last cell, with the shift key pressed, all cells from the first cell to the last cell will be selected.

- **ISSUE-275770 - Fixed a bug in rendering of valid attribute headers in Multi Edit Display Mode**

  When using the 'Show Only Valid Attributes' parameter in the Web UI Multi Edit Display Mode, under certain circumstances the first headers would initially get cut off, and the scrollbar would show no indication of their presence. Using the arrow keys or scrolling first right and then left would reveal them. This has been fixed such that they display as expected.

- **ISSUE-276090 - Corrected LOVs from being oversized and showing scrollbars when set on the Attribute Value Component in Web UI**

  In Web UI when the 'Attribute Value Component' with LOV values is set to use radio buttons, and a 'warning border' is used, it is oversized, and scrollbars are shown. This has now been corrected to eliminate LOVs from being oversized, and prevent scrollbars from showing.

- **ISSUE-276779 - Web UI Status Selector refresh status using configured intervals is fixed**

  In the Web UI, the Status Selector component can refresh a status using configured intervals. During any status refresh, it is possible to receive an error with '0' as the text if there is a problem with the

connection. This was changed and the component will try to make 3 attempts before displaying the error. Moreover, the '0' error text was changed to display more error dependent information.

- **ISSUE-276897 - Deleting a revised object no longer prompts the Tree Navigator in Web UI to look for it in the recycle bin**

  There was a bug in Web UI with the Tree Navigator web component when deleting a revised object. Originally the Tree Navigator would try to locate the newly deleted object in the recycle bin, even if the Tree Navigator was configured not to show the recycle bin. This caused performance problems, as opening the recycle bin can be a lengthy operation if there are many objects inside. This has now been fixed.

- **ISSUE-277002 - Fixed the details overlay in the Web UI**

  Some changes were made in the details overlay in the Web UI. These changes caused the Print On Demand component to throw exceptions when the overlay was exited. This required a setup where the Print On Demand component was in the same tab control as another component which could start the details overlay. This has been fixed.

- **ISSUE-277062 - Changed error message displayed when logging in to multiple Web UIs in the same browser**

  When a user logs in to a STEP Web UI and then logs in to another STEP Web UI in the same browser (same browsing session), then the user was encountering a 'ClassCastException' error message. This has been fixed so that, in the scenario described, the proper error message (500 Server Error) displays.

- **ISSUE-277216 - Fixed a security bug**

  Fixed security issue when importing excel files using Web UI.

- **ISSUE-277260 - Supplier users can now see all assets in Web UI that they have permission to view**

  When the supplier user had permission to view the asset under a selected hierarchy in Web UI, and this asset did not belong to any other vendor, the system was not allowing the user to view the content of such asset. This has now been fixed now.

- **ISSUE-278157 - Viewing help text set on the Reference Value component in Web UI now works properly**

  The Reference Value component in Web UI allows for setting the context help text in the designer, but there was a bug which resulted in the help text not being shown when hovering over the component's label. This has been fixed.

- **ISSUE-278236 - Fix a problem when deleting users in Web UI who had several personalized user settings**

In cases where the users had several personalized user settings used by the Web UI, you would get an error when trying to delete the user. This has now been fixed.

- **ISSUE-278497 - Correctly remove deleted nodes from the Recycle Bin**

  In Web UI, deleting nodes in the Recycle Bin was not working correctly. This has been fixed so that the nodes are correctly removed.

- **ISSUE-278880 - Fixed an issue with row and column header heights in Node Lists**

  Within Multi Edit Display Mode and Compare Display Mode, the parameters Row Header Width and Column Header Heights on table headers did not apply correctly. These parameters, accessible In the Web UI designer for each of these display mode properties, are configurable via the Dimensions parameter under Advanced Settings (in Compare Display Mode Dimensions Properties). This has been fixed in 8.2 and backported to 8.1-mp5.

- **ISSUE-279557 - Users can now see the collection node they have selected**

  The Web UI tree navigator can be used to select nodes of different types. When selecting a collection the highlighting would disappear immediately after clicking the node. This has been fixed.

Excluded from this release note is information about the Web UI redesign, which is described in the Enhanced Web UI Visual Design section of the STEP 8.2 Release Notes.

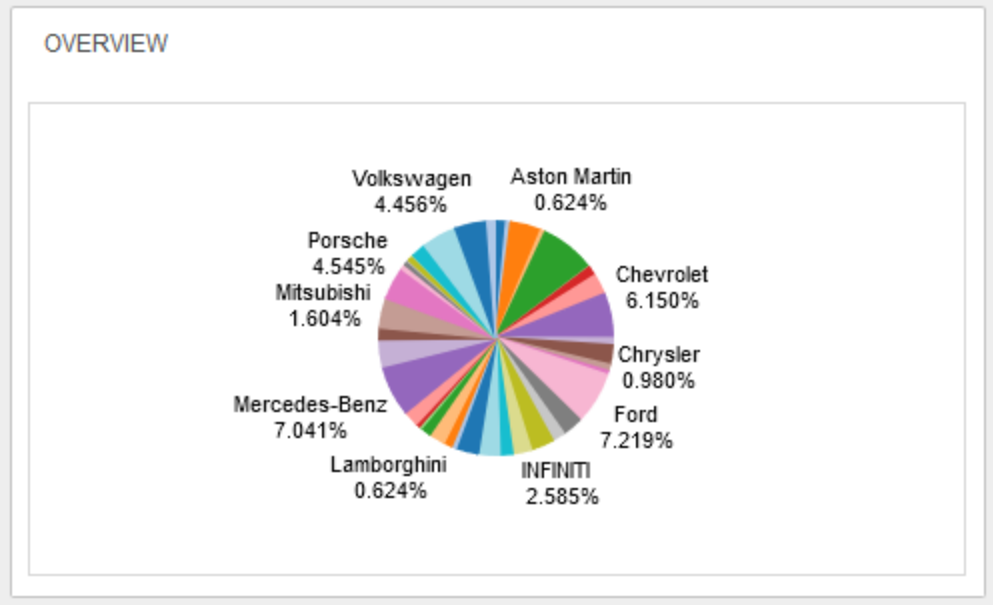
New Analytics Integration

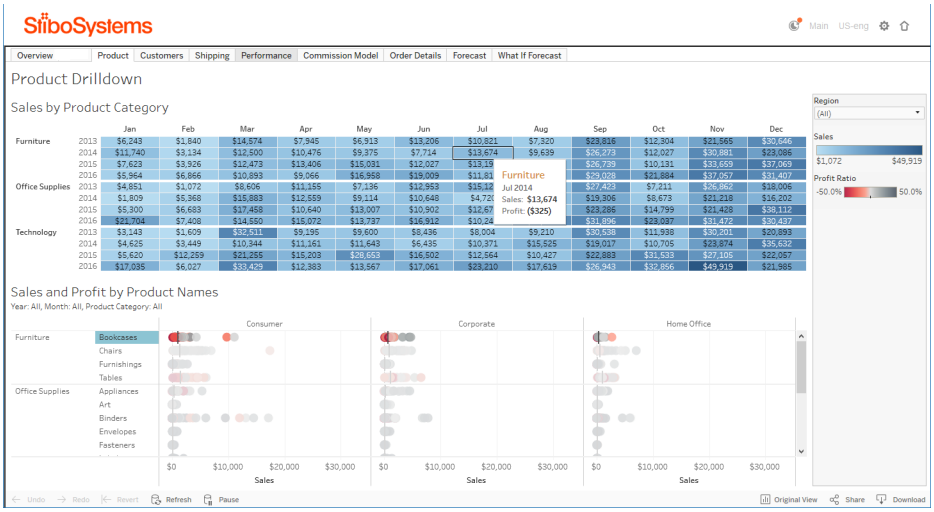
Summary

Data analytics tools like Tableau and Qlik specialize in presenting data to users in a way that is both visually compelling and easy to understand. With the release of STEP Trailblazer 8.2, the power of data analytics can now be integrated seamlessly into the Web UI. Applying the capability of tools like Tableau and Qlik to analyze and present data in new and meaningful ways, Web UI users can now extract additional insight from the data, sourced either from STEP Trailblazer 8.2 or external databases, resulting in faster and more informed decision-making.

Details

Through configuration of the Web UI, admin users can add both a new homepage widget and a new Web UI screen designed specifically to display visually compelling views of data (called dashboards) from data analytics tools. The new Analytics Homepage Widget (shown in the first image below) is useful as a quick, simplified view of a dashboard, while the new Analytics Screen (shown in the second image) offers a more expansive view of analytics data, allowing for more interaction. This new feature supports the automatic authentication of the STEP user when accessing the target analytics system (either Tableau or Qlik) to use the new widget and screen.





With this release, users have the ability to utilize analytics tools in a variety of ways. They may:

- interact with dashboards comprised of both STEP and external data within the Web UI
- apply filters to the analytics screen that give users customized views of data analytics dashboards
- configure the Web UI to pass attribute value data into the analytics platform, thus making product-specific views of data from the analytics platform

Complementary to this Web UI capability, the new Java Database Connectivity (JDBC) delivery plugin feature can be configured to automatically (or manually) make STEP data available to the analytics platform. This feature effectively closes the loop of data and visualization by making STEP data viewable in a data analytics dashboard, which is in turn viewable in the Web UI. For more information on this new functionality, please see the JDBC delivery plugin section of the Data Exchange Enhancements section of the STEP Trailblazer 8.2 Release Notes.

For more information on configuring the Analytics homepage widget and screen for the Web UI, see the Analytics Configuration section of the Web User Interfaces documentation.

New Email Data Quality Solution Featuring Experian

Summary

The new Experian Email Validation integration focuses on easily maintaining valid email contact data and providing an overview of email data quality through use of the Experian Data Quality Clean Web Service Version 2 (Experian).

New functionality includes:

- Seamless access to the Experian web service
- A new Email Component Model
- A new Experian Email Validation processing plugin for automatic validation of emails
- A new business condition for controlling the revalidation strategy for email addresses
- Easy setup of Experian specific attributes, business rules, and more
- A new Web UI action button ('Validate Emails') available on Node List components and Node Details screens

In addition to the aforementioned enhancements, Stibo Systems is also now a reseller of the Experian solution, commercially licensing the Experian software along with its reference data. Contact your Stibo Systems account manager or partner manager for more information and licensing terms.

Details

The Experian Email Validation integration provides an email data quality solution that offers more than just syntax validation. Now, email account data can be checked for domain existence, and in some cases, user account existence (e.g., Gmail). Data quality also includes the identification of malicious email addresses (like spam traps).

Whenever email data is created, imported, or updated, STEP can asynchronously validate the information in the background. Once email data has been validated, it can be assigned a quality rating so data stewards can monitor the overall email data quality.

Also, email data (or groups of email data) can be manually selected and sent to Experian for validation. This can be useful when a data steward needs to revalidate email data in preparation of a task such as an email campaign.

Email Component Model

A new Email Component Model is available that defines the structure and quality of emails in STEP. It contains the configuration of the entity object types and attributes that are necessary for proper functionality of the email validation and email data quality overview.

Experian Email Validation Configuration object

A new Experian Email Validation Configuration object based on a setup entity type can be created to hold the configurations for the different Experian email validation integration parameters.

Experian Email Validation processing plugin

A new Experian Email Validation processing plugin is available, and can be used to create an event processor that listens for changes to email data on account objects. This means that email updates (manual or via import) will create events for the configured event processor. The Experian Email Validation processing plugin will interface with the Experian batch API and send batches of emails for validation to the Experian service. The emails will be extracted from the accounts that originate from the events using the Experian Email Validation processing plugin.

Email revalidation business condition

An event processor using the new Experian Email Validation processing plugin can be configured to revalidate emails by using the new Revalidation Business Condition and the new Experian Email Validation Configuration object, which can be created / configured during automatic setup. This allows for email objects (across the configured data container types defined by the Email Component Model) that have not been validated for a specified number of days to be sent for revalidation.

Easy setup options

An Easy setup option for the Experian Email Validation integration is available in the STEP Workbench and is initiated from the new Email Component Model. This setup can be used to create Experian specific attributes, an 'Email Attribute Group,' an 'Email' data container type, and an 'Email Validation Configuration' object to hold the configurations relevant to the Experian Email Validation integration. Additionally, during setup, Experian Email Validation specific business condition, event processor, and component model mapping configurations are all created to aid in Experian email validation and enrichment functionality. While users can use this out-of-the-box solution, these resources can also be used as they fit the customer's business need and data model.

Validate Emails action button

A new 'Validate Emails' action button is available within Web UI that allows users to perform email validations on a Node List with one click. Users can choose one or more customer accounts / customers / entity objects that have email data associated with them (as data containers) that need to be validated, then click on the 'Validate Emails' button to run the background process (Experian Email Validation Job).

To access and use the Experian Email Validation integration functionality, the following installation command must be executed in addition to the normal update procedures for STEP 8.2:

spot --apply=to:experian/7.0/experian-7.0.0.spr

It is best to contact your Stibo account manager or partner manager to verify that this install recipe is the latest available before installing.

For more information, see the Experian Email Validation Integration section of the Data Integration documentation.

Improved Loqate Integration

Summary

Integration with the Loqate address standardization service has been improved with enhancements to the Loqate Cloud API and the introduction of a new local Loqate API server integration. These enhancements provide a more stable integration with the Loqate solution and an improved ability to scale and handle a varied and increased load of requests. The improvements to Loqate introduced in STEP Trailblazer 8.2 are wide-ranging and further streamline and automate the standardization of addresses within STEP, making it easier than ever to maintain quality, valid address data.

Enhancements include:

- Replacement of the sidecar-based Loqate server with a new local server installation
- Expansion of the Address Component Model (previously named Simple Address Component Model) with a wide range of new fields to capture a larger set of Loqate address data
- A new CASS (Coding Accuracy Support System) Address Component Model
- Automatic (easy) setup of both Loqate-specific and CASS-specific attributes, business rules, and event processors
- Expanded 'Standardize Address' functionality for business actions and bulk update operations

Once the Loqate integration is configured in STEP Workbench, it can be used to standardize addresses when working with address object types and address data containers.

Previously, the Loqate solution only worked in the cloud variant, with STEP communicating with the Loqate Cloud API. Though the cloud solution is still available, the new Loqate local server solution integrates much more tightly with the local API. Using the Loqate local server improves the performance of the solution with increased response times when enabling bulk handling of large amounts of data. The local server can also be used with CASS address standardization functionality, adding another layer of robustness to STEP's address standardization capabilities for US customers.

Details

Loqate is a third-party address standardization service that, when integrated with STEP, is used to return standardized addresses that adhere to the standards of local postal authorities such as the USPS. Loqate is CASS certified and offers CASS verification of address data.

CASS is a certification program (only valid for US addresses) run by the United States Postal Service (USPS) and is offered to all mailers, service bureaus, and software vendors that would like the USPS to evaluate the quality of their address matching.

Expanded Address Component Model

The Simple Address Component Model has been renamed Address Component Model and expanded from 26 fields to 58. Included in the expansion are numerous input and output fields that are mapped to corresponding Loqate address fields during setup of the component model. This expansion helps fine-tune and improve the

accuracy of address information as it flows from STEP to Loqate and back. The expanded Address Component Model can be used with both the Loqate Cloud and Loqate local solutions.

New CASS Address Component Model

A new CASS Component Model has been introduced that uses standardized CASS address attributes. This component model also contains a field that collects all CASS output from Loqate that cannot be captured in the individual standardized CASS address attribute fields. The CASS solution only works with the new Loqate local solution, not with the existing Loqate Cloud solution. Users must obtain an additional license to use CASS; it is not included with standard Locate integrations.

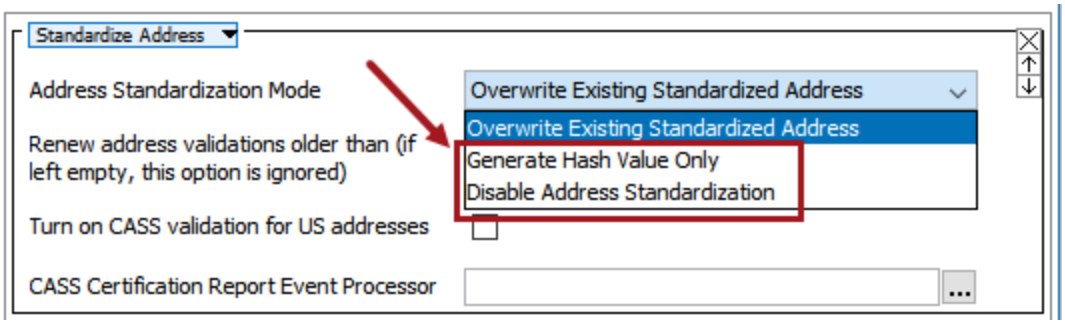
Automatic setup options

Easy setup options are available for both the Loqate and CASS solutions via a right-click action on their respective component models. By using the 'Easy setup of Address Component Model' wizard, users can automatically create new Loqate address attributes, an 'Address' data container, and a new business action ('Standardize Address Action'). With the 'Easy setup of CASS Component Model,' users can automatically create new CASS address attributes as well as a new event processing plugin, asset object, and an event processor for generation of CASS certification reports.

Standardize Address bulk update and business action enhancements

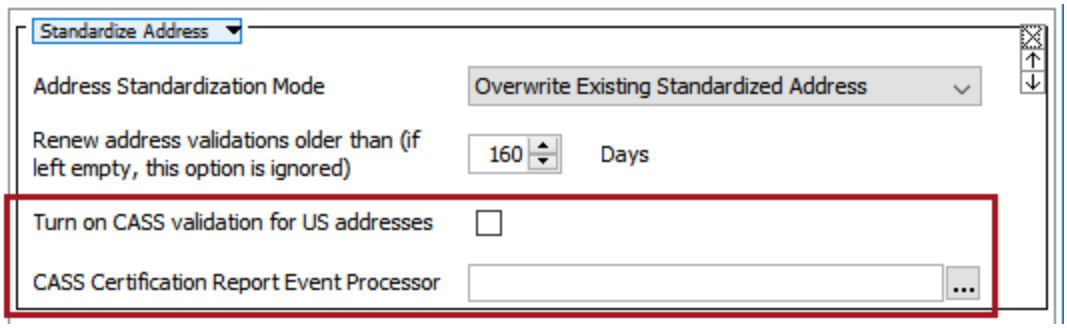
For STEP systems integrated with Loqate, new address standardization options are available when configuring the 'Standardize Address' business action for both bulk updates and business actions. For STEP systems integrated with both a Loqate local server and the CASS solution, two new CASS-specific options are also available.

Two new options have been added to the Address Standardization Mode dropdown list: 'Generate Hash Value only' and 'Disable Address Standardization.'



Additionally, a new 'Renew Address validations older than' option has been added, which makes it possible to revalidate addresses that have not been validated within a specified period of time.

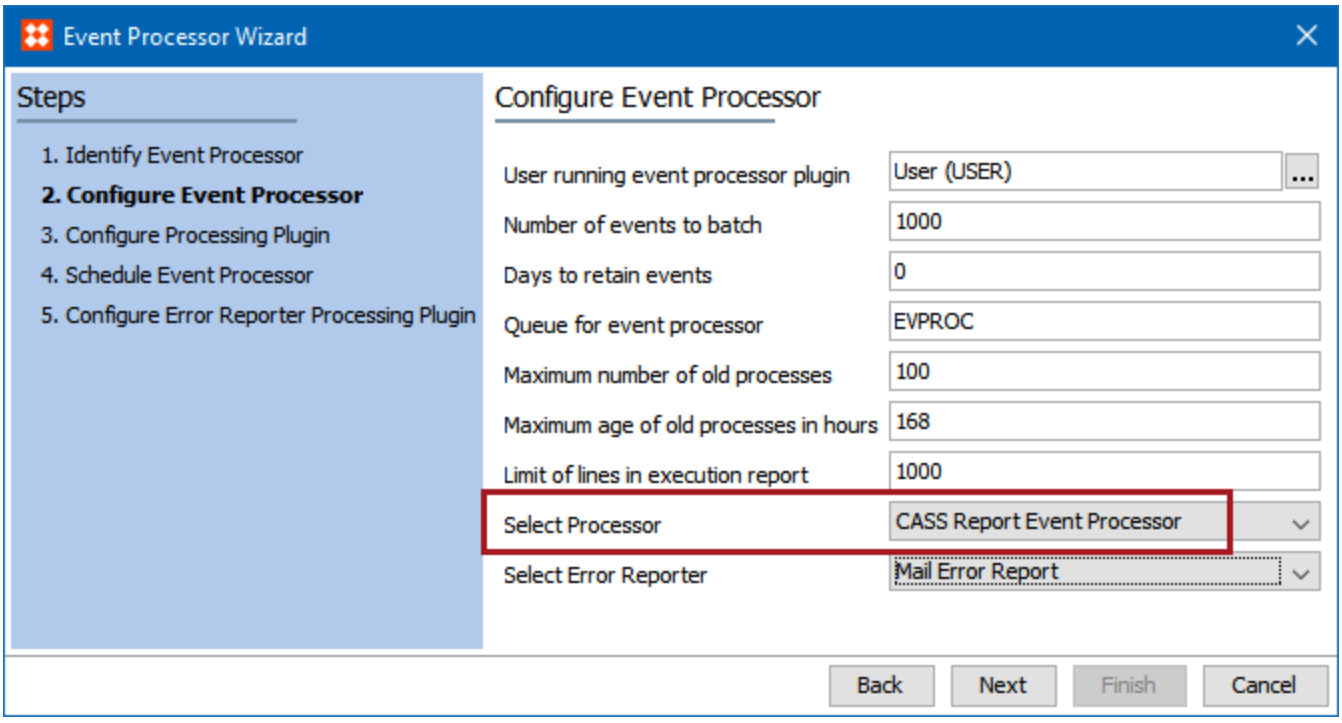
For users of CASS, two new options are available to enable the use of CASS validation for US addresses and to select an event processor to generate CASS certification reports.



For more information on standardizing addresses using bulk update, see the Data Quality Operations for Bulk Updates section of the Bulk Updates documentation. For more information on standardizing addresses using business actions, see the Business Action: Standardize Address section of the Business Rules documentation.

Event processing plugin enhancements - CASS

A new 'CASS Certification Report' processing plugin has been introduced that, when configured within an event processor, will generate CASS certification reports. Event processors using this processing plugin will be configured with a large batch size and a low frequency. When invoked, the event processor will extract all US addresses from all originating objects of all the events in the batch, then generate a CASS certification report and store it in a predetermined location in the STEP Classification hierarchy.



In addition to the aforementioned Loqate and CASS enhancements, Stibo Systems is also now a reseller of the Loqate solution, commercially licensing the Loqate software along with its reference data.

To access and use the Loqate local integration functionality, the following installation command must be executed in addition to the normal update procedures for 8.2:

spot --apply=to:local-loqate/7.0/local-loqate-7.0.0.spr

The same installation command is executed to install the CASS components, but a CASS license must first be purchased to access these features. It is best to contact your Stibo account manager or partner manager to verify that this install recipe is the latest available before installing. Additionally, Stibo should be contacted for assistance installing Local Loqate Data Packs.

For more information on Address Standardization and Loqate, see the Loqate Integration section of the Data Integration documentation.

Note: As part of this overall project, Google Maps has been desupported and the Web UI Address Detail components have been deprecated. See the 'Removal of Google Maps integration and associated address components' section of the Web UI Enhancements release note for more information.

Enhanced and Updated Integration Capabilities

Summary

STEP integration enhancements and integration updates for the Trailblazer 8.2 release include:

- New processing plugins for greater event processor flexibility
- New Experian email validation integration
- Improved Loqate address standardization service integration
- Enhanced Dun & Bradstreet integration
- Improved MongoDB to allow the delivery of data to sharded clusters and replica sets
- Improved error messaging in Web UI for Bulk Update template actions
- New analytics integrations

Details

New event processing plugins

Three new processing plugins have been created allowing for greater flexibility in event processing; CASS Certification Report, Execute Business Action, and Experian Email Validation.

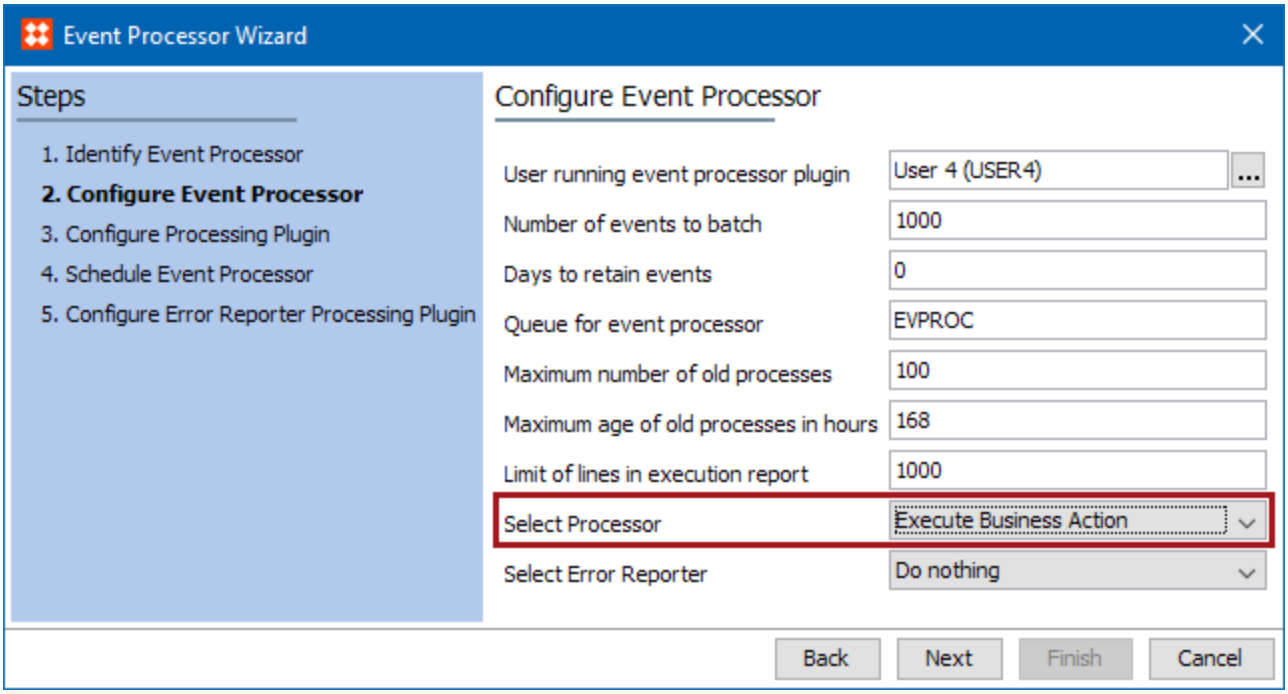
CASS Certification Report processing plugin

A new 'CASS Certification Report' processing plugin has been introduced that, when configured within an event processor, will generate CASS certification reports. For more information, see the Improved Loqate Integration release note.

