RELEASE NOTES

StiboSystems

STEP Trailblazer 8.1

Updated 07-April-2017

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Release Notes for STEP Trailblazer 8.1

Release Date: November 2016

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.

Release Overview

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

- Relocated, improved, and expanded documentation for the STEP APIs, better enabling customers and partners to use this functionality
- New asset importer that handles complex requirements via standard configuration, eliminating the need for most custom asset importer extensions
- Improved user experience in Web UI via a wide variety of features, including simplified selection of objects and the ability to add custom icons and text for toolbar action buttons
- New data containers for simplified data modeling of entities
- New option to export asset content via STEPXML, streamlining the export process by including asset content and data in a single file
- Improved user experience with Smartsheets via the support for copy / paste and filtering actions
- New option to map IPGLN with GDSN Register and Publish actions, eliminating the need to have a separate Web UI for each IPGLN
- New system diagnostic tools, including the ability to run business rules tracing and healthchecks from the STEP System Administration portal
- New support for eSignature, providing on-demand re-authentication for regulated industries and data
- New compact value storage model implemented to improve performance and reduce the memory footprint for the In-Memory Solution

This document describes the above, as well as a long list of other improvements, in more detail.

Recipe

The baseline update can be installed with the following recipe:

to:step/trailblazer/step-8.1.spr

For assistance in applying the patch to systems with extensions or add-on components, please contact Stibo Systems Technical Services.

STEP API Enhancements and Updates

Summary

The STEP APIs have been enhanced with both new features and improved documentation. In addition, some 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.

Details

API enhancements

Several new functionalities have been added to the STEP APIs with a few key additions highlighted below. Additional information on these is available in the STEP API documentation at [system]/sdk, along with a complete list of all added and updated elements in the Scripting and Extension APIs from Trailblazer 8.0 to 8.1 (via the Change History links).

- The Web UI Extension API datagrid widget functionality has been extended and updated examples on how to use the widget are included in the Extension API zip file
- It is now possible for Web UI Extension API components to store and access information in an HTTP session
- It is now possible to create Web UI Extension API components from which files can be downloaded
- New views have been added to the SQL API for working with non-LOV values stored in accordance with the new compact value storage model. Additional information on compact value storage can be found in the Improved Handling of Attribute Values section of these release notes. Note that with the old way of storing values for non-LOV-based attributes, the SQL API view entities 'value_v', 'value_all', 'valuelink_v', and 'valuelink_al' could be used for retrieving values for all attributes. Values for non-LOV-based attributes stored in accordance with the new compact value storage model can no longer be obtained via these and other previous value view entities. Instead, newly introduced view entities 'simplenodevalue' and 'simplelinkvalue' must be used. Both new view entities can be used for LOV-based and non-LOV-based values. The new functionality makes it possible to filter the values by the actual context and workspace, in addition to filtering by node using the 'simplenodevalue' entity and by link using the 'simplelinkvalue' entity.

Deprecation and removal notices

- The package com.stibo.portal.componenttype.packaging and all its sub packages will be removed from the STEP Extension API in the Spring 2017 release. To prepare for this, implementations should verify that they do not have any extensions using this package.
- The STEPXML DTD document has been deprecated, and will be removed with the Spring 2017 release. This is due to the fact that the DTD cannot always reflect the correct schema due to limitations in the format. For example, it is not possible to have different rules for an element depending on the enclosing element, which is at times required. As a result, it can cause files to fail upon import, even though they are valid according to the DTD. Therefore, to provide more accurate validation schemas, the DTD is now deprecated

and the XSD will be the only schema validation document available as of the Spring 2017 release. To prepare for this, implementations should now check validations against the XSD only.

- The procedures readvalue, readunit, and readunitid have been removed from the PIMVIEWAPIPCK package in the SQL API as they are redundant and were previously deprecated due to incomplete functionality.

- The ability to get responses from the STEP REST API as JSON has been deprecated and will be removed or changed in the next release. The change is being made to allow for improved JSON representations in future STEP releases.

Improved API documentation

To better enable customers and partners to use the STEP APIs, the documentation has been updated in a number of key areas, described below.

Relocated and consolidated API / SDK documentation

In order to simplify things for users of the API materials, several changes have been made to the location and structure of the materials. This allows users to access all API documentation in a single location, rather than being spread between a landing page and a detailed page. In addition, this ensures that all API documentation is accessible only by privileged users, as has previously been required for the comprehensive API documentation.

Previously, the SDK Documentation node in the online help housed a set of PDFs documenting the high-level functions of the various STEP APIs, and provided a link to more comprehensive materials on the STEP SDK page. Clicking the STEP APIs link on the SDK Documentation page launched an authentication dialog. When valid credentials were provided for a user with privileges to view the API materials, the STEP SDK page was opened, containing detailed documentation for the STEP APIs and links to the relevant Javadocs.

Access to the landing page has now been removed from the online help and relocated to the STEP WebStart page. Clicking the STEP API Documentation link opens an authentication prompt, as was previously required when accessing the detailed STEP SDK page shown above. When valid credentials are provided for a user with privileges to view the API materials, the STEP API Documentation page opens.

As part of this change, the page itself has been re-worked, with key changes listed below:

- All PDFs and links previously accessible on the SDK Documentation landing page have been moved to reside within the new STEP API Documentation page accessed from the WebStart page. The Mongo, LDAP, and STEP'n'design PDFs are now available under the Miscellaneous header, while the SQL API and STEPXML PDFs are now available under their respective headers. Additionally, the links to the STEPXML XSD and DTD files that were previously embedded in text on the page are now available under the STEPXML header.

- The previously existing bundle-specific Javadoc links for the Scripting and Extension APIs have been removed. Instead, for each API, HTML links to the combined Javadoc are now available. Additionally, the Javadoc can be downloaded for offline browsing via the zip file links. Note that bundle-specific filtering continues to be available via the Packages links on the HTML pages.

- The 'What's New' information has been separated by API, with an individual Change History link available for the Scripting and Extension APIs listing the classes, interfaces, methods, and enums that have changed between recent Trailblazer releases.

Extension API documentation improvements

The previously existing Extension API readme.txt file has been replaced by a more user-friendly document called the STEP Extension API Guide, available in both PDF and HTML. This document is included in the 'Extension API

Libraries, Javadoc and Examples' zip file (extensionapi.zip), and is also linked directly on the new STEP API Documentation page under the Extension API header. Along with overall enhancements for better readability, the following have been provided:

- Guidelines for how to write plugins of the various types (e.g. integration endpoints vs. business rules)

- Updated instructions for using the previously existing hot swap functionality

- New material describing how to quickly get a developer environment up and running using IntelliJ IDEA Community Edition or Eclipse Neon

- Instructions for configuring remote debugging options (both within STEP and within a development environment)

- Description of how to use 3rd party libraries when developing extensions for STEP

STEP'n'design Scripting API documentation improvements

The STEP'n'design Scripting API PDF was previously available on the SDK Documentation page for systems with the STEPPublish.InDesignScriptingAPI license enabled. This document has been fully revised, with special attention paid to the XML Actions and XML Hierarchies content. In addition, examples have been provided throughout all appropriate sections, including JavaScript that can be copied and pasted for easy re-use. The updated PDF can be found under the Miscellaneous header on the new STEP API Documentation page.

Web Services API documentation improvements

The Web Services API (REST and SOAP APIs) documentation has been updated to include descriptions that were previously missing, as well as to remove any non-public resources that were previously exposed but not usable.

SQL API documentation improvements

The SQL API documentation has been updated with a section describing how to work with values stored in accordance with the new compact value storage model. Additional information on this functionality can be found in the Improved Handling of Attribute Values section of these release notes.

API Bugfixes

◆ Corrected issue in hot swap functionality

A bug in the previously existing hot swap functionality enabled via the SPOT --hot argument has been corrected to ensure that external (created outside of Stibo Systems) bundles can be effectively deployed. This functionality allows developers to deploy extensions without requiring a server restart. Note that some limitations in hot swap functionality still exist and are documented in the STEP Extension API Guide available on the STEP API Documentation page.

Increased Security

Stibo Systems is dedicated to the task of continuously improving the security level of STEP. With Trailblazer 8.1, several security enhancements have been made that, while improving the security of the STEP application, have no impact to end users and are therefore not described in detail. Included in this, 3rd party software packages utilized within STEP have been analyzed and upgraded to newer versions if vulnerabilities were found. In addition, Stibo Systems has been working with OWASP (Open Web Application Security Project) version 2.0 compliance for the last two years. As work on the OWASP 2.0 level II compliance has now concluded, sights have been set on the new version of the standard, OWASP version 3.0. During the next release cycle, compliance with version 3.0 will be analyzed, and plans will be made for making any changes or fixes that need to be implemented in order to be compliant with the new standard.

Security Bugfixes

◆ **ISSUE-246861 - Fixed a privilege bug encountered in workbench for unique keys**

When a user without the privileges required to modify a unique key value attempted to create a product that uses attributes used by unique keys, the user received a 'Not privileged' error message. This erroneous behavior has been corrected. Now users can create the product and set initial values for those attributes. The check for modifying existing unique key values remains in place, so users will not be able to edit them without the privilege.

New System Monitoring and Diagnostic Tools

Summary

New options for system monitoring and diagnostics have been added via the STEP System Administration (admin portal) tool. These include functionality to:

- Run system healthchecks for easier identification of issues and system maintenance
- Easily send diagnostic and system information to Stibo Systems to aid in troubleshooting and support
- Enable business rules tracing to aid in troubleshooting
- View system and memory information without direct access to servers
- View and download server renderer logs and configuration options

In addition, deprecated functionality has been removed, and complete documentation for the admin portal has been added to the online help.

Details

New tool for running system healthchecks

A new Healthcheck tab has been added to the admin portal, allowing users to run targeted tests to aid in identification and resolution of system and performance issues. A set of standard tests are available, and Stibo Systems reserves the right to add additional tests as a need for them is identified.

Available Tests

	Test		Last Run	Execution Time	Executed	Detected Problem
☐	Duplicate Workspaces	ⓘ	Tue Oct 04 16:02:16	0 sec	USER6	0
☑	Duplicated Histories	ⓘ	Thu Oct 06 12:27:37	1 sec	USER6	12
☐	Too Many Manually Sorted Attribute Groups	ⓘ	Tue Oct 04 16:02:37	0 sec	USER6	0
☐	Too Many Manually Sorted Products And Classificatio	ⓘ	Tue Oct 04 15:59:26	0 sec	USER6	0
☐	Check for common portal configuration errors	ⓘ	Fri Oct 07 10:35:42 E	1 sec	USER6	0
☐	Products Missing a Revision	ⓘ	Tue Oct 04 15:59:28	0 sec	USER6	0
☐	Too Many Workspace Relations	ⓘ	Tue Oct 04 16:02:37	0 sec	USER6	0

✗ Cancel Selected Tests   ✓ Run Selected Tests

Detected Problems

	Test	Object	Problem Type	Details	Fix Available	Fixed	Fix Applied By
☑	Duplicated Histories	AssetPush1, Workspace: Staging	Search for duplicate entries in the history		No		
☑	Duplicated Histories	DTPConfiguration, Workspace: Approved	Search for duplicate entries in the history		No		
☑	Duplicated Histories	AssetPush1, Workspace: Main	Search for duplicate entries in the history		No		
☑	Duplicated Histories	Change Attribute Link, Workspace: Staging	Search for duplicate entries in the history		No		
☑	Duplicated Histories	Change Attribute Link, Workspace: Main	Search for duplicate entries in the history		No		
☑	Duplicated Histories	DTPConfiguration, Workspace: Staging	Search for duplicate entries in the history		No		

✓ Export Selected Items to CSV   🔍 View Fix Log   ▶ Fix Selected Issues

Users can select the tests to be run, and view a list of issues if any are found. In some cases, fixes are made available. As fixes should only be applied only under the direction of Stibo Systems, applying a fix requires a password that must be obtained from Stibo Systems Support. However, some issues identified will likely be solvable by administrators and the tool serves merely to bring them to light. In addition, it provides a way to aid Stibo Systems in resolving reported issues. If a system is having performance issues, administrators should run the available healthchecks and send them to Stibo Systems using the Send Diagnostics tool described below.
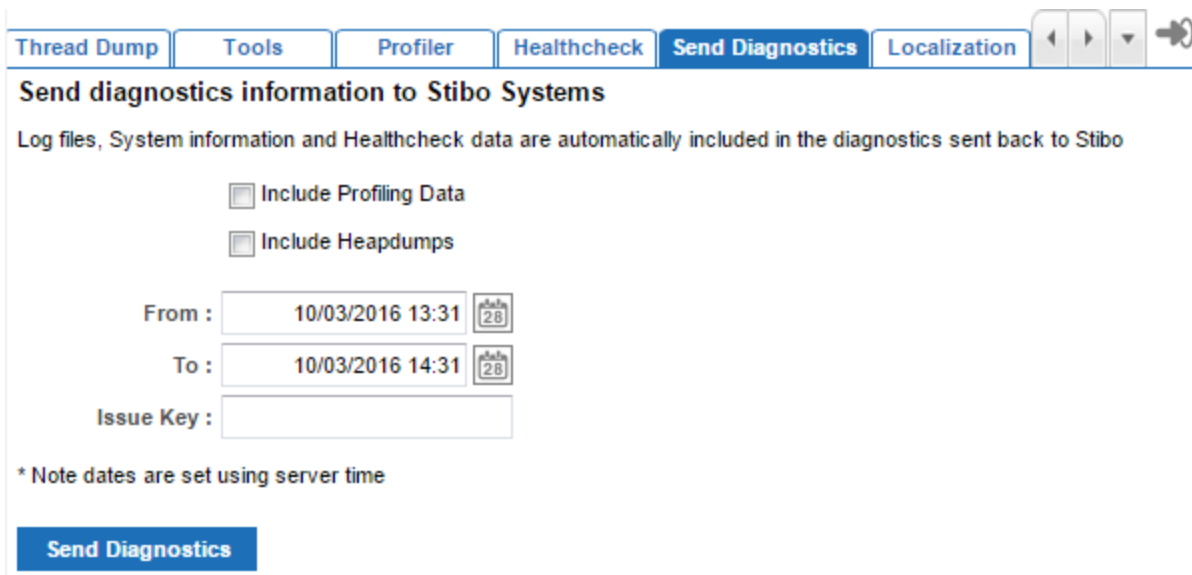
Note that use of this functionality on a clustered environment requires that the Healthcheck.RootDir configuration property be set to a shared path to ensure that the healthcheck reports are available, regardless of the application server node that the admin portal is accessed from.

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

New tool for sending diagnostic and system information to Stibo Systems

A new Send Diagnostics tab has been added to the admin portal, allowing systems with a connection to the STEP updates server to send diagnostic and healthcheck information directly to Stibo Systems with the click of a button. This is useful when reporting performance or other system issues to Stibo Systems Support, especially when used

in conjunction with the Healthcheck tool described above as it ensures that the proper information is captured and reported at the time when the issue is occurring.

Systems without a connection to the STEP updates server will see a message that the file has been generated and a link to 'Download diagnostics output file' will be available.

For more information, see the Send Diagnostics topic in the Administration Portal documentation.

New tool for business rule tracing

A new Business Rule Tracing tool has been added to the Tools tab of the admin portal to better enable administrators to troubleshoot issues with business rules. The tool allows administrators to set up tracing on specific rules which can be isolated by executing user, rule ID, activities being carried out, type of rule, or any combination of these filtering parameters. Detailed trace information is then written to the trace log file available on the Logs tab.

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

New interfaces for viewing memory and system information

Two new tabs have been added to the Activity section of the admin portal, under the Details flipper, to enable easy access to memory and system information. If Java Garbage Collection (GC) has been run on a system, the Memory tab displays related information, as shown below.

Activity	Activity Dashboards	Logs	Monitoring	Configuration	Thread Dump

Duration : 10 min ▼   Date/Time :   10/06/2016 10:34 📅   User :

∧ Chart

∨ Details

Services	SQL	Current Thread	Queues	Memory	System Information

Parameter	tpm-handover.stibo.corp
Max used heap size	2023.387 MB
Min used heap size	371.760 MB
Average used heap size	1197.573 MB
Percent of time in GC to total time	0.000 %
Percent of time in normal GC to total time	0.000 %
Percent of time in full GC to total time	0.000 %
Percent of GC time in normal GC	100.000 %
Percent of GC time in full GC	0.000 %
Average memory freed	1651.627 MB
No of normal GCs	1
No of full GCs	0
Number of OutOfMemoryError's	0

The System Information tab displays basic data about the system and available memory, as shown below.

∨ Details

Services	SQL	Current Thread	Queues	Memory	System Information

Parameter (Mon Aug 15 11:52:05 GMT-400 2016)	doc-dev
No of cores	2
Average system load for the last minute	3.25
Average system load per core for the last minute	1.63
Total physical memory size	3856.00 MB
Free physical memory size	2756.00 MB
Usable disk space / Total disk space	[/ = 2 GB / 11 GB]
Percent of time in GC in last 24h	0.00 %
Uptime	358775 s

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

Enhanced monitoring and management of InDesign server renderers

A new IDS Logging tab has been added to the STEP Admin Portal that will allow users to download and view the STEP'n'design logs for each renderer as well the ability to download and upload configurations for each renderer.

For more information about the new features in the monitoring and management of InDesign server renderers, see the 'Improved monitoring and management of InDesign server renderers' section of the STEP'n'design and General Print Publishing Enhancements' topic in the Trailblazer 8.1 release notes.

Administration Portal documentation added to the online help

Previously, documentation was not available for the admin portal. With Trailblazer 8.1, documentation is available within the online help describing the new features mentioned above, as well as all previously existing functionality that is intended for external use.
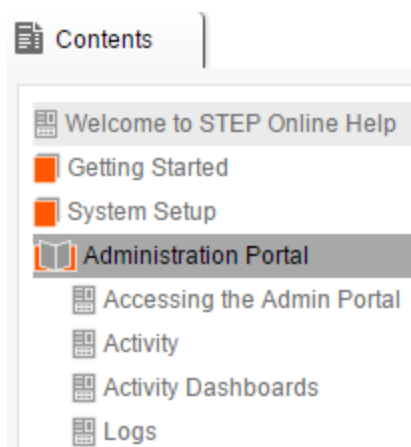
Removal of deprecated tabs

The Database and Components tabs have been removed from the admin portal as they offered only legacy informational views that were no longer valuable.

System Monitoring Bugfixes

◆ **ISSUE-256780 - Fixed a bug limiting the number of TCP connections made by SPOT**

It is now possible to limit the number of TCP connections made by SPOT to the updates server by setting the HTTP.Threads property in admin/spot/spot.properties. The default value is 10, but some pieces of network equipment fail when this is used. It is recommended not to set this value unless there is a clear need.

New Support for e-Signature

Summary

STEP now supports e-Signature in Web UI for transitions in workflows. e-Signature is a commonly used method to verify the identity of a user when performing critical actions where a direct audit trail is required because the action may involve sensitive data transmissions to regulated entities such as within finance, government, or health care. Using e-Signature protects both the business and the individual user by requiring re-authentication at the point in time that the action is taken.

The e-Signature solution consists of two parts: the re-authentication and the actions to be taken after authentication is complete. e-Signature support is implemented via global business rules which means it can be activated based on business requirements, e.g. in a specific workflow transition, and that the system actions following re-authentication can be configured to match the exact business requirements, such as creating a major revision, logging, and archiving data to external storage, or submitting data to an external agency.

Details

A new e-Signature option allows users to re-authenticate information on any and as many transitions in a workflow as needed. A user must be currently logged in and present at the time of re-authentication to enter in their information, or the e-Signature will fail. For example, this functionality cannot be used for any automated transition process or within any system processes that do not have direct user interaction (e.g. scheduled bulk update, etc).
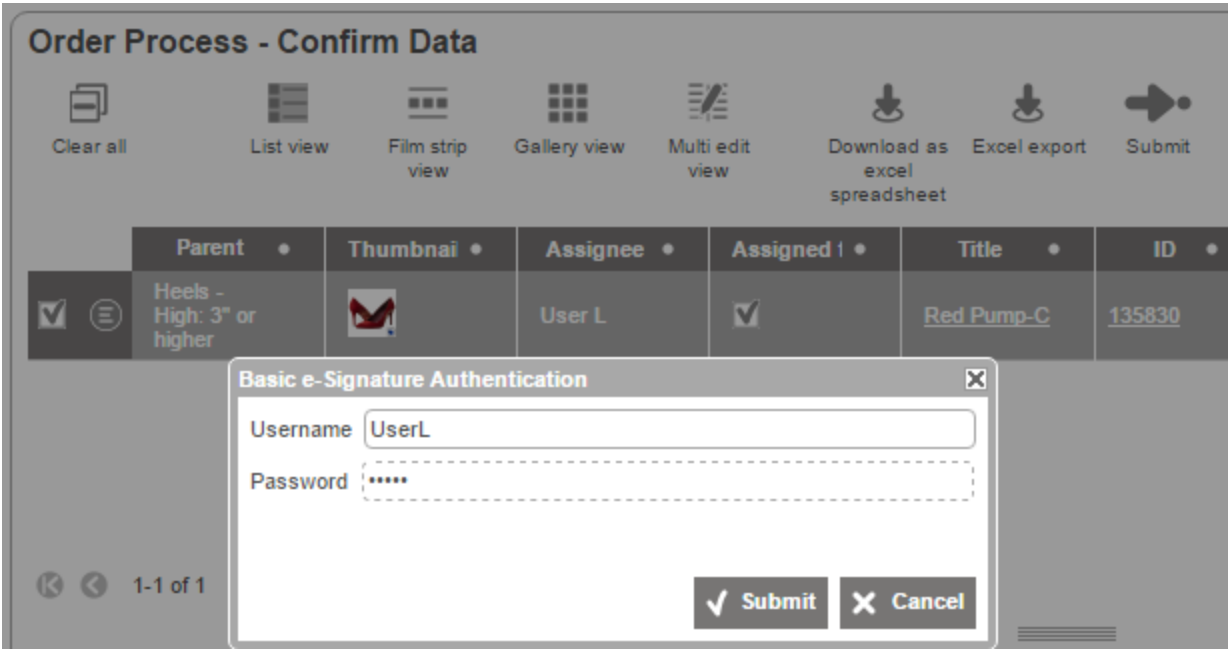
With e-Signature, administrative users are able to customize what the system should do after the re-authentication by the user. Some examples are storing the data at the instance it was captured for audit purposes, recording who authenticated and when, or configuring it to archive and submit the signed data as per customer and industry requirements. As standard global business rules are used for e-Signature, it is fully at the discretion of the

customer for how to implement the rule to ensure that the desired data capture and/or logging occurs. Using the standard e-Signature global business rule option simply prompts the re-authentication dialog to require that a user provide login credentials before taking action.

Global business rules using e-Signature are configured and applied in STEP Workbench. However, re-authentication using e-Signature is only available in Web UI. Users attempting to call a global business rule using e-Signature in the workbench will receive an error.

For more information, see the About e-Signature topic in the Business Rules documentation.

New Data Containers for Simplified Data Modeling with Entities

Summary

To enable users to better represent and use complex data models, a new data container modeling concept is being introduced in STEP. Previously, working with complex data models (sometimes called a composite) made up of, for example, multiple object types with references and then treating such a model as whole, provided challenges with various STEP actions and processes.

By using new Data Container Types, one is able to model a composite entity (e.g., customer record) containing Data Containers with relevant attributes such as email, phone, and/or addresses of differing types. Composite entities have many benefits, including simplified revision handling, a collective process to save and approve data, and easier management of container attributes in workflows.

Details

To integrate data container types and data container functionality in STEP, updates have been made throughout the workbench and Web UI.

- A new object type (Data Container Type) has been added.
- Data container types are created in workbench within System Setup > Attribute Groups and are distinguishable by the ▤ icon. Data container types can contain description attributes, and these attributes can be used in multiple data container types. One data container can reside in multiple attribute groups.
- Data container can only be used with entities. Once the entity type validity is set, a 'Data Containers' tab is visible in the object editor when clicking on a valid entity object from the workbench Tree. Similarly, once configured, data containers are visible on the entities in the Web UI.

- Data container maintenance can be done in workbench and also Web UI, using the new Data Container Editor component.

Customer D rev.0.3 - Data Containers

| Customer | **Data Containers** | References | Referenced By | Status | State Log | Tasks |

Main Address

ID		Attribute Name			Value
> MainAddress-CustomerD	>	City		abc	Højbjerg
		Country		abc	Denmark
		Country ISO Code		abc	DK
		State		abc	
		Street		abc	Axel Kiers Vej 11
		Zip		12a	8270

Shipping Address

	ID	City	Country	Country...	State	Street	Zip
>	ShippingAddress_Canada	Toronto	Canada	CA	ON	116 Spadina Ave	M5V 2K6
>	ShippingAddress_France	Paris	France	FR	Île-de-France	43 Boulevard Haussmann	75009
>	ShippingAddress_Kennesaw	Kennesaw	United States	US	GA	3550 George Busbee Pkwy NW	30144
>	Add Data Container						

Node Details

Data Containers

Main Address ➕ ❌

City	Højbjerg
Country	Denmark
Country...	DK
State	
Street	Axel Kiers Vej 11
Zip	8270

Shipping Address ➕ ❌ 🖉 🖉

		City ●	Country ●	Co ... ●	State ●	Street ●	Zip ●
☐	ShippingAdd...	Toronto	Canada	CA	ON	116 Spadina Ave	M5V 2K6
☐	ShippingAdd...	Paris	France	FR	Île-de-France	43 Boulevard Haussmann	75009
☐	ShippingAdd...	Kennesaw	United States	US	GA	3550 George Busbee Pkwy NW	30144

Once the setup is complete, users can begin working with data containers and their associated attributes in various situations. As stated in the summary, the data container modeling is to ensure that all create, read, update, and delete operations can complete or fail as a whole as if the operations are being done on an entity containing the data containers.

- Data containers can be imported into and exported out of workbench using standard functionalities and STEPXML, Advanced STEP XML, Excel, and CSV formats. Data container setups are also transferable through change packages.

- Attribute values in data containers are searchable and the entities are returned as results. The workbench and Web UI Advanced Search contain a Data Containers search criteria, while both the workbench Search and Web UI simple search allows for searching via attribute values in data containers.

- Matching can be done for objects that use data containers, making use of survivorship rules for data containers.

- Data containers are supported in the Simple Address Component model, as well as the Google Map API, Loqate, and Trillium integrations used for address standardization.

- Data containers, and the attributes within them, are supported in data profiling.

- Completeness scores also take the attributes in data containers into account.

- Event handling for data containers is supported.

- Data containers are supported in calculated functions, and API support for access to data containers in JavaScript business rules is provided.

For additional details and information regarding usage limitations, see the Data Containers topic in the System Setup / Super User documentation.

New Company Hierarchy Visualization and Maintenance

Summary

New Web UI functionality allows customer data users to browse and edit a visual representation of company hierarchy data. When using this tool, company hierarchy data is saved as STEP entities, and references are used to connect the entities to each other. The visualization of entities and their references may help users better understand company hierarchies, and relationships between aggregates (e.g., companies, franchises, and branches). Users may also be able to identify patterns, better organize objects, and ultimately build better data relationships.

Details

Characteristics of many customer data models lend themselves to a hierarchical layout, even though the data model is referential. Many times the creation of customer hierarchy data does not occur in STEP but is created in surrounding applications (ERP, CRM, and eCommerce). Until now, this resulted in company hierarchy content and structure being maintained outside STEP. Orphaned hierarchies that do not naturally reside in the surrounding applications can be created and maintained in the intuitive interface. This allows for STEP to be the central place for company hierarchy data.

The new Company Data Hierarchy Screen provides an interactive visualization and maintenance tool for users to view and edit overviews of company hierarchies, no matter their size. Many will also benefit by using it for analysis, reporting, and decision-making purposes. The new customizable interface allows users to click on and mouse over graphical nodes on the screen to view more information pertaining to the object, navigate directly to it, and/or make modifications to the hierarchy.

Users will be able to:

- View and maintain organizational hierarchies by making use of organic corporate data.
- Make ad-hoc changes as needed.
- Associate account and other organizational data (e.g., revenue to date, credit score, etc.) to nodes within an organizational hierarchy.
- Associate account and other organizational data received from third party data providers to nodes within an organizational hierarchy.
- Construct and manage differing perspectives of a singular hierarchy so as to accurately model the differing views stakeholders within an organization (e.g., Sales, Marketing, Finance / Legal) have for a given corporate customer organization.
- Map and manage relationships between nodes across different hierarchies.

A node can be a member of multiple hierarchies, but only one hierarchy can be viewed at a time. Though only one hierarchy can be displayed at the same time, more than one hierarchy can be defined and displayed using multiple Company Data Hierarchy screens within the same Web UI.

Once a company hierarchy is displayed, the initial view responsively adapts based upon screen size, so that the hierarchy view appropriately fills the screen.

The dynamic display allows users to hover over or click on graphical nodes on the screen and show options based on that object. Users can also expand or collapse displayed objects, drill down into large data sets using preconfigured filters, change the views, and make necessary edits to the hierarchy on the fly, using the available edit features.

The below screenshot shows a sample Company Data Hierarchy Screen (configured).
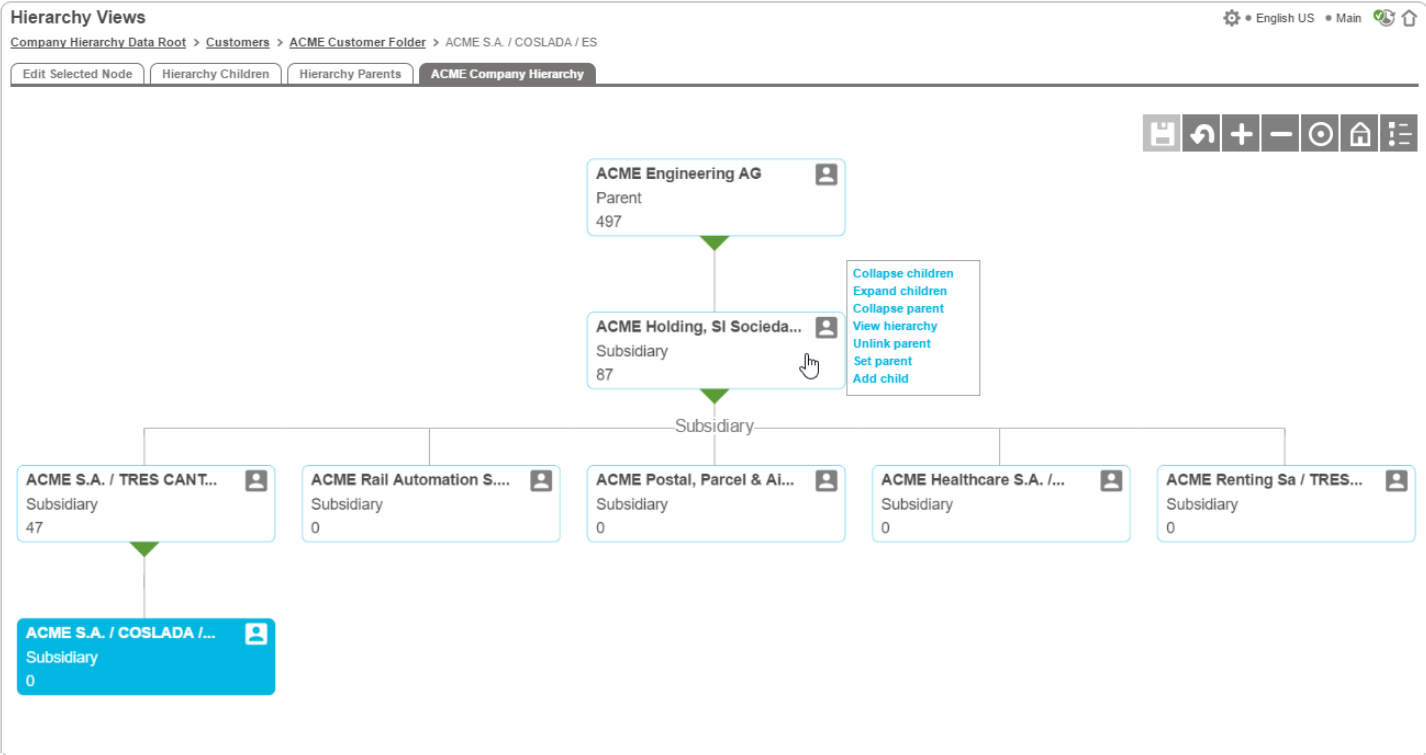
Users can view more information by selecting an individual graphical node. The attributes that appear are configurable in the designer by the admin users. Users also have the option to select the 'View hierarchy' link to render the hierarchy for the selected node.

The below screenshot shows a sample of information that appears when a user selects any of the graphical nodes within a Company Data Hierarchy Screen.

To access and use the company hierarchy functionality, the following installation command must be executed in addition to the normal update procedures for STEP 8.1, and after the STEP 8.1 mp1 or later maintenance patch is applied:

spot --apply=to:companydata-visualization/7.0/companydata-visualization-7.0.0.spr

For more information see the Company Hierarchy Visualization and Maintenance section of the Web User Interfaces / Using a Web UI documentation.

Enhanced Digital Asset Management Capabilities

Summary

A number of new features have been introduced to better support management of digital assets in STEP.

- Asset Importer is a new tool that offers users a wide variety of options for mass loading images, documents, and other digital assets into STEP. Additionally, it can be configured to run business rules, interact with STEP workflows, convert image files to other formats, and make quality checks on images to make sure that they meet any minimum requirements.

- A new Asset Preview Screen has been added to Web UI that supports configurable and enhanced asset previewing capabilities such as full-screen previews. Additionally, scrollable previews of Office and PDF documents, as well as viewable previews of video files, are now available as an optional addition to this component.

- When exporting asset objects in STEPXML it is now possible to include the content of the asset in the message, either as an embedded binary content or via a call-back REST URI. This provides a streamlined export process and shortens the delivery time of assets to external systems.

- It is now possible to LZW compress TIFF files during an asset export

- Caching of images on import is now done asynchronously via a new event processor. This ensures that asset import performance is not impacted by having multiple conversions defined, as well as ensuring that converted images are available when needed for asset export and preview functions.

Details

New Asset Importer

A new asset importer has been introduced that allows users to mass load and maintain assets in STEP. This new tool can be configured to run validations on imported assets, automatically link imported assets to other objects in the system, run business rules, and interact with workflows. Any number of configurations can be maintained to handle these imports. Once an Asset Importer configuration has been created in the STEP Workbench, assets can be loaded via hotfolders configured with an Inbound Integration Endpoint using the Asset Importer processing engine, or with Web UI through the new Asset Importer widget or the updated Upload Asset action. Additionally, the Asset Mid Sized and Asset Image Value components in Web UI have been updated to use Asset Importer configurations when replacing asset content. Whatever the interface, the asset importer includes functionality allowing users to:

- Import digital assets in STEP, as well as update them when updated versions are received
- Upload loose asset files or a zip file containing multiple asset files
- Use metadata files to control the way digital assets are uploaded
- Locate the correct folder in which to categorize assets, and generate the asset hierarchy if it doesn't exist
- Approve new folders, assets, and product-to-asset references
- Launch a new workflow or trigger a transition in an active workflow
- Run business rules after the assets have been imported

- Examine the assets and reject file formats, color spaces, DPI, physical sizes, and file sizes that don't meet minimum requirements

- Import metadata from an asset file and/or import EXIF information stored within assets

- Create references between products and digital assets based on configurable match criteria

- Purge old, unused revisions of assets in STEP to prevent the database from growing larger than needed

- Set global configurations on the highest level hotfolder that are inherited to all lower level hotfolders, each of which can have their own unique variation of the base configuration (e.g. Logos, Product Images, Web Images, etc.)

For backwards compatibility, this functionality must be manually enabled for existing STEP implementations by setting Asset Import Compatibility Mode to 'Advanced' in System Settings. On new systems, the Asset Importer is enabled by default.

If enabled, the Upload Asset action and the replace asset content function (configurable on any Asset Mid Sized or Asset Image Value component) will **require** an Asset Importer configuration. **These functions cannot be used unless a configuration is available.**

Previously, the Upload Asset action in Web UI required that the user specify the object type of an imported asset and which classification folder to put it in. With Asset Importer configured, users must specify an Asset Importer configuration, which defines the object type and classification on its own, and can make any necessary changes to the imported asset (or reject it if it fails to meet minimum requirements). Asset Importer also adds new functionality to the replace asset content function, available on any Asset Mid Sized or Asset Image Value screen component. When the replace content icon is clicked, instead of simply replacing the file, users can now specify an Asset Importer configuration, which applies its rules to the asset replacing the old one (such as changing its file format), and may reject those that do not meet the minimum requirements defined in the configuration.

It is highly recommended to enable the new asset caching functionality (defined below in the 'New event processor and option to cache assets upon import' section) to optimize future export performance.

Note that similar functionality was previously available via the Enhanced Image and Document Uploader add-on component. For implementations that are currently using the add-on component and wish to transition to the new core functionality, a migration guide is available to assist in this process. See the Asset Importer Migration Guide within the Asset Importer documentation for more information, including a list of differences between the add-on component and the core importer.

For more information on the Asset Importer, see the Asset Importer section of the Importing Data and Images documentation.

New asset management and preview capabilities in Web UI

A new screen type—Asset Preview Screen—has been added to Web UI to enable enhanced previews of assets linked to product objects. The types of references displayed are configurable in the designer by admin users. Previously, assets could be previewed by clicking on thumbnails, but the popup previews could sometimes be difficult to view because large previews would appear mostly outside of the screen, with no ability to move them into sight.