Execute Business Action processing plugin

Using the new Execute Business Action processing plugin, Admin users can now configure an event processor that will automatically execute a custom business action when triggered by any of the events within the event processor. For example, an event processor can be set up to automatically trigger the execution of a simple action, such as sending an email or recalculating attribute values, or trigger the execution of a more complex action when an event is generated in STEP.

The new processing plugin, Execute Business Action, is now available when creating an event processor.



For more information, see the Processing Plugins section of the Event Processors documentation.

Experian Email Validation processing plugin

A new Experian Email Validation processing plugin is available, and can be used to create an event processor that listens for changes to email data on account objects. This means that email updates (manual or via import) will create events for the configured event processor. For more information, see the New Email Data Quality Solution Featuring Experian release note.

Experian Email Validation integration

The new Experian Email Validation integration focuses on easily maintaining valid email contact data and providing an overview of email data quality through use of the Experian Data Quality Clean Web Service Version 2. For more information, see the New Email Data Quality Solution Featuring Experian release note.

Improved Loqate integration

Integration with the Loqate address standardization service has been improved with enhancements to the Loqate Cloud API and the introduction of a new Loqate Local API server integration. These enhancements provide a more stable integration with the Loqate solution and an improved ability to scale and handle a varied and increased load of requests.

For more information on the Loqate integration enhancements introduced with STEP 8.2, see the Improved Loqate Integration release note.

Dun & Bradstreet integration

Enhanced Dun & Bradstreet (D&B) integration capabilities can be added to STEP Trailblazer 8.2 systems. The integration focuses on easily improving company structures through Data Universal Number System (D-U-N-S) number matching functionality and detailed company profiling. Functionality includes a D&B Integration component model; easy setup of D&B specific attributes, workflows, business rules, and more; and a D&B-specific Web UI screen (D&B Match Candidates).

To access and use the D&B functionality, the following installation command must be executed in addition to the normal update procedures for Trailblazer 8.2: spot --apply=to:dnb-integration/7.0/dnb-integration-7.0.3.spr

It is best to contact your Stibo account manager or partner manager to verify that this install recipe is the latest available before installing. For more information, see the Dun & Bradstreet section of the Data Integration documentation.

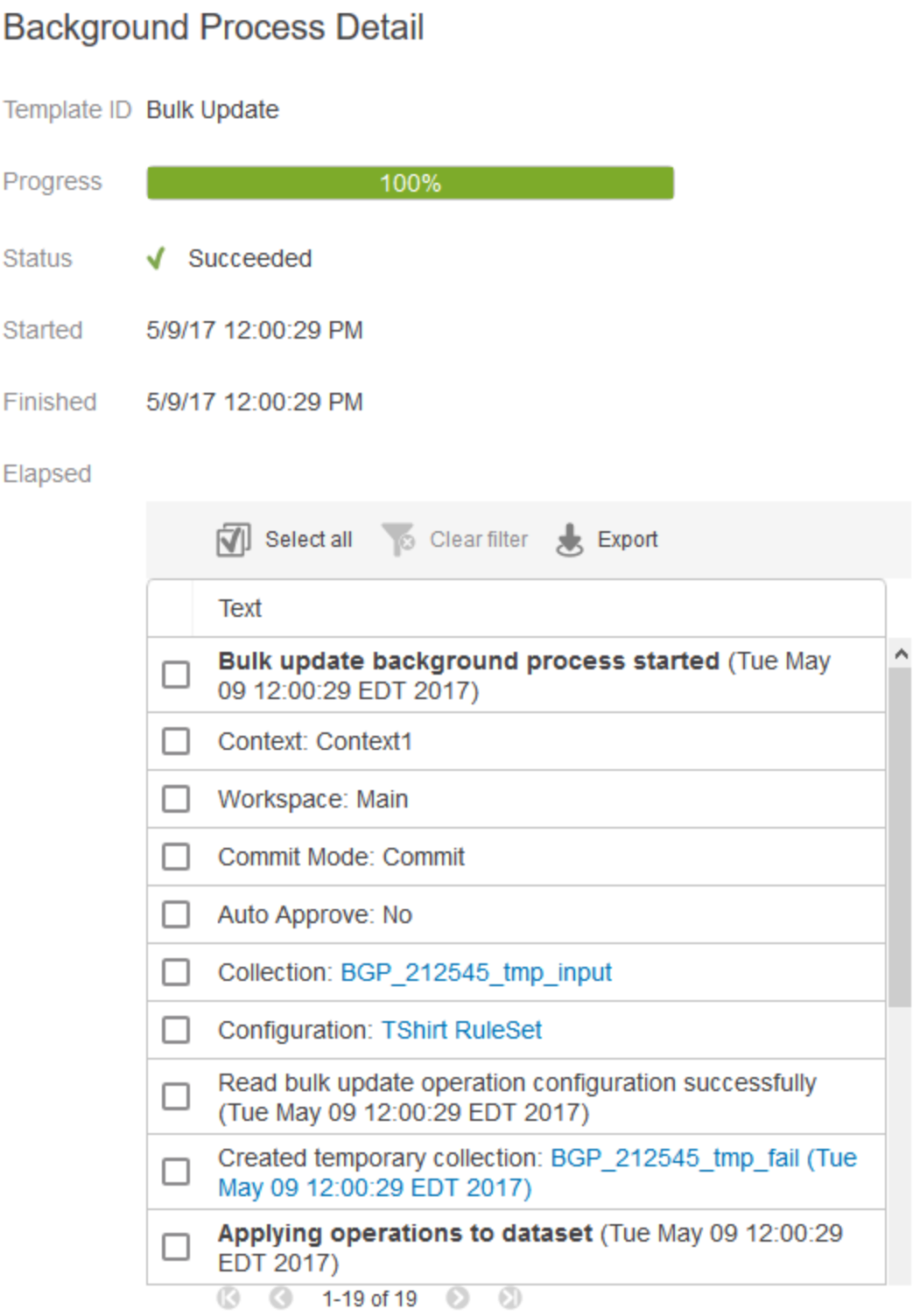
Improved error messaging in Web UI for Bulk Update template actions

The 8.2 release of STEP Trailblazer includes improvements to the error messages generated by Run Bulk Update Template Action tasks executed in the Web UI.

Previously, when a Run Bulk Update Template action on a Node Details screen failed, the error message read, for example, '1 object(s) failed to update'. This text is not sufficiently descriptive to inform the user why the action failed.

Now, the error messages are far more informative because the text derives from the original exception that caused the bulk update action to fail. With this improvement, a sample error message might read like this:

Further, the background process error messages that display when a bulk update task is started from a Node List screen have also been improved. Previously, the error messages that displayed did not provide enough detail to describe the cause of the error. Now, the background process execution report will display the more detailed exception error text, providing users with the information they need to correct the issue.



For more information on running bulk update business action tasks in Web UI, please refer to the Parameterized Business Actions in Web UI documentation in the Using Web UI section of the Web User Interfaces guide.

New analytics integrations

For the first time, STEP Trailblazer 8.2 brings the power of data analytics seamlessly into the Web UI by integrating with data analytics tools like Tableau and Qlik that specialize in presenting massive amounts of data to users in a way that is both visually compelling and easy to understand. For more information, see the Analytics Integration release note.

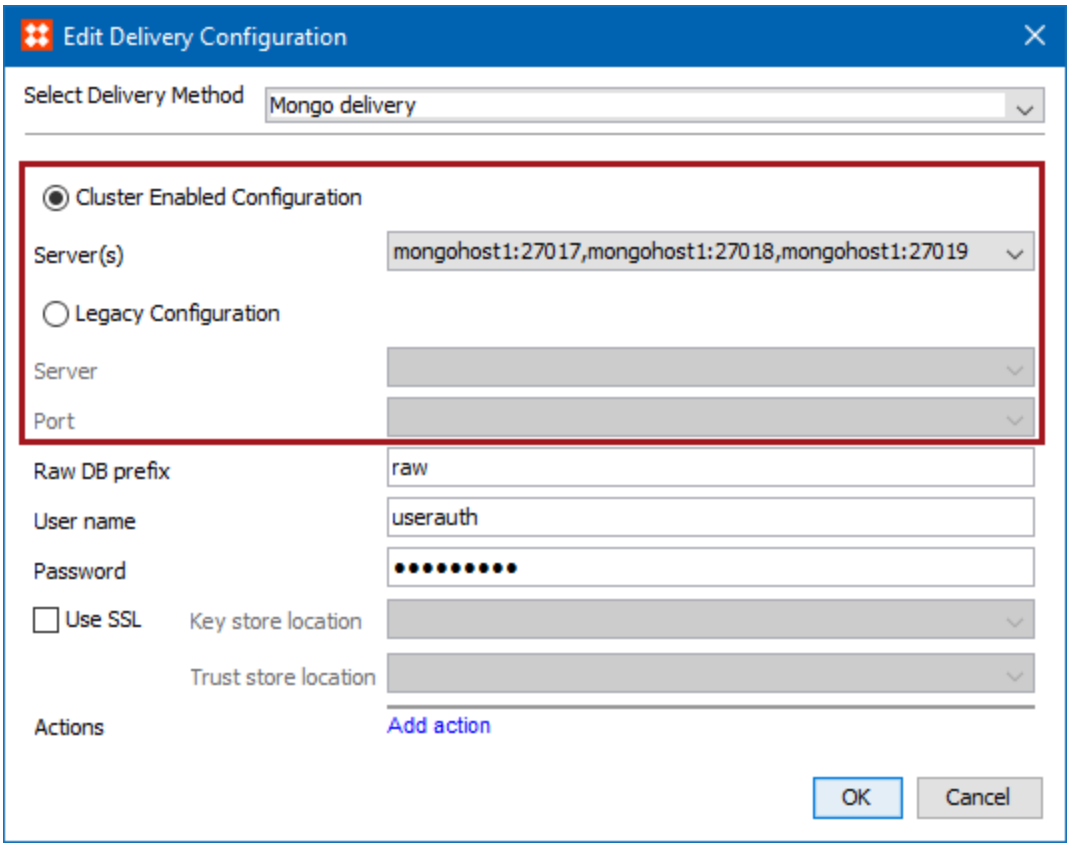
MongoDB adapter allows for MongoDB clustered configuration

Previously, the Mongo delivery method only allowed for delivery to specific hosts, and was configured via the 'MongoDB.Server' and MongoDB.Port' configuration properties in the sharedconfig.properties file.

Now, a new dynamic property 'MongoDB.Server.Configuration.[n]' allows specifying a cluster (multiple sets of hosts) or a replica set (see https://docs.mongodb.com/manual/), as illustrated below:

```
#MongoDB Delivery Configuration 1
MongoDB.Server.Configuration.1 = mongohost1:27017,mongohost1:27018,mongohost1:27019
#MongoDB Delivery Configuration 2
MongoDB.Server.Configuration.2 = mongohost2:27017,mongohost2:27018
```

For backward compatibility, the two legacy configuration properties continue to work without modification. The Mongo delivery method dialog now differs slightly, dependent on whether only the legacy configuration is used, only the new configuration is used, or both configurations are used. For example, when both the legacy and new properties are set, the following dialog is displayed.



For more information, see the Mongo Delivery Method topic in the Outbound Integration Endpoints section of the Data Exchange documentation.

New and Enhanced Matching, Linking, and Merging

Summary

The following changes and additions have been made to improve the overall matching capabilities:

- A new Matching and Merging solution is available that can evaluate potential duplicates of existing golden records as they come in from a source system, then merge them into golden records (or create new golden records) without the need to store source records as unique objects in STEP
- A few existing Matching and Linking components have been renamed to account for the new Matching and Merging solution
- The 'Matching ' and 'Matching - Link Golden Record' (previously named 'Matching - Golden Record') component models have received a number of updates to account for the new Matching and Merging solution
- A new configurable field called 'Last Edit Date Attribute' has been added to the Trusted Source and Most Recent survivorship rules, which allows the use of a dedicated source system attribute on the source record to define the last edited date of a value, data container, or reference instead of using the last revision date of a golden record
- Decision tables have been redesigned to help streamline configuration and maintenance
- A new method for unlinking source records from golden records is now available in Web UI via the 'Golden Record Linked Members' component

Details

New golden record Matching and Merging solution

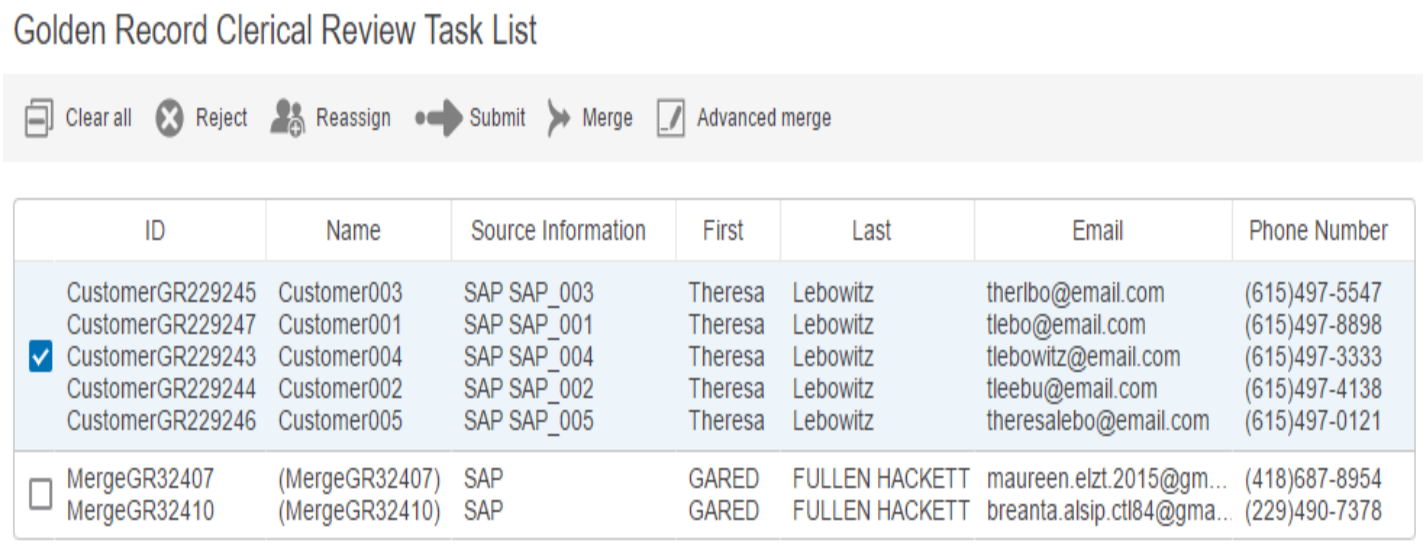
With STEP Trailblazer 8.2, a new method for finding potential duplicate records and creating golden records has been introduced. This new Matching and Merging functionality serves as an alternative to the existing Matching and Linking Golden Record solution, which requires that source records be stored as unique objects in STEP and remain present after being matched and having their data promoted to a golden record. Unlike the existing functionality, this new solution can evaluate potential duplicates of existing golden records as they come in from source systems and match them against existing golden records in STEP. If incoming records are found to be a match, the values of these source records are merged into the corresponding golden records, and the source records are not stored as unique objects. During the merge, the source data is evaluated via survivorship rules configured on the corresponding matching algorithm, and the surviving data is then merged into the golden record. If no existing golden records are found new ones are created.

The intention of this new solution is to streamline the entire process by reducing the dataset size and to make it easier to automatically create and manually maintain golden records. More specifically, this solution is designed for organizations that both view STEP as the most reliable source of accurate and deduplicated records, and require master records to be continually updated from the source systems as well as from data stewards.

The core features of the solution are as follows:

- A new 'Matching - Merge Golden Record' component model has been added, which serves as the foundation of the configuration.
- A new 'Merge Golden Record' match action is now available as part of a matching algorithm configuration, and drives the new solution.
- A new 'STEP Match and Merge Importer' process engine is available for inbound integration endpoints, which is used to import source record values, match the source records to existing golden records, and merge the surviving source record values into the golden record. This also allows for standardization of addresses via a business action communication to Loqate.
- A number of new Web UI components and configurable actions have been added to allow data stewards to easily manage golden records. Among these components are the new Golden Record Source Information Overview, which provides details of a golden records' Source ID and Source system, and the Golden Record Clerical Workflow Task List, which has an Advanced Merge action.
- A new Web UI search plugin has been added that allows users to search for golden records via Source Record IDs. This new Golden Record - Source Record ID plugin is also available in the new Corner Bar Search component. For more information on the new component, see the 'New Web UI Corner Bar Search component' section below.
- A new functionality called 'Match Tuning Configuration' has been added as a System Setup node that allows users to fine-tune a matching algorithm for better accuracy when importing source records. This functionality allows for profiling of data before import and match algorithm evaluation via Pair Export before import.

Matching and Merging can be implemented alongside both the original Golden Record and the Identify Duplicates solutions and is grouped among them as one of the three Matching, Merging, and Linking strategies. Due to the introduction of this new solution, the original Golden Record solution has been renamed to 'Matching and Linking' in order to differentiate the two solutions. For more information on these name changes and others, see the 'Renamed golden record concepts' section below.



For more information, see the Matching, Linking, and Merging documentation.

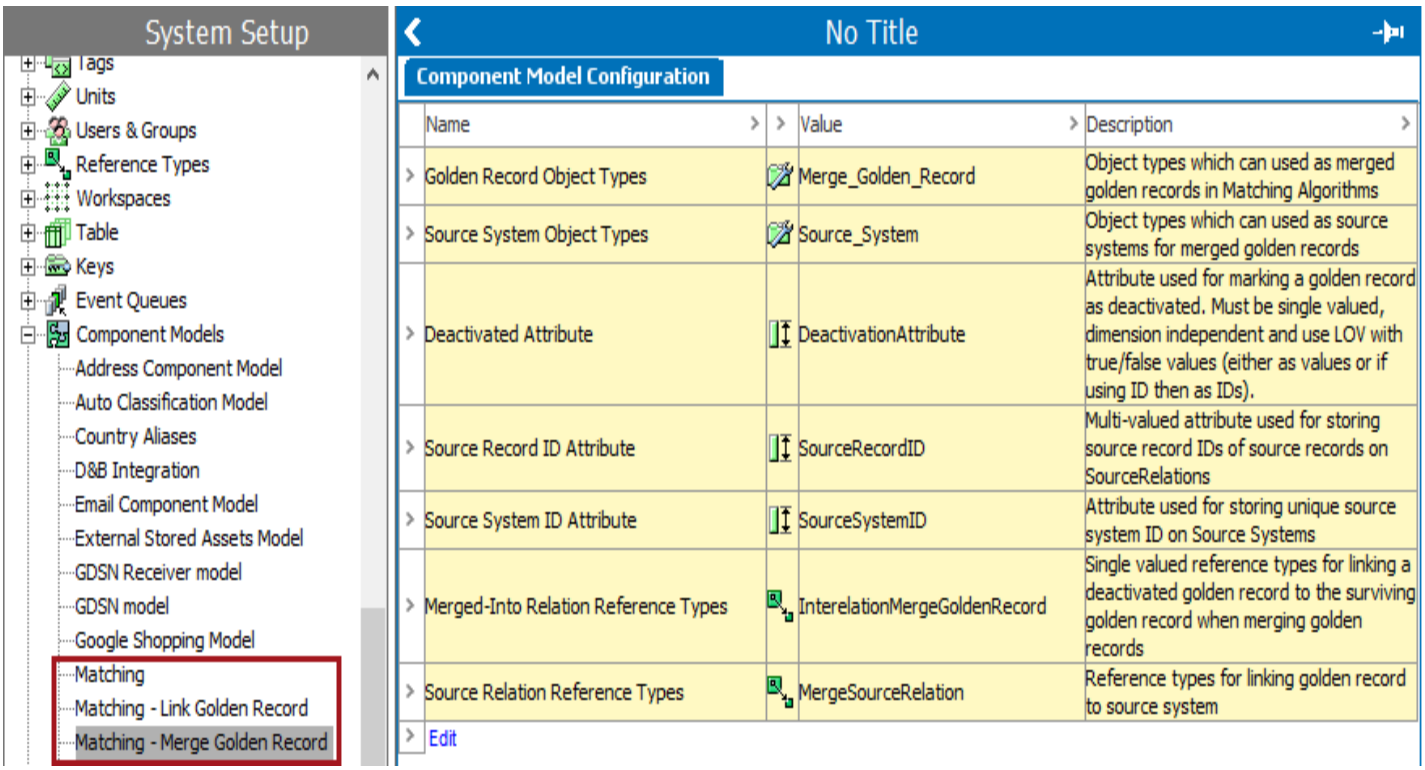
Renamed golden record concepts

Due to the introduction of the new Matching and Merging solution and its components, the Golden Record components listed below have been renamed:

Component	Previous Name	New Name
Component Model	Matching - Golden Record	Matching - Link Golden Record
Match Action	Golden Record	Link Golden Record
Public API Interface	GoldenRecord	LinkGoldenRecord
Web UI Component	Golden Record Members	Golden Record Linked Members

Updates to Matching and Golden Record component models

With the addition of the new 'Matching - Merge Golden Record' component model mentioned in the above section, the existing 'Matching ' and 'Matching - Golden Record' component models have received a number of updates. The 'Golden Record' component model has been renamed to 'Matching - Link Golden Record' in order to differentiate it from the new component model. Additionally, the 'Source Object Type' mapping in the 'Matching' component model has been renamed to 'Matchable Object Types' so it has a broader connotation that applies to both golden record solutions. The 'Data Source Attribute' is now optional, since it only applies to the Link Golden Record solution.

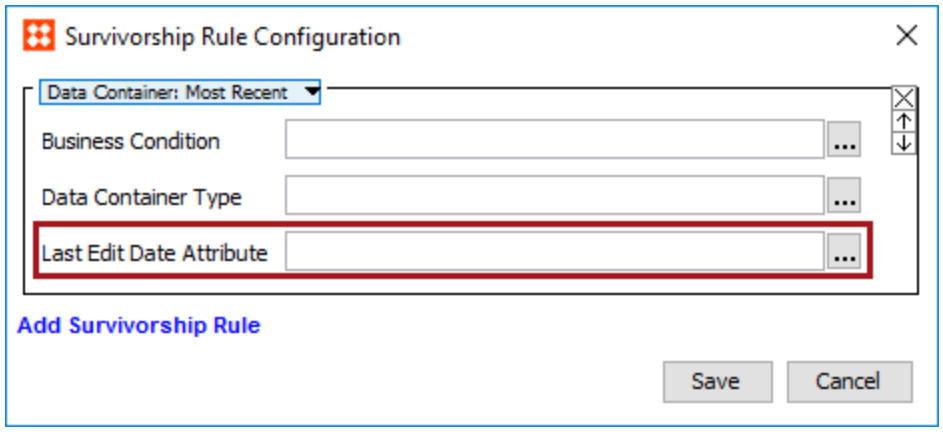


For more information, see the Matching, Linking, and Merging Component Model Configuration section of the Matching, Linking, and Merging documentation.

New Last Edit Date Attribute matching algorithm survivorship rule configuration

A new 'Last Edit Date Attribute' field has been added to the Trusted Source and Most Recent survivorship rules for Data Containers, Name, References, and Value. This field is used in environments where the source systems provide a last updated date for Data Containers, Name, References, and/or Values via a dedicated attribute. If this attribute is not set, then the last edited date will be derived from the revision of the golden record in question, as it was previously.

Note that this new field is available for both the Link Golden Record and Merge Golden Record solutions.



For more information, see the Golden Records Survivorship Rules section of the Matching, Linking, and Merging documentation.

Decision Table redesign and enhancements

Matching algorithm decision tables have been redesigned to help streamline configuration and maintenance. In order to accomplish this, the bulk of the matching logic is now defined in the GUI rather than in Java, and the configuration itself has been completely reorganized.

Adding, deleting, and maintaining address, name, organization, email, and phone data via predefined configurable Normalizers and Matchers is now available as standard STEP functionality. Normalizers (formerly Transformers) can be set up at the time data is defined. Comparators and Sub Tables are now known as Matchers. The functionality allows for users to control what conditions are shown in the Rules table, including a new Comparator dialog with new True / False comparators. A new rule strategy has also been implemented so that results are determined by the rule with the highest rank score and not the first rule where the conditions are met.

Despite the Decision Table changes, the overall function and purpose of decision tables has not changed, and any decision tables created prior to STEP 8.2 will have their configurations automatically updated. These changes are fully backwards compatible.

New option to unlink records from Golden Records

A new method for unlinking enrichment records from golden records is now available in Web UI. The option to unlink enrichment records has been added to the 'Golden Record Linked Members' component via the 'Unlink Single Record From Golden Action' toolbar action. To unlink a record, select the record in question from the 'Golden Record Members' component and click the 'Unlink single record from golden' toolbar button.

	I EI00001a	(ER-179131)	(ER-184109)
Object Type •	External Item Golden Record	External Item Enrichment Record	External Item Enrichment Record
OEM •		ACME	59824
OEM Part Number •		ACME	88625

Note that this component only applies to golden records created via a Matching and Linking solution.

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

Considerations and Limitations

- The Matching and Merging functionality only supports entity objects.
- Regarding Matching and Merging, key values are not supported on entity tags and references.