The below screenshot shows a sample Asset Preview Screen. Linked assets are displayed as thumbnails in the left-hand panel. The sizing of these thumbnails is controlled by selecting one of the three thumbnail size selector icons that appear below the thumbnails. When a thumbnail is selected, a larger preview of the asset appears in the right-hand panel. Below the asset preview, a configurable selection of description attributes that are valid for the selected asset object type can be added.
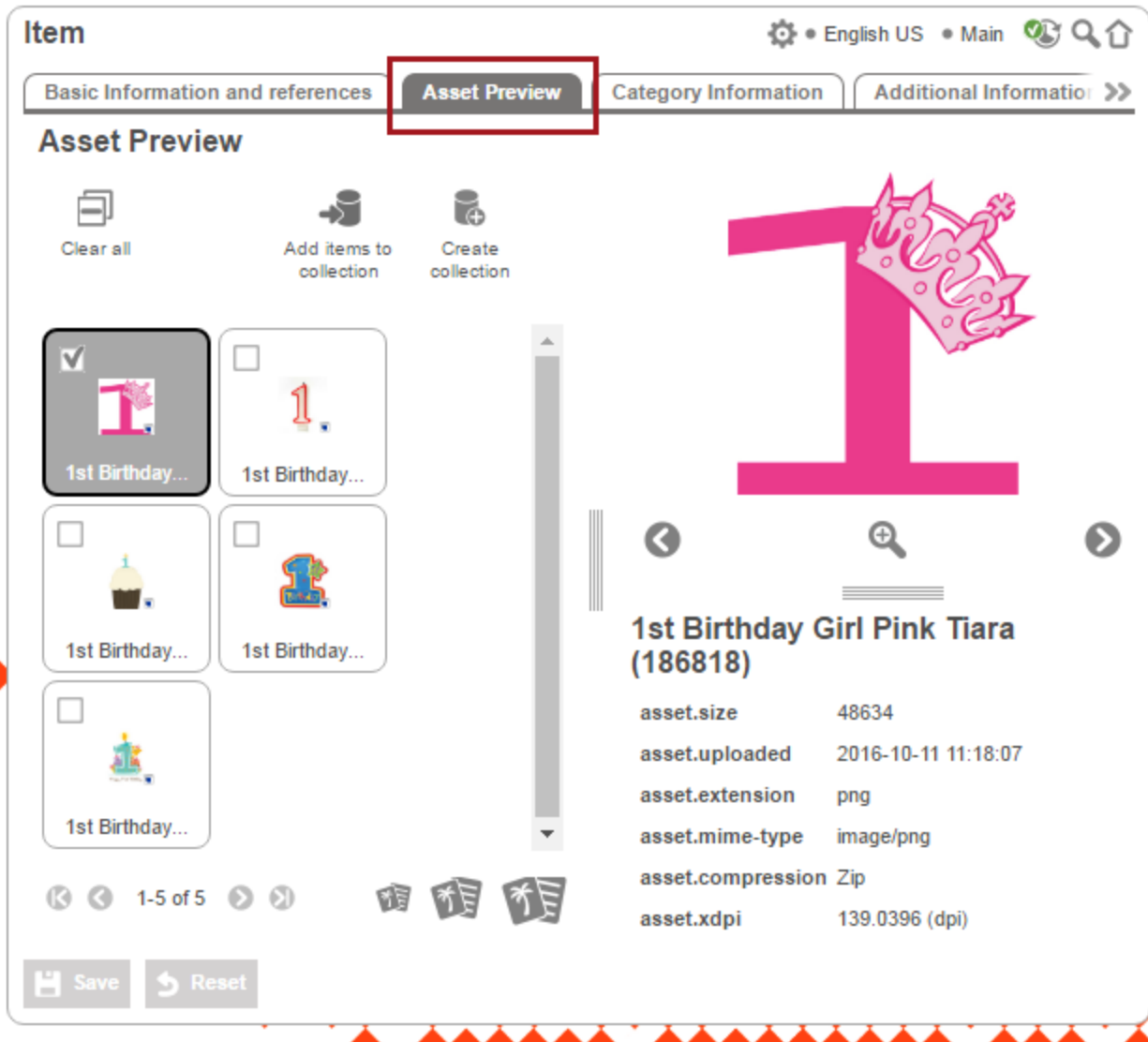
The preview in the right-hand panel can be sized larger or smaller by moving the horizontal drag handle beneath it up and down and/or moving the vertical drag handle left and right. Full-screen previewing is also available.

Though not strictly required for image previews to function, it is highly recommended to enable the new asset caching functionality (defined below in the 'New event processor and option to cache assets upon import' section) in order to optimize performance when loading screens with large numbers of images. This ensures that the various image sizes used by the preview components are cached and available on-demand.

Note that the Asset Preview Screen can only be used on product object nodes; it cannot be configured to view referenced assets on classification or entity nodes.

Additionally, the new image conversion pipeline 'web-proof-xlarge' is available for previewing images. This pipeline scales larger images to within 1000x1000 pixels. The default cache size of 100MB can be changed by setting the config parameter 'ImageCache.Size.web-proof-xlarge' where the value unit is mega bytes. For example, 'ImageCache.Size.web-proof-xlarge=1000'.

For more information on asset previews in Web UI, see the Asset Previews in Web UI section of the Web User Interfaces documentation.

New support for Microsoft Office, PDF, and video previews

Enhanced thumbnails and previews for Microsoft Office documents (such as MS Word, MS Excel, and MS PowerPoint) have been introduced to both STEP Workbench and Web UI. Enhanced previews for PDFs have also been introduced to Web UI. In addition, preview functionality is now available for video files (such as MP4 files) in Web UI.

In both the workbench and Web UI, Word and PowerPoint documents now have a thumbnail that displays the first page of the document, and Excel files have a thumbnail that displays the first sheet. Previously, these thumbnails were generic white boxes with the file extension in black letters (e.g. DOCX). (Thumbnails for PDF documents have always displayed the first page in the workbench, but only a generic image thumbnail was available for PDFs in Web UI.)
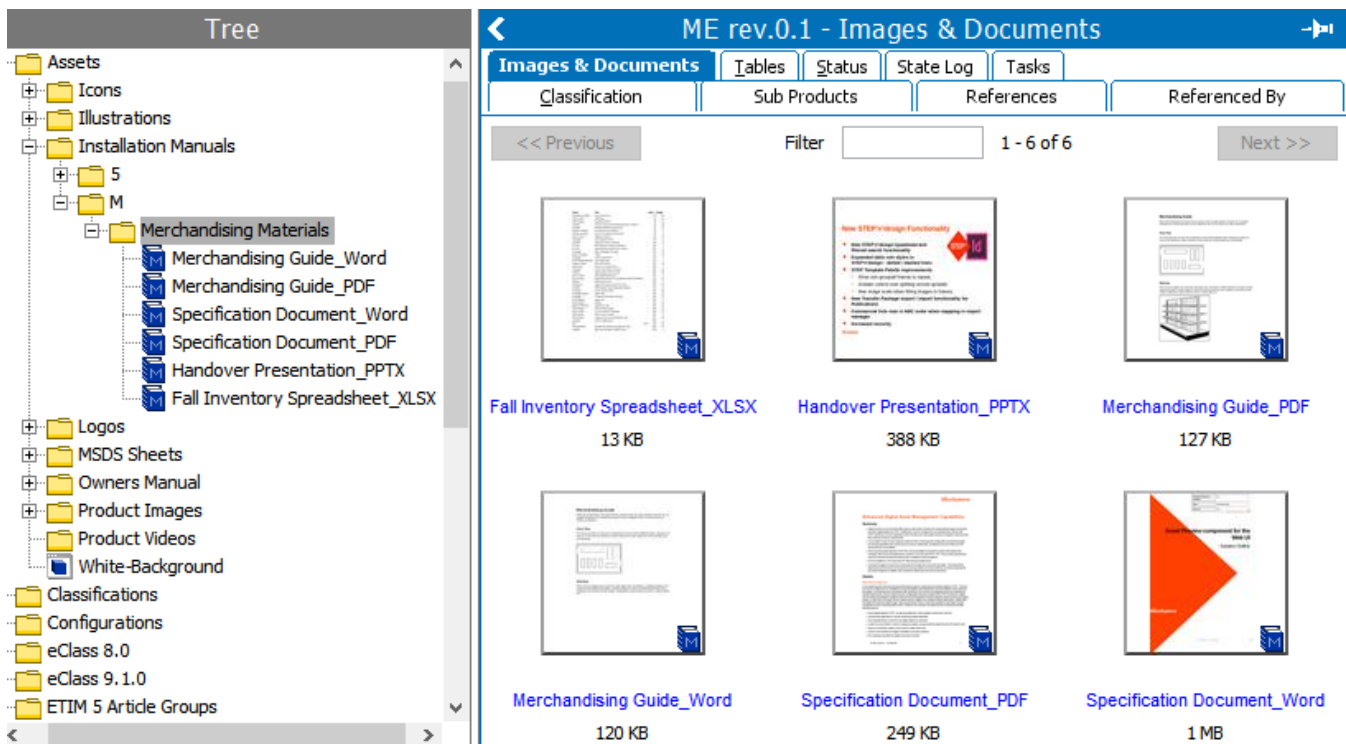
Enhanced document previews for Office and PDF documents are also now available in Web UI. On the new Asset Preview Screen (detailed in the previous section of this release note, 'New asset management and preview capabilities in Web UI'), first-page thumbnails for Office and PDF documents display in the thumbnail gallery in the left-hand panel. Once clicked, a larger first-page preview appears in the right-hand panel.

When the magnifier icon below the preview is clicked, a full-screen readable and scrollable preview of the entire document displays.

Video files display a generic thumbnail and right-panel preview, but once the magnifier icon is clicked, the video displays in a full-screen, playable preview.

Two existing Web UI asset components—'Asset Mid Sized' and 'Asset Image Value'—have also been updated to enable previews of referenced Office and PDF documents. By using the Web UI option for viewing large (full) thumbnails, these thumbnails will now result in a scrollable version of the Office or PDF document.
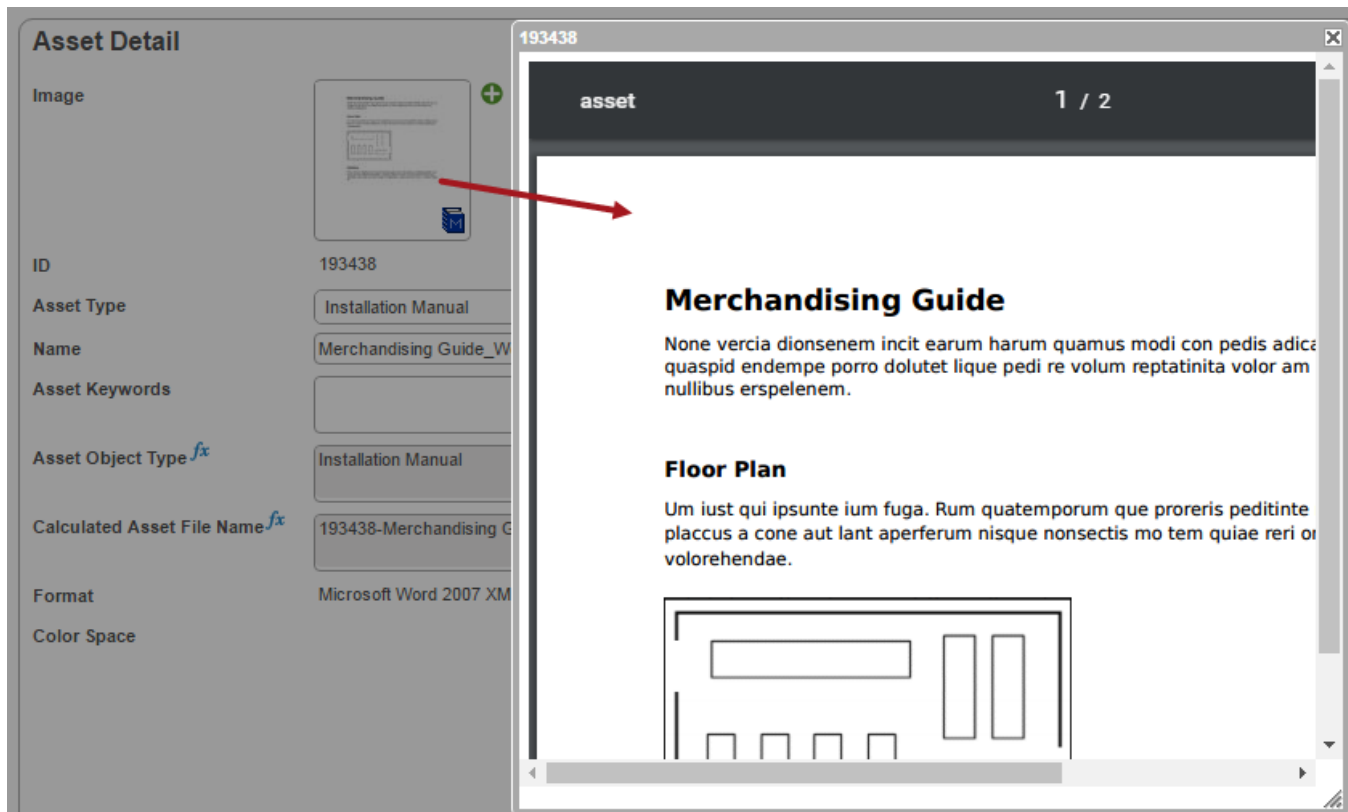
Note that all document previews (regardless of Web UI component) may not always be accurate down to fonts, image placement, etc., but they provide users the option to review the contents of the documents to ensure that they are the correct assets for the product in question.

Enhanced and scrollable Office document and PDF previews are only available on systems that have been patched with a separate recipe (in addition to the 8.1 recipe) that contains a portable version of LibreOffice, the third-party library that STEP uses to generate the previews. In addition to the normal update procedures for STEP 8.1, the following installation command must be executed:

spot --apply=to:officepreview/7.0/officepreview-7.0.1.spr

The distribution of the third party library is NOT an installed version, but a portable version, so there is no requirement to run any install scripts. If users do not wish that the library reside in the default location after it has been placed in the resources library on the server, it can be moved to another directory / partition. In that case, the following configuration property must be added to the sharedconfig.properties file in order to indicate this location. (In the default setup, STEP will identify the location automatically.)

OfficePreview.OfficeProgramPath=/path/to/libreoffice/including/version-number

Note that the LibreOffice distribution is approximately 700 MB on Linux and 500 MB on Windows. Because this recipe takes up such a large amount of disk space, the installation is optional. Without the installation, asset previews of Office and PDF documents will function as they always have. A plain DOCX thumbnail will display for

Word documents and a generic 'image' thumbnail will display for PDFs. Limited popup preview functionality will be available for the first page of PDF documents, and configurations can be applied to open PDFs in a new browser tab, but Office documents can still only be download to the users' local computer.

Also note that MS Office documents already uploaded to the system will currently not present a preview as described above. Only new documents uploaded to the STEP system will have the appropriate document preview / thumbnail.

For more information on Office and PDF document previews in Web UI, see the Asset Previews in Web UI section of the Web User Interfaces documentation.

New option to include asset content in STEPXML exports

Previously, exporting an asset required a two-step process, first exporting the data related to the asset in one form (for example STEPXML), and then exporting the digital asset itself via asset push. In another step, those two pieces of information had to be brought back together before being published for the web. Now, the STEPXML and Advanced STEPXML export formats allow a single export file to include asset content either using BASE64 encoding of binary content or by including a REST URL resource to provide a retrieval protocol. Additionally, the original asset content (source) can be exported, as well as any converted versions of the asset (based on user created image conversion configurations in STEP, excluding legacy system Image Pipeline or Script conversions). This means that multiple versions of an asset can be exported in the same file.
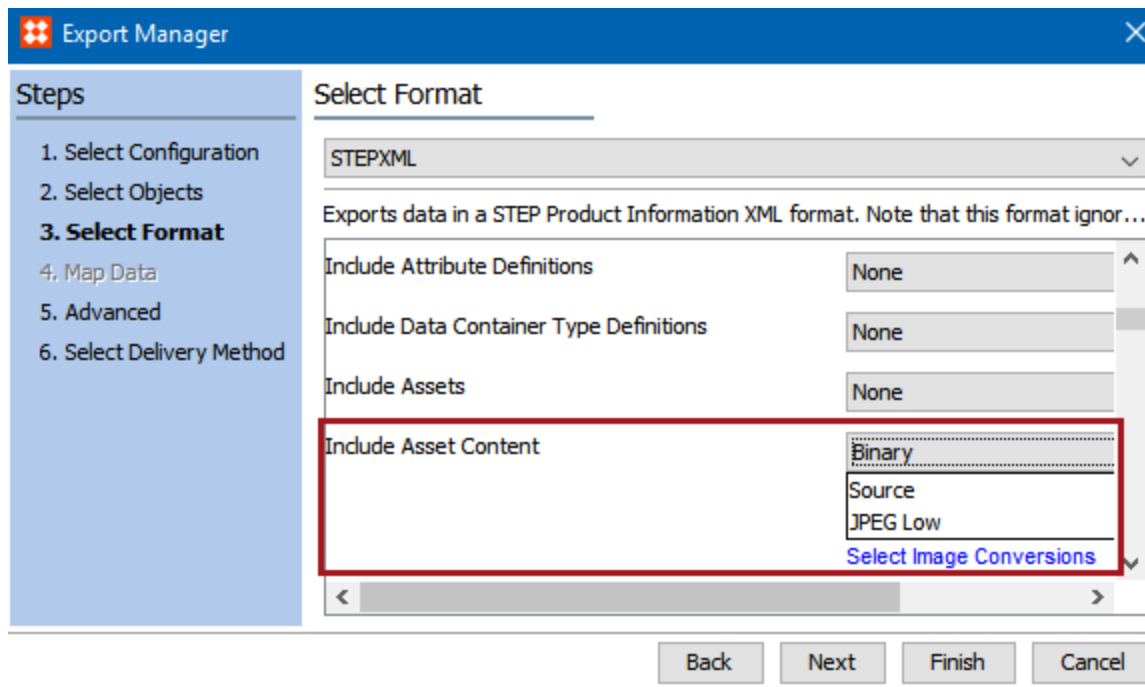
The new STEPXML AssetContent tag is used to hold conversion information, and to indicate the inclusion of Binary content or the actual relative REST URL. Additionally, the Binary option uses the new AssetBinaryContent tag to hold the conversion ID, MIME Type, a SHA checksum, and the actual binary text encoded using BASE64. External systems can use the checksum element to compare the asset in the STEPXML file with an existing version of the asset, and avoid importing an identical asset twice and to ensure that the decoded binary stream results in a valid file. These new tags are only available for export from STEP; importing with these tags is not

supported. If assets will routinely be exported with conversions, it is highly recommended to enable the new asset caching functionality (defined below in the 'New event processor and option to cache assets upon import' section) to optimize export performance.

For more information, see the Export Assets and Content with STEPXML topic in the Exporting Data and Images documentation.

New option to compress TIFF exports using LZW

TIFF files can now be LZW compressed when exporting assets both manually and via asset push. Previously, this compression method was not available for TIFF files when configuring an Image Conversion Configuration, or when manually performing an export via the Export Images and Documents wizard.

When exporting a TIFF file via the manual Export Images and Documents process, the LZW compression method can be selected alongside other compression methods listed on the File Format step. Likewise, when creating an Image Conversion Configuration for TIFF exports, LZW compression can be selected on the File Format step.
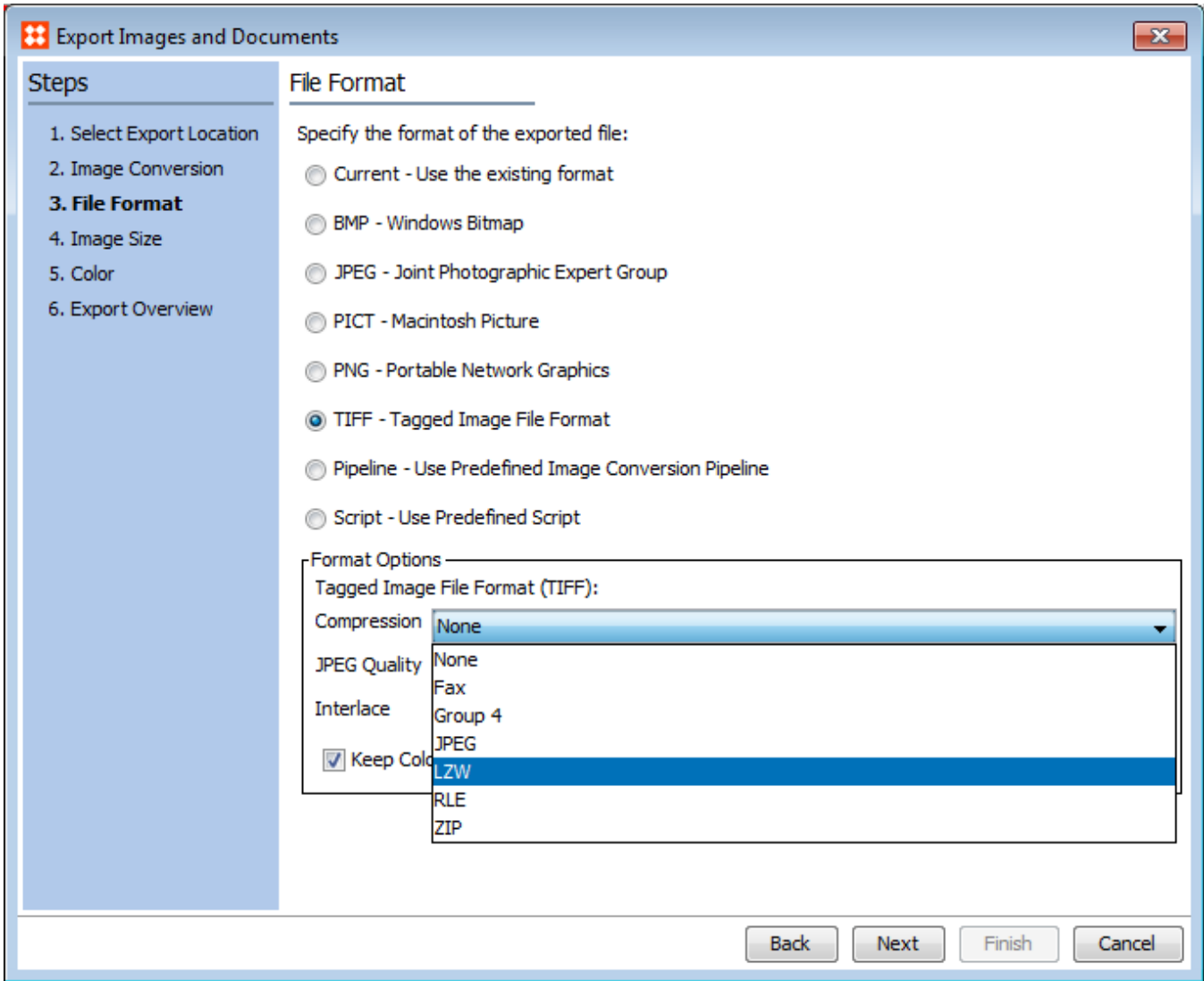
For more information, see the Step 3 - File Format section of the Exporting Images and Assets documentation.

New event processor and option to cache assets upon import

Previously, only a single image thumbnail for use in STEP was generated and cached directly during the import process. Other conversions were either not cached, or cached only on use. New enhancements to image preview and export use caching to improve performance and making it possible to list which image conversions should be cached, and if they should be cached on import or on first use. While the single image thumbnail continues to be cached in the same manner, now for performance reasons, other image caching on import is done asynchronously via configuration of the new required Image Cache event processor described below.

Additionally, a new cache step has been added to the Image Conversion Configuration wizard to define when a configuration is cached. Existing image configurations are not changed by this new feature, but can be modified to include caching if desired.
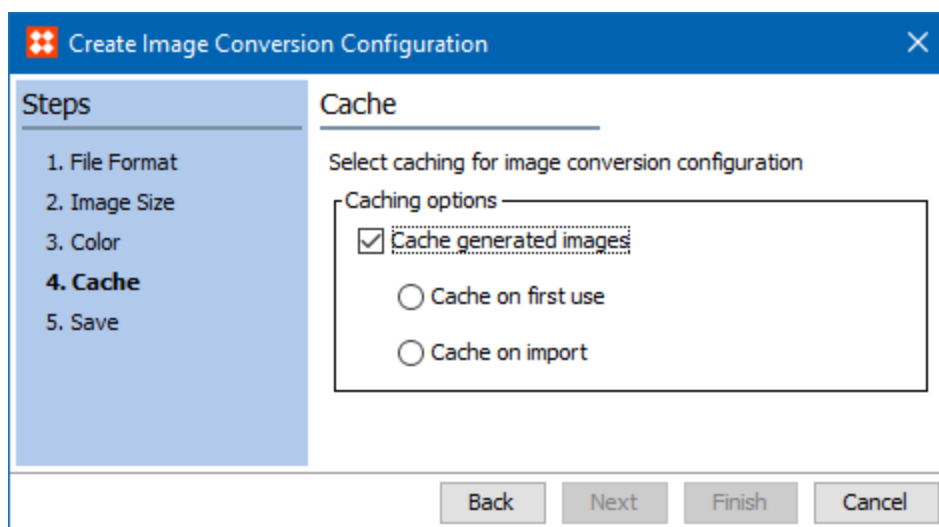
For optimal system performance, it is important to configure the new Image Cache event processor to listen for incoming selected asset object types and to apply the selected conversions automatically. All user configured image conversions that have been set to 'cache on import' are available.
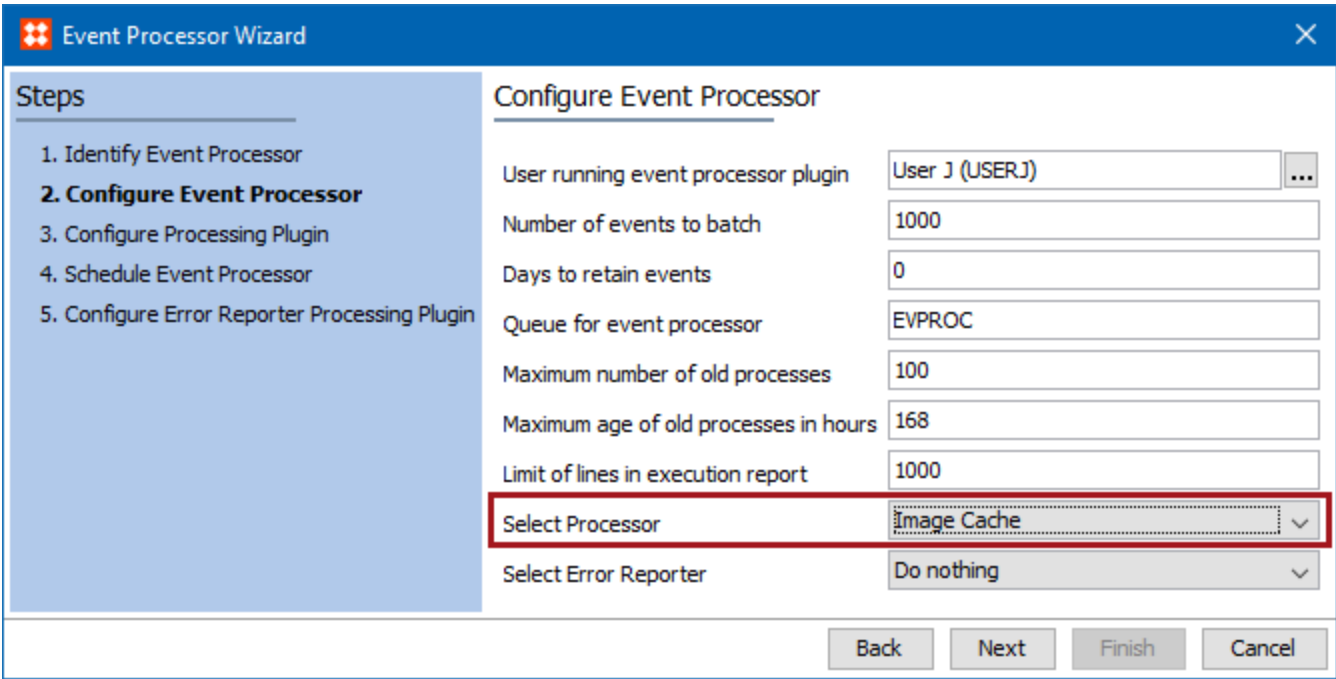
For more information, see the Event Processors section of the System Setup / STEP Super User Guide documentation.

Enhanced Integration Capabilities

Summary

A number of new features and enhancements have occurred related to STEP's integration functionalities, including imports and exports.

- Globally Revised Entities (including Golden Records) have been updated to generate events when a change is made. This means that globally revised entities now have the same event generation options as workspace revisable objects, including that an entity can be added as an event-based OIEP Event Triggering Definition object to generate exports from events.

- A new property is now available on object types to manage how objects should be locked while they are being referenced. This property, when used with object types that are commonly referenced but rarely deleted, will improve the performance and stability of concurrent actions and processes on these objects.

- The latest release (version 9.1) of eCl@ss Basic CSV format is now supported and can be imported into STEP, providing a hierarchical classification and product description system for grouping materials, products, and services. Additionally, multiple eCl@ss versions can exist in STEP, giving you access to new groupings as they become available, while leaving your existing products already linked to a different version.

- Import Manager has been updated to resolve existing issues with the United Nations Standard Product and Services Code® (UNSPSC) import format. It has also been enhanced to allow the English language version of the newest UNSPSC versions (17 - 19) to be imported directly from the .ZIP file, which makes it easier to load the UNSPSC classifications.

- Legacy hotfolders are now disabled by default, and have been replaced by integration endpoints.

- A number of bugfixes have been completed, including some **updates to export formats which constitute changes in existing behavior**, for which outputs must be checked for impacts to downstream systems.

Details

Generate events for each change on globally revised entities, including Golden Records

Previously, an event for an entity was only generated when it was approved (meaning the Revisability setting was 'Workspace Revisable') or when a change was made to a globally revisable entity that had only externally maintained attributes. Now, any entity with the Revisability setting of 'Global Revisable' also generates an event each time a change is made, and these events can be handled and acted on in the same ways as events generated on workspace revisable objects. This includes that data stored on entities, including Golden Records, can now be handled via event-based integration endpoints, in the same way that data stored on other object types has previously been handled. Specifically, that an outbound endpoint can be set up to listen for changes on entity object types via the Event Triggering Definitions tab, and data is then passed to downstream systems as defined by the configuration of the endpoint. For more information, see the Entities section of the Getting Started / STEP User Guide documentation.

New reference data editing optimization option

A new property, 'Reference Target Lock Policy', has been added to the Assets, Entities, Classifications, and Products object types. This property can be set to 'Relaxed' or 'Strict' depending upon the type of behavior that is expected, and has the potential to increase the performance and stability of parallel inbound imports, bulk updates, and users concurrently creating references to the same objects. For more detailed information regarding this change, please see the 'New reference data editing optimization option' section of Miscellaneous Bugfixes and Minor Enhancements section of these release notes.

Support for eClass version 9.1

The eCl@ss Classification Import wizard can now process version 9.1 of eCl@ss Basic CSV format, in addition to previous versions 8.0, 8.1, and 9.0. Multiple eCl@ss versions will be created in separate folders in the tree and can exist simultaneously within STEP. Related attributes for all versions are created in the same attribute group.
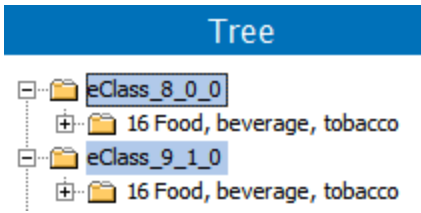
For more information on importing an eCl@ss hierarchy, see the Importing an eCl@ss Classification Hierarchy section of the Import Manager documentation.

Support for UNSPSC versions 17, 18, and 19

UNSPSC is a global classification framework for products and services in all industry sectors. Importing a UNSPSC file creates STEP classification folders in English, including multiple levels, based on the contents of the import file.
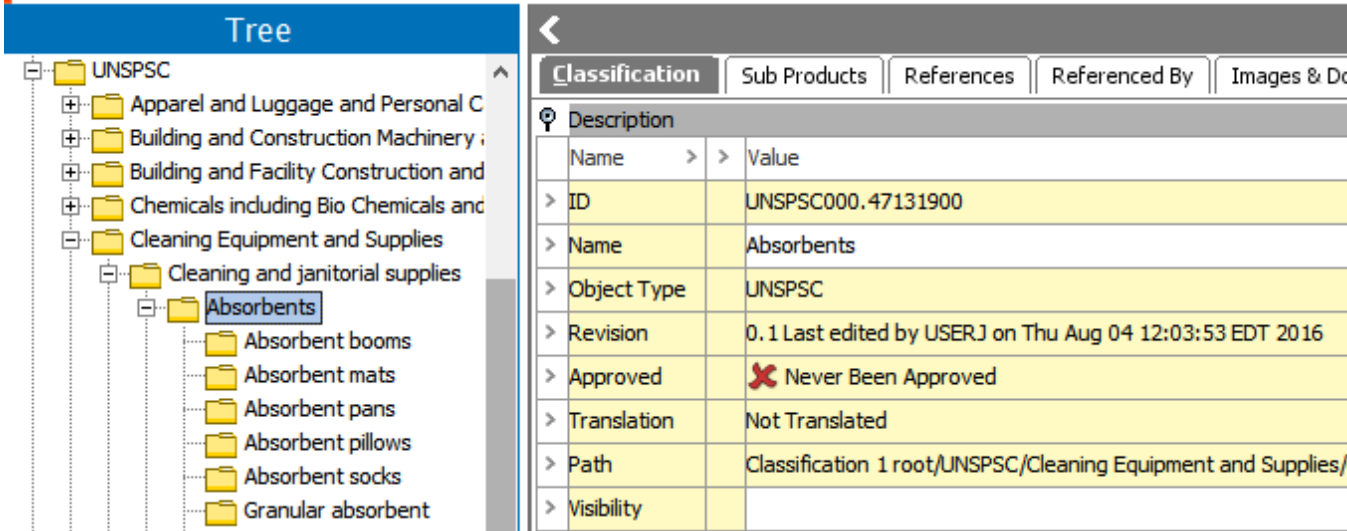
Previously, importing any version of a UNSPSC file required extracting an Excel file from a .ZIP file prior to import. Now, the newest UNSPSC versions (17 - 19) can be imported into STEP directly from the .ZIP file.

For UNSPSC versions 16 and earlier, the Excel file has six (6) tabs: AuditLog, Library, Segment, Family, Class, and Commodity. And, for UNSPSC versions 17 and later, the .ZIP file includes six (6) individual .TXT files that contain the same data as the tabs provided in the Excel file used with earlier code versions.

Note that although UNSPSC versions 18 and 19 include multiple languages, English is the only language imported into STEP.

For more detailed information, see the UNSPSC Format section of the Import Manager documentation.

Legacy hotfolders disabled

With the introduction of integration endpoints, legacy hotfolders used for data import have become redundant. On new STEP installations and any existing system that updates to Trailblazer 8.1, legacy hotfolders are now disabled by default.

Legacy hotfolders can be re-enabled by setting the configuration parameter "EnableLegacyHotFolders=true" in sharedconfig.properties. **Any customers using hotfolders for translations will need to set the property to 'true' following an update to Trailblazer 8.1 as inbound integration endpoints are not supported for translation workflows.**

SCRAM-SHA-1 authentication now supported in Mongo integrations

In outbound integrations using Mongo DB, SCRAM-SHA-1 authentication is now supported. The Mongo Adapter automatically determines which authentication schema should be used, and SCRAM-SHA-1 is attempted by default for Mongo release 3.X. Previously only MongoDB-CR authentication was supported, which continues to be supported for backwards compatibility. However, new integrations will be able to automatically take advantage of the SCRAM-SHA-1 authentication method.

Integration Bugfixes

◆ Corrected bug in STEPXML exports using dimension-dependent LOVs

Previously, an event-based integration endpoint that was triggered by the removal of a value on a dimension-dependent LOV attribute incorrectly output the LOV value ID of the *deleted* value in the ValueGroup. This occurred only when the following conditions were met:

1. An event-based OIEP was configured for multiple contexts, with an event type of modify, using an Advanced STEPXML format where the template included ExportDeletedData="true"
2. Event triggering definitions for the OIEP included an attribute with validation base type of LOV
3. The LOV used in the above attribute used value IDs, was dimension dependent, and was not externally maintained
4. An object using the above was updated, specifically so that the attribute previously had an LOV value which was removed, leaving the value blank

This issue has been corrected so that the LOV value ID is no longer included in the output when the value has been deleted. **Note that this constitutes a change in existing behavior** of the output of any OIEPs meeting the full set of conditions above.

For example, consider the 'Status' attribute, which meets the criteria defined above and is handled by an OIEP.

This attribute uses a language-dependent LOV, with values and value IDs as shown below:

Selecting the values displayed in the image above, approving the object, and invoking the OIEP has previously (and continues to) output the following STEPXML:

```xml
<ValueGroup AttributeID="Status" ID="182209" Changed="true">
  <Value ID="182209" LOVQualifierID="en-US" Changed="true">Discontinued ENG US</Value>
  <Value ID="182209" LOVQualifierID="Danish" Changed="true">Discontinued DAN DK</Value>
</ValueGroup>
```

Next, the LOV value is removed (leaving the attribute blank), the object is approved, and the OIEP is invoked.

Previously, the STEPXML incorrectly included the deleted LOV Value ID, although the value text was blank.

```
<ValueGroup AttributeID="Status" ID="182209" Changed="true">
  <Value LOVQualifierID="Danish" Changed="true"></Value>
  <Value LOVQualifierID="en-US" Changed="true"></Value>
</ValueGroup>
```

Now, the STEPXML output correctly shows that the attribute has been changed and no longer includes the removed value ID.

```
<ValueGroup AttributeID="Status" Changed="true">
  <Value LOVQualifierID="Danish" Changed="true"></Value>
  <Value LOVQualifierID="en-US" Changed="true"></Value>
</ValueGroup>
```

◆ **Corrected bug in 'Copy context dependent values and references' OIEP post-processor**

Previously, an OIEP configured with multiple contexts and the 'Copy context dependent values and references' post-processor exported single value attributes only once (as expected), but exported all multi-value attributes per context, even when they were not dimension dependent. This caused the output to include more data than necessary, for example, generating the same value for each context as if they could be different, even though the dimension dependent setting made that impossible. Now, a multi-value attribute that is not dimension dependent will have each value output only once, in the same way single value attributes are output. **Note that this functionality constitutes a change in existing behavior**.