GDSN Enhancements

Summary

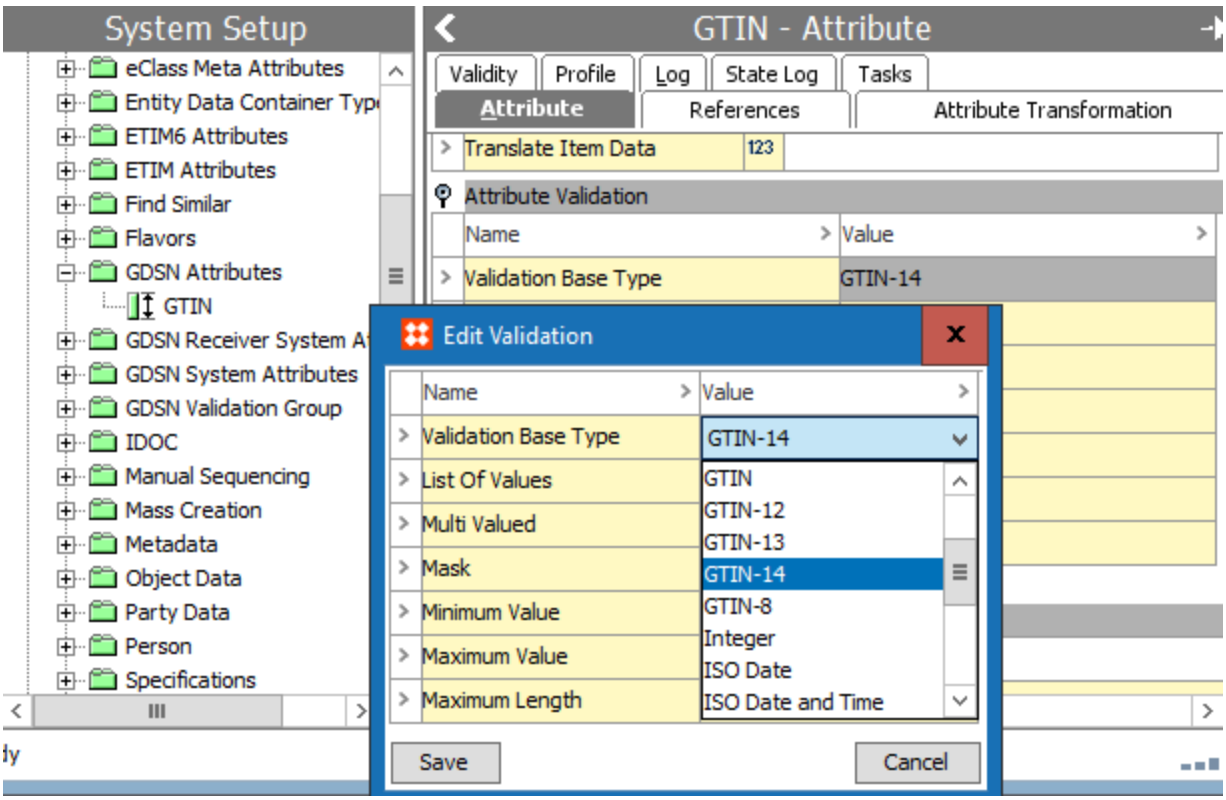
A number of enhancements have been added to the GDSN Provider and Receiver components. These include functionality improvements in both the Web UI and the STEP Workbench.

- New Validation Base Types for UPCs, EANs, and GTINs has been added. These Validation Base Types will validate the format of the UPCs, EANs, or GTINs, including the check digit and the length of the value.
- A new Validation Base Type for the Global Location Number (GLN) has been added. This Validation Base Type will validate the format of the GLN, including the check digit and the length of the value.
- An additional GDSN business action option has been added to the GDSN Register, Publish, Add Links, and Delete Links action properties components in the Web UI.
- Added support for multiple GLNs in the GDSN Receiver.
- The GDSN Receiver solution now supports RFCIN messages.
- New search option for the GDSN Receiver solution that will enable users to track the CIC status of GDSN trade items.
- Added support for GDSN exception message handling in the GDSN Receiver and Provider solution.
- Made it easier to map multiple languages in the GDSN Receiver solution.
- Outdated code left from previous versions of the GDSN solution has been removed; updating systems using GDSN will require careful attention.

Details

GTIN Validation Base Types

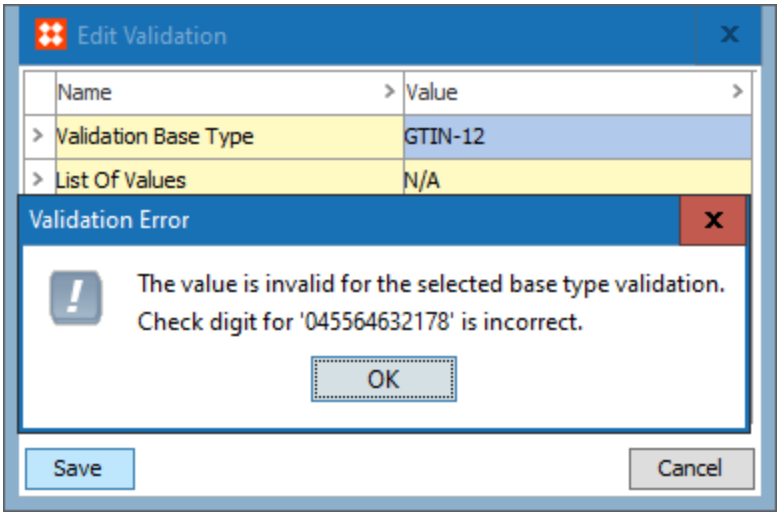
Users now have the option to select a validation base type that will validate the format of the GTIN to determine if it is correct. This will prevent the entry of a GTIN (UPC, EAN, etc.) from being sent to the data pool provider with an incorrect check digit or length of value.



For users of the GDSN component model, this validation base type will be converted automatically during the upgrade to STEP Trailblazer 8.2 once the **Easy setup of GDSN Component Model** is run for the attributes that were created by the component model. For GTIN attributes that were not created by the component model, users can go into the applicable attribute and change the 'Validation Base Type' to the type that corresponds with the number of digits in the GTIN.

Also, there is a configurable validation base type that can validate multiple types of GTINs in a single attribute by applying multiple input masks. For example, if a single attribute is needed to validate against an EAN-8 and an EAN-13, the attribute can be configured to validate against both using the GTIN option.

Important: If the component model created attributes for GTINs that have incorrect check digits for numbers currently in the system, STEP will not allow the **Easy setup of GDSN Component Model** to be run until these numbers are corrected. For GTIN attributes that need the validation base type to be changed manually, an error message like the one shown below will pop up for every GTIN that has an invalid check digit before the validation base type can be changed.



For more information regarding attribute Validation Base Types, see the Validation Rules section of the Attribute documentation.

GLN Validation Base Type

Now there is a Validation Base Type for the GLN attribute. The GLN validation base type will validate whether the format of the GLN is correct, preventing the user from entering a GLN with an incorrect check digit or an incorrect length of value.

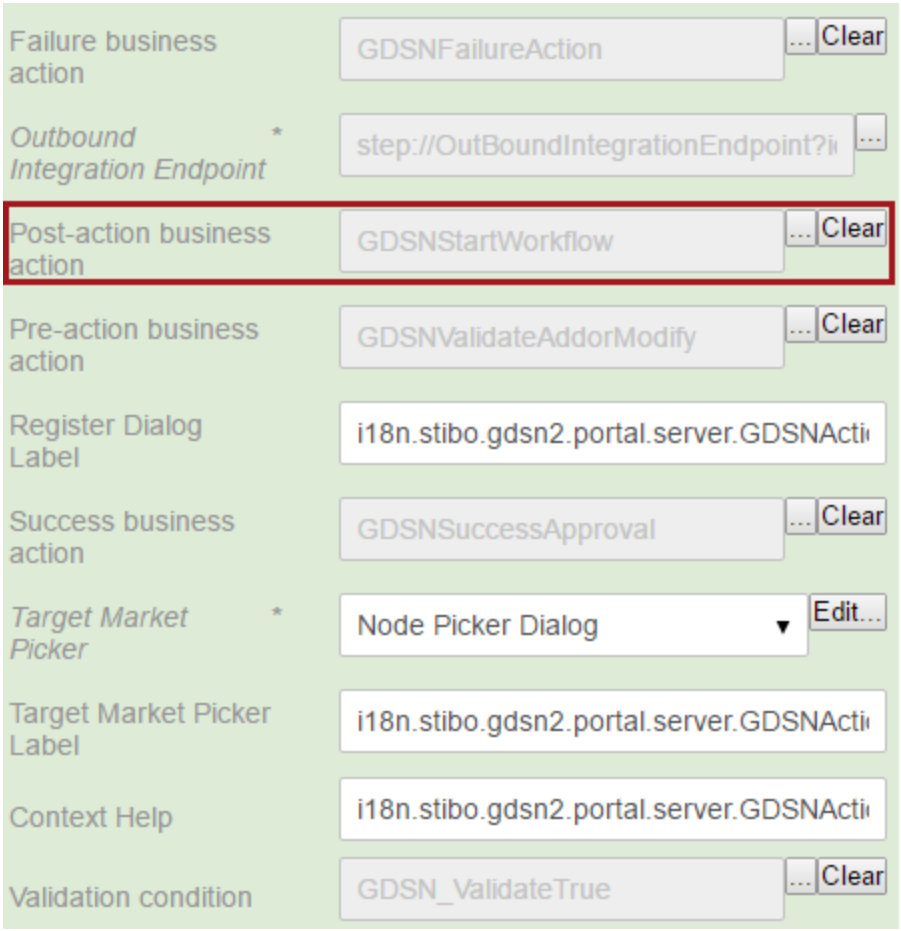
Important: If the GLN attribute was created using the **Easy setup of GDSN Component Model**, the new validation base type will be applied once STEP Trailblazer is upgraded to 8.2 and the component model is re-run. However, if the GLNs currently in the system are incorrect, they will need to be addressed prior to running the component model. If the GLN attribute was manually created, users can change the validation base type of the attribute, but only after any incorrect GLNs have been addressed.

For more information regarding attribute Validation Base Types, see the Validation Rules section of the Attribute documentation.

GDSN 'Post-action business action' option in the GDSN Provider Web UI

Now, GDSN Provider users will have the option to configure a 'Post-action business action' in the GDSN Register, Publish, Add Links, and Delete Links action properties components in the Web UI. This action can be configured to execute a business action after all other actions and background processes have been performed. This makes it possible to trigger workflow actions or capture additional information on objects that are created or updated by the GDSN solution.

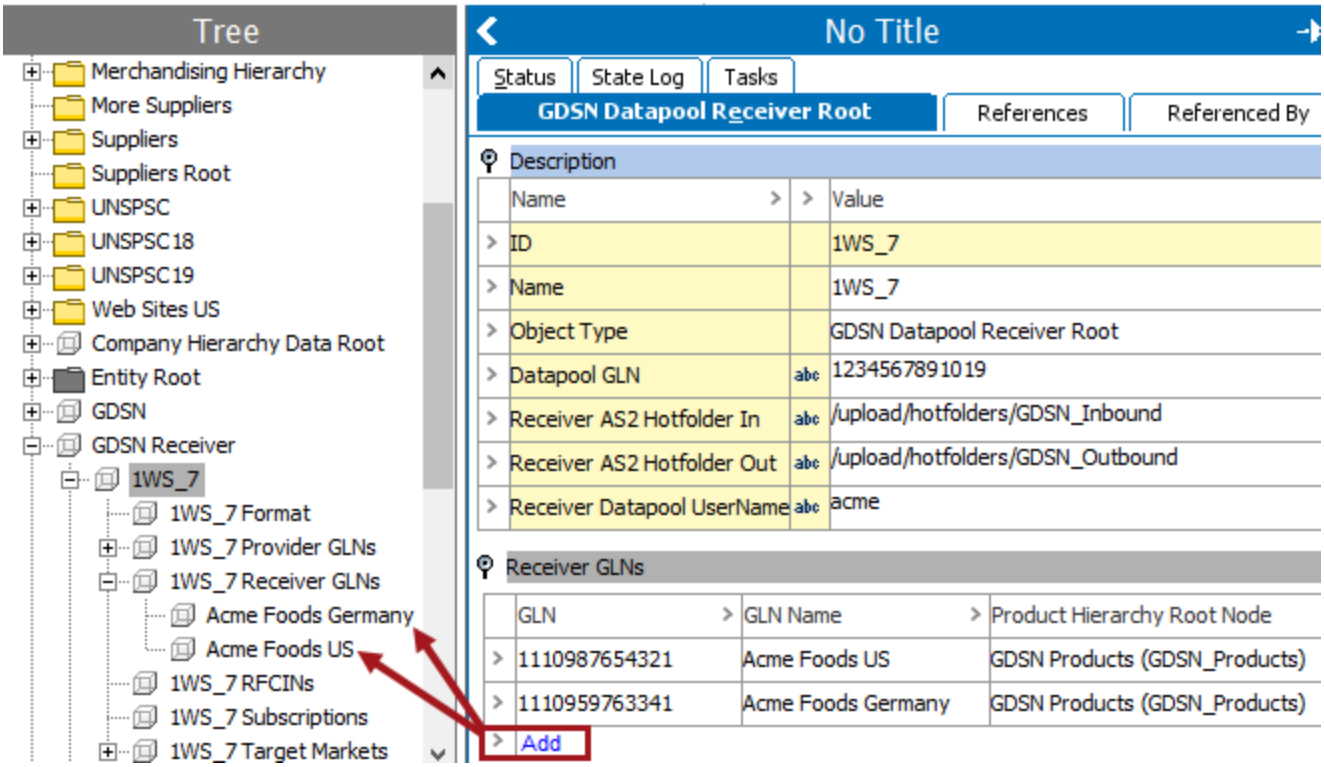
If configured, the 'Post-action business action' should not have an impact on existing actions as the existing actions will be executed prior to the new Post-action business action.



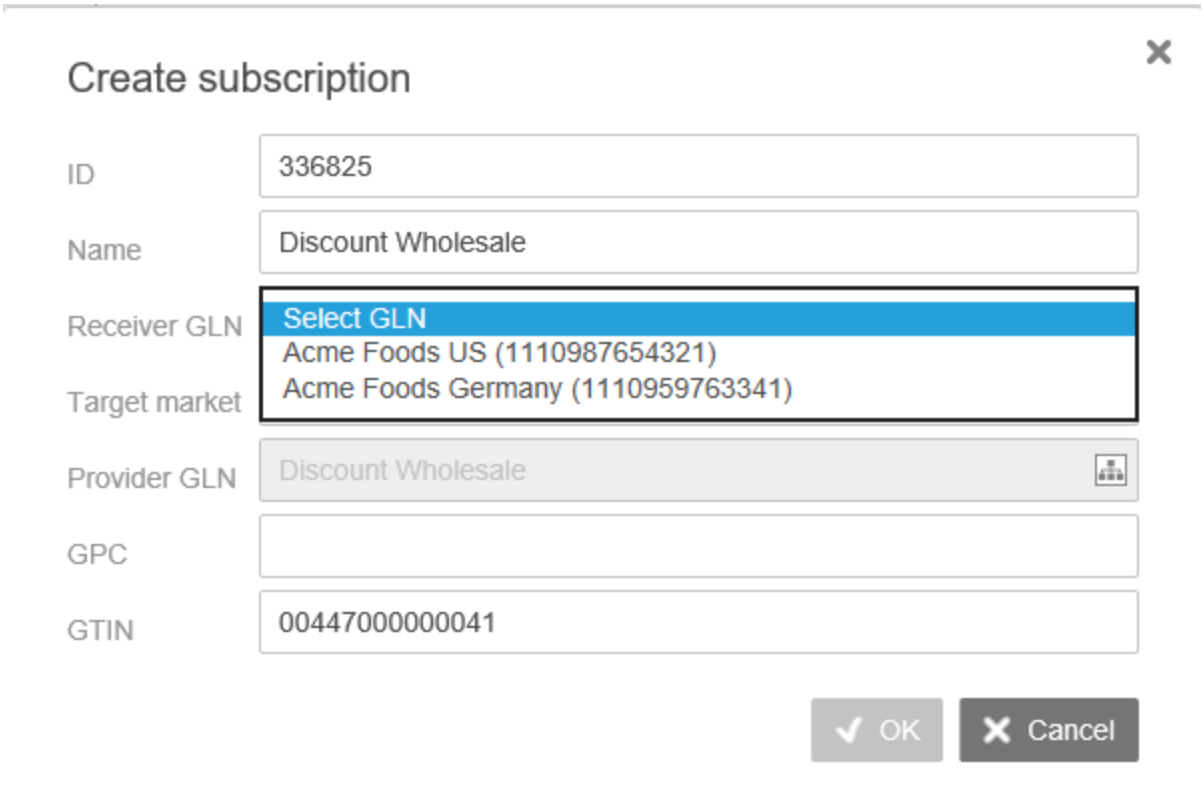
For more information about the Post-action business action and other business rules in the GDSN Provider, see Sequence of Events for Business Rules in the Provider Web UI.

Support for multiple GLNs in the GDSN Receiver

In previous versions of the GDSN Receiver solution, the Receiver GLN was stored as an attribute on the data pool object in the workbench. This meant that for each Receiver GLN, a separate data pool setup in the workbench and a separate GDSN Receiver Web UI had to be created. Now STEP supports multiple Receiver GLNs in a single data pool setup and in the GDSN Receiver Web UI. Users can add as many Receiver GLNs as they need to under the GDSN Datapool Receiver Root in the workbench.



Once the Receiver GLNs have been configured in the workbench, they will be available to select in the GDSN Receiver Web UI via a dropdown menu in the Create Subscription dialog box.

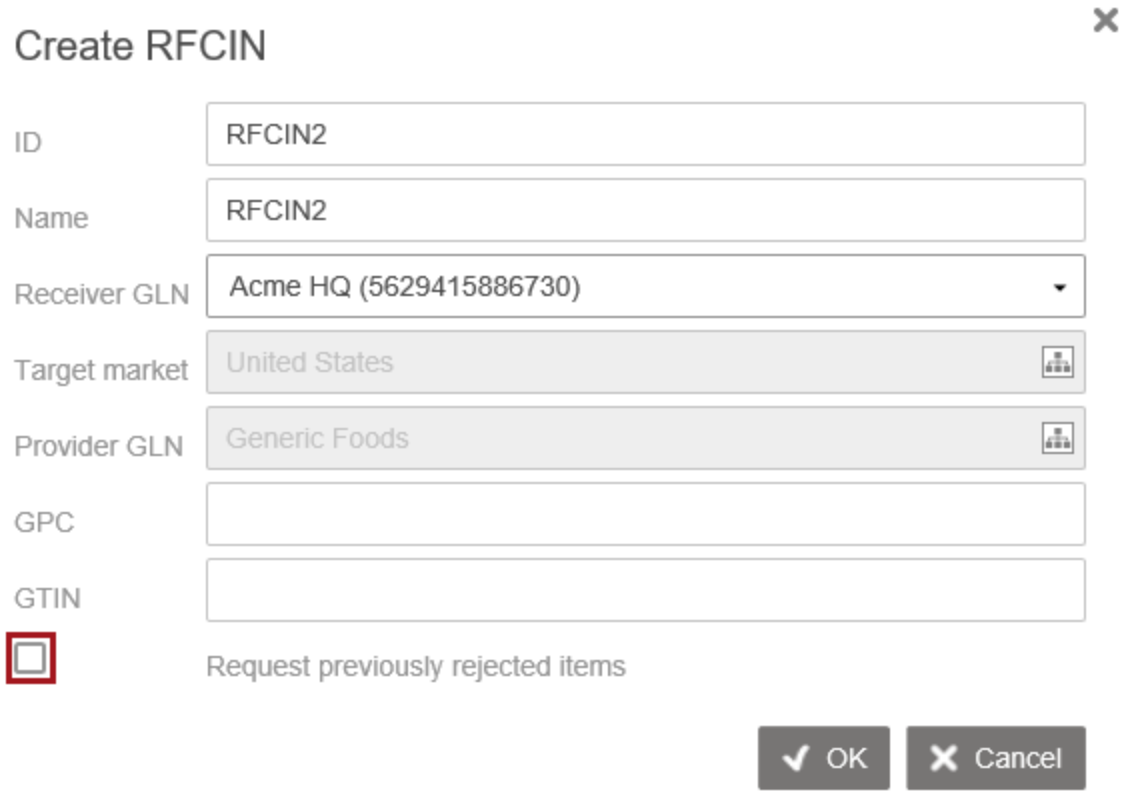


New users to the GDSN Receiver solution will get these options by running the Easy setup of the GDSN receiver component model and the Easy setup of the GDSN receiver data pool. For current users of the GDSN Receiver solution, these options will be made available via an upgrade script during the upgrade to STEP Trailblazer 8.2.

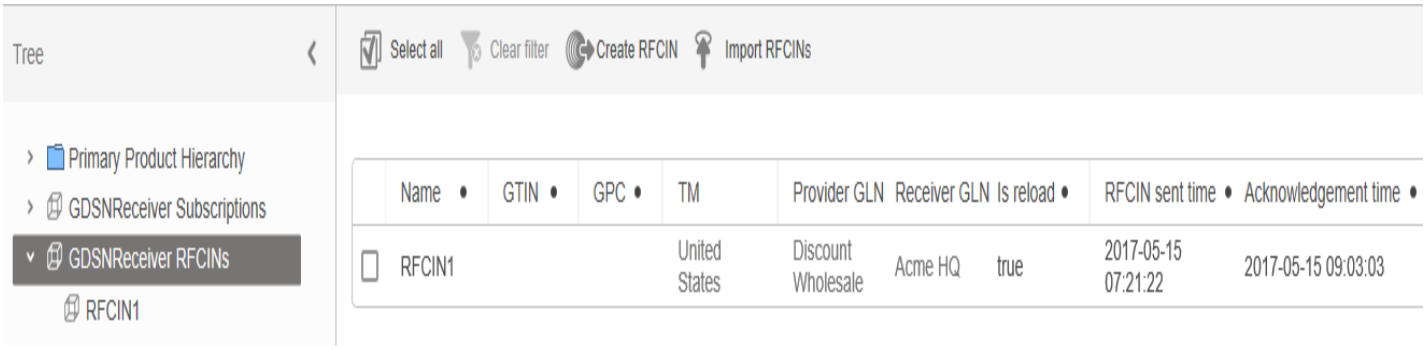
For more information about multiple GLN support for the GDSN Receiver solution, see 'Creating a GDSN Receiver GLN' for creating GDSN recipients and 'Creating and Importing GDSN Subscriptions in the Web UI' for managing GDSN subscriptions.

GDSN Receiver support for RFCIN messages

New support for sending RFCIN, (Request for Catalog Item Notification) messages from the GDSN Receiver solution is now available. STEP supports sending RFCIN criteria based on GLN and Target Market and optionally the GTIN or GPC code. Users can indicate to the Data Source the type of notification they want to receive back. For instance, they can request all synchronized items or they can request all synchronized and previously rejected items via the 'Request previously rejected items' option indicator in the Create RFCIN request dialog.



Users can track their RFCINs on the new object type through the GDSN Receiver Web UI.



The changes to support RFCIN messages include a new RFCIN group and object type, three new supporting entity reference types, several valid attributes, and two Web UI enhancement action buttons to support the creation and importing of RFCIN messages. For existing GDSN Receiver solution users, during the upgrade to Trailblazer 8.2, an update script will create the needed object types, attributes, and messaging template for RFCIN. However, there will be some manual configuration requirements in the mappings for the new messages and in the Web UI, as defined in the RFCIN documentation.

See GDSN Receiver Support for RFCIN Messages for more information.

New search options and tracking for the GDSN Receiver solution

The GDSN Receiver solution now has enhanced options to track the status of GDSN trade items and subscriptions. These options make it possible to:

- Search for an item by current CIC status.
- See the previous CIC status and CIC details for a given trade item to evaluate whether the last CIN import has corrected the data.
- Search for a subscription object by the creation date.
- See the date and time an acknowledgment message (CISR) was received from the data pool on the subscription object.
- Maintain and send multiple CIC codes and additional CIC information for the same product.
- Send CIC messages and set CIC information via business rules.

These options will result in significant changes to the subscription data model; specifically, the modeling and handling of the CIC status and details. Previously the CIC status and CIC details attributes were placed on the reference from the trade item to the subscription object and as a result it was not possible to find the CIC status on the product itself. Also, since the CIC status and details attributes were updated whenever a CIN file was sent from the data pool with updated product information, the historical details of the CIC status were overwritten and the approval status could be changed on the trade item. Now the GDSNProductSubscription reference type will go from the subscription object to the trade item which prevents the approval status on the trade item from being changed by the CIN file.

Trailblazer 8.2 introduces a new CIC group and CIC object to hold the confirmation state for the packaging hierarchy. When a CIN file is imported, the CIC object will be created and linked to the highest level object in the packaging hierarchy. Additionally, a CIC Data object has been introduced so that when a user sets a CIC code for a product, the CIC Data object is created and a reference from the CIC object to the CIC Data object is created.

The CIC Data object contains the information about the CIC status such as confirmation status codes, code descriptions, a free text attribute for CIC999 codes that the user can maintain, and a corrective action code that the user can select. Multiple sets of information can be maintained.

The Web UI has been updated to support the new objects and the Advanced Search feature has been updated with new search criteria to find products based on the CIC status. Now it is possible to search for an item by current CIC status and it is also possible to see the previous CIC status and CIC details for a trade item to evaluate whether the last CIN import has corrected the data as expected.

STEP is also introducing two new attributes on the subscription object: a Subscription Creation Time attribute and a Subscription Acknowledgment Time attribute. Both are searchable through standard search features in the workbench and the Web UI.

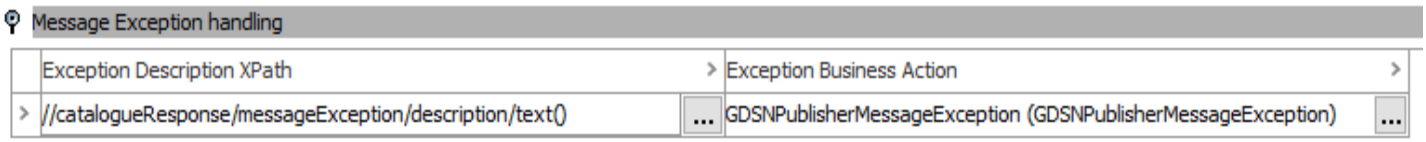
For more information about the GDSN Receiver solution, see the GDSN Receiver overview.

Added support for GDSN message exception handling in the GDSN Receiver and Provider solutions

Now the GDSN Receiver and Provider solutions provide added support for exception handling of messages that do not contain the GTIN / GLN / Target Market information needed to tie the exception message back to the original request. Trailblazer 8.2 now supports message exceptions based on the 'OriginatingMessageID' value sent back from the data pool.

Previously when exceptions occurred, these messages could not be tied back to the corresponding object in STEP so the message exception would not get processed since the administrator was not aware that an error to be corrected. Now, these exception messages are processed based on the unique Originating Message ID sent back from the data pool. Utilizing the Message ID will allow for the GDSN Receiver and Provider solutions to capture the exception message and tie it back to the Subscription or Registration object. The Message ID will be the ID of the background process that is triggered when generating the background process.