For example, consider this OIEP that uses the post-processor and has multiple contexts:

The OIEP is configured to listen for changes on two multi-valued attributes:

- Attribute 'Manufacturer Dual' with Dimension Dependencies = Language
- Attribute 'Manufacturer Dual No Dim Dep' with Dimension Dependencies = {none}

These attributes have values for the two contexts being exported by the OIEP, as displayed in the image below:

Previously for multi-value attributes, the STEPXML incorrectly included context ID and repeated the same values for each context, even when the attribute was not dimension dependent.

```
<MultiValue AttributeID="ManufacturerDual" Changed="true">
  <Value ContextID="Context1" QualifierID="en-US" Changed="true">ACME</Value>
  <Value ContextID="Context1" QualifierID="en-US" Changed="true">CALLA</Value>
  <Value ContextID="Context6" QualifierID="Danish">ACME DK</Value>
  <Value ContextID="Context6" QualifierID="Danish">BROXCO DK</Value>
  <Value ContextID="Context6" QualifierID="Danish">CALLA DK</Value>
</MultiValue>
<MultiValue AttributeID="ManufacturerDualNoDimDep">
  <Value ContextID="Context1" QualifierID="Qualifier root">ACME</Value>
  <Value ContextID="Context1" QualifierID="Qualifier root">BRIXCO</Value>
  <Value ContextID="Context6" QualifierID="Qualifier root">ACME</Value>
  <Value ContextID="Context6" QualifierID="Qualifier root">BRIXCO</Value>
</MultiValue>
```

Now, the STEPXML output correctly includes context information for multi-value attributes only when the attribute is dimension dependent. For non-dimension dependent attributes, a single set of values is output. The output now matches that for single-value attributes.

```
<MultiValue AttributeID="ManufacturerDual" Changed="true">
  <Value ContextID="Context1" QualifierID="en-US" Changed="true">ACME1</Value>
  <Value ContextID="Context1" QualifierID="en-US" Changed="true">CALLA</Value>
  <Value ContextID="Context6" QualifierID="Danish">ACME DK</Value>
  <Value ContextID="Context6" QualifierID="Danish">BROXCO DK</Value>
  <Value ContextID="Context6" QualifierID="Danish">CALLA DK</Value>
</MultiValue>
<MultiValue AttributeID="ManufacturerDualNoDimDep">
  <Value QualifierID="Qualifier root">ACME</Value>
  <Value QualifierID="Qualifier root">BRIXCO</Value>
</MultiValue>
```

◆ ISSUE-227994 - Fixed a problem with endpoint sensors reporting warnings on background processes marked as succeeded

If an IIEP ran and ended with a status of Completed with Errors, the errors could be subsequently marked as handled, which would then cause the background process to report the import as succeeded. However, the monitoring available in the admin portal would still report the status as having errors. This has been corrected so that the reporting is aligned and imports that have had errors handled are reported as having succeeded in both locations.

◆ ISSUE-250569 - Fixed a bug for importing STEPXML files in Single Update Mode

When importing a STEPXML file where the STEP-ProductInformation tag had the SingleUpdateMode attribute set to Y, and another update blocked the process from entering single update mode, a null pointer exception would be thrown and the background process would fail. This has been corrected.

◆ ISSUE-251923 - Corrected an entities export issue for MongoDB

Added support for entities with the 'FlattenHierarchy' exporter configuration attribute.

◆ ISSUE-254478 - Fixed a bug in the export of product overrides

Fixed a problem with the export of product overrides. The change indicators were not working when the option to export inherited values was chosen. This has been corrected.

◆ ISSUE-254552 - Corrected an issue for Gateway integration endpoints with a REST configuration

Gateway integration endpoints with a REST configuration would sometimes fail with an exception in a third-party library because the code could not find a particular exception from another third-party library. A change in the gateway component has been made to allow the third party library to access the exception.

◆ ISSUE-248187 - Improved performance with a bugfix related to optimistic locking errors

Performance improvement for the importer. When encountering an error on an import of a node, the application cache would be flushed. This flushing is only required for optimistic locking errors, where the node has been modified by another process since the importer has read the node. The importer has therefore been changed to only flush the cache when retrying a node that failed due to an optimistic locking error.

◆ ISSUE-247891 - Fixed an issue with warnings being reported as errors in email reports for integration endpoints

Fixed an issue with warnings being reported as errors in email reports for integration endpoints.

◆ ISSUE-215246 - Corrected XSL-transformation template for Ariba 3.0

XSL-transformation template for Ariba 3.0 contained incorrect tabulation for different data-blocks. The template was corrected to have the indents for the DATA-block only.

◆ ISSUE-216581 - Fixed a bug in the inbound integration endpoint

When an inbound integration endpoint that uses a hot folder receiver fails, the file that contains errors should be moved to the failed folder. This did not happen and an error message was reported to the server log. Fixed so that the file is now moved to the failed folder in case of an error and no error message is written in the server log.

◆ ISSUE-235918 - Fixed an import issue importing terms into STEP

Fixed potential error from when importing terms into STEP in parallel. Previously the importer could fail with a database unique constraint error (inserting into SUPPLIERNAME).

◆ ISSUE-254307 - Fixed a bug in the background process lock exception

A failed background process should disable the endpoint and suspend the currently running and waiting background processes started by the endpoint, when the endpoint is configured to run in strict transactional mode. This is done by started a "Suspend BGPs" background process. However this background process

was not started immediately but at a later state causing unpredicatable optimistic lock exceptions in some cases.

Enhanced Dun & Bradstreet Integration

Summary

The enhanced Dun & Bradstreet (D&B) integration focuses on easily improving company structures through Data Universal Number System (D-U-N-S) number matching functionality and company information enrichment.

Enhancements include:

- A new D&B Integration component model
- Automatic setup of D&B specific attributes, workflows, business rules, and more
- Access to two levels of licensed D&B D-U-N-S number information (matching and detailed company profile enrichment)
- A new Web UI screen (D&B Match Candidates)

Finally, the D&B integration, once set up in STEP Workbench, can be used by the Web UI for D&B matching and detailed company profile enrichment. This enhanced D&B Integration replaces the D&B D-U-N-S number lookup function previously available via the Web UI. Previous functionality was less robust and required manual setup to use.

Details

With the enhanced D&B integration, STEP pulls data from D&B, matches STEP records to the D&B data, and then, the company data in STEP can be enriched by the D&B data. To automatically enrich STEP company data with D&B data, the following elements have been developed:

Automatic setup

An automatic setup option is available and is initiated in the STEP Workbench. This setup creates D&B-specific attributes and data containers in a designated D&B attribute group. Additionally, during setup, D&B-specific business rules, event processors, mapping configurations, and workflows are all created to aid in D&B matching and detailed company data enrichment. While users can use this out-of-the-box solution, these resources can also be used as it fits the customer's business need and data model.

Component model

A new D&B Integration component model contains the configuration of the entity object types, reference types, and attributes necessary for the matching and detailed company profile enrichment functionality to work.

Matching

To aid in enrichment of STEP records, STEP will make a match request to the D&B system to gain access to the D-U-N-S number--which is the ID provided to all registered D&B companies. The D&B data integration allows for users to find match candidates for customer records. If multiple candidates are found, users can evaluate those results based on designated criteria to chose the best match, and select one of those candidate D&B records. If there is only one matched candidate, that record will be automatically linked to the D&B record.

Detailed company profile

Enriching company data improves the overall quality of the data stored in STEP. After the matching process is complete and reference to a D&B record is created, detailed company profile enrichment can be done for the customer record.

To access and use the D&B functionality, the following installation command must be executed in addition to the normal update procedures for STEP 8.1, and after the STEP 8.1 mp4 or later maintenance patch is applied:

spot --apply=to:dnb-integration/7.0/dnb-integration-7.0.1.spr

For more information, see the Dun & Bradstreet section of the Data Integration documentation.

Smartsheet Enhancements

Summary

Enhancements to existing Smartsheet functionality have been made in two areas:

- Standard Excel filtering functionality is now accessible in Smartsheets, allowing users to navigate large Smartsheets more easily. Rows hidden in this fashion may be ignored during validation, when resolving errors, and when importing the Smartsheet via Web UI.
- It is now possible to duplicate and delete entire rows from a Smartsheet, allowing users to avoid duplicate work and save time.

Details

New option to filter rows in a Smartsheet

Previously, filtering rows in Smartsheets was not possible, making it difficult to navigate especially large files. With the release of Trailblazer 8.1, the standard Excel filtering options are now available, allowing users to hide rows from view and/or exclude hidden rows from validation and import. This functionality is available for both Multi Level and Multi Object Smartsheet types, and can be used with both data exports and template exports. Filtering must be enabled in the Smartsheet template configuration in order to access this functionality. For backwards compatibility, filtering is disabled by default.

Filtering can be performed via the column dropdown menu or by manually shrinking a row's height to '0'.
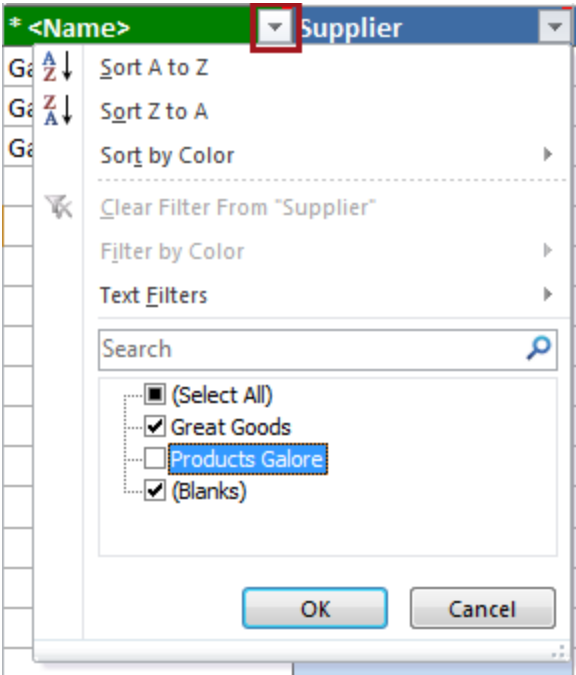
When attempting to validate a sheet with filtered rows, users have the option to either ignore the hidden rows during validation or to reveal and validate them via a checkbox on the validation dialog. If the user chooses to ignore hidden rows, they will not be considered for the validation or when resolving errors.

Users also have the option to ignore hidden rows when importing Smartsheets via Web UI. In these cases the background process for the import indicates how many hidden rows have been skipped.
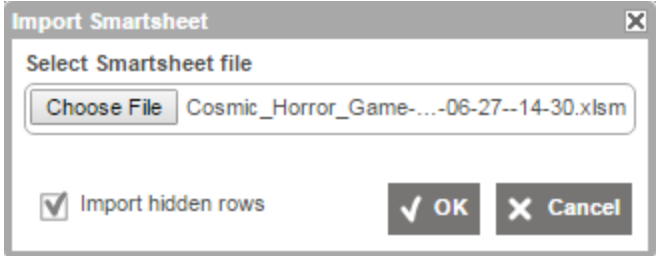
For more information about configuring row filtering, see the 'Smartsheet Data and Template Configurations' section of the 'Smartsheets' documentation.

For more information about using row filtering, see the 'Using a Smartsheet' section of the 'Smartsheets' documentation.

New options to duplicate or delete rows in a Smartsheet

Previously, duplicating rows in a Smartsheet was not possible as the standard Excel copy and paste functions are disabled. This often resulted in extra work and wasted time. With the release of Trailblazer 8.1, two new buttons can be added to Smartsheets which allow users to both duplicate and delete entire rows in a Smartsheet. This functionality is available for both Multi Level and Multi Object Smartsheet types, though only with Template Export.
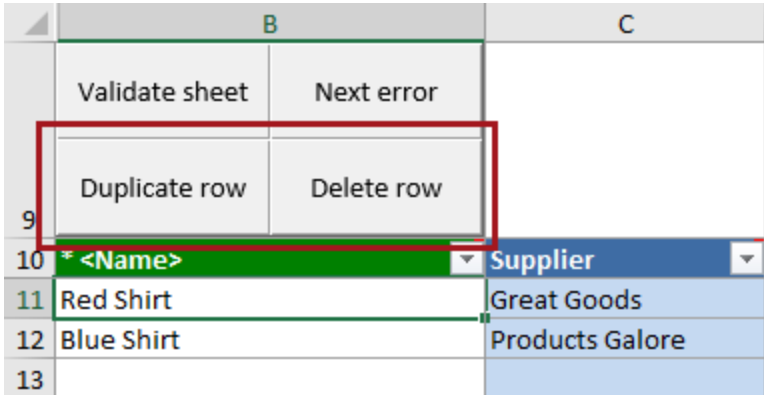
One row can be duplicated at a time by selecting it and clicking the new 'Duplicate row' button. The data in the selected row will be automatically pasted into the first empty row at the bottom of the sheet. Note that there is no undo function for the duplicate, and it must be manually deleted using the 'Delete row' button.

For more information about configuring row duplicating / deleting, see the 'Smartsheet Data and Template Configurations' section of the 'Smartsheets' documentation.

For more information about using the row duplicating and deletion functions, see the 'Using a Smartsheet' section of the 'Smartsheets' documentation.

Smartsheet Bugfixes

◆ ISSUE-232833 - Fixed a validation issue in Smartsheets

Fixed a validation issue in Smartsheets where existing invalid rows would still be marked as invalid if they were empty in the Smartsheet. When a sheet had been validated and a row with errors was subsequently removed, the removed row would continue to show as errored in subsequent validations. This has been corrected.

◆ ISSUE-253170 - Corrected bug in Smartsheet authentication

An issue occurred where Smartsheet authentication using LDAP was not working properly unless the authenticating user was also logged into Web UI. This has been corrected.

◆ ISSUE-254810 - Fixed a bug in the validation of maintenance Smartsheets

Validation of maintenance Smartsheets could, under certain circumstances, result in a runtime error. This has been fixed.

◆ ISSUE-238762 - Corrected a privilege error bug in Smartsheet imports

Previously, certain attribute values in Smartsheets could cause privilege errors even though they were read-only in the downloaded Smartsheet. This could result in a lot of cells being marked as failed in the Smartsheet, causing errors to generate during import, resulting in excessively large error files resulting from the import. Now, cells marked as read-only in the sheet are excluded from online validation and import. During online validation, read-only cells are reevaluated and might still, in rare cases, become accessible due to change of privileges or a different validating user. Notice that conditionally invalid cells are still included in validation and import.

◆ ISSUE-249133 - Corrected a validation issue importing smartsheets and quicksheets

Previously the Smartsheet/Quicksheet communication with the STEP server could fail during online validation. This could be triggered by some character sequences in Sheet data, depending on language setting for the client computer. This has now been fixed by ensuring that all data are now transformed to and from valid transport format during all communication.

Improved Handling of Attribute Values

Summary

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

- A new compact value storage model has been implemented to improve performance and the memory footprint for the In-Memory Solution.
- The functionality for merging attribute values has been improved and consolidated into a single bulk update operation (available via right-click on any attribute). This provides easy access to comprehensive value merging.

Details

New compact value storage reduces memory requirements

Starting with Trailblazer 8.1, values for new attributes that are not based on an LOV will be stored in a different way that requires less memory for customers using the In-Memory Solution. The new storage model also allows for faster reading and writing of values which generally improves the performance of the system. A tool to migrate values for existing non-LOV attributes to the new storage model is under development and will be made available as soon as possible.

It is important to note that this change impacts the SQL API. With the old way of storing values for non-LOV-based attributes, the SQL API view entities 'value_v', 'value_all', 'valuelink_v', and 'valuelink_all' could be used for retrieving values for all attributes. Values for non-LOV-based attributes stored in accordance with the compact value storage model can no longer be obtained via these and other previous value view entities. Instead, newly introduced view entities 'simplenodevalue' and 'simplelinkvalue' must be used. Both of these view entities can be used for LOV-based and non-LOV-based values. The new functionality makes it possible to filter the values by the actual context and workspace, in addition to filtering by node using 'simplenodevalue' entity and by link using 'simplelinkvalue' entity.

For more information, see the SQL API section of the STEP API documentation.

Improved attribute value merge functionality

Previously, attribute values could be merged using the Merge Attributes wizard, which was started by right-clicking an attribute and always use Main as the target. The Merge Attributes wizard did not run in a background process, required single update mode, and did not allow selection of an overall strategy (overwrite vs. keep original) for value updates. For these reasons, the Merge Attributes wizard has been removed. As a replacement, the bulk update 'Merge Attribute Values' operation addresses all of those issues, and has been improved further. This Bulk Update wizard operation was previously accessible from the 'Merge Attribute' button on an attribute's References tab under the Value Distribution flipper. Now this Bulk Update wizard operation is more readily available using the new 'Merge Attribute Values' option via right-click on an attribute, from the Maintain menu using 'Merge > Attribute Values', as well as by starting the Bulk Update wizard from any of its other locations.

Previously, the Merge Attribute Value operation required special setup to use source attribute values from a workspace other than Main. Now, a new Source Workspace parameter allows easy selection of any available workspace and writes those values to the target attribute in the current workspace. For more information, see Merging Attribute Values in the System Setup / Super User Guide documentation.
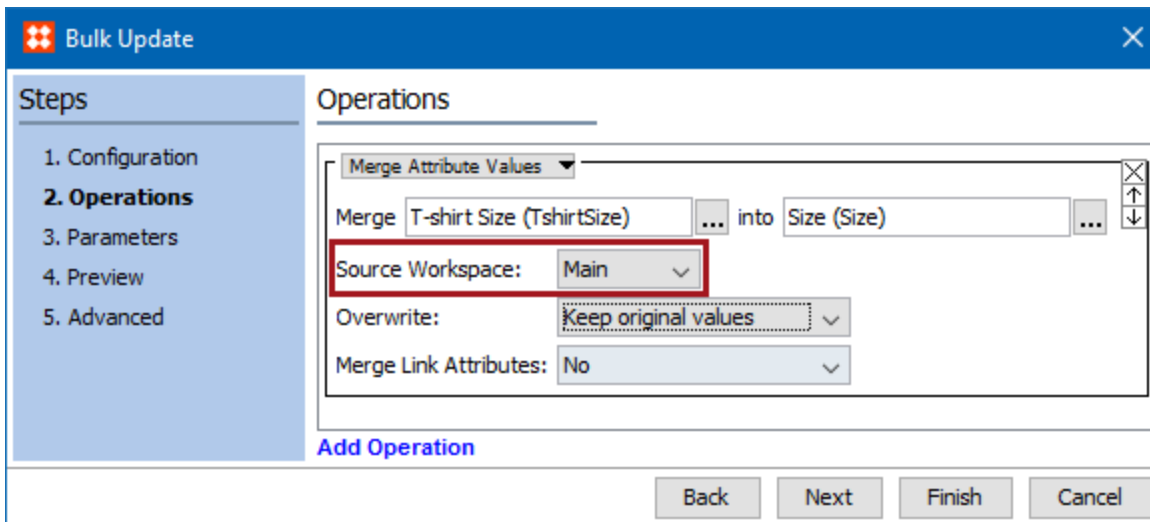
Attribute Value Bugfixes

◆ **ISSUE-255123 - Fixed a bug in the description table on the product values editor in workbench**

Calculated description attributes with multi-line results caused the Description table on the product values editor in the workbench to visually truncate the lower part. This has been corrected.

◆ **ISSUE-243311 - Fixed a workbench bug in the multi context editor**

Fixed a workbench bug in the multi context editor that was causing context-specific links to be shown in the same context when linked on an attribute.

New Multi-Context Comparison Tool in Web UI

Summary

There are a number of reasons that working with data in different contexts is a fundamental part of most business models, such as doing business across international markets. Web UI users are now able to view and maintain attribute values, references, and aspects in multiple contexts simultaneously within one screen. Functionality to create and maintain object data in multiple contexts side-by-side on the same screen has previously only been possible in workbench (Context Mode). In the past, Web UI users had to toggle between contexts to work with the data, which could make it difficult to get an overview of attribute values across contexts.

Details

A new screen type (Multi Context Screen) displays object data in a table where users can edit context-specific values and create / remove reference targets valid for the displayed context. Edits can be made across all contexts without having to manually change the current context. Also, end users can focus on their specific tasks by conveniently adding and removing contexts from view.

Like workbench, the Multi Context Screen displays attributes and references on separate tabs, the Hide Equal and Mark Different options are available to compare data, and users can copy / paste data in bulk. Unique to Web UI, each individual reference type that is configured to display is shown on its own tab within the Multi Context screen to allow for maintenance of metadata on the references.

When a value in one of the contexts is changed, attributes and references that are not dimension dependent will be updated across all contexts. Editable aspects (e.g., Object Type) behave in the same way as non-dimension dependent attributes / references.

Additionally, users will have the option to suppress dimension-dependent references. When enabled during configuration, the header for displaying the suppression status (Suppression Reference) is added to the screen together with the actions for suppressing a reference and removing a suppression.

	Title	Display Name	Suppression
English US	Manual ES		Visible
English US	Manual DE		Suppressed
English US	Manual FR		Suppressed
English US	Manual EN		Suppressed
French FR	Manual FR		Visible
French FR	Manual EN		Suppressed
French FR	Manual ES		Suppressed
French FR	Manual DE		Suppressed
Germany German	Manual DE		Visible
Germany German	Manual FR		Suppressed
Germany German	Manual EN		Suppressed
Germany German	Manual ES		Suppressed

For more information on configuring and using these new components, see the Multi Context Screen section of the Web User Interfaces documentation.

Dimension-dependent reference links can now also be suppressed or have suppression removed in Web UI using the Multi Reference Editor. More information on the new Multi Reference Editor reference suppression / unsuppression functionality can be found in the Streamlined User Experience in Web UI section of the STEP Trailblazer 8.1 Release Notes.

Streamlined User Experience in Web UI

Summary

A number of enhancements and new capabilities have been added to increase Web UI usability. These include:

- System administrators are now able to display messages on a Web UI login screen that can be made specific to each Web UI created on a system, allowing for easy announcement capabilities across one or more Web UIs.

- Data Profile and Workflow Profile widgets no longer rely on external sources to generate graphs and can be accessed without an internet connection.

- Users can now claim workflow tasks when viewing the relevant object in a Node Details component, allowing them to act on the object without having to first navigate to a task list to claim it.

- A new Asset Preview Screen has been added that supports configurable and enhanced asset previewing capabilities such as full-screen previews. Additionally, scrollable previews of Office and PDF documents are now available.

- The Attribute Link Editor Screen has been significantly improved with a series of configuration options including auto-save, filtering, user-added actions, and the ability to configure which description attributes to display.

- Updates to the Multi Revision Screen allow users to filter results based on dates and user groups, reducing the need for users to scroll and/or manage large amounts of data within the screen.

- Auto-save functionality can be enabled for Multi Workspace and Multi Language screen types allowing a user to work with object data without the risk of losing edits and eliminating the need to frequently stop and save data.

- Web UI designers are now able to customize icons and labels for user-added toolbar actions, simplifying the use of Web UI for end-users since they can more easily distinguish between actions.

- Web UI tables have been updated to include a row / column checkbox for clear selection identification, aligning the STEP Web UI selection options with common selection principles of other web applications; additionally, a new icon is available to activate the details panel, if set up and/or applicable to the node view.

- User view icon, language selection, and the transpose / flip icons are now in new, more relevant positions on the screen.

- Improved reference suppression functionality has been added, aligning the capabilities between the workbench and Web UI. Dimension-dependent reference links can now be suppressed or have suppression removed in Web UI using the Multi Reference Editor.

- The Export Action component has been updated with an option that allows data to be exported from the current context when a non-STEPXML export configuration is used. This allows users to export the data they are working with, rather than data from the context stored in the configuration.

- The Web UI Designer Reference Guide has been deprecated and removed from the online help, ensuring that users are only accessing the auto-generated and up-to-date content available at [system]/webui/docs.

- A number of minor bugfixes have been completed.

Details

New option to add additional content to login page

STEP now offers system administrators the ability to post announcements on their Web UI login screens. Previously, there was limited means to provide Web UI users with on-screen information (e.g., updates, system maintenance) pertinent to their usage of the Web UI. With the advent of the highly configurable announcement feature, administrators can be assured that information important to the Web UI users is viewed.
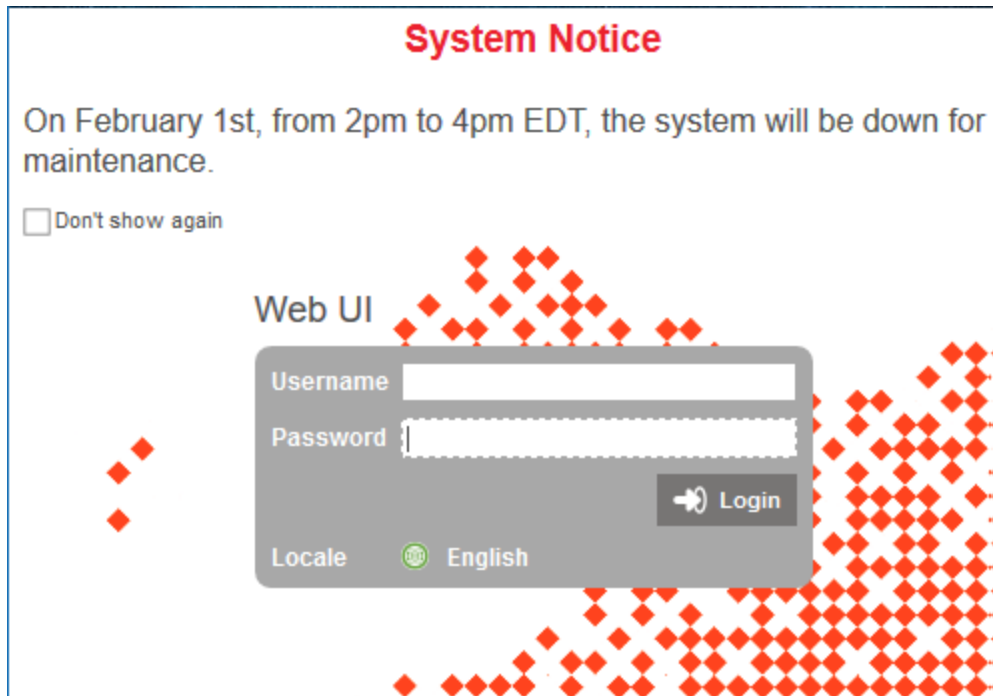
Additionally, for STEP users with multiple Web UIs, the messages can be tailored to each of them. For instance, a customer-specific Web UI can have one message configured to appear on its login screen, while a supplier Web UI can display an entirely different message. This level of granularity is available for as many Web UIs as are configured on a STEP system.

This feature will accept .txt files for announcement messages consisting strictly of plain text content. STEP's default HTML styling for plain text messages generates a clear and visually pleasing announcement display above the login dialog. The announcement feature also accepts .html files. Using .html files, the entire space allotted to the message may be customized (within a set of pre-defined parameters) to allow for variable font types and sizes, images, and placement of text and image elements.

For more information on the announcement feature, please see the Adding Announcements to the Login Page topic in the Web User Interfaces documentation.

New graphs for Data Profile and Workflow Profile widgets

Previously, the Data Profile and Workflow Profile graph widgets required an internet connection to display. With Trailblazer 8.1, these graphs no longer rely on external sources and can be generated without an internet connection.
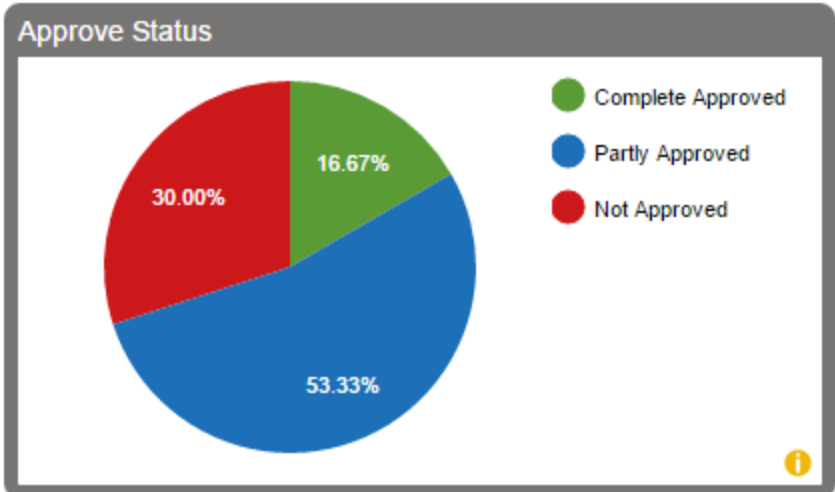
Affected widgets include:

- Data Profile Data Profile Approval Status Widget
- Data Profile Data Attribute Values Widget
- Data Profile Average Object Completeness Widget
- Data Profile Business Condition Status Widget
- Data Profile Object Type Count Widget
- Data Profile Transition Status Widget
- Workflow Profile Historical Data Widget
- Workflow Profile Live Data Widget

Some of the new graphs come with enhanced features, such as the ability to hide specific values from a pie chart by selecting them in the legend.
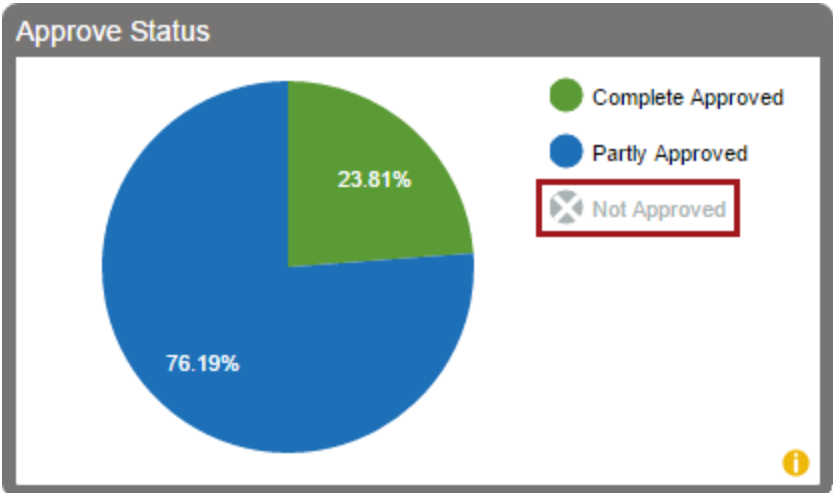
For more information on the affected Data Profile Widgets, see the Data Profile Widgets in Web UI section of the Web User Interfaces documentation.

For more information on the new Workflow Profile widgets, see the Workflow Enhancements release note.

New option to claim tasks from details pages

Users are now able to assign a workflow task to themselves from a Node Details component if a 'Task Assignment Action' button has been added to the screen. See the Workflow Enhancements section of this document for additional information.

New asset management and preview capabilities

A new Asset Preview Screen has been added that supports configurable and enhanced asset previewing capabilities such as full-screen previews. Additionally, scrollable previews of Office and PDF documents are now available.

For more information, see the Enhanced Digital Asset Management Capabilities section of the STEP Trailblazer 8.1 Release Notes.

Improved Attribute Link Editor Screen

The Attribute Link Editor Screen has been updated to include a series of configurable options. Previously, the Attribute Link Editor Screen did not allow any configuration. These improvements give users much the same flexibility managing attribute links in Web UI that they have in the workbench. New properties include options to:

- Add or remove the three action buttons (Create, Remove, and Make Attribute Link Local) individually.
- Hide or display the standard buttons that display when applicable (Select all / Clear all, Clear filter).
- Enable auto-save.
- Allow filtering of table data.
- Configure which metadata attributes display in the attribute link table, so that only relevant information is presented to the end user.
- Configure default table orientation.
- Render the table or specific columns as read only.

Below is an example of how a user might configure the display of the Attribute Link Editor.

For more information on how to configure the Attribute Link Editor Screen, see the Configuring the Attribute Link Editor Screen topic in the Web User Interfaces documentation.

Improved Multi Revision Screen

The Multi Revision Screen has been enhanced to give users more flexibility when using and reviewing revised object data. Instead of automatically displaying all revisions for an object, which can be resource consuming and not user-friendly, now the five (5) latest revisions (if existing) are displayed per object. Users can then use the new filtering option to search *all* revisions by date or by user group(s).

Date searching includes a variety of date range selections and also an option to select multiple single dates. If, upon filtering, more than 20 revisions exist, then the user is presented with a message requiring confirmation that they acknowledge the time it will take to return and display the full set of revisions.

For more information about configuring and using a Multi Revision Screen, see the Multi Revision Screen topic in the Web User Interfaces documentation.

Auto-save capabilities added to additional screen types

The 'Use Immediate Save' parameter, newly added to the Multi Workspace Editor and Multi Language Editor properties, allows for data to be automatically saved within the editor table immediately after a user clicks out of a data cell while working in Multi Workspace and Multi Language screens. Prior to the STEP Trailblazer 8.1 release, this functionality was only available to use with the Multi Edit Display Mode component within a Node List.

Users no longer risk losing data when navigating away from the screen, nor do they need to go through the extra step of manually clicking the save icon, which will be removed from the right side of the screen once the parameter is enabled.
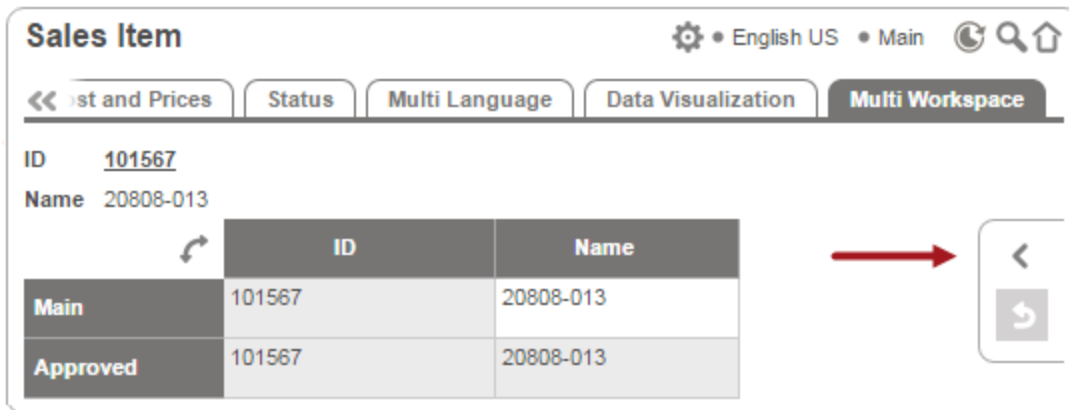
For more information, see the Multi Language Screen topic and the Multi Workspace Screen topic from the Web User Interfaces documentation.

New option to provide custom icons and labels for toolbar action buttons in Web UI

Previously, Node List toolbar action buttons were displayed only as icons, and the user had to hover over the icon to get a tooltip explaining what the action button did. Now descriptive labels below icons show on all toolbar action buttons by default, with an option to disable this feature for backwards compatibility if desired.

Standard toolbar actions (such as 'Select all' or display mode selection icons) include fixed labels and icons, while administrators can configure user-added actions with distinct custom text and icons. This makes for a more user-friendly interface where users can quickly distinguish between the various toolbar actions, especially when multiple actions of the same type are present. Customization of text labels is optional for user-added toolbar actions, and users can continue to use the default Web UI icons if desired.

The below picture displays an example of the two previous action icons on the left, 'Export' and 'Excel export all'. These two different export actions can only be differentiated by the hover tooltip. On the right, the new functionality is displayed where the default text and icon have been left in place for the first export action, 'Export', and a custom label and icon have been applied to the second export action, 'Excel export All'.

It is important to note that some of these user-added actions are shared between Node List toolbar actions and child actions on a Node Details Screen. Therefore, the custom label and icon parameters are available on these shared actions, though only functional when the actions are applied as toolbar actions on Node Lists.

For more information on action buttons in Web UI, see the Action Button Configuration on a Node List topic in the Web User Interfaces documentation.

Convenient checkbox selection and identification added to Web UI tables, including changes to default behavior

It is now easier for users to select objects within tables by using checkbox selection. Clicking a checkbox is a straightforward way for users to select items, and also makes deselection much easier and more obvious to the user. The checkboxes are applicable to most tables within Web UI, with the main exception being those tables in which no toolbar actions are available.

When working with tables, default behavior changes can be found in two areas. First, some action icons are hidden by default until a checkbox selection is made. These are user actions that are dependent on a selection being made before the action can be performed. Any action that is not dependent on a selection will continue to show on the screen. If objects are unselectable (no user actions available), then checkboxes are hidden from view.

Second, when the Show Details parameter is enabled for any of the applicable Node List display modes or other screens where it is functional, a new icon is provided so users can now manually choose to display the details panel instead of having the panel open automatically upon checkbox selection. This gives more control to the end user in determining what is needed to be displayed on the screen to complete their work.

The icon is shown directly to the right of the label (if a label is shown). The details icon works independently of the checkboxes and can be configured to display even when checkboxes are not applicable.