A new Exception Description XPath parameter has been added to the GDSN solutions along with an associated Exception Business Action parameter.



New binds for the business action have been added to support the JavaScript business actions. These binds will provide access to the original outbound message file.

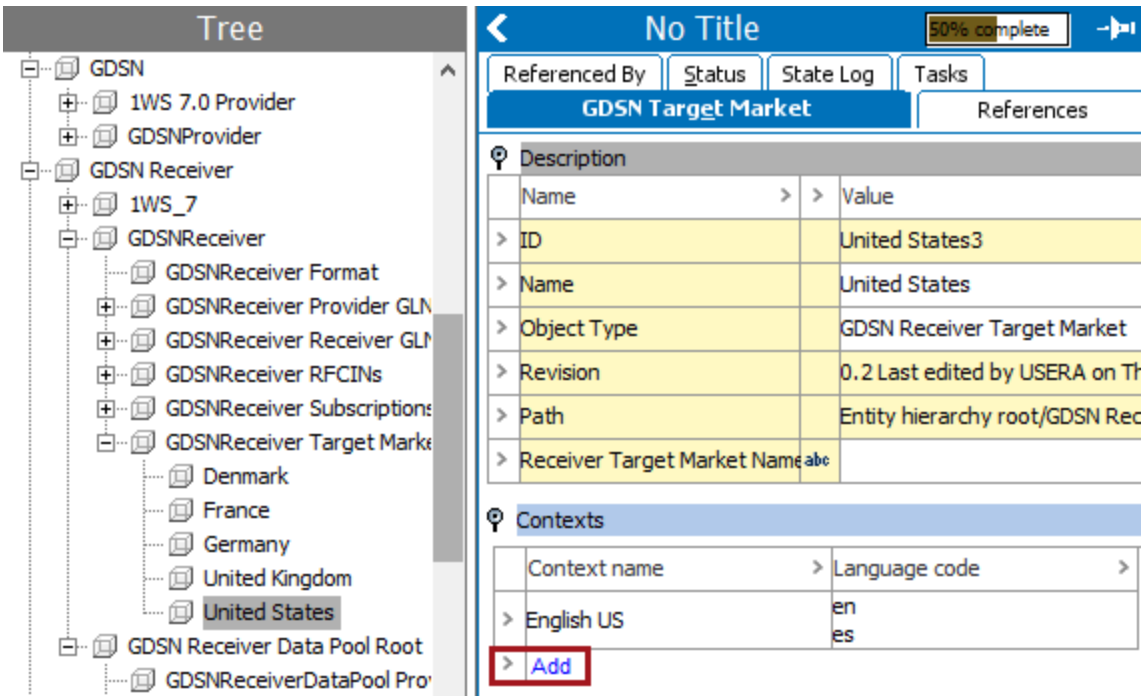
The selected business action can be configured to capture the exception message and put the originating item(s) in a workflow or send an email notifying the users of the rejection so that corrective actions can be taken and the message can be resent.

For current users, an automatic script will be run to provide the current data pools with the additional configurations once the upgrade to Trailblazer 8.2 occurs.

For more information about GDSN message exception handling, see GDSN Message Exception Handling.

New Contexts editor available on the Target Market nodes for the GDSN Receiver

Previously, mapping multiple language versions for a single context required extensive advanced Generic XML mappings. Now a new Context Editor has been introduced that will allow an administrator to create references from the selected Target Market node to one or more STEP contexts. This enhancement makes it more flexible in handling language variations for a target market and it does not have to be revisited if new contexts are modeled in STEP. The Language code metadata attribute is multi-valued and is valid on the reference between the Target Market and the Context.



When an attribute in an incoming CIN file has a language qualifier, the language-specific data is imported into the correct STEP contexts by matching the language qualifier with the language code that is maintained on the new attribute. This will require additional mappings to be manually configured in the inbound message format.

For more information about the GDSN Context Editor, see the Mapping Multiple Languages and Qualifiers in the Inbound Message Format section.

Removal of old code from the GDSN solution

Our current GDSN offerings are based on standard STEP functionality, including integration endpoints, GXML mappings, and references. Previously, the GDSN solution was implemented in a GDSN-specific way and as such was not making use of all of the standard functionality that we now have in STEP. The 'old' solution was no longer in use but the functionality was still present and hidden behind a license. With the release of 8.2 this old implementation has been removed.

The old Packaging hierarchy was dependent on this GDSN implementation and as a consequence of the removal of the old GDSN implementation, the old packaging hierarchy was also removed.

As a result of this code removal, the Web Services API functionality used to manipulate the old GDSN solution and the old Packaging hierarchy has been removed. The current GDSN solution and the Packaging Hierarchy, including the Web UI components, are untouched by this change.

Detailed information can be found in the STEP API Enhancements and Updates section of the STEP Trailblazer 8.2 Release Notes.

It is very important that any customers using the old GDSN solution, working with data pools pre-Major Release 3 (MjR3), consult with their Stibo Systems account manager or partner manager prior to upgrading to 8.2. Evaluation of any references and links created using the older functionality needs to be completed and any conversion needs to be carefully coordinated.

Data Exchange Enhancements

STEP data exchange enhancements for the Trailblazer 8.2 release include:

Summary

- The new Java Database Connectivity (JDBC) delivery plugin feature can be configured to make STEP data available to analytics platforms
- The BMEcat 2005 format includes a new transformation aspect that allows mapping Product Attribute Link metadata on the product being exported
- BMEcat 2005 files can now be exported with empty tags, allowing users to export ETIM data even when some attributes have missing values
- BMEcat (version 1.2) and BMEcat 2005 XML files can now be validated against their respective definitions upon export
- eCl@ss Basic XML files can now be imported via the eCl@ss Importer, and the importer wizard has been updated with new configuration options to support this new format
- A new Bulk Update operation has been added that allows users to reclassify products into newer versions of the classification structure
- An empty attribute value can now be converted into a text string via attribute transformations
- Users now have the ability to select the product object types that are valid for the ETIM attributes that are imported in the ETIM 6 import format plugin
- Exporting asset content using relative REST URL or Base64 encoded binary is now available via Advanced STEPXML
- A new standard IIEP PreProcessor allows the use of an XSLT stylesheet to provide greater flexibility in XML transformation than was previously possible with Generic XML
- Event filter and event generator business rules now run after approval, eliminating the generation of extraneous (and unnecessary) events when data is not exported for all contexts
- When importing a United Nations Standard Products and Services Code® (UNSPSC) file that is version 17 or higher, STEP now automatically detects the UNSPSC file type during the import process
- The FTP and SFTP delivery methods in Export Manager and OIEP have been updated to allow for connection via proxy
- A new SmartLabel export format provides a default template to aid users in identifying the existing STEP attributes required to implement SmartLabel™ standard
- Proxy support for REST gateway endpoints is now available in STEP
- Security has been improved for passwords stored in STEP configuration objects
- The STEPXML attribute 'PMPublicationName' has been removed

Additionally, please note that the Continuous Publishing feature is being removed for the fall 2017 STEP Trailblazer release

Details

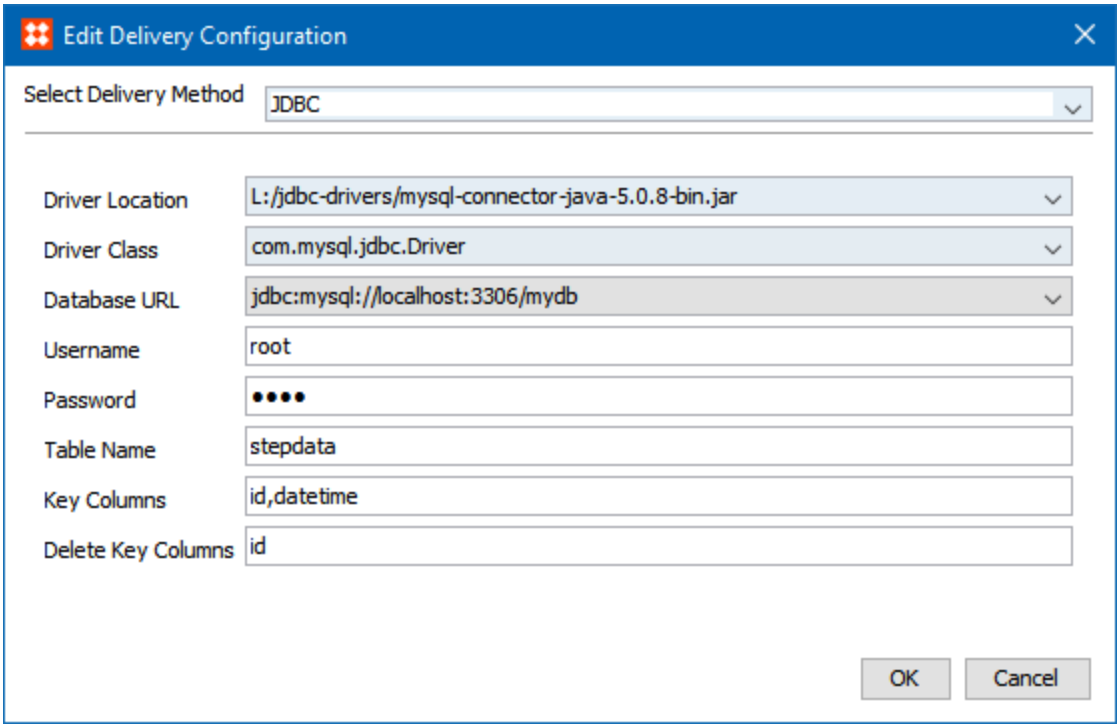
JDBC delivery plugin

With the 8.2 release of STEP Trailblazer, STEP supports delivery of data to downstream relational database management system (RDBMS) type databases that offer Java Database Connectivity (JDBC) specification 4.1 compliant drivers. The delivery option is available for both the Export Manager and outbound integration endpoints (OIEPs), and allows for delivery of data to a number of databases such as Oracle, MySQL, MS SQL Server, PostgreSQL, etc.

One of the primary aims of this feature is to make STEP data available to business intelligence (BI) and analytics platforms so that consumers of those tools may include STEP data in their analytics dashboards.

The new JDBC delivery plugin must be used with the CSV export format in which a direct mapping between the CSV file headers and the column headers in the target database table is established. The functionality supports both 'upserts' (updates / inserts) and delete operations, either of which can be specified via an 'action' column in the CSV file where each object / row can have the value 'upsert' or 'delete.'

As can be seen in the screenshot below, it is possible to use different key columns for matching records to be either upserted or deleted.

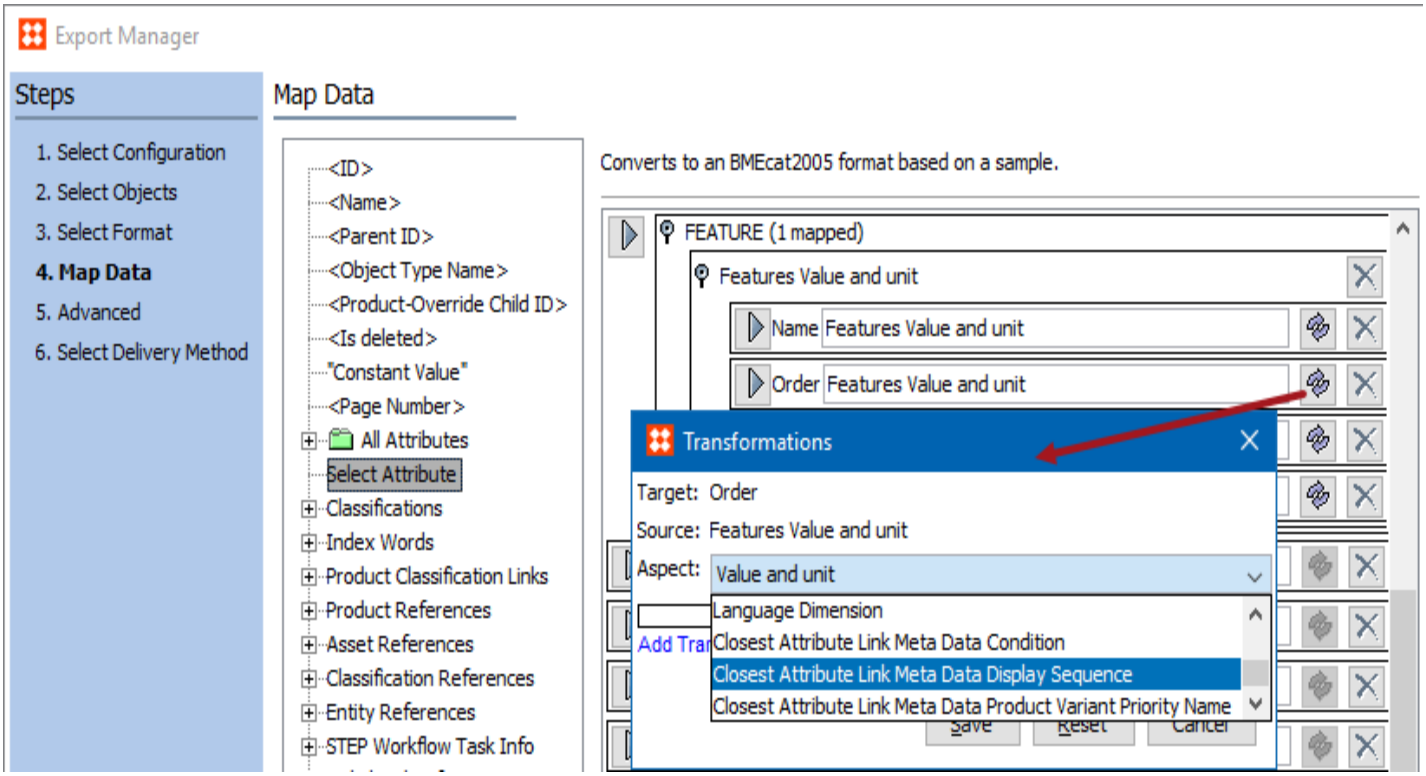


For more information on using this plugin in either the Export Manager or in an OIEP, please see the JDBC Delivery Method for Export Manager topic , and the JDBC Delivery Method for Outbound Integration Endpoints topic, both of which are located in the Data Exchange documentation.

For more information on configuration of the JDBC delivery method, see the Exporting Data via JDBC with CSV topic in the Data Formats guide. For information regarding proper setup of JDBC in conjunction with a data analytics integration with the Web UI, see the Analytics Using JDBC Example topic, also in the Data Formats guide.

BMEcat 2005 export mapping allows for Product Attribute Link metadata

Previously, the BMEcat 2005 format did not allow exporting Product Attribute Link metadata attribute values. Now in Export Manager and OIEP, when mapping data for the BMEcat 2005 format, the new transformation aspect 'Closest Attribute Link Meta Data' provides access to all Product Attribute Link metadata attribute values. This is a way to export metadata located on the link between a product and attribute, such as display sequence or contextual description, and provides additional information about the link relationship. The 'closest' value is defined as the first value encountered, either added directly on the product being exported, or via inheritance by moving up through the hierarchy from the product being exported. This data cannot be mapped for any other format, nor is it available during import.



For more information, see the Aspect - Transform Outbound topic of the Mapping section of the Data Exchange documentation.

Export empty tags in BMEcat2005

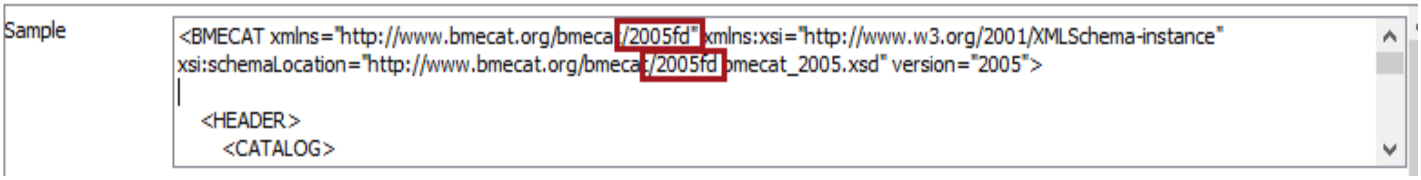
With the release of Trailblazer 8.2, it is now possible to export BMEcat 2005 files with empty tags. When this option is enabled, all configured attributes will be exported into the BMEcat 2005 file, and attributes without values will appear with empty tags. This allows users to export ETIM data via BMEcat 2005, an electronic data transfer standard that requires that all configured attributes be exported even if they do not have values. Previously, only configured attributes with valid values would appear in the exported file.

For more information, see the BMEcat 2005 Format section of the Data Exchange documentation.

BMECat export validation

BMEcat (version 1.2) and BMEcat 2005 XML files can now be validated upon export. Specifically, BMEcat (version 1.2) is validated against the Document Type Definition (DTD) and the BMEcat 2005 is validated against the XML Schema Definition (XSD). If an issue is detected during an export, the export's background process will fail and report where the validation failed. Previously, validation was not possible and invalid XML files could be exported.

Note that any previously saved BMEcat2005 export configurations will need to be updated to use the 'fd' schema namespace, otherwise the validation will not work.

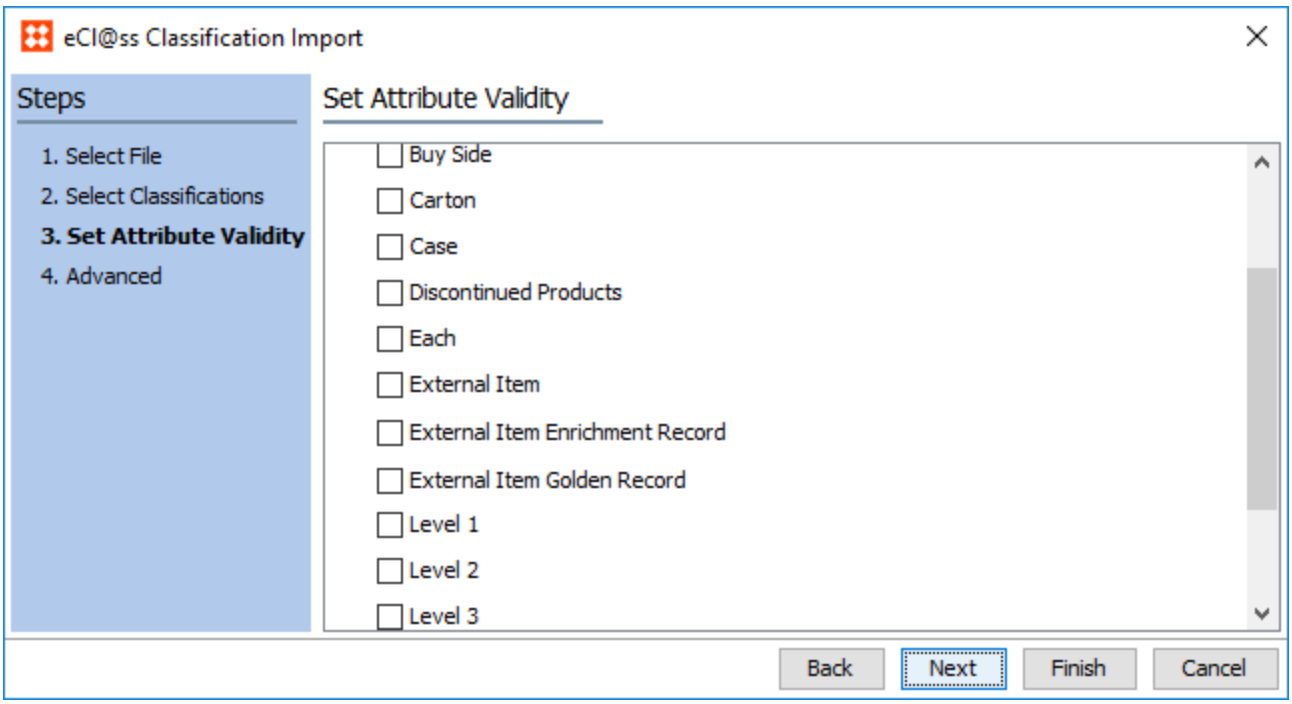


For more information, see the BMEcat 2005 Format and BMEcat Format sections of the Data Exchange documentation.

eCl@ss importer enhancements

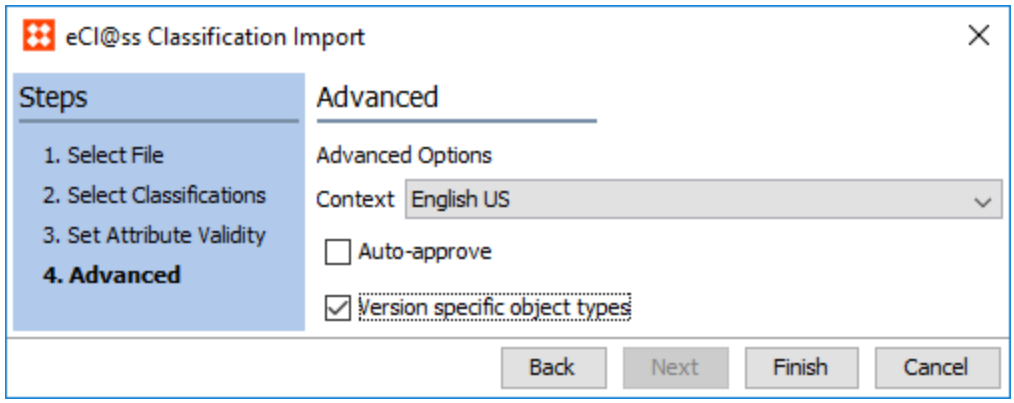
The eCl@ss Importer has been enhanced to support the eCl@ss Basic XML format, which allows for the creation of classifications, specification attributes, metadata attributes, LOVs, and units upon import of an eCl@ss XML file. Previously, the eCl@ss Importer only supported CSV and could not import LOVs or units. Additionally, the validation base type of imported attributes always defaulted to 'text', but will now reflect that of the eCl@ss file.

To further support this new import option, users can now select which product object types the imported eCl@ss attributes should be valid for via a new step in the wizard. Note that this new wizard step is only available if a Basic XML file is imported.



In addition to this new step, the wizard has been enhanced in the following ways:

- The 'Select all' option in the Select Classifications step has been removed to prevent users from accidentally selecting all segments, and thus creating a large amount of potentially undesired data.
- The 'Auto-approve' option has be added to the Advanced step, which allows imported classifications to be approved automatically.
- A new option called 'Version specific object types' has been added to the Advanced step, which makes the object type of any imported classifications version specific.



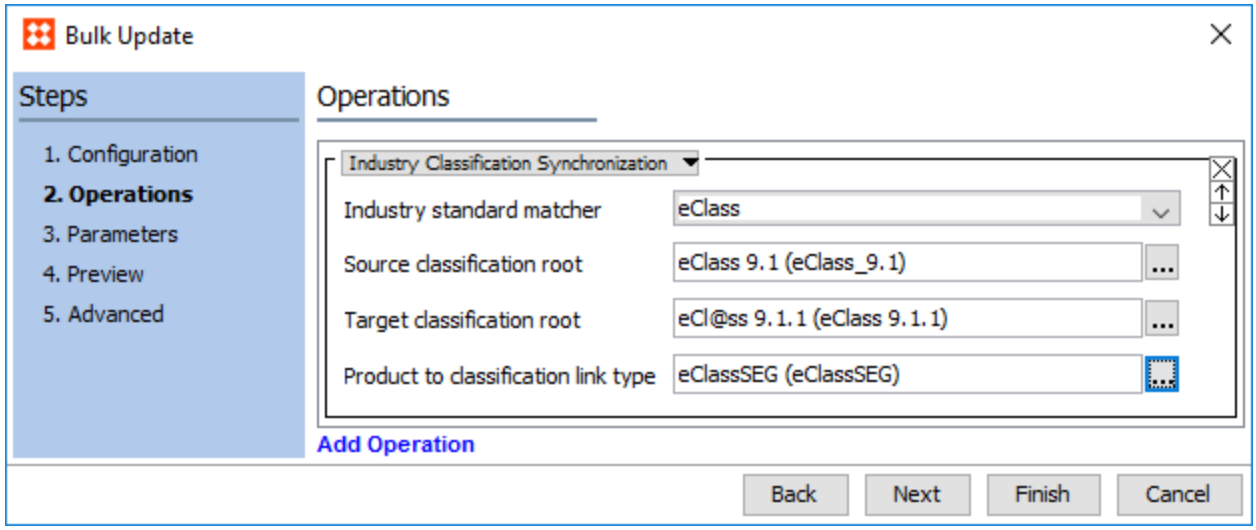
Because the Basic XML format is language-specific, the Dimension Dependency of both classification object types and attributes should be set to 'Language'. Note that if you want to import eCl@ss in multiple languages, you must run multiple imports using different language-specific import files.

For more information, see the eCl@ss Format section of the Data Exchange documentation.

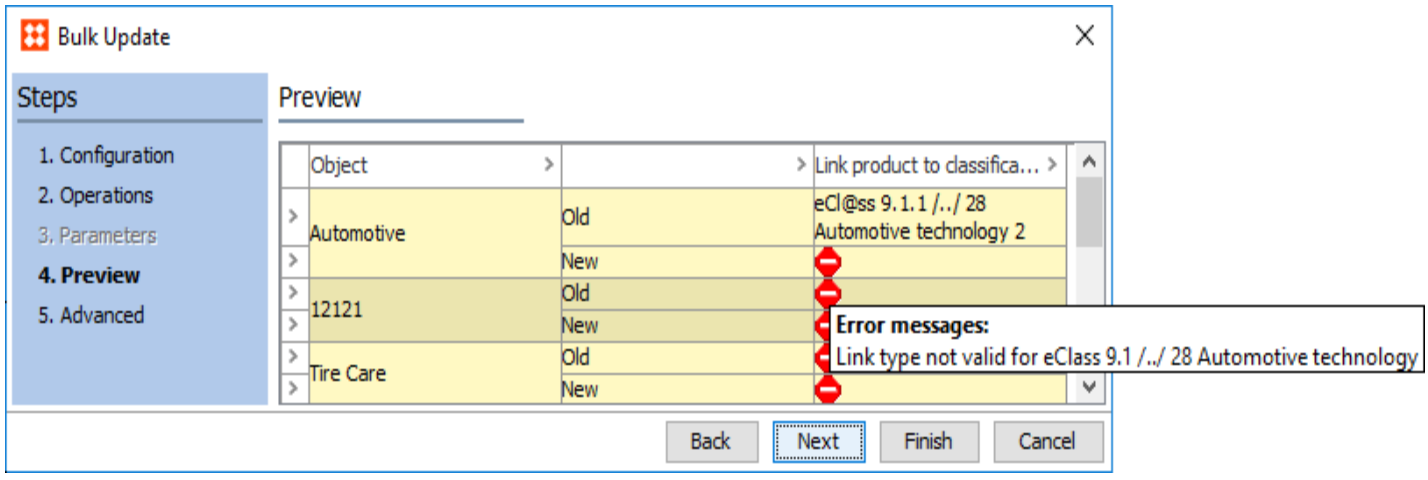
Added support for re-classifying products using Bulk Update

Previously, reclassifying products to newer eCl@ss, ETIM, or UNSPSC versions was a manual process involving exporting and re-importing the products into STEP.