Reference type	ID	Icon	Type
☑ 555-2033_M ⦿ — Installation Manual	8801 ⚠	🖹	Installation Manual
☑ Manual FR — Owners Manual	20684 ⚠	📑	Owners Manual
☐ Manual ES — Owners Manual	20685 ⚠	📑	Owners Manual
☐ Manual DE — Owners Manual	20686 ⚠	📑	Owners Manual
☐ Manual EN — Owners Manual	6900 ⚠	📑	Owners Manual
☑ HYD543 — Primary Product Image	6901 ⚠	🔧	Product Image

Number of items : 6

Asset Detail

Image

ID 8801

Asset Type Installation Manual

Name 555-2033_M

Asset Object Type fx Installation Manual

Calculated Asset File Name fx 8801-555-2033_M

Format PDF (Portable Document Format application)

Additionally, the Title Display parameter, specific to Multi Edit Display Mode and Compare Display Mode, has been updated to allow designers to make a 'None (Checkbox Only) selection,' which means that a checkbox, if applicable, will display in front of each row (or on top of each column) and no other identifying information (object name, ID, or attribute value) will display.

Reference type	ID	Icon	Type
☐ Owners Manual	6900 ⚠	📑	Owners Manual
☐ Primary Product Image	6901 ⚠	🔧	Product Image

For more information, see the Using Checkbox Selection and Details Icons in the Web User Interfaces documentation.

Please note that as part of this enhancement, the 'Select all' and 'Clear all' actions are now combined into a single icon. This frees up toolbar space and streamlines usage.
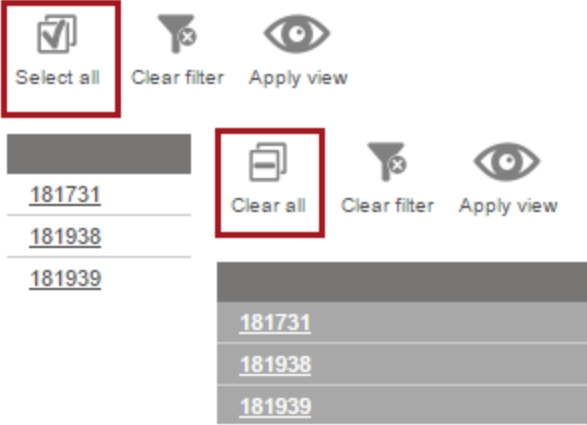
Icons repositioned for better visibility and convenience

In an effort to arrange icons so their applicability is more visible to users, the configurable view icon, the language selection icon, and the transpose / flip table icon have been moved within their applicable screens.

The configurable view icon, enabled via property settings (Node List in Multi Edit Display Mode), is now conveniently located in the header area directly above the displayed table in the toolbar (with other standard action buttons). The icon is now shown with the descriptive label 'Apply view' and continues to offer the same functionality. The language selection icon was also moved to ensure a more visible presence. It is shown below with the 'Select languages' label and is displayed automatically on a Multi Language Screen.

Both the configurable view icon and the language selection icons were previously located between the top axes of their respective tables.
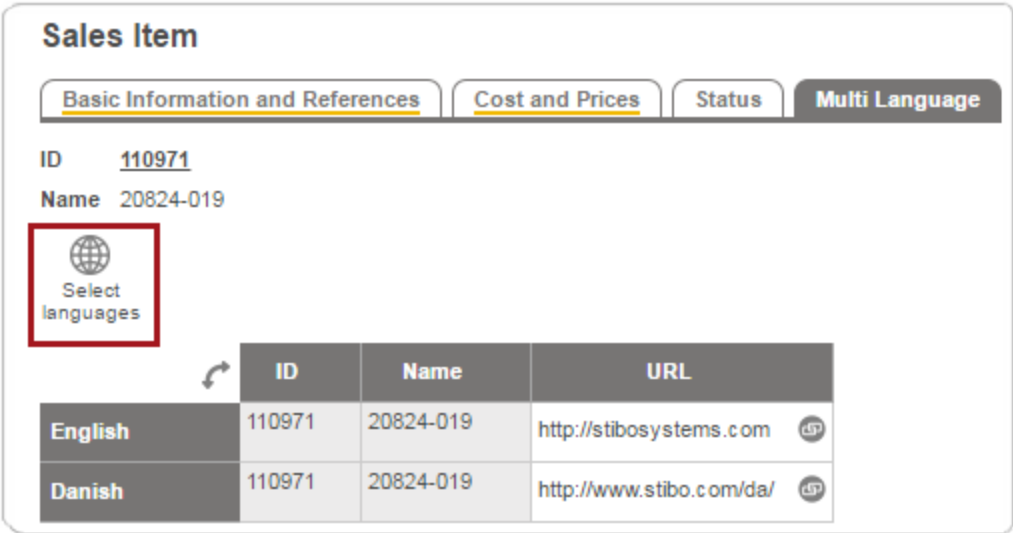
The transpose / flip table icon is now located between the table axes (directly above the row headers and to the left of the column headers). This icon, when clicked, changes the orientation of a table. Users will see the icon on any component or screen where changing the orientation of the displayed table is possible without having to enter design mode and edit property settings.

The image below shows how the configurable view icon and the flip table icon have swapped positions within a Node List in Multi Edit Display Mode.

Added flexibility in suppression of dimension-dependent references

It is now possible to suppress dimension-dependent references in Web UI using the Multi Reference component. Previously, references could only be suppressed in the STEP Workbench.

Suppression and removal of references is achieved in the Multi Reference Editor by the addition of the 'Suppress Reference' and 'Remove Suppression' toolbar actions. These configurable actions allow users to select references on an object and easily suppress or remove a suppression from within a given context. Additionally, a new 'Suppression' header type can be added to the table that will indicate whether the reference is suppressed in the current context or not.
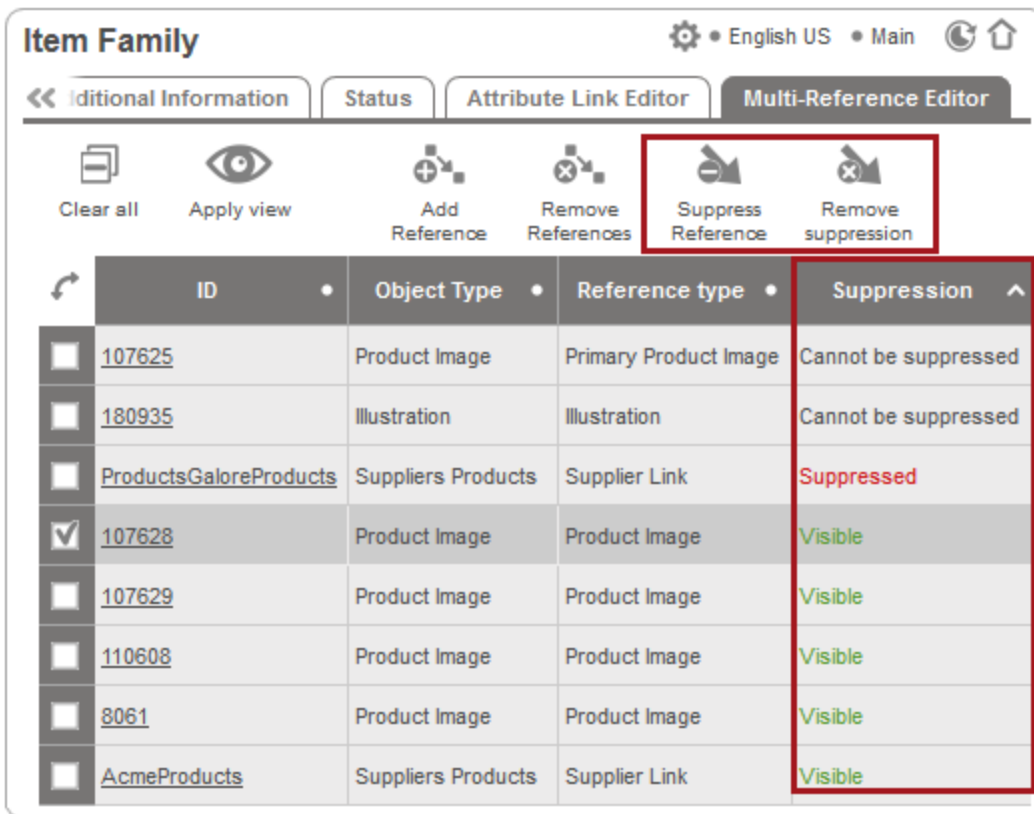
Note that the Multi Reference Editor only supports suppression of references in the context that the user is currently working in. In order to suppress references in contexts other than the current one (and to suppress references in multiple contexts from a single screen), the new Multi Context Screen should be used.

For more information regarding the Multi Reference Editor, see the Suppressing References in the Multi Reference Editor documentation.

For more information on the new Multi Context Screen, see the New Multi-Context Comparison Tool in Web UI section of the STEP Trailblazer 8.1 Release Notes.

Updated Export Action component allows export from current context

Previously, when using the Export Action component and a non-STEPXML export configuration, data was always exported from the context of the configuration. Now, when using a non-STEPXML export configuration, a new option allows exports from the current Web UI context, effectively overriding the context in the export configuration. The checkbox option is not displayed for STEPXML or Advanced STEPXML export configurations because the Export Action component has previously and continues to use the current context. For more information, see Action Buttons in the Web User Interfaces documentation.
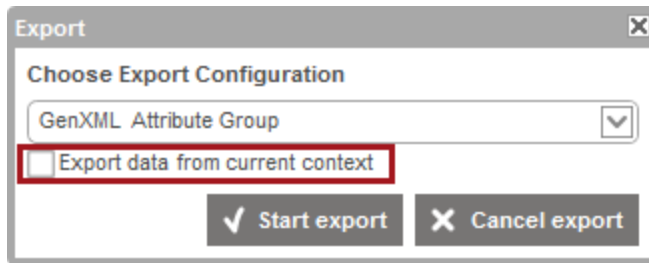
Web UI Designer Reference Guide deprecated and removed from online help

Previously, the Web UI Designer Reference Guide was available as part of the Web User Interfaces online help. However, as the material was not easily navigable and was often out of date, it has been deprecated and removed from the online help. Comparable information is available at [system]/webui/docs, which is auto-generated as new Web UI components and parameters are developed, ensuring that the material is continuously up-to-date. In addition, it is easily searchable using standard browser search tools, and includes quick links to each Web UI component, enabling users to quickly navigate to the relevant component.

Web UI Bugfixes

◆ **ISSUE-239704 - Corrected a sorting issue in the Multi-Reference Editor in the Web UI**

The Reference Metadata header in the Multi-Reference Editor in the Web UI would not sort the items correctly. This has been resolved.

◆ **ISSUE-240546 - Fixed an issue with the Download Assets toolbar in Web UI**

In the Web UI, if a user attempted to download a selection containing no assets by clicking the Download Assets toolbar action,a background process would start that did nothing. This issue has been corrected by changing the Download Assets Toolbar Action so that an error message appears if the user attempts to download a selection that contains no assets.

◆ **ISSUE-242933 - Fixed a deletion issue in the Multi Reference component in the Web UI**

In the Multi Reference component in the Web UI, there is the option to show 'Referenced by' in the list. When clicking 'Select all' and deleting the selection, none of the selected references (or in some cases even the wrong ones) would get deleted. This has been resolved.

◆ **ISSUE-248610 - Corrected a localization issue in the Web UI**

Messages that had been localized remained the same even if the user changed the Web UI localization by login, as if it was used the first time the locale was selected by login. Now the localized messages are re-initialized each time and if the user changes the locale by login, the appropriate localized messages are displayed.

◆ **ISSUE-250241 - Fixed a bug in the Web UI related to the details screen of the Task List**

There was a bug identified in the details screen of the Task List having a component that has references to the nodes. Trying to navigate to one of these nodes through the details screen would result in searching of the node that should have the same mapping for the workflow and state as the original selection from the task list, and such behavior was not desirable. Now there is an additional check for the state of node that results in a correct forming of the node selection object (with or without the state).

◆ ISSUE-253871 - Corrected an issue with deprecated reference values in Web UI

Fixed a problem with the deprecated reference values in the Web UI component where it was not possible to unsuppress a suppressed asset if attributes had been specified for 'Linked Object Attributes'.

◆ ISSUE-253250 - Corrected bug in Film Strip display mode in Web UI

When using the Film Strip display mode in the Web UI, a thumbnail will display for each item if an image is associated with that item. This did not work when viewing references that pointed to assets, products, etc. The problem has been resolved.

◆ ISSUE-251910 - Fixed a bug in context help in Web UI

Fixed a bug where enabling context help for attribute groups in the Web UI would not show the help in some cases. This has been resolved.

◆ ISSUE-250131 - Corrected the attribute viewing area in the Web UI

If a derived attribute had a long value, possibly with multiple lines, the Web UI would not display a very big part of this value. The user had no way of viewing the part of the value which did not fit into the display. With this change, the value will be displayed in a text box, which allows the user to resize the area displaying the value as well as use scrollbars to get a more complete view of the value.

◆ ISSUE-237103 - Corrected a privilege check issue in the Web UI

In Web UI, the privilege check for saving User Configured Views was incorrect. Saving was only possible if the user had the privilege to modify attribute names. This has been corrected.

◆ ISSUE-253028 - Fixed a problem in the Tasklist Web UI component

Fixed a problem in the Tasklist Web UI component, where the column headers no longer would be frozen if the Minimum Column Width parameter was set.

◆ ISSUE-248347 - Fixed a bug for maintaining impersonation privileges

Users with maintain impersonation privileges could inadvertently set up the system with a security hole. A direct check for the 'Impersonate User' user action has been configured on the user group to prevent this.

◆ ISSUE-252479 - Fixed a bug in the rich text editor in the Web UI

The rich text editor in the Web UI will now correctly respect the value set in the tag definition as to whether or not a tag will be visible. This solves problems where users were previously able to input tags which were not supposed to be used.

◆ ISSUE-257128 - Improved memory usage in Web UI apply-filter operation

In the Web UI Multi Editor, the filter functionality has been improved so it uses less memory to process a Web UI apply-filter operation.

◆ ISSUE-258168 - Fixed a refresh issue in Web UI

Fixed an issue that would cause the save / reset buttons in Web UI to be enabled when a refresh screen loads if there were references on a reference type that was in an attribute group configured on the screen.

◆ ISSUE-257202 - Fixed a bug for the static html component in the Web UI

Fixed a problem that would cause the Web UI designer to display an error if a Static html component was added to the login screen. Note that it is only possible to add a Static html to the login screen by using the withdrawn design mode parameter 'Center'.

◆ ISSUE-252578 - Corrected a bug for URL validation base type attributes in the Web UI

In the Web UI it is now possible to clear the value of an attribute with 'URL' base validation type. Previously when clearing such values, the value would be set to 'http://' meaning that it was not possible to clear the value.

◆ ISSUE-257853 - Corrected an issue with the Status Selector in the Web UI

When a Status Selector is placed inside a Stack Panel in the Web UI, it used to make an initial request for data even though it was not visible. This put an unnecessary load on the server when a user logged in. Now, the Web UI will not fetch the data before the user expands the Stack Panel; it is placed inside.

◆ ISSUE-257857 - Optimized load speed of attribute values in tables in the Web UI

Optimized load speed of attribute values in tables in the Web UI. Whether it is fastest to load all attribute values at once, or each value when needed, depends on how many Value Headers are configured on a table.

◆ ISSUE-258479 - Fixed an issue with the Web UI designer

Fixed an issue with the Web UI designer that hindered the option of not having a background image configured.

Enhanced Advanced Search Functionality in Web UI

Summary

Enhancements to the Web UI Advanced Search functionality allow for more efficient and expanded search capabilities. The improvements include:

- A more powerful attribute value search that allows users to identify attributes with empty values, search LOV-based attributes using the actual list of values (LOV), and use a single search criterion to search multiple values for an attribute.

- New Data Container attribute search criteria added to support new STEP complex data modeling capabilities

- A new straight-forward process and user-friendly dialog when modifying and re-saving existing saved searches.

- A new option to collapse the search canvas when accessing the Advanced Search screen, allowing for more screen space to focus on the task list items.

- Improvements to the default screen behavior making it much easier to work with Advanced Search when it is configured as a result screen for a Status Selector workflow selection—and access to add workflow criteria is removed.

- The use of placeholders within the Advanced Search screen title that supports auto-population of specific details about a searched workflow, which is especially useful if the search canvas is collapsed.

Details

Expanded attribute search capabilities

Three new enhancements have been made to the Attribute search criterion allowing for more comprehensive attribute searches. These enhancements also better align the Web UI search capabilities to those available in workbench.

1. Users can now search for attributes that are missing values using two new search operators.

- One exclamation point (!) allows for a empty value search in the current context

- Two exclamation points (!!) allow for an empty value search across all contexts

Searching for empty values is an easy way to identify objects in STEP that are not yet complete. Performing these searches can be time consuming depending on the number of attribute values being searched and the complexity of the assembled search criteria. Because of this, when starting an empty-value search (either alone or with other criteria), users are asking to confirm that they want to move ahead given the potential resource and time constraints.
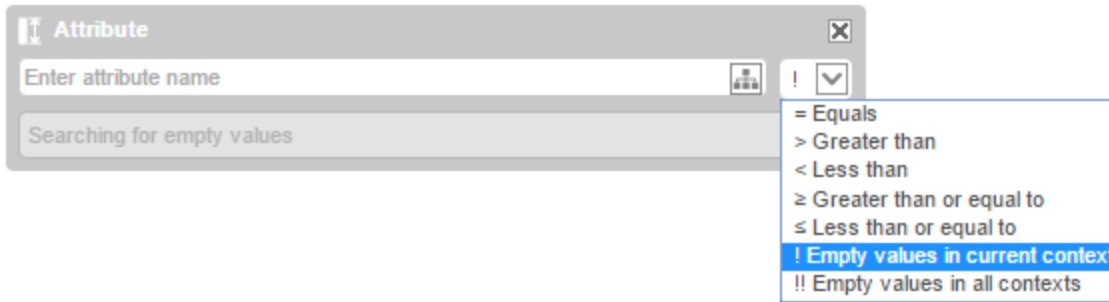
2. When searching values on an LOV-based attribute, the user can now easily search using the actual values that comprise an LOV. Values can be selected in the attribute value field using either a dropdown or via manual entry. If a user manually enters a value, it is validated against the LOV, preventing the user from searching for invalid values. Previously, values in an LOV could only be manually entered and no validation was done prior to the search. This often led to inaccurate and inconsistent results, especially when working with large LOVs.
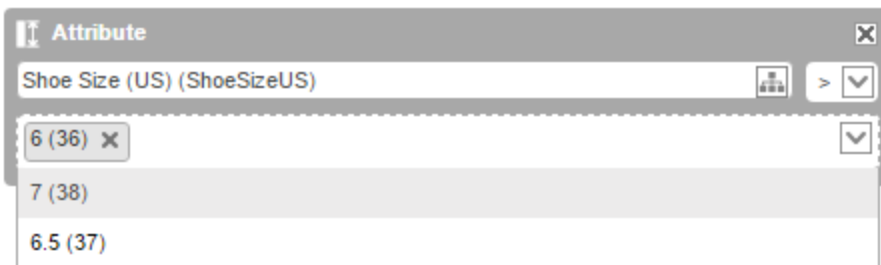
3. Searching for multiple values on a single attribute previously required the use of complicated search methods even when doing simple searches. One such method required the user to build long search strings using Attribute criteria for each separate value, separating each criterion with the 'Or' operator (color = yellow OR color=white OR color=orange). Now, searching has been simplified so that users can add one Attribute criterion to search for numerous values all at once (color = yellow or white or orange).
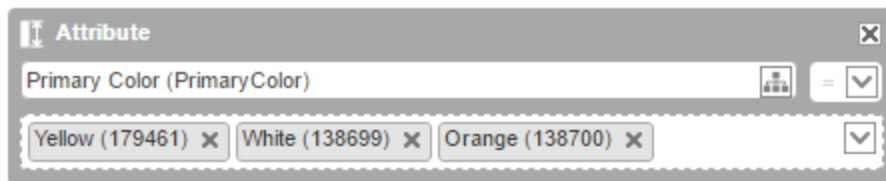
A new warning has been added that is especially relevant when searching multiple values. When a user has entered an attribute and a value (or values) and then changes the attribute, a new warning displays asking the user to confirm that they want to delete the existing attribute values and continue with the new attribute.