Now, a new Bulk Update operation called 'Industry Classification Synchronization' has been added, allowing users to reclassify products into newer versions of the classification structure. After performing a search, you can use this new operation to update the products' classification links to the new eCl@ss, ETIM, or UNSPSC versions.



Typically, the Bulk Update wizard will detect failures before the operation is initiated and report why they will fail. Proceeding with any products that fail to be re-classified will be reported by the background process and linked to a 'Fail' collection.



For more information, see the References and Links Operations for Bulk Update section of the Getting Started / User Guide documentation.

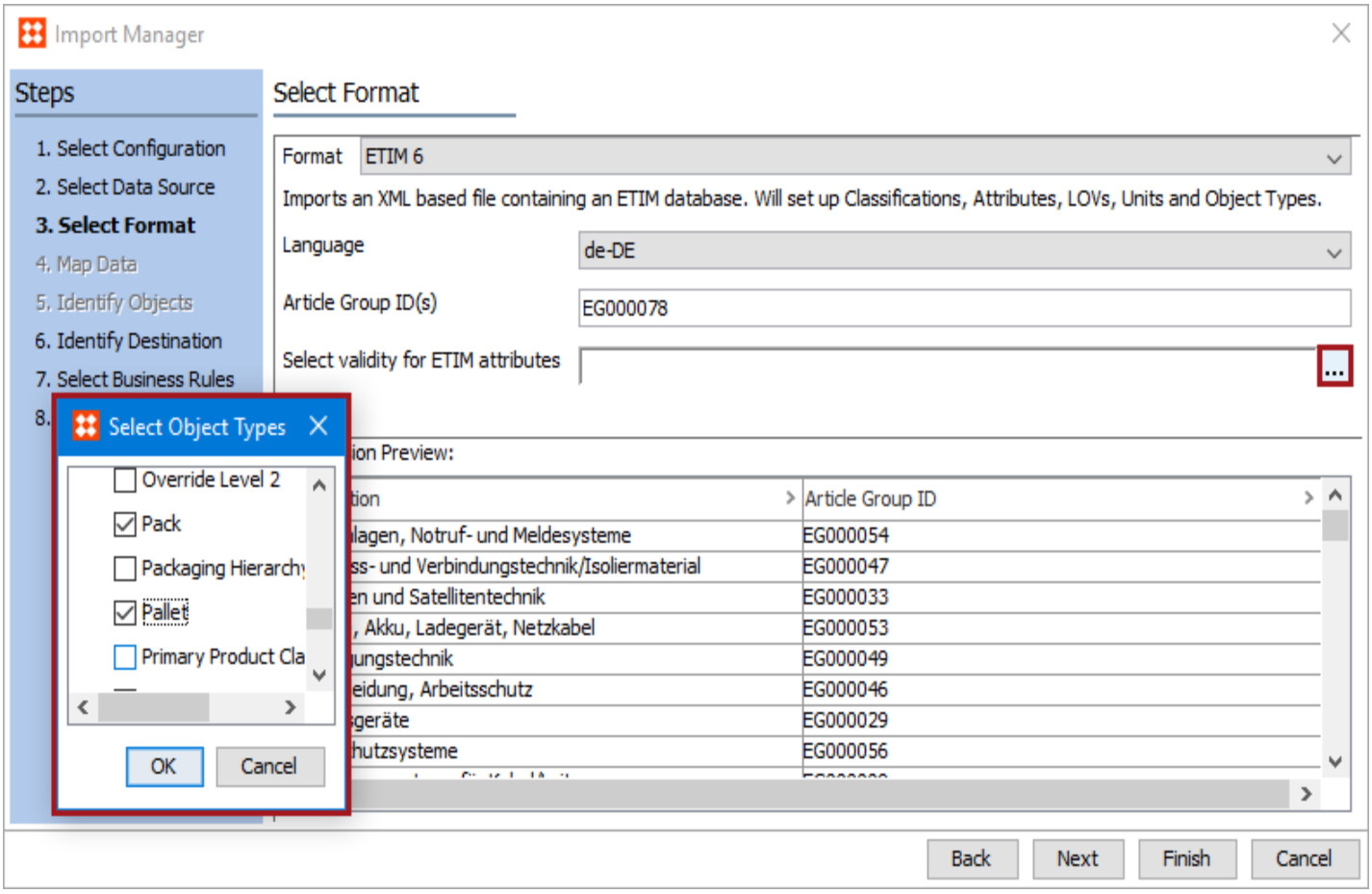
Transform empty attribute values upon export

Attribute transformations can now be used to convert empty attribute values into a text string. Previously, the 'Replace the whole value' transformation could only transform one text string into another, and thus, the chosen attribute required a value before it could be changed.

For more information, see the Outbound Map Data - Transform topic in the Mapping section of the Data Exchange documentation.

Object type validity option for ETIM 6 import format plugin

Previously when importing the ETIM 6 database, the ability to select the object type validity for the attributes had to be configured after the import or inbound integration completed. Now, users will have the ability to select the valid object type(s) at the time of the import or inbound integration using the new 'Select validity for ETIM attributes' option.



For more information, see the ETIM 6 Format topic of the ETIM Format section in the Data Exchange documentation.

New option to include asset content in Advanced STEPXML exports

In the 8.1 release of STEP Trailblazer, new functionality was introduced that enabled asset content to be exported using the STEPXML format option. Prior to that enhancement, users could export asset objects and their metadata in STEPXML, but asset content (the digital content—for example, an image or document) required a separate asset push process.

With the 8.2 release, asset content may now also be exported using the Advanced STEPXML format option. The new 'AssetContent' tag is available for use in an Advanced STEPXML template, and can indicate an export type of either relative REST URI or Base64 encoded binary. This matches the export functionality available using the STEPXML user interface format option.

```
<AssetContent ExportType="REST">
<ImageConversionConfiguration ID="Source"/>
<ImageConversionConfiguration ID="184968"/>
</AssetContent>
```

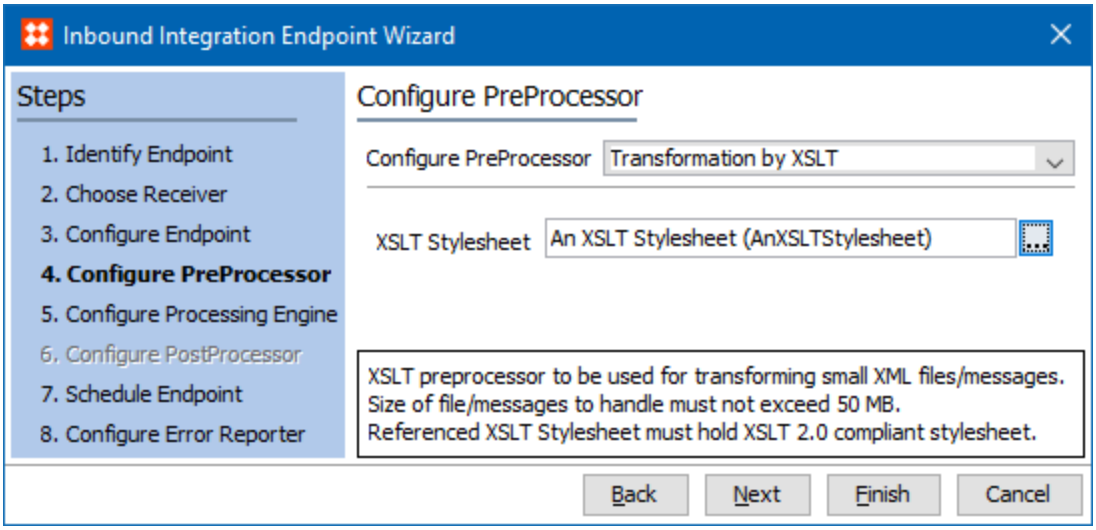
```
<AssetContent ExportType="Binary">
<ImageConversionConfiguration ID="Source"/>
<ImageConversionConfiguration ID="124011"/>
</AssetContent>
```

For more information, see the AssetContent Tag in STEPXML topic in the Data Exchange documentation.

New method for converting XML for Inbound Integration Endpoints

Previously, Generic XML was required for importing XML data that was not STEPXML.

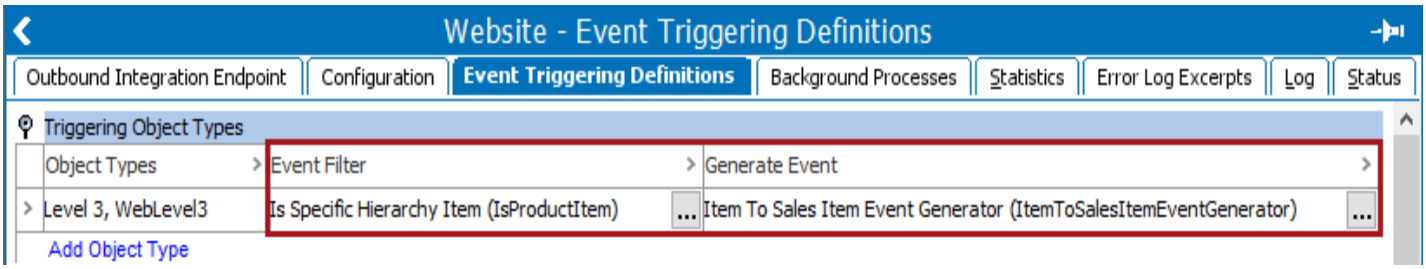
Now, an XSLT 2.0-compliant stylesheet can be used during import to transform valid inbound XML into STEPXML or non-STEPXML that can then be imported using the Generic XML format option. The stylesheets are housed in a new basic object type named 'XSLT Stylesheet.' The XSLT stylesheet is selected via a new standard preprocessor named 'Transformation by XSLT' in the Inbound Integration Endpoint (IIEP), making it possible to import non-STEPXML files or messages that are 50 MB or smaller in size.

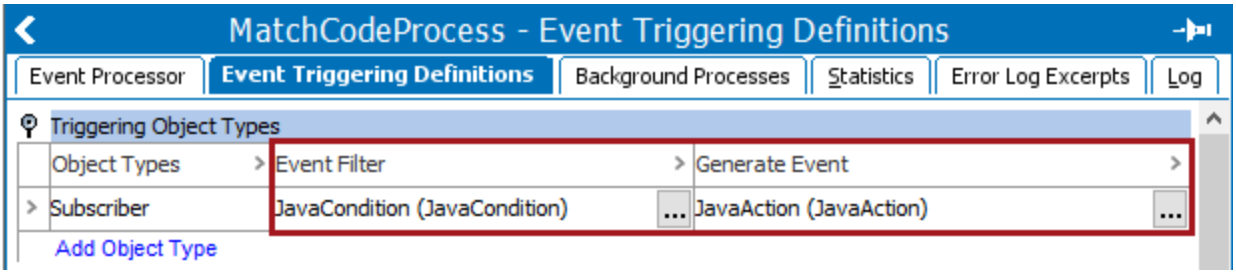


For more information, see the IIEP - Configure PreProcessor topic in the Data Exchange documentation.

Business rules used as event filters and event generators run after approval

The behavior of business rules used as event filters and event generators for Outbound Integration Endpoints (OIEPs) and Event Processors (EPs) has changed. Previously, these business rules ran prior to approval, and when used in conjunction with a configuration for limited contexts, this resulted in events being triggered for contexts other than those on the configuration. Now, by default, these business rules run after approval, so that the configured limited contexts can be used to determine the correct events to be generated.





This change impacts business rules that use the 'Approve Context' bind 'getApprovedNode()' method and that are used as event filters or generators.

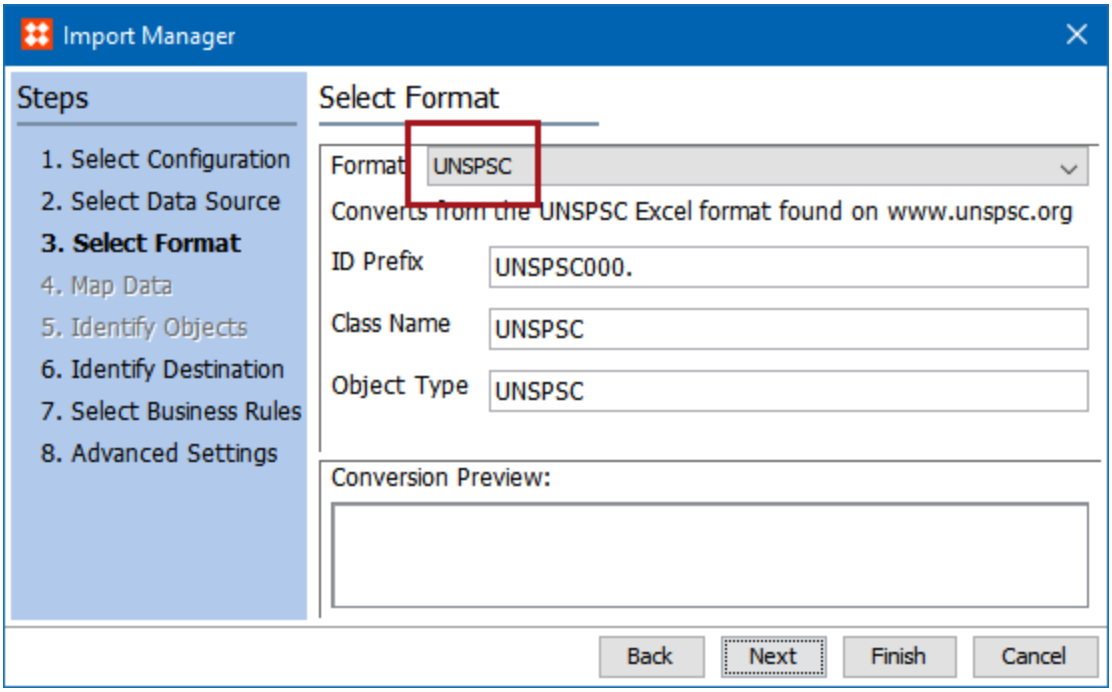
- Since business rules now run after approval, the value of the 'getApprovedNode()' method no longer returns the node in the state before approval. Instead, business rules in OIEPs or EPs that need to inspect the node as it looked prior to the approval must use the new 'getApprovedNodeBeforeApproval()' method. To ensure that your data continues to be processed correctly (using the node as it looked before approval), examine your OIEP and EP business rules and update them to use the new method.
- Business rules using the 'Approve Context' bind 'getApprovedNode()' method that are not used in OIEPs or EPs are not affected.
- Business rules that do not use the 'Approve Context' bind 'getApprovedNode()' method but are used in OIEPs or EPs are not affected.

As this constitutes a change in existing behavior, the previous functionality is temporarily available. To temporarily revert to the previous functionality, allowing this type of business rule to continue to run prior to approval, add the property 'Synchronize.RunFilterAndGeneratorRulesAfterApproval = false' in the sharedconfig.properties file. This property allows you to postpone the change in functionality, until there is sufficient time to review all event filter and generate event business rules, and make the necessary changes. Be cautioned that this property will be removed in a future release, at which time, business rules used in OIEPs and EPs will automatically run after approval.

For more information, see the OIEP - Event-Based - Event Triggering Definitions Tab section of Data Exchange, the Creating an Event Processor section of System Setup / Super User Guide, and the Approve Context Bind section of Business Rules Actions documentation.

Automatic detection of UNSPSC format in Import Manager

The 8.2 Trailblazer STEP release includes an improvement to the Import Manager. When users import a United Nations Standard Products and Services Code® (UNSPSC) file that is version 17 or higher, STEP now automatically detects the UNSPSC file type during the import process.



Previously, when a UNSPSC file of version 17 or higher was selected as the source, the suggested format in the Select Format step in the Import Manager wizard was auto-set incorrectly. The user was then required to manually select the UNSPSC format from the dropdown in order to proceed. Now, UNSPSC files of that type are immediately recognized by STEP, thus removing the extra step.

It is important to note that this enhancement is effective only for UNSPSC files of version 17 or higher. When imported through the import manager, earlier versions of UNSPSC files are still auto-set to 'Excel' and the UNSPSC format must be manually selected by the user.

For more information on configuring an import, see the Creating a Data Import section of the Data Exchange documentation.

For more information on UNSPSC files, see the UNSPSC Format section of the Data Exchange documentation.

FTP export delivery method allows connection via proxy

Previously, connecting to an FTP server via proxy was not allowed. Now, in both Export Manager and OIEP, delivery via proxy to an FTP or SFTP is available when supplying the proxy host name or IP address.

For more information in Export Manager, see FTP Delivery Method or SFTP Delivery Method.

For more information in Outbound Integration Endpoints, see FTP Delivery Method or SFTP Delivery Method.

New SmartLabel export format

The new SmartLabel format includes a pre-defined template for integrators to provide a head start in configuring a SmartLabel export solution. Previously, implementing SmartLabel in STEP involved custom mapping and export configuration.

SmartLabel is based on Generic XML and is available as a format option in Export Manager and OIEPs. The default template includes required SmartLabel attributes, plus category labels and comments to identify a repeating value group (RVG) section and a flattened style section. This makes it easy to modify the default template to identify, map, and export the data required which makes up a SmartLabel. The mapping process provides assistance in identifying and linking existing STEP attributes to the fields required by the SmartLabel. Ultimately, the SmartLabel output is an XML document of the selected sections and mapped attributes. The documentation provides work instructions which will guide integrators through the setup of the mapping and export process. For more information, see the SmartLabel Format topic in the Data Exchange documentation.

Proxy support for REST gateway endpoints

STEP now enables requests from REST gateway endpoints to pass through a proxy server with its own authentication requirements. For instance, if a REST gateway endpoint is configured to request information from an external system that requires its own login information but, in order to pass through a firewall, the request must first pass through a proxy server requiring its own login information, STEP now supports automated access through this two-tier authentication process.

Admin users can now configure one or many REST gateway endpoints to automatically access proxy servers by adding properties to the sharedconfig.properties file that describe specific proxy configurations. Then, in the configured gateway endpoint in the workbench, users simply select the appropriate proxy configuration from a dropdown.

For more information on how to configure proxy access for a REST gateway endpoint, see the Configuring a Gateway Integration Endpoint section in the Data Exchange documentation. For more general information on gateway endpoints, see the Gateway Integration Endpoints section in the Data Exchange documentation.

Improved Password Security

Starting with Trailblazer 8.2, passwords stored in STEP configuration objects like Export Configurations, Inbound and Outbound Integration Endpoints, and Gateway Integration Endpoints will be encrypted and will become system specific. See the Increased Security section of the STEP Trailblazer 8.2 Release Notes for more information.

PMPublicationName XML attribute now removed

The STEPXML attribute 'PMPublicationName,' valid for the TagFormat and Formatting elements, has been removed from the XSD and will be ignored on import.

Continuous Publishing slated to sunset for the fall 2017 release of STEP Trailblazer

The 'Continuous Publishing' functionality in STEP, also known as incremental export, is being deprecated for the STEP Trailblazer 8.3 release, slated for the fall of 2017. Continuous Publishing is a feature that enables STEP content to be pushed out in an automated, near-real time way. Because outbound integration endpoints (OIEPs) perform the same function more efficiently, all customers using Continuous Publishing should start migrating to OIEPs in advance of the next STEP Trailblazer release. For more information on configuring event-based OIEPs, the functionality that should be used in lieu of the Continuous Publishing feature following the fall 2017 release of STEP Trailblazer, see the Creating an Event-Based Outbound Integration Endpoint section of the Data Exchange documentation.

Bugfixes

- **ISSUE-242138 - Format mapping of Outbound Integration Endpoint the type is now selected**

  In the Format Mapping of Outbound Integration Endpoint, instead of always being 'Product,' the selected type of the saved selection is now selected.

- **ISSUE-269730 - Excel smartsheet no longer does a strikethrough on the Node Picker dialog**

  There used to be a strikethrough on all nodes in the Node Picker dialog in Excel for Smartsheets. This has now been fixed.

- **ISSUE-270087 - REST and REST Direct delivery method used in OIEPs are now configured to allow certain configured REST endpoint returns**

  REST and REST Direct delivery method used in Outbound Integration Endpoint threw an error when configured REST endpoint returned HTTP response with other than 200 or 204 HTTP code. This has been corrected to allow configured REST endpoint return one of the listed HTTP codes:

  200 ==> OK

  201 ==> Created

  202 ==> Accepted

  203 ==> Non Authoritative Information

  204 ==> No-Content

  205 ==> Reset Content

  206 ==> Partial Content

  207 ==> Multi-Status

- **ISSUE-274150 - Warning emails for Integration Endpoints can now be disabled**

Previously when using integration endpoints, an email error report was sent for any reported errors or warnings. Now though, by setting the property to Integration.Endpoint.SendEmailErrorReportOnWarning=false email error reports can be disabled if they only contain warnings and no errors.

- **ISSUE-275899 - Overridden products containing references now export correctly when using OIEPs**

  Previously an export of overridden products using an Outbound Integration Endpoint that contain some references ended up with errors. That has been fixed now.

- **ISSUE-277528 - Corrected file name reported in log for IIEPs**

  The first time an asset file was imported, the path contained 'save' directory, even when the file was placed into the directory configured by Hotfolder Receiver - 'In folder' parameter (for example 'IN'). So previously the log reported:1 Processing file(s) 'M:hotfoldersImagesaveLaptop.jpg' (Tue May 30 14:02:51 CEST 2017) and it is now changed to: 1 Processing file(s) 'M:hotfoldersImageINLaptop.jpg' (Tue May 30 14:02:51 CEST 2017).

- **ISSUE-278872 - Improved heap memory usage for event-based Outbound Integration Endpoints**

  For event-based Outbound Integration Endpoints, in order to minimize heap memory usage when exporting a large number of events with products having a large number of revisions, two improvements have been made. Memory management was improved when exporting events as comments and the ability to disable events as comments in exports was added. Disabling events as comments can be done in Advanced STEPXML by adding the the following setting to the output template in the STEP-ProductInformation element: EventsAsComments="false". For example: STEP-ProductInformation EventsAsComments="false".

- **ISSUE-280788 - Error-sheets for large Smartsheets no longer causes the server to run out of memory**

  Previously, generating an error-sheet for very large Smartsheets could cause the server to run out of memory. This has now been fixed so that memory usage, while generating an error-sheet will not exceed that of the actual import. This fix has also been backported to 8.0-mp4 and 8.1-mp5.

Enhanced Attribute and Attribute Value Management

Summary

The following changes have been made to improve the handling of attributes and attribute values:

- New functionality to migrate non-LOV attribute values to Compact Value Storage values
- Two new features related to the bulk management of values in Lists of Values (LOV)
- Changes have been made to LOV value searching in the workbench LOV editor
- Improvements to how numeric text attributes with units render in Web UI and when using the setSimpleValue() method in the business rules API
- Changed handling of spaces in attribute values
- Enhancements to the Attribute Validation component deliver more extensive functionality to the Attribute Management screen
- New Mandatory Group parameter for the Attribute Value Group component
- New global rule provides additional control over how attribute values display and behave

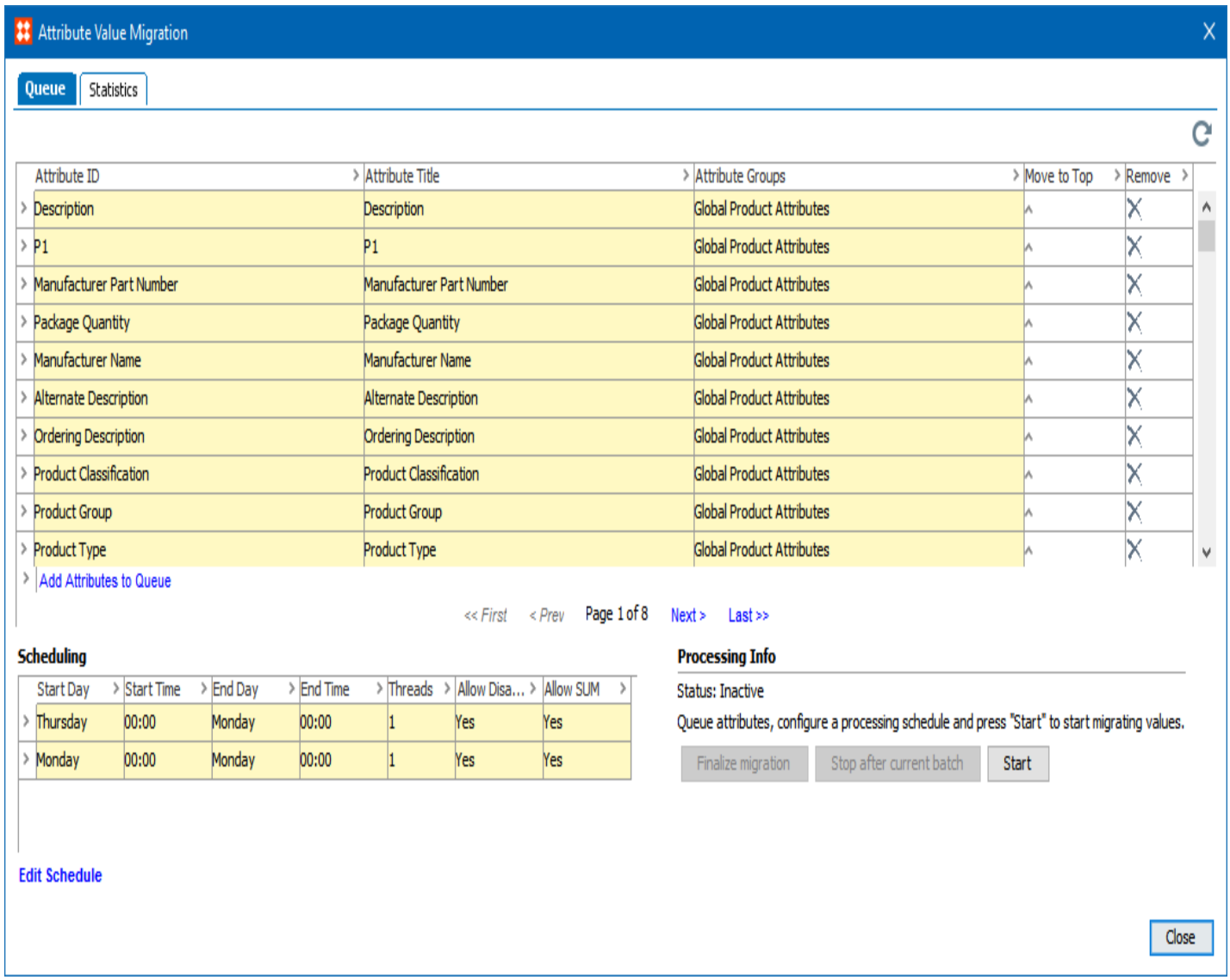
Details

New Functionality for Migrating Attribute Values

Attribute Value Migration functionality is now available to convert non-List of Values (LOV) values to Compact Value Storage (CVS) values. Storing non-LOV values using the CVS model, introduced in STEP Trailblazer 8.1, simplifies database tables to require less storage space and perform faster reading and writing tasks. Migrating values is an option for those created in STEP systems previous to Trailblazer 8.1. Any non-LOV attributes created in Trailblazer 8.1 systems, and continuing with STEP Trailblazer 8.2 and beyond, automatically use the CVS model for storing the values.

The Attribute Value Migration functionality is designed to ensure that the value migration can be scheduled, and it is possible to control the impact that the migration has on system performance. Other features include:

- Queue configuration setup – allows migration of specific attributes, as well as the ability to queue all attributes not yet migrated
- Scheduling – enables setting the migration process to run during specified days and times.
- On-screen reporting – displays the number of attributes and values in the queue. A details snapshot shows an estimated time to run, as well as how many attributes with migratable values are left in the processing queue.



For more information, see Attribute Value Migration in the System Setup / Super User Guide documentation and the SQL API section of the STEP API documentation, which is accessible at [system]/sdk or accessed from the WebStart page.

Improved LOV management

Two new features related to the bulk management of values in Lists of Values (LOV) have been implemented in STEP—the ability to delete LOV values in bulk using a STEPXML import and the ability to merge LOV values in bulk using a CSV import. Both of these features can modify more than one LOV at a time and neither causes STEP to enter Single Update Mode (SUM).

Previously, there was no easy way to delete or merge LOV values in bulk. Deletion could only be performed manually by right-clicking the values within the LOV. Merging could be performed using the 'Merge Values in LOV' wizard, available through a right-click action on an LOV, but this is also a manual task and can only be used on one

LOV at a time. Due to the manual nature of these processes, maintaining values in LOVs, especially those with thousands of values, could be a cumbersome and time-consuming task. These two new features greatly reduce the amount of manual effort required by users to maintain clean data within LOVs.

Delete LOV values in bulk

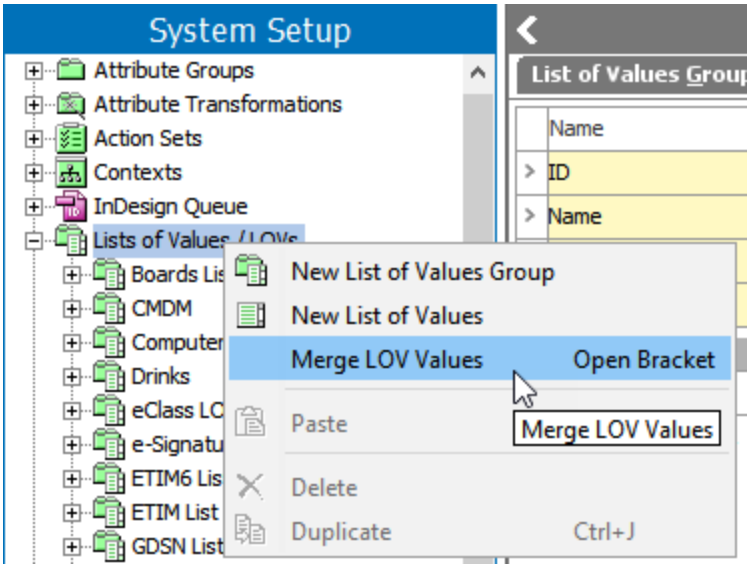
A new STEPXML tag, <DeleteValue/>, has been introduced that provides the ability to delete LOV values in bulk by importing a STEPXML file.

```
<ListsOfValues>
  <ListOfValue ID="ColorSwatches" ParentID="List Of Values group root"
  AllowUserValueAddition="false" UseValueID="true" Selected="true" Referenced="true">
    <Name>Color Swatches</Name>
   <Validation BaseType="text" MinValue="" MaxValue="" MaxLength="100" InputMask=""/>
    <DeleteValue Force="true" GenerateEvents="true" ID="Red"/>
  </ListOfValue>
</ListsOfValues>
```

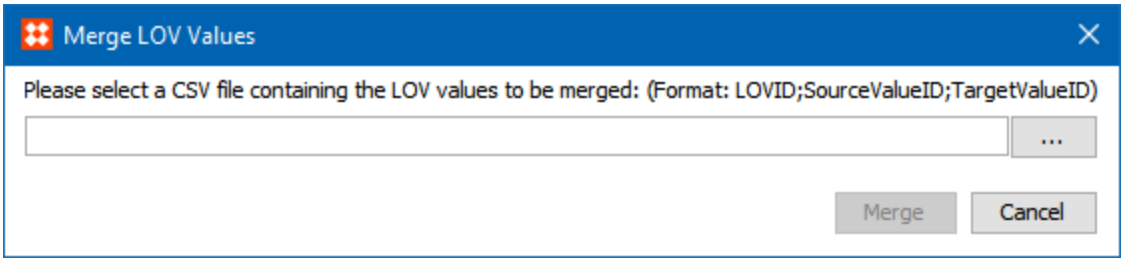
The <DeleteValue/> tag can contain three XML attributes: ID, Force, and GenerateEvents. Of these three, ID is mandatory, as it identifies the value to be deleted. The Force and GenerateEvents attributes are optional and each can have a value of 'true' or 'false.'

Merge LOV values in bulk

A new feature called 'Merge LOV Values' has been added as a right-click action on LOV groups.



When 'Merge LOV Values' is selected, a dialog displays that prompts users to upload a semicolon-separated CSV file containing the IDs of the LOVs in which values should be merged, the ID of the source value, and the ID of the target value. Multiple LOVs can be actioned at once, with a limit of 1,000 total values (i.e. 1,000 lines in the file). This functionality greatly eases the maintenance of LOVs that contain misaligned, repeated, or incorrect values across multiple contexts.



For more information, see the following two sections of the List of Values (LOVs) documentation: Deleting LOV Values in Bulk and Merging LOV Values in Bulk.

LOV editor search change

The configuration property 'ListOfValueValueSearch.AutomaticallyWildcardPrefixSearch' now defaults to '=false' This means that when searching a list of values within the workbench List of Values (LOV) editor, a wildcard will no longer automatically appears as a prefix within the search string. Because wildcard searches can be very time consuming, users are now able to just type in the value they are looking for. If the LOV editor value search should be returned to a wildcard search, then the property needs to be added to the shared.config properties file and appended to '=true.' The prefixed wildcard is not visible in the interface, yet the search will work as if there is a wildcard preceding the search value.

Change to how numeric text attributes with units are handled

There has been a change to how STEP parses 'simple value' strings when setting the value for numeric text attributes with units in Web UI and when using the setSimpleValue() method in the business rules API. Users should note that the changes described are not applicable to workbench; workbench behavior remains unchanged.

Previously, as an example, if the unit 'm' was valid for a numeric text attribute and the value 'medium' was entered, the system would treat the last 'm' as a unit and would save the value as 'mediu.' This behavior has been changed so that the split is no longer done when the character, before the character(s) identified as a unit, is a letter. If 'medium' is entered, 'medium' remains intact as the value. Note that if the attribute value is a digit, then the value is still split (e.g., '3m' is saved as value '3,' unit 'm').

For more information, see the Validation Rules topic in the Attributes section of the System Setup / Super User Guide documentation.

Improved handling of spaces in attribute values

Previously, spaces as attribute values were not displayed in inherited calculated values nor exports. Now across the STEP Workbench and Web UI, when an attribute value has a space, it is used as a value for calculated attributes, and it displays correctly in exported files. This updated handling allows for attributes, especially calculated attributes, to be blanked out as desired.

Enhanced Attribute Validation Web UI component and updated Attribute Management screen

Previously, the Attribute Validation component (available by default on the Attribute Management screen) allowed Web UI users to edit the following validation rules for an attribute: validation base type, value type (multi-valued or single-valued), mask, maximum length, and units. It did not include the ability to display the LOV attribute value

before (or after) the LOV ID, specify the number of columns (or rows) to use when displaying a list of values, nor override the default control type of an attribute when a list of values needed to display with a checkbox, radio button, or typeahead field. If an attribute value needed to display using any of these options, the use of the designer was required to configure the Attribute Value component for each screen where the attribute value needed to display with the specified option.

Now, the Attribute Validation component offers all of this functionality by default on one screen, the Attribute Management screen, so that users can efficiently manage how each attribute value should display and/or behave across all Web UI screens without requiring screen-by-screen setup by the Web UI designer.

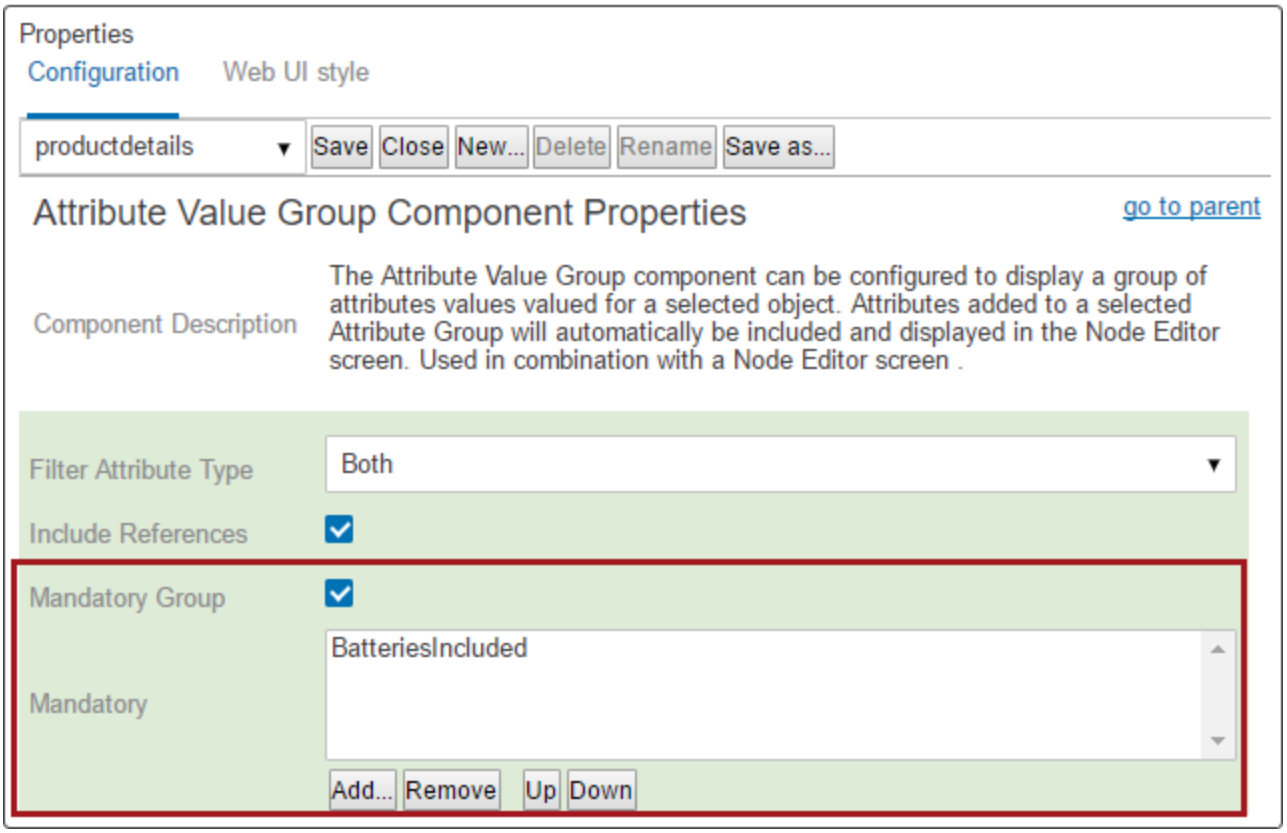
For more information, see the Attribute Management Screen topic in the Attribute and LOV creation section of the Web User Interface documentation.

New Mandatory Group parameter for the Attribute Value Group component

Previously, the Attribute Value Group component did not provide the ability to set all attributes within the configured attribute group as mandatory. It offered a Mandatory parameter, but when an attribute was added to the attribute group, it would not display as mandatory until the attribute was manually added to the Mandatory parameter value field, requiring use of the Web UI designer.

Now, when the new parameter (Mandatory Group) is enabled, attributes can be added to the selected attribute group and display in the Web UI as mandatory, with no further Web UI designer configuration needed.

When the new Mandatory Group parameter is enabled, it will override any existing Mandatory parameter settings. For those times when only selected attributes within an attribute group should display as mandatory, the Mandatory parameter should be used and the Mandatory Group parameter should be disabled.



For more information, see the Attribute Value Group Component topic of the Using a Web UI section in the Web User Interfaces documentation.

New global rule controls how attribute values display in Web UI

Previously, when configuring how an attribute should render on a Web UI screen, to access the full set of configuration options (e.g., how an LOV attribute should be rendered on the screen: checkboxes, radio buttons, typeahead) designers were forced to configure attributes individually, instead of as part of an attribute group. These limitations contradicted the general recommendation of organizing attributes as part of an attribute group, eliminating the inconvenience of adding and configuring individual attributes repeatedly.

Now, Web UI designers have options for efficiently configuring the display and behavior of attribute values with the following validation base types: List of Values, Numeric Text, and Text. Using the new Override Control Type Rule, configurable within Main Properties, Web UI designers can create global rules for overriding attribute value default control types. Now, attributes can be added to an attribute group, and properly display in Web UI, without further involvement of the Web UI designer.

Additionally, the Override Control Type Rule allows designers to globally control:

- The display of attribute values depending on the attribute validation base type, control type, LOV hardness (ability to add values), and multi-value settings.
- The display of LOV attribute values that contain a specified number (integer) of values (i.e., If an LOV contains between 2-6 values, then display the values using the Radio buttons control type).
- The number of columns and/or rows to be used when displaying LOV attribute values (i.e. If an LOV contains more than 10 values, then display the values across 5 columns).

One or more global Override Control Type Rules can be added to easily display attribute values in more preferred ways. Seven control type overrides are available, and their availability is determined by the validation base type of the attribute.

To manage exceptions, when the override control type setting is used on the Attribute Value component within a Node Editor, it will take precedence over settings used on the Attribute Management Screen (via the Attribute Validation component), and the settings used on the Attribute Management Screen will take precedence over the global rules set using the Override Control Type Rule.

For more information, see the Override Control Type Rule topic in the Main Properties section of the Web User Interfaces documentation.

Bugfixes

- **ISSUE-233798 - Fixed a bug with the display of the multi-LOV value editor**

  The multi-LOV value editor in the Workbench did not properly size both the All Values and Selected Values list boxes when the Value Dialog was resized. This has now been fixed, and both list boxes render as expected.

- **ISSUE-270397 - Calculated attributes no longer export to unintended value templates in the workbench**

Initially, calculated attributes exported to many value templates in the workbench. Now calculated attributes only export the value template for the context where the export was triggered.

- **ISSUE-274269 - User without required privileges to create LOV values no longer creates empty LOV values**

  When a user who does not have the required privileges to create LOV values was importing non-existing LOV values defined in STEPXML, the system was creating empty values. This has been fixed now so that users without the required permission to create LOV values will not be able to create any LOV values, empty or populated.

- **ISSUE-278404 - Fixed performance problems for large attribute groups having more than 10,000 children attributes**

  STEP had performance problems, when adding new child attributes to a very large attribute group already having more than 10,000 children attributes. This has now been optimized. Note however, that it is still not recommended to have such large attribute groups, as there could be performance problem in other places where the large attribute groups are used. Additionally, this performance fix does not apply to manually sorted attribute groups.

- **ISSUE-280482 - Multi-valued attributes using compact value storage now have consistent data**

  For multi-valued attributes using compact value storage, the system could get inconsistent data into the data cache when multiple transactions touched values on the same reference concurrently. This could lead to an exception when reading data on the reference later (until the data was cleared from the cache).

New User Activity Admin Portal Tool

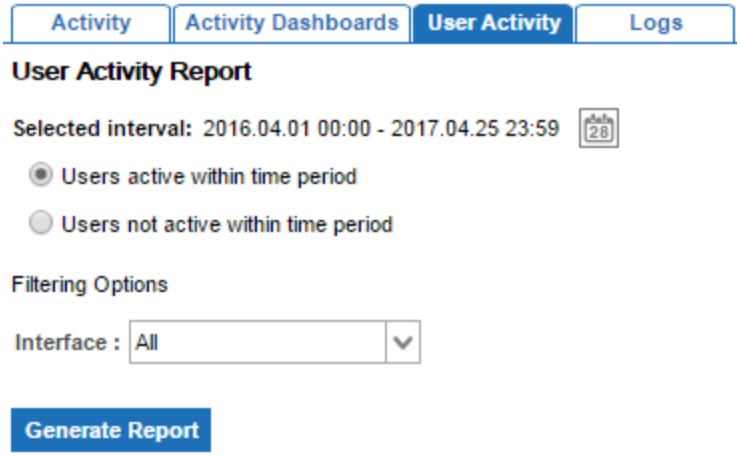
Summary

A new 'User Activity' tab has been added to the Admin Portal. From this tab, system administrators can easily gather information about which users have been active and which users have been inactive in the system within a specified time period.

Previously, it was not possible to easily see when users had last been active on a system. On systems with Activity Logging enabled, user activity was captured but the information was not readily accessible.

Details

Information on active and inactive users is beneficial for businesses who have a set number of allowed users in the system. Extracting a list of users who have been inactive for a prolonged period of time helps system administrators determine which accounts can be deleted.



The options available in the User Activity tab enable the generation of two types of user activity CSV reports—one that lists users who have been active in the system within the specified time period and one that lists users who have not been active. The active user reports list the user ID, user name, and user group(s) of the active users, the most recent time and date they were active in the system, and within which STEP interface they were active (for example, workbench or Web UI). The inactive user reports list the user ID, user name, and user group(s) of the inactive users.

For more information, see the User Activity topic in the Administration Portal documentation.

New About STEP Link on WebStart Page

Summary

A new 'About STEP' icon has been added to the WebStart page that allows users to easily view system information about their STEP installation.

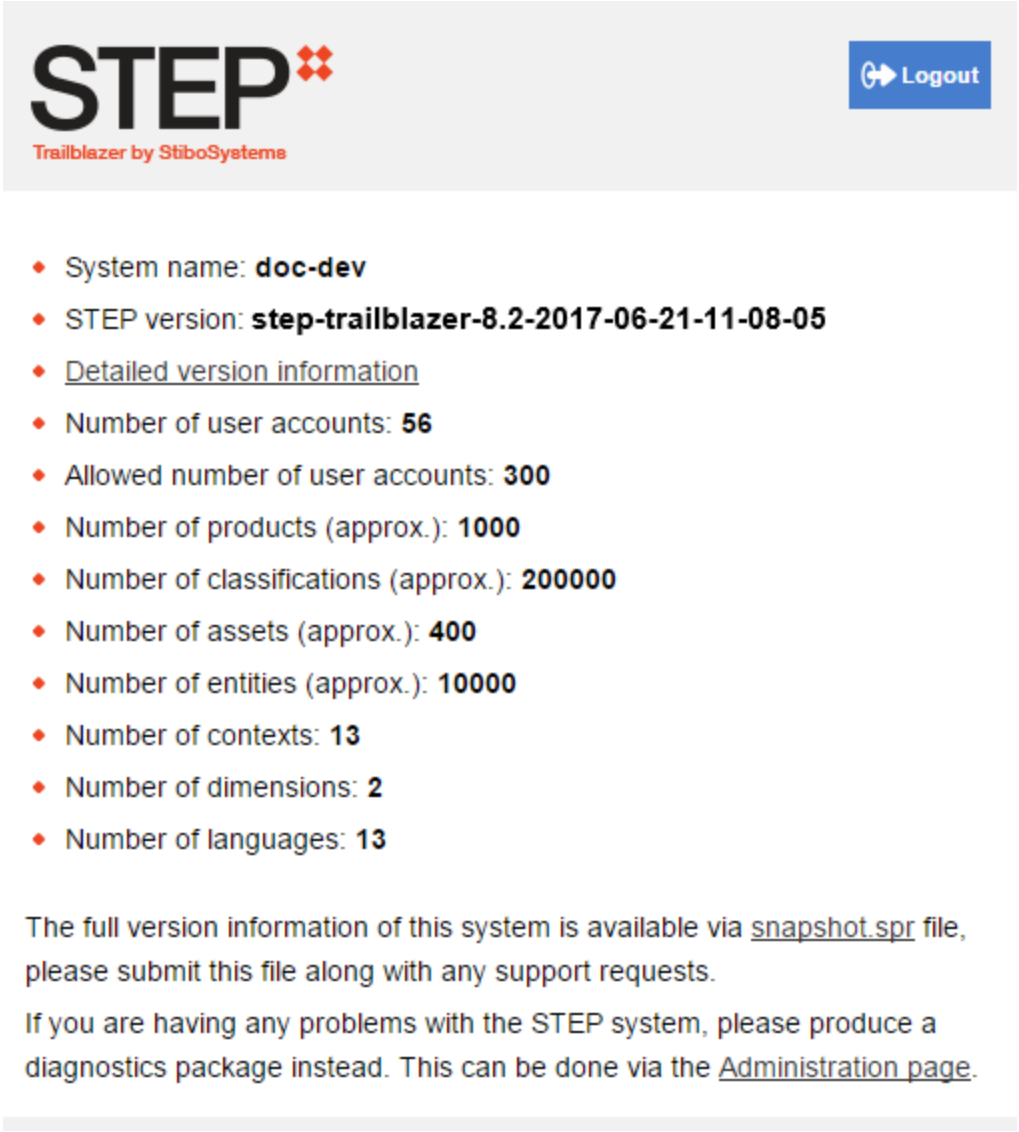
In STEP releases prior to Trailblazer, a limited amount of information about the system, such as version number and patch level, was available on the WebStart page. However, since the release of Trailblazer, system information has only been obtainable through the Admin Portal install.log or by running a Stibo Patch Operations Tool (SPOT) command on the application server.

This improved access to STEP system information helps those users needing to do any system troubleshooting and new project planning, and also simplifies things for users needing to ensure compliance with their contracted license terms.

Details

When the About STEP icon is clicked, users are taken to a new page (e.g., http://[yoursystem]/about/step). This page is password protected to ensure that only STEP users have access to the information.

This page displays the following information: system name and STEP version; numbers of user accounts; the approximate number of objects; and the number of contexts, dimensions, and languages.



A Detailed Version Information hyperlink is also included where users can access information about the add-on components, customizations, and hotfixes applied to their system.

Below the bullet list, a snapshot.spr link is available where users can download a snapshot file with full system information, including installed bundles, metrics, and differences to previous snapshots. This file is extremely useful when submitting support requests.

For more information, see Accessing STEP System Information in the Getting Started / User Guide documentation.

Workflow and Status Flags Enhancements

Summary

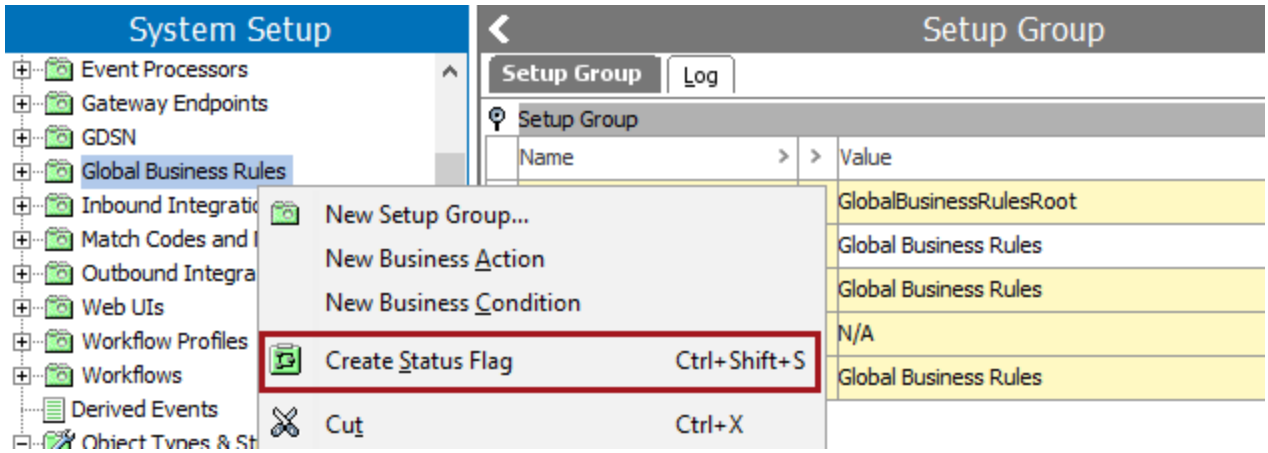
The status flag functionality was introduced to allow an indicator to be assigned to a task transitioning from one workflow state to another. This functionality can be used to call attention to particular tasks via a visual indication in the Web UI as to the urgency of a task, errors to be addressed, or any other reason for a higher (or lower) priority. When used in a Status Selector widget, a status flag task count can be accessed by a simple click, giving users quick access to a list of the marked tasks.

Now, the status flag functionality has been improved in workbench to allow for easier modeling, set up, and tracking. Web UI designer improvements include a streamlined configuration process when setting up a workflow condition or a status selector selection condition.

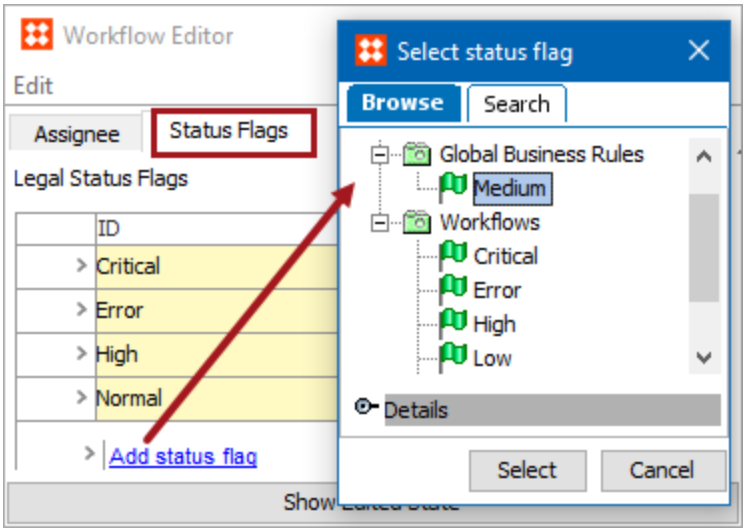
Details

Status flag functionality has now been enhanced as follows:

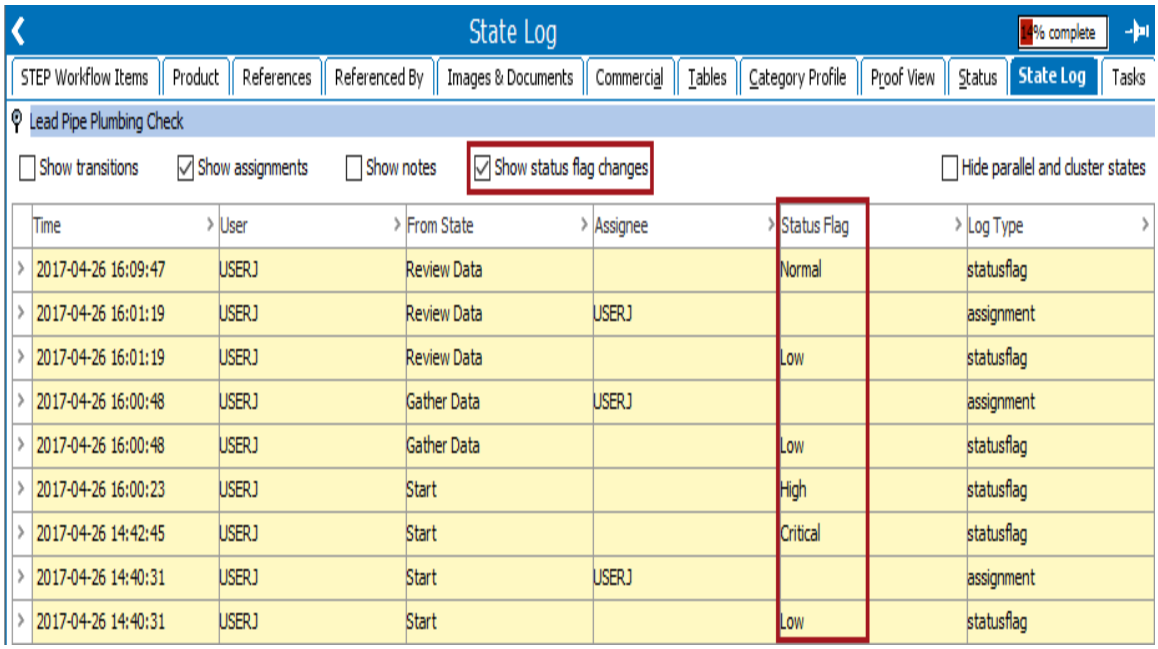
- Previously status flags could only be created in a setup group that was enabled for workflows. Now, easier status flag modeling allows for status flags to be valid under any setup group, and to be created in any of the dedicated setup groups via the enabled right-click menu option. Additionally, by default, new installations on Trailblazer 8.2 will include a Status Flag setup group root making status flag setup easier. For more information, see Initial Setup for Status Flags in Workflows section of the Workflows documentation.



- When attempting to select a status flag in the workbench using the Workflow Editor dialog, the Browse tab previously included all nodes in the System Setup hierarchy. Now, with easier status flags setup, only nodes legal for status flags are displayed, making it possible to quickly find the status flag you wish to add. For more information, see Configuring Status Flags in Workflows section of the Workflows documentation.

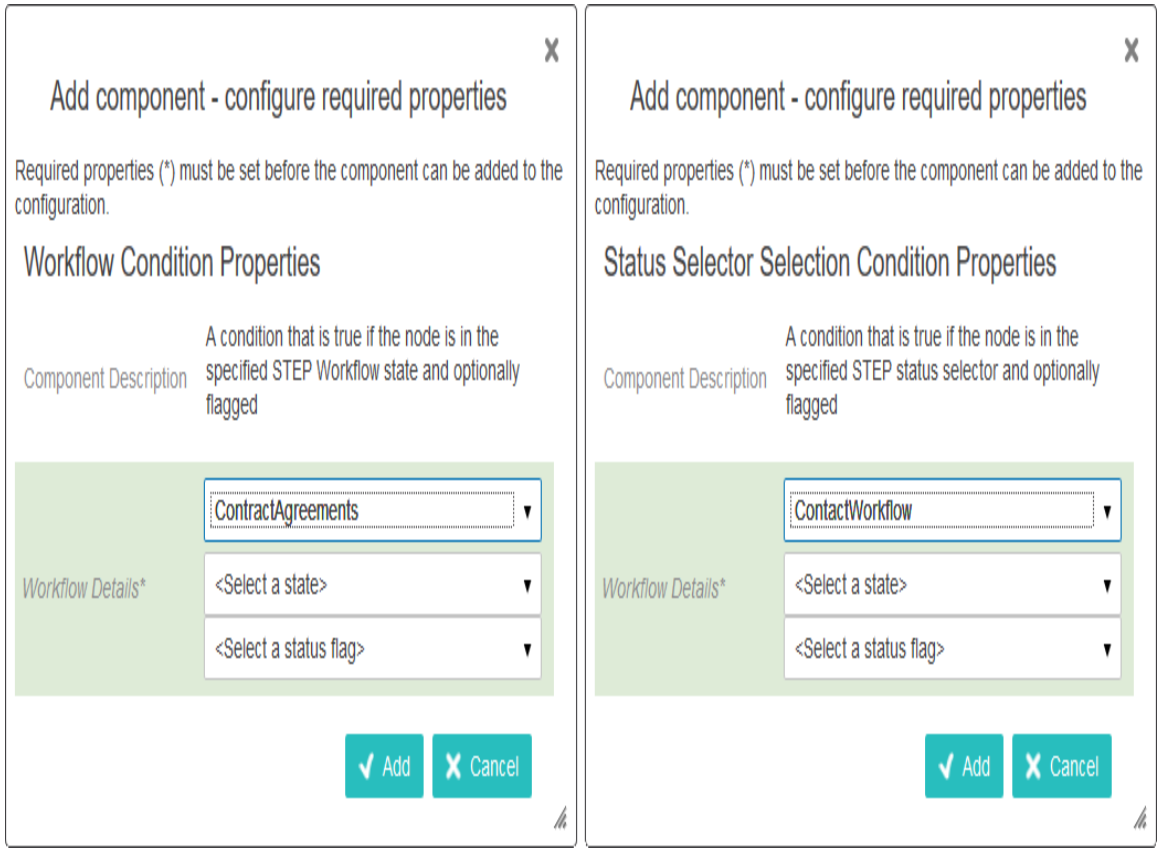


- In prior STEP versions, workbench displayed workflow task details on an object's State Log tab when the object was initiated into a workflow, however, information about the relevant status flags was not included. Now, status flag tracking is available via an option on the State Log tab that allows the status flag information to be viewed or hidden. For more information, see State Log Tab in the Workflows documentation.



- Previously in Web UI, mappings using the Workflow Condition or Status Selector Selection Condition components involved selecting the workflow multiple times, which occasionally resulted in misconfiguration as the state and status flag parameters were set. Now, the redundancy in these components has been removed and the parameters work together, reducing the potential for an incorrect selections. For new screen mapping setups, the workflow selection is only presented once, and the state and status flag parameters are set on the

same dialog. Existing configurations are not affected and require no modification. For more information, see Status Flags in Web UI in the Web User Interfaces documentation.



Bugfix

- **ISSUE-274113 - Workflow State Log tab now displays the title properly**

  Previously when switching to the workflow State Log tab in workbench, the title of the tab was incorrectly updated. This has now been fixed, and it works like the Task tab.

Data Container Enhancements

Summary

With the release of STEP Trailblazer 8.2, the Data Container functionality has been enhanced to make configuration and maintenance more streamlined.

These new configuration options and maintenance improvements include:

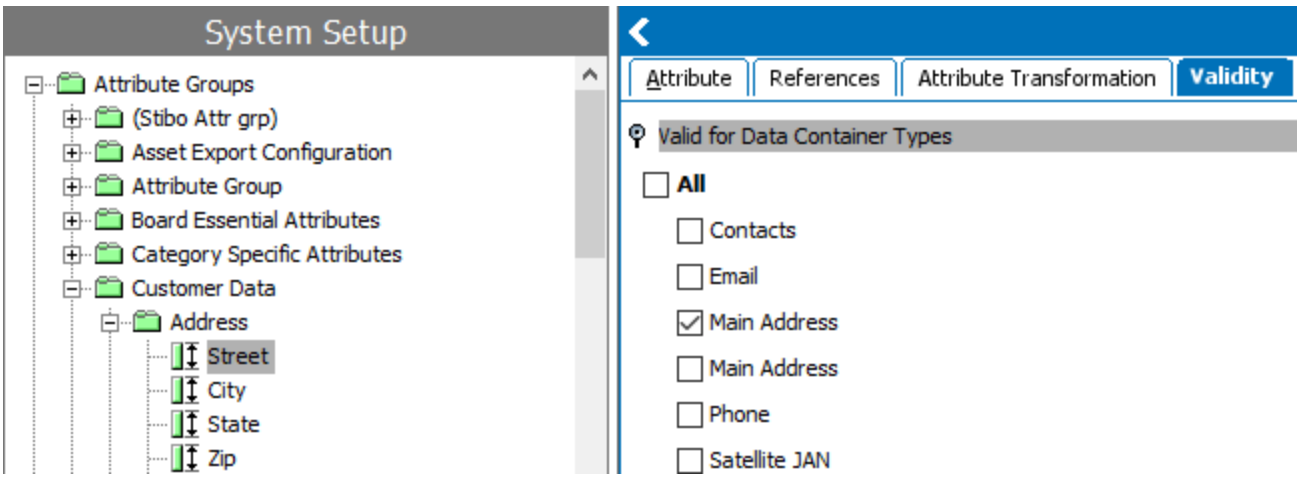
- A new Data Container Types flipper used for configuring attribute validity from the attribute's Validity tab
- A new option to force delete data container types
- A new background process for purging data container instances when removing the data container type validity for an entity type
- An improved method for changing a data container type configuration from multi-valued to single-valued when it has instances
- A new option to use a data container type as a triggering definition for integration endpoints, event processors, and event queues
- A new bulk update operation has been added for maintaining data containers
- A new JavaScript bind type called Current Data Container has been added
- A new option has been added to Web UI that allows multiple values for data containers to appear when displayed in a list

Details

Improved method for configuring attribute validity for data container types

Previously, attributes could only be made valid for a data container type via the data container type node.

With the changes provided in the Trailblazer 8.2 release, it is now possible to configure attribute validity from the new Data Container Type flipper found on the Validity tab of an attribute. This new flipper enables users to easily modify which data container types an attribute is valid for and allows for the selection of multiple data container types.



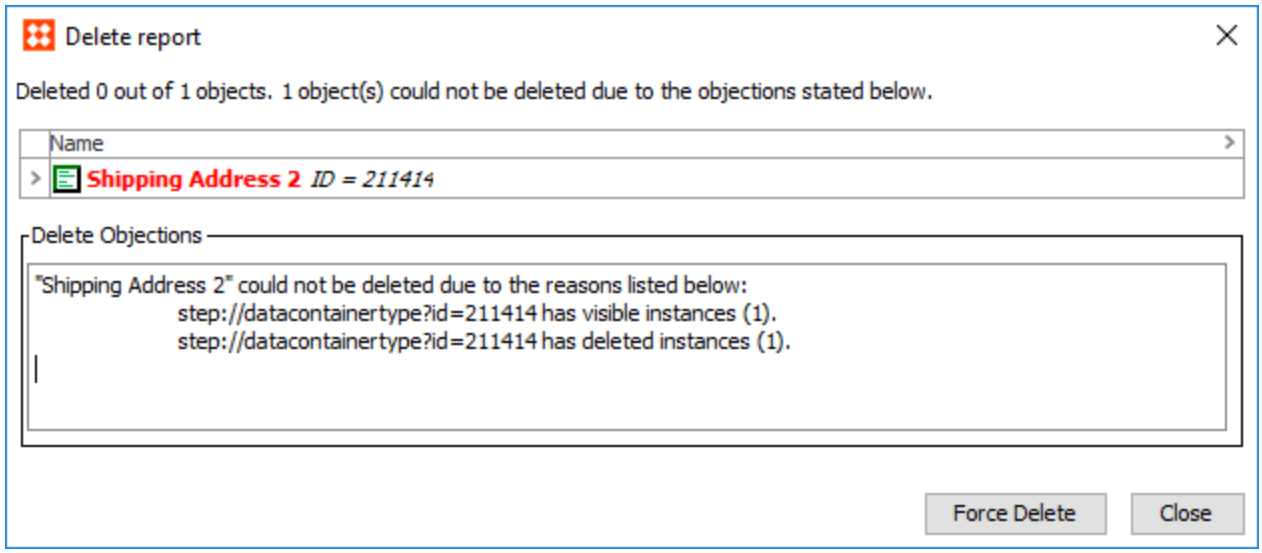
If existing values are found on a data container type when attempting to remove the validity of an attribute, the user will be asked to confirm or reject the deletion of existing values.

For more information, see the Setting Up Data Containers in Workbench section of the System Setup / Super User Guide documentation.

New option to force delete data container types

Data container types can now be force deleted, even if they have visible or deleted instances. Deleting a data container type starts a background process that also purges any associated data container instances.

Previously, data container types could not be deleted if they had any instances present in or deleted from the system.

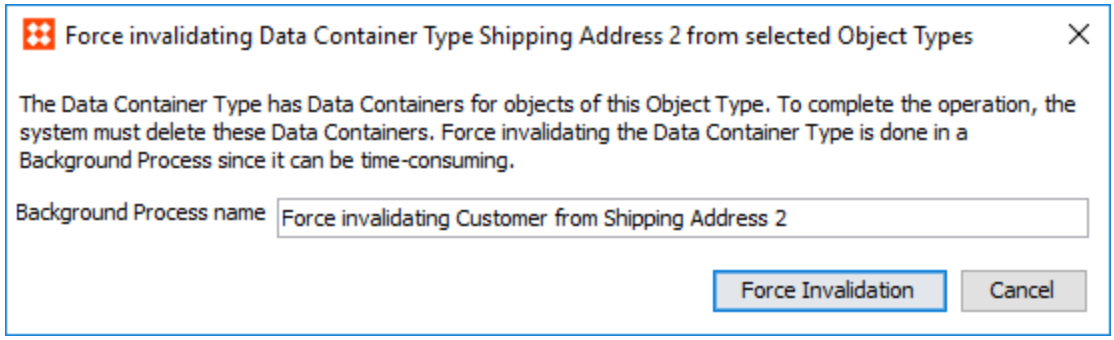


For more information, see the Setting Up Data Containers in Workbench section of the System Setup / Super User Guide documentation.

New background process for purging data container instances when invalidating a data container type

Previously, when attempting to remove the validity of a data container type for an entity type, a generic prompt would display, and if the user chose to proceed, all associated data container instances would be deleted on the spot.

Now, a more comprehensive message will display when attempting to invalidate a data container type, and any associated data container instances will be purged by a background process.

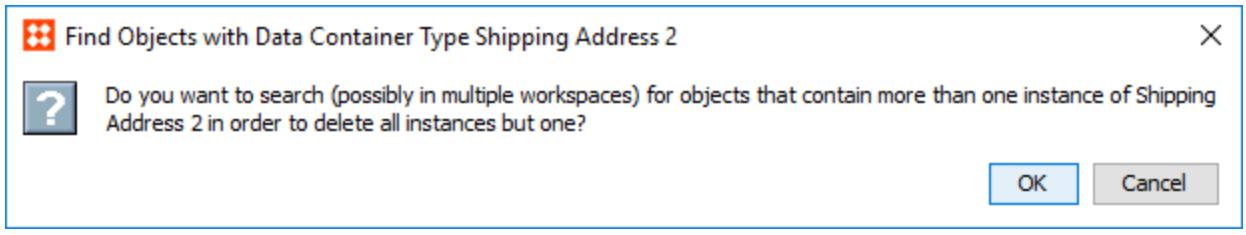


For more information, see the Setting Up Data Containers in Workbench section of the System Setup / Super User Guide documentation.

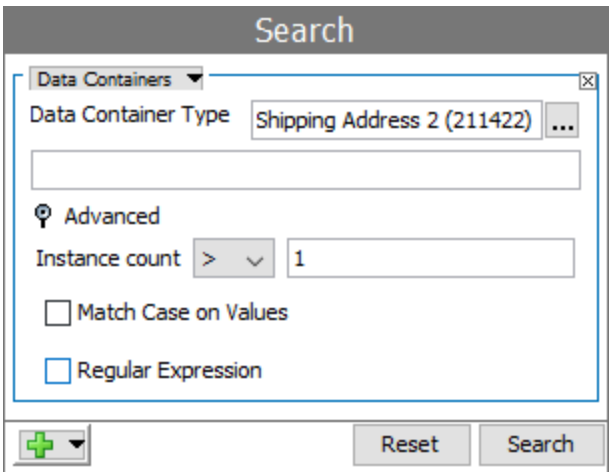
Improved method for changing a data container type from multi-valued to single-valued when it has instances

Previously, it was not possible to change a data container type from multi-valued to single-valued, even if it only had one instance per entity (or none at all), and any attempt to do so went ignored.

While it is still not possible to force change the 'Allow multiple data containers' setting if there are two or more instances of the same data container type on any entities in the system, the setting can now be changed so long as there is no more than one instance per entity. Additionally, the system can now assist the user in identifying entities that have more than one instance so that they may be deleted. Rather than simply ignoring the change, attempting to change this configuration will now prompt the user with an optional auto search.



After clicking OK, the user is taken to a Search tab with the relevant criteria already filled out.



By referencing the search results, the user can easily identify any entities with multiple instances of the same data container type and delete them. Once all of the required instances have been deleted the user can change the setting to single-valued.

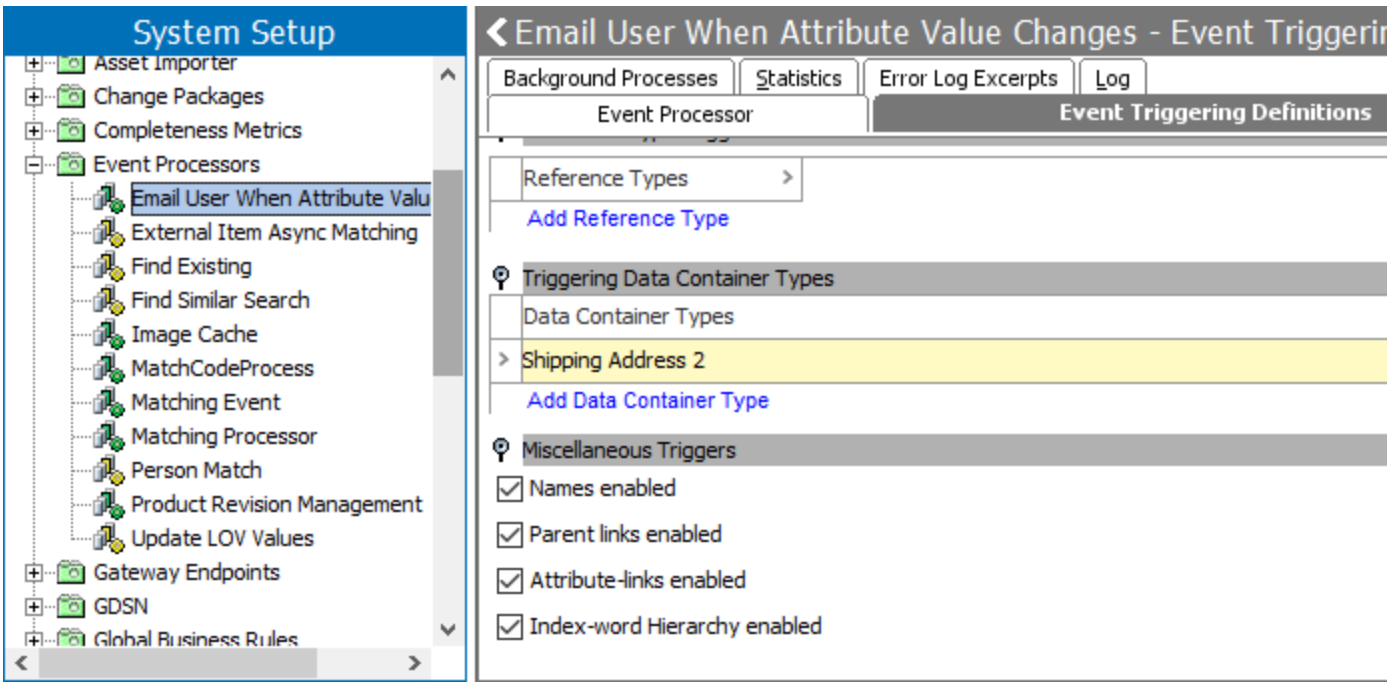
For more information on setup, see the Setting Up Data Containers in Workbench section of the System Setup / Super User Guide documentation.

For more information on running Data Container searches, see the Searching Data Containers section of the Getting Started / User Guide documentation.

New option to configure data container type as a triggering definition

Previously, whenever data containers were created or deleted, the system would automatically trigger events for any integration endpoints, event processors, or event queues that monitors entities.

Now, a data container type must be specified on the Event Triggering Definitions tab of the relevant IEP, event processor, or event queue. Doing so will trigger events for the applicable IEP, event processor, or event queue whenever a data container object of the specified type is created or deleted.

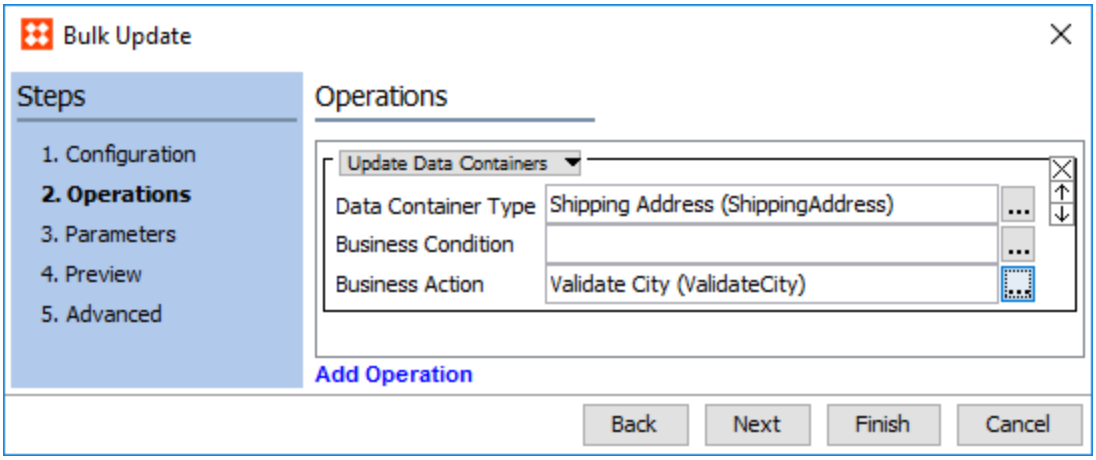


Note that in order for data containers to continue triggering events, any systems configured prior to Trailblazer 8.2 will need to be re-configured as described above.

For more information, see the OIEP - Event-Based - Event Triggering Definitions Tab section of the Data Exchange documentation.

Bulk update now supports data containers

The Bulk Update functionality has been enhanced to support data containers. With the new bulk update operation 'Update Data Containers,' users can filter which data container objects to work with by specifying a business condition and/or data container type, and then run a business action on those objects.

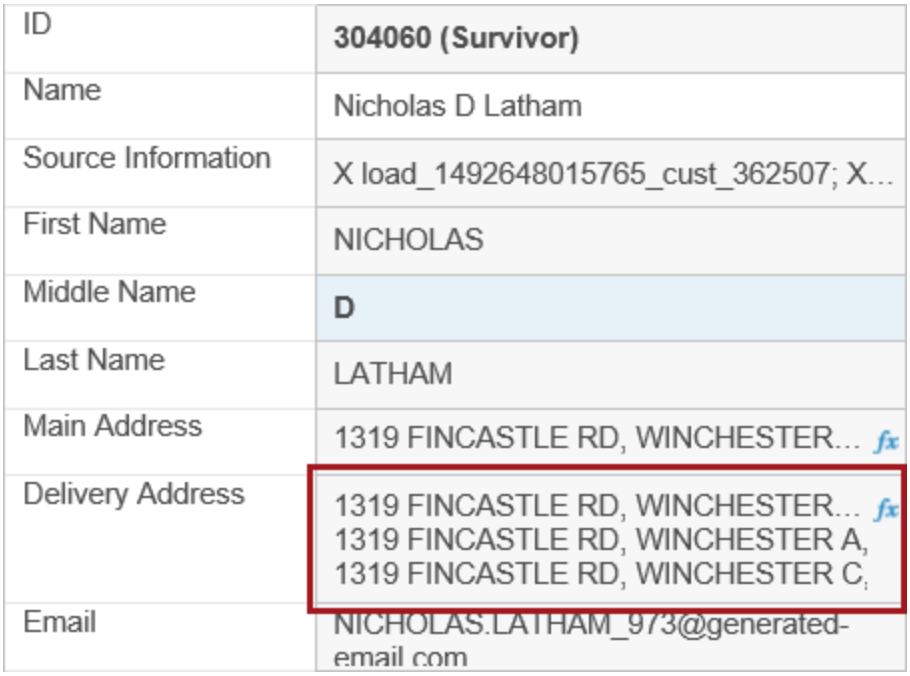


For more information, see the Data Containers Operations for Bulk Updates section of the Bulk Updates documentation.

New option to display all values of a multi-valued data container and multiple instances of a data container type in Web UI lists

The list header components used to display data container attribute values in Web UI, the 'Data Container Attribute Value Header' and 'Data Container Attribute Group Value Header,' can now display multiple values.

Previously, when multiple values were found for a given data container or data container type, a link would appear. When clicked, a dialog would display which value is related to which data container instance.



STEP’n’design and General Print Publishing Enhancements

Summary

A number of usability enhancements and functionality improvements have been made to the STEP’n’design component, both in the STEP Workbench and within the InDesign interface.

These enhancements include:

- Support for the latest versions of Adobe InDesign Creative Cloud
- Added functionality to import and export publications using unique keys as object identifiers
- Improved background process (BGP) tracking and logging for InDesign server renderers
- New functionality to automatically relink broken asset links on mounted InDesign pages
- New AutoPage pagination rule condition that allows the use of product attribute LOV value IDs

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 2017 is now available
- Support for Adobe InDesign CC 2015 (CC11) continues
- Support for Adobe InDesign CS6 continues; however, CS6 will no longer be supported with the STEP Trailblazer 8.3 release

New functionality for unique keys in publication exports and imports

Support for unique keys has been added to both the Publication Excel and STEPXML formats for publication exports and imports. With Flatplanner publications, unique keys can now be used instead of STEP IDs to mount objects to Flatplanner page frames and to load objects into Flatplanner baskets. In AutoPage and standard STEP'n'design publications, unique keys can be used to link objects into publication sections in the Tree and AutoPage Publication Planner.

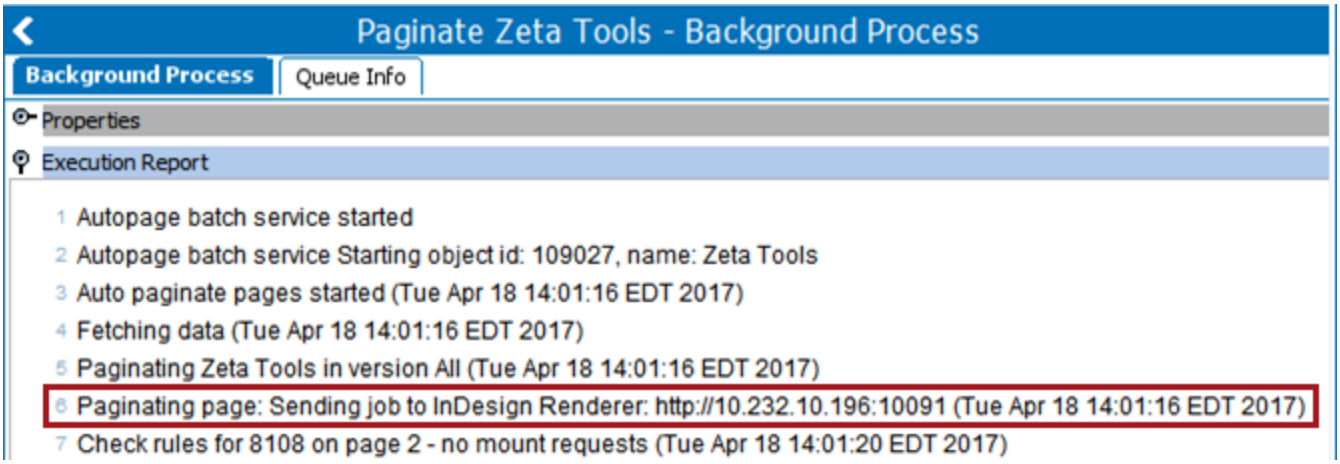
Previously, only STEP IDs could be used as object identifiers when importing and exporting publications. However, the STEP ID is often meaningless to users who are building publications, since the STEP ID is frequently autogenerated for the product objects that are placed onto pages. In this case, a unique key to identify these products would be preferable to the STEP ID. Note that publication exports generated in 8.2 that include unique keys are not compatible with previous versions of STEP and imports may fail.

For more information, see the Exporting and Importing Publications section of the STEP'n'design documentation and the Exporting and Importing Flatplanner Publications section of the Flatplanner documentation.

New InDesign renderer BGP tracking and logging

A new method of tracking background processes that sends jobs to an InDesign server (IDS) renderer has been introduced, which improves the monitoring and troubleshooting of such processes. Additionally, improvements have been made to how these processes are logged on the InDesign server.

When a job is sent to the InDesign server, the specific renderer that is processing the job is now displayed in the execution report of the background process. Each renderer is identified by the IP address of the InDesign server and its renderer port number. Previously, no information about which InDesign renderer was working on a particular job would be listed, which made it cumbersome to troubleshoot autopagination-related issues.



InDesign renderer *log* files now follow the STEP log naming conventions—inSTEP.x.log instead of inSTEP.x.txt. Logs can also now be cycled during the start of a renderer or upon a restart of the InDesign server. For new installations, the default number of historical logs that can be stored has been increased to 20 and the max log size has been increased to 10 MB. Users with existing InDesign server implementations can update their settings to reflect these changes by editing the inSTEPLogOptions.xml files for their renderers. These files can be downloaded and re-uploaded to the InDesign server from the IDS Logging tab in the Admin Portal.

InDesign renderer *temp* files are now stored in a new 'rendererTmp' folder on the InDesign server, which is located inside the previously existing 'tmp' folder for each renderer (for example, E:\step\stepindesign.sidecar\indesign-10090\tmp\rendererTmp). This folder is emptied whenever the associated renderer is started. Prior to this change, these temporary files were written to the standard temporary directory on the IDS machine (for example, C:\Users\[USER NAME]\AppData\Local\Temp). These files were not cleaned up automatically, creating performance issues when large numbers of files were generated that took up too much space on the machine.

For more information, see the InDesign Queues section of the STEP'n'design documentation and the IDS Logging section of the Administration Portal documentation.

New functionality to automatically relink assets in InDesign

A new feature has been added to the STEP Preferences menu in InDesign that simplifies the automatic relinking of broken asset links.

When selected in the InDesign client, the new 'Automatically Relink Assets when Opening Documents' option will automatically relink assets whenever a document is opened. To enable the functionality on the InDesign server, the new property `InDesign.AutoRelinkAssets=true` must be added to the sharedconfig.properties file. This property will automatically relink all missing assets in InDesign documents created by the server.

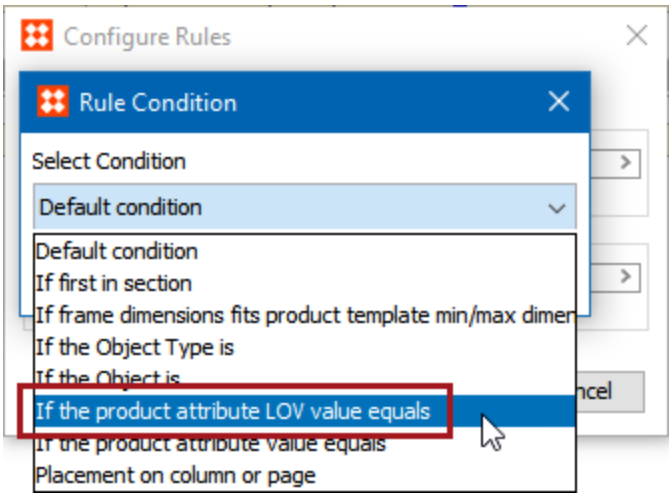
Previously, users had to select the STEP > 'Relink Assets' feature in InDesign to relink the assets, or they had to manually select the broken links in the InDesign 'Links' panel. Though asset links can be broken for various reasons, they are common in mixed platform publishing environments when InDesign documents are generated on a Windows InDesign server and then later opened on a Mac InDesign client (or vice versa). In this scenario, the images embedded in the InDesign documents are placed using Windows-format image paths, which are not recognized by Mac InDesign clients, causing broken links.

For more information on these options, see Relinking Assets in STEP'n'design in the STEP'n'design documentation.

New AutoPage pagination rule condition for LOV value IDs and values

A new AutoPage pagination rule condition has been introduced that allows for the definition of pagination rules based on either the value ID or the value(s) of List of Values (LOV)-based attributes.

The new condition, 'If the product attribute LOV value equals,' can be used within multiple AutoPage pagination rule groups, including those for object layout, positioning, and alignment. The rule is applied if either the LOV value ID or the LOV value itself of a product attribute value matches the value specified in the condition. The rule matches first on ID and second on value, which allows for matching on values from LOVs that do not use value IDs.



Previously, the closest existing condition was 'If the product attribute value equals.' This condition requires an exact match to an attribute value, whereas 'If the product attribute LOV value equals' is language independent.

For more information, see the AutoPage Pagination Rule Conditions topic in the AutoPage documentation.

Future Updates

The Print on Demand package will be phased out according to the following schedule:

- No new features will be added to the package as of this STEP Trailblazer 8.2 release
- Support for the package will be discontinued by the end of 2019

Reminders will be included in future release notes and communications.

Print Publishing Bugfixes

Fixed Data Source Bug in STEP Template Frame palette

An issue has been corrected on the STEP Template Frame palette in InDesign that occurred when applying a Data Source selection to image frames on product templates. Previously, if the Data Source was changed to an option other than 'Mount Object' (such as 'Mount Children'), and then the user attempted to change the Data Source back to 'Mount Object,' the Data Source dropdown would revert to the last chosen option and the selection of 'Mount Object' would not be retained. Now, the dropdown functions as expected.

Moved 'Enabled Calculation of border rectangle space...' to DTP Settings flipper

In the System Settings editor under System Setup > Users & Groups in the STEP Workbench, the 'Enable calculation of border rectangle space usage for actual pages' setting has been moved from the ‘Flatplanner Default Settings’ section to the ‘DTP Settings’ section. This is because STEP can calculate border rectangle space on InDesign pages created with any STEP Publisher component, not just Flatplanner.

Removed 'Using gap calculation' rule group from AutoPage pagination rule groups

In the AutoPage component, the 'Using gap calculation' pagination rule group has been removed from the list of available Action Groups. Previously, there were two gap-related rule groups available on the Pagination Rules tab for publications and/or sections: 'Using gap' and 'Using gap calculation.' The 'Using gap calculation' group was not needed because it only had one action ('Override default gap'), which was already present in the 'Using gap' rule group. This overlap in functionality has been corrected by removing the unnecessary 'Using gap calculation' rule group.

Fixed a bug where Show Adornments did not display correctly on product template image frames

Previously, when ‘Show Adornments’ was selected from the Options menu in the STEP Template Frame palette, adornments did not immediately display on product template image frames. The templates had to be closed and reopened before adornments would appear. Now, adornments appear at the time the 'Show Adornments' option is selected.

ISSUE-274143 - Fixed Flatplanner issue

Fixed problem where never-approved Flatplanner articles could disappear when switching workspace in the workbench. Now functionality is as expected.

ISSUE-274972 - Corrected errors in STEP InDesign that occurred during mounting

During mounting in STEP InDesign, mounting a table that uses the Header Repeating Pagination Plugin could incorrectly result in a table with zero height (leading to missing content on the page). This has now been corrected.

ISSUE-277360 - Fixed the publication view panel in InDesign

In InDesign, a problem occurred when the publication view panel was opened, and the user did not have privileges for the top root node of the publications hierarchy in the workbench. The publication view was empty, and some error prompts were shown. The solution is to show publication nodes with the proper privileges only.

ISSUE-277366 - Calculated attributes now mount correctly in InDesign

Calculated attributes were not initially mounted correctly in InDesign. This problem is now fixed.

ISSUE-278094 - CS6 InDesign plugins have been corrected

A service pack was missing on the build system building the CS6 InDesign plugins. This made it not possible to mount / proof objects including tables. Now the build system has been updated, and the CS6 plugins are working again.

Minor Enhancements and Miscellaneous Bugfixes

STEP has received a number of bugfixes and minor enhancements in various areas of the software as part of the Trailblazer 8.2 release. These are listed below.

Minor Enhancements

Asset Importer configuration wizard / editor improvements

The 'Asset Update Workflow.State' and 'Product Update Workflow.' parameters, found in the Workflow Handler step of an Asset Importer configuration wizard / editor, have been changed to node pickers. Additionally, the names of all Workflow Handler parameters, and the descriptions on their corresponding tool tips, have been updated to provide greater clarity.

For more information, see the Step 10 - Workflow Handler section of the Asset Importer documentation.

Enhanced assessment of child objects in a tree display

To enhance system performance, the 8.2 release of STEP Trailblazer features a significant improvement in how STEP assesses the number of child objects for nodes appearing in a tree display, in both workbench and Web UI.

To determine whether a node is expandable within a tree (e.g., Workbench Tree, Web UI Tree Navigator and Node Picker selections), STEP must perform an automated counting action. Previously, STEP auto-counted all children contained inside a tree's visible nodes when a tree was displayed and/or when a top node was expanded. For STEP systems containing multiple nodes with more than the configured maximum (the default maximum being 10,000), this counting task, performed again and again, could often result in system performance issues.

Now, rather than perform an auto-count of all child objects in the nodes revealed when a top-level node is expanded, STEP executes a far less system-intensive check to determine if there is at least one child object contained in each node. If yes, the node gets a [+] in workbench and a [>] in Web UI, which indicates that at least one child object exists below the node clicked. If no, the node gets no symbol, indicating there are no child objects for this node. If more child objects are contained inside than is allowed by the configuration, a dialog displays explaining the reason why that node is unexpandable, and an [x] will display beside the node (and a [-] in Web UI). The full count of child objects is only performed after a user clicks to expand the applicable node.

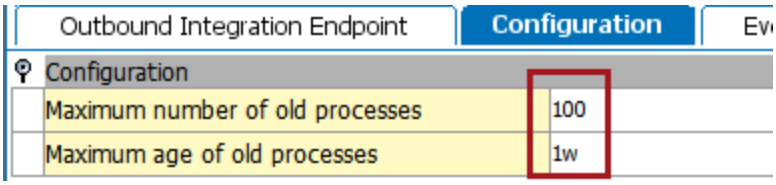
Enhanced auto-deletion for background processes

With this release, all background processes that have finished in 'succeeded', 'failed', 'aborted', and 'completed with errors' status are now subject to STEP's auto-delete functionality. This applies to background processes attached to integration endpoints as well as those that are not. Additionally, the settings for background properties attached to integration endpoints have been changed to lessen the number of background processes STEP retains by default.

Previously, the property AutoDeleteBackgroundProcesses deleted only those background processes that had ended in either the 'succeeded' or 'completed with errors' state. Background processes ending in the 'failed' state were deleted through the AutoDeleteBackgroundProcesses.Failed property. Background processes attached to an integration endpoint that ended in either the 'succeeded' or 'aborted' states were auto-deleted. All background processes that did not meet the criteria described above had to be manually deleted.

With the change provided by this 8.2 release, all completed background processes will now be deleted automatically through the use of the AutoDeleteBackgroundProcesses property, regardless of the state in which they complete or whether they are attached to an integration endpoint.

Also, the default for how long STEP will retain completed background processes attached to integration endpoints has changed. Previously, STEP would retain, by default, up to 1,000 completed background processes that were less than one year old. Now, STEP's default is to retain no more than 100 completed background processes that are no older than one week old. These values are configurable dependent on the preference of the user, but the defaults have been changed to conform to a more standard use case.



It is important to note that, with this release, the '.Failed' parameter is no longer valid. Because of this, Stibo recommends that users who have configured their system to auto-delete background processes using a property ending with the '.Failed' parameter delete this property to ensure proper maintenance of the sharedconfig.properties file.

As an example, the third property in the sequence below is now inoperative because it contains the .Failed parameter.

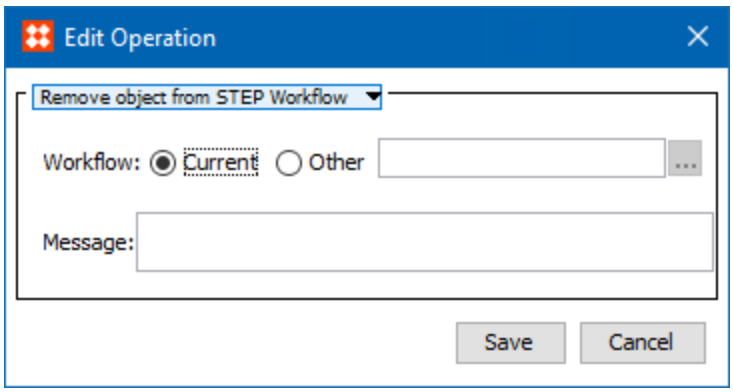
```
AutoDeleteBackgroundProcesses.AgeInHours.Exporter = 168
AutoDeleteBackgroundProcesses.AgeInHours.Importer = 168
AutoDeleteBackgroundProcesses.AgeInHours.WebPublisher.Failed = 168
```

For more information on setting up auto-deletion of background processes in STEP, see the Deleting Background Processes section of the Background Process Queues documentation.

For more information on adding and configuring properties in the configuration file of a STEP system, review the Configuration documentation located in the Admin Portal guide.

New business action to remove an object from a workflow

A new Workflow business action (Remove object from STEP Workflow) is available for building business rules to remove objects from a workflow. Users can specify the applicable workflow and the message to be logged in the Note field of the object State Log.



Previously, to automatically remove objects from a workflow, the 'Execute JavaScript' action could be used, but configuring that action is more complex and requires the use of binds and JavaScript.

For more information, see the Remove Objects from Workflows topic in the Workflows documentation.

Current Transition bind available for workflows

A new Current Transition bind is available for workflow business rules. This bind tracks the properties of the transition when an object is being transitioned within a STEP workflow. It can be used from JavaScript-based business conditions and actions executed from within the workflow. That is, actions executed 'On Entry,' 'On Transition,' or 'On Exit' and conditions on transitions. More information can be found in the Workflow Binds topic within the Business Rules documentation. The bind has also been added to the Scripting Java API and information can be found in the STEP API documentation.

New privilege added restricting ability to change translation relations

A privilege has been added that enables admin users to determine which users can change the master language in a translation relation. Previously, privileged users were able to make this change. Now, STEP users must add the 'Change translation' user action in order to make this change. This means that some users who were able to do this previously may not necessarily be able to do this following the 8.2 release. For more information on applying privileges to users and user groups, see the Privilege Rules section of the System Setup documentation.

Monitoring Event Processors via a sensor

It is now possible to monitor Event Processors from external systems using a STEP Monitoring Sensor. Monitoring Sensors allow external systems to query the status of individual event processors via HTTP, without authentication. For each event processor created in STEP, a Monitoring Sensor is automatically created. Clicking the 'Sensors for external monitoring' link (found in the Monitoring tab in the Admin Portal) takes you to a landing page for external monitoring. Additional information can be found in the Event Processors documentation.

Expanded documentation for Events and Event Processors

In preparation for the three new processing plugins for Event Processors included in this release, the Events and Event Processors documentation has been significantly improved with more details around

Core Events, Derived Events, and the Event Processor Editor. The documentation focuses on helping users navigate the complex mixture of manual and automated (wizard) steps required to successfully create, enable, and maintain event processors as well as monitor them. See the updated Events documentation and the Event Processors documentation.

Updated Calculated Attributes documentation

The Calculated Attributes section has been reorganized, improved, and expanded to better enable customers and partners to use this functionality. For more information, see Calculated Attributes within the System Setup / Super User Guide documentation.

Miscellaneous Bugfixes and Changes

Component model titles displaying in the workbench

Titles are now displayed in the workbench when viewing component models in System Setup. Previously, when clicking on a component model, 'No Title' was displayed above the component model configuration.

New property to override browser locale

Starting with STEP Trailblazer 8.2, a property can be added to the sharedconfig.properties file to force a locale, even if the browser prefers a different language. For example, to force English, the property is WebUI.OverrideBrowserPreferredLocale=en. Setting the locale via the login screen's locale selector will overrule this property.

Changes to Recycle Bin searching and workbench Goto functionality

STEP search functionality, regardless of the interface, will no longer access objects in the Recycle Bin. This change also applies to the Goto functionality in workbench (Tree and System Setup).

When using the workbench 'Search in Recycle Bin' functionality, accessed directly from a Recycle Bin node, users can still search by standard methods but will observe that typeahead is disabled when entering a search value.

For more information on the Goto functionality, see the Using Goto topic of the Getting Started / User Guide documentation. Recycle Bin topics can also be found in Getting Started / User Guide.

Data table sorting in workbench updated

We have changed the sorting algorithm for StringUtils.compareNumeric to fix sorting in tables in workbench. Previously, for example, when sorting numeric text, values like 1092 and 1245 came before values like 362 and 521. This update means that the sorting property table functionality has been unified inside workbench.

Added a new Healthcheck plugin to fix corrupted collection nodes

Added a new Healthcheck plugin (Node Collections missing parents), that can find and fix problems with collection nodes being corrupted, such as not being linked to any parent. This would sometimes cause problems when deleting background processes that used these corrupted collections.

- **ISSUE-238355 - Removed the option in workbench to 'Copy as inline reference' from the options in the single cell menu**

  In workbench, in the context menu of a single cell, the shortcut to 'Copy as inline reference' did not work. This option has now been removed.

- **ISSUE-264722 - Fixed warning about a used property in Admin Portal**

  While fetching logs in Admin Portal the system was logging a warning about a used property. This has now been fixed.

- **ISSUE-265684 - Corrected drag and drop issue in the workbench Tree tab**

  Sometimes a drag and drop in the workbench Tree navigator was not allowed because a previous drag and drop was not completed correctly. While this error is still reported, the drag and drop functionality is reset to allow the next drag to work correctly.

- **ISSUE-270932 - Purging revisions bugfix**

  Fixed a problem that occurred when purging old revisions having values on deleted references or Product to Classification links. Purges were being stopped by errors but should complete now.

- **ISSUE-272159 - Fixed error in workbench when selecting multiple product folders**

  In workbench an error sometimes occurred when selecting multiple product folders after a search, and then navigating to the product tree. This has now been corrected.

- **ISSUE-272818 - An issue with localization in workbench is now fixed**

  Fixed an issue with localization in workbench when the user's operating system had a language other than English configured. Previously, opening an English Workbench would display some parts of the GUI in the OS's default language, while the majority would display in English. This has been corrected.

- **ISSUE-272963 - Adding a row / column text formatting transformation to a STEP table in the workbench no longer throws an exception error**

  A null pointer exception occurred in the workbench when a pivot transformation and a row / column text formatting transformation was added to a STEP table. The table has now been updated with proper information for when the pivot transformation is executed so that the text formatting transformation executes without a null pointer exception.

- **ISSUE-273402 - Duplicate User Error Message updated**

Duplicating a user in workbench without entering a password will now show an error message telling the user to provide a password instead of the previous generic error message.

- **ISSUE-275918 - A nested JavaScript exception in STEP shows all expected information**

  Previously in STEP during certain cases, some information was lost when a nested JavaScript exception was thrown. For example, when the message text contained 'in' + the ID of the business rule ID. This has now been fixed and provides the expected information.

- **ISSUE-277911 - Existing references can have two dimension dependenceies**

  Users are now allowed to create references that have two dimension dependencies. This is only possible for existing reference types, and creating new reference types with two dimensions still remains forbidden.

- **ISSUE-278266 - Business rules no long throw an exception if message parameter is set to null**

  Using message objects in business rules allows the script to insert wildcard parameters in the message. Previously, if the parameter was set to null, an exception would occur when the condition was evaluated. This has been fixed.

- **ISSUE-278627 - Corrected a data table sorting issue**

  We have fixed a sorting problem in the data tables so that now data based on a selected locale should be presented in correct order. This fix should also remedy any problems with sorting LOV attributes and units.

- **ISSUE-278764 - Temporary node collection groups are no longer logged in the System Setup Log**

  When updating category profiles, several temporary node collection groups are created and deleted. If the category profiles are updated on a regular basis, so much information in the 'System Setup Log' is created, that it would cause performance problems. To fix this, deletion of temporary node collection groups are no longer logged in the 'System Setup Log.'

Platform and Software Support Changes

This section lists current and future planned changes to platform and software support.

Current Updates

The changes in platform and software support from Trailblazer 8.1 to Trailblazer 8.2 are listed below.

- Support for Java SE 9 has been implemented for the Workbench. When Java 9 is released, STEP will be compatible with this new version in addition to Java 8.
- Oracle Database 12.2 (12.2.0.1) is now supported.
- Internet Explorer versions 9 and 10 are no longer supported.
- Stibo no longer supports Java 7 on servers running STEP sidecars.

The complete list of platform and software support is available in the Platform and Software Support for Trailblazer 8.2 section of the System Release and Patch Notes documentation.

In addition, 64-bit Excel imports / exports are now supported by STEP. This support extends to the Smartsheet solution, allowing Smartsheets generated by a STEP 8.2 system to be used with 64-bit Excel versions (in both Mac and Windows). Note that Smartsheets generated prior to Trailblazer 8.2 are not compatible with 64-bit Excel versions. This means that if you are currently using the STEP Smartsheet solution *and* if you are planning to migrate to a 64-bit based Excel version, then you need to redownload a Smartsheet from a STEP Trailblazer 8.2 system prior to taking the new Excel version in to use. STEP customers not using Smartsheets and customers not using 64-bit Excel will not be affected by this.

Future Updates and End of Life Notifications

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

- Support for Oracle Database 11.2.0.4 will end with the STEP Trailblazer 8.3 release.
- Adobe InDesign CS6 continues to be supported as the non-cloud offering for 8.2; however, CS6 will be desupported with the 8.3 release.
- Also with the 8.3 release, Windows Server 2008 R2 will be desupported.
- Older versions of Excel will be desupported in an upcoming STEP Trailblazer release. This includes Office versions prior to 2010 for Windows users and 2011 for Mac users. Customers should ensure that they are using a supported, newer version of Microsoft Excel. Additional information on supported MS Excel versions can be found in the Platform and Software Support for Trailblazer 8.2 section of the System Release and Patch Notes (STEP Trailblazer 8.2) documentation.
- Support for Windows Server 2016 is planned for STEP Trailblazer 8.3.
- **Support for STEP Trailblazer 7.0 - 7.2 and 7.3 is ending, effective 1-Aug-2018.**

  The purpose of this notification is to officially communicate desupport / end of life for these systems and request that customers update as soon as possible to the latest release of STEP. Please contact your Stibo

Systems account manager or partner manager, or the support department, to receive help and guidance on how to update to a supported release.

Software errors reported on versions 7.0 - 7.2 and 7.3 may be rejected after 1-Aug-2018. Application support issues in progress for the STEP releases being desupported will be closed on the desupport date. It is not possible to extend the support services for desupported versions.

If you have any questions or would like to be contacted to receive help on updating the STEP application, please contact: STEP-updates@stibosystems.com.