Please note that these updates do not apply to other Advanced Search criteria that use attribute / attribute value fields. The exception is the new Data Container Type criterion, described next, which does allow for LOV-based attribute value searches and searching multiple values on a single attribute.

New Data Container Type search criteria added

To accommodate searching attribute values for attributes associated with Data Containers, a new search criteria is available. Information on how to add and use this criteria can be found in the standard Advanced Search documentation. For more information regarding the new Data Container modeling capabilities, see the and the New Data Containers for Simplified Data Modeling with Entities topic of the STEP 8.1 Release Notes.
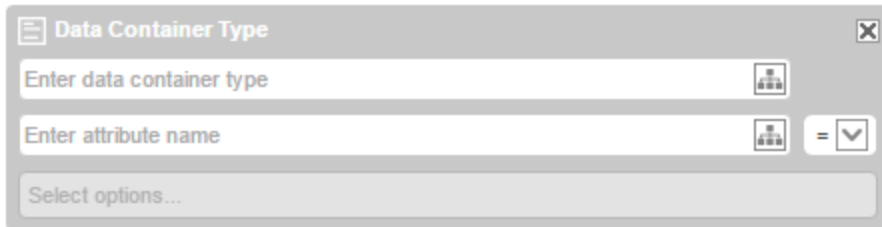
New user-friendly dialog for modifying and overwriting saved searches

A new dialog within Advanced Search has been introduced allowing unrestricted users to seamlessly overwrite existing saved searches. After opening, modifying, and saving an existing search from the My Searches tab, a notification dialog appears in which the user can choose to overwrite the search or save the search with a new name. Previously, users were presented with the 'Save search' dialog and had to input the exact name of the existing search to overwrite it; otherwise, a new saved search was created.
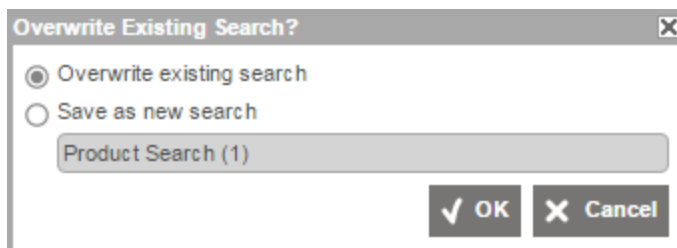
Improved default functionality when accessing Advanced Search via a workflow Status Selector widget

When accessing the Advanced Search screen via a workflow selection, the default screen behavior has been improved under the following scenario, with the third bullet being *key* to this functionality and new default behavior:

- The Advanced Search screen is configured as the result screen for a Status Selector (Homepage / Sidebar) widget
- A Status Selector task selection has been made
- The Workflow criteria is removed from, or not initially configured as one of, the valid Search Criteria selections through the Advanced Search Screen Properties

Previously, when users made a task selection in the widget operating under this scenario , they were auto-navigated to the Advanced Search screen without any search criteria or workflow identification shown. The user had no obvious information indicating what search criteria was used to display the results they were seeing.

Now, the default behavior has been improved so that the workflow criteria fields display on the screen (as long as the search canvas is not collapsed). The search criteria values are read-only, and the workflow criteria cannot be removed from the search area. Privileged users can add / remove additional criteria to do more focused searches, but the user is always left with the original workflow search criteria that they began with. This new behavior allows for end users to focus on their tasks without any concern that they may inadvertently take action on tasks that they do not own.

When accessing Advanced Search via any other method (e.g., a link in the Quick Links widget), the screen behavior remains unchanged.

New option to auto-populate and display identifying workflow information within the screen title

While the Advanced Search screen title has previously been limited to static text ('Advanced Search' by default or an alternate title manually entered by the user), placeholders can now be used in conjunction with, or in place of, that text to automatically insert workflow-specific information into the screen title. These placeholders ({WorkflowID}, {WorkflowState}, {WorkflowName}, and {StatusFlag}) can be used individually or together and display exactly what the name implies. For example, {WorkflowName} will display the name of the workflow. The placeholders are ideal for identifying workflow information when accessing the Advanced Search screen via a Status Selector (Homepage / Sidebar) widget selection, and also when the search criteria is collapsed upon entering the screen.

This functionality works in the same way that the placeholders ({0}, {1}, {2}, and {3}) do when used within the title parameter for a Task List screen. Using placeholder text simplifies the process for users and is more straightforward than using a number system.

New optional selection to collapse the criteria section automatically

Using the new Collapsible Search Canvas parameter, users may now choose to hide the assembled search criteria from displaying on the screen, allowing for a more prominent display of the search results / Node List. This setting can be used in conjunction with the read-only workflow criteria configuration described below, or as a standard behavior of the Advanced Search screen—regardless of how the screen is accessed. The functionality is disabled by default but can easily be enabled through Advanced Search Screen Properties.

The screenshot below shows that when the criteria area is collapsed, the title remains and the Search Criteria and/or My Searches tabs are no longer visible. Users can drag the collapsible splitter handle down, or simply click the down arrowhead, to manually restore visibility to the criteria and the Search Criteria and/or My Search tabs. The next time the Advanced Search screen is accessed, the criteria will again be hidden from view.
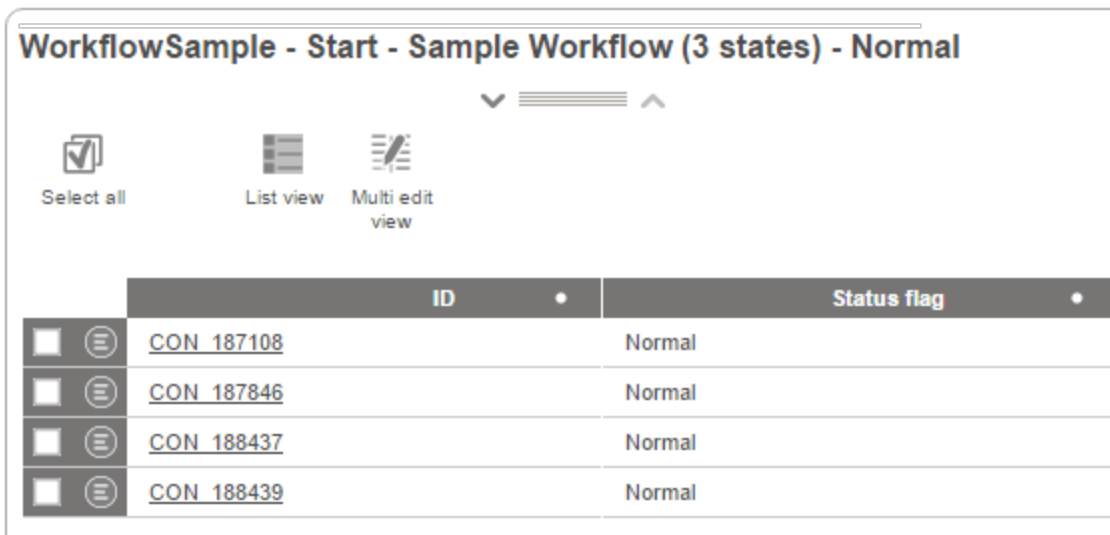
For more information about configuring, creating, saving, and sharing searches, see the Advanced Search section of the Web User Interfaces documentation.

Web UI Advanced Search Bugfixes

◆ **ISSUE-243624 - Fixed a bug in Advanced Search in Web UI**

When using the Advanced Search screen in the Web UI, users would get an error if their search accidentally matched one or more Table Type groups. These are now filtered from the search results so the error no longer occurs.

◆ **ISSUE-250262 - Fixed a problem with the Attribute Group Value search criteria in Web UI**

Fixed a problem with the Web UI component 'Attribute Group Value Criteria' used for generating search criteria. The component allows users to select an attribute for which to specify a criteria. If the attribute is linked to a list of values (LOV), the user would get a combo-box with the valid values for that LOV. However, due to a bug, the combo-box could sometimes contain entries not related to the valid values. This has been corrected.

◆ ISSUE-251668 - Fixed a search issue in the workbench

Fixed a searching issue so that searching for names containing < and > now works. Previously, users were required to use full HTML tags to find < and > in names. Now the search engine understands < and > directly in search.

Improved Address Handling

Summary

Enhancements to the Address Detail component in Web UI include better support for UK addresses, improved population of standardized country ISO-codes, and a new search action to find and use similar existing addresses before creation to prevent creating duplicate addresses. Also, attribute groups are now functional when used within the Address Detail component, eliminating the necessity to add attributes individually during configuration.

In addition to these enhancements, it is very important to note that system administrator action is required to start / continue using the Address Detail component upon implementing or updating to STEP Trailblazer 8.1.

Stibo Systems must provide each customer with a Google Map channel parameter before users can make use of the Address Detail component. The parameter will go into a configuration property that needs to be added to the sharedconfig.properties file before the Google Map API will function. If Address Detail is / was previously functional in another version of STEP Trailblazer, it will no longer work without the channel parameter. Contact your Stibo Systems account manager to obtain the required information. Also, if using the Address Detail Map within the Address Details component, when contacting your account manager, you will need to provide the URL (s) used for accessing the Web UI that is configured with the Address Detail component to ensure that the map will also function. A Google error will show in place of the map if Google is unable to authenticate the URL that makes the map call.

Starting with the STEP Trailblazer 8.2 release, the support for Google Maps view within the Address Detail and Address Search components will be removed for security reasons related to 3rd party software. These Web UI components will integrate with another address service in a later version of STEP. This change will not affect versions up to and including STEP Trailblazer 8.1.

Details

Find Similar functionality extended to Address Detail component for searching existing addresses

In an effort to avoid the creation of duplicate addresses in STEP, Find Similar functionality has been added to the Address Detail component via the Find Existing action. Users can input an address and then run a Find Existing action that searches objects for a similar match using the matching setup that the customer creates and uses for duplicate handling. If similar objects are found after running the action / algorithm, the user is provided with the results in a user-configured detailed list.

Please note that the Find Existing action will only be active in Web UI if using Address Detail in 'reference mode.' This means that the data model being used, for example, has an object (e.g., customer) that references an address object containing address attributes. If an address is found and selected within the Dialog List, then the address becomes uneditable on the screen and a reference to that existing address object is made upon save. Alternatively, if no similar objects are identified or if the user decides none are suitable and a new object must be created, they may cancel out of the dialog and proceed with creation of the new address object.

The Find Existing action works with the referenced address objects and is not applicable, and should not be configured to display, when viewing the screen for an address node itself. Also, if Find Existing is configured when

using the Address Detail in any other way or mode (embedded / data container), the Find Existing action button will not be visible since the action is not intended for use in other situations.
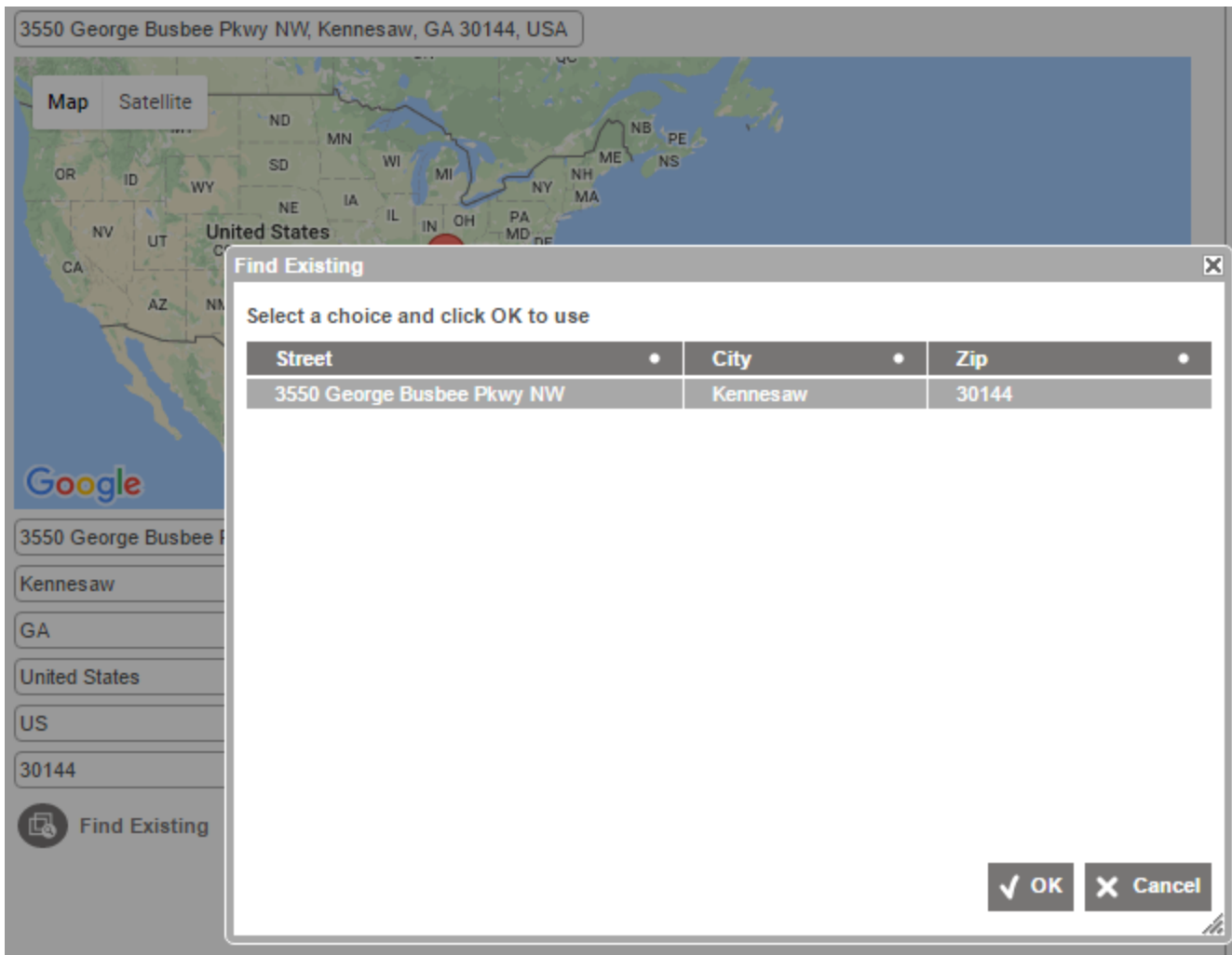
For more information regarding the component setup, see the Address Detail Configuration topic within the Using a Web UI documentation.

Find Existing is also being introduced to the Store Single Referenced Target component. For more information, see the Data Onboarding Enhancements section of the STEP Trailblazer 8.1 Release Notes for more information.

Better support for UK addresses provided via the Google Maps API

Improvements have been made so that UK address formats, returned via the Google Maps API map / address search, are better handled by STEP. The fields in the Simple Address Component Model that are impacted are Street, State, and Country. The attribute configured and mapped to the Street field will now include the house / building names that Google returns within the value. Also, the UK county now maps to the State field / attribute, and the Country will display England, Scotland, Northern Ireland, or Wales rather than United Kingdom.

See an example below for *Kett House, Station Rd, Cambridge CB1 2JY, UK*:

Street	Kett House, Station Road
City	Cambridge
State	Cambridgeshire
Country	England
Country ISO Code	GB
Zip	CB1 2JY

Standardized country ISO-code integration

Two fields have been added to the Simple Address Component Model designed to better support the use of ISO 3166-1 alpha-2 country codes for address objects (e.g., CN instead of CHN for China, or DK instead of DNK for Denmark).

To accommodate country codes, previously users could set up an LOV-driven attribute to work with the Country field, but it required tedious value matching. This limitation did not work well with locale changes and different geolocations. Now, when the Google API call is made, the ISO alpha-2 country code of the chosen Web UI locale is returned to STEP. The ISO code is then stored in the attribute that has been bound to the new Country ISO Code field in the component model. If configured correctly, the code will auto-populate in Web UI.

Component Model Configuration

>	Country ISO Code	⬍	Country ISO Code	The ISO 3166-1 Alpha-2 code

There is also a new Standardized Country ISO Code field that integrates with address standardization extensions / services.

Component Model Configuration

>	Standardized Country ISO Code	⬍		The Standardized ISO 3166-1 Alpha-2 code

For more information about setup and usage of the address components and component model, see the Address Detail section of the Web User Interfaces documentation.

Data Container Types

Data Containers, introduced to STEP in this release, can be used in conjunction with the Simple Address Component Model, found in workbench, and the Web UI Address Detail component. More information can be found in the New Data Containers for Simplified Data Modeling with Entities section of the STEP Trailblazer 8.1 Release Notes.

For more information about setup and usage of the address components and component model, see the Address Detail section of the Web User Interfaces documentation.

Address Detail Bugfixes

◆ **Corrected bug that prevented use of attribute groups in configuration**

Attribute groups can now be used successfully within the Address Detail component. Previously, when configuring attributes to display within the Address Detail component, users had to select individual attributes rather than make use of attribute groups. While attribute groups could be added, they were not functional.

New Matching, Linking, & Merging Functionality

Summary

A number of updates have been made to the STEP matching, linking, and merging functionality. These include:

- Manual match code maintenance has been enhanced, allowing deletion of invalid match codes without regenerating all codes
- Running a matching algorithm for a selected event processor now generates matching algorithm events on demand, eliminating unnecessarily processing of all possible objects
- Find Similar functionality has been extended to the Address Detail component and the Store Single Referenced Target component as part of an ongoing effort to avoid duplicate objects in STEP. Additionally, there are more attribute options available for display within a Dialog List results set, allowing the user to make better data decisions when working with potential duplicates and template objects.

Details

New options for more targeted updates of match codes, including deletions of invalid data

Previously, the right-click menu for a Match Code included the 'Generate / Update Match Code Values' option, which allowed you to generate all match codes values or to insert missing values. In order to remove invalid codes, a full update was required. 'Generate / Update Match Code Values' has been replaced with an enhanced feature named 'Maintain Match Code Values' which includes three options. The 'Full update' option still generates all match code values, which is required for the initial creation of match codes or to regenerate all match codes after changing the match code formula or JavaScript. The 'Only insert missing...' and 'Only delete invalid...' options process more quickly than the full update, and are useful when updating match code values due to missing or invalid codes.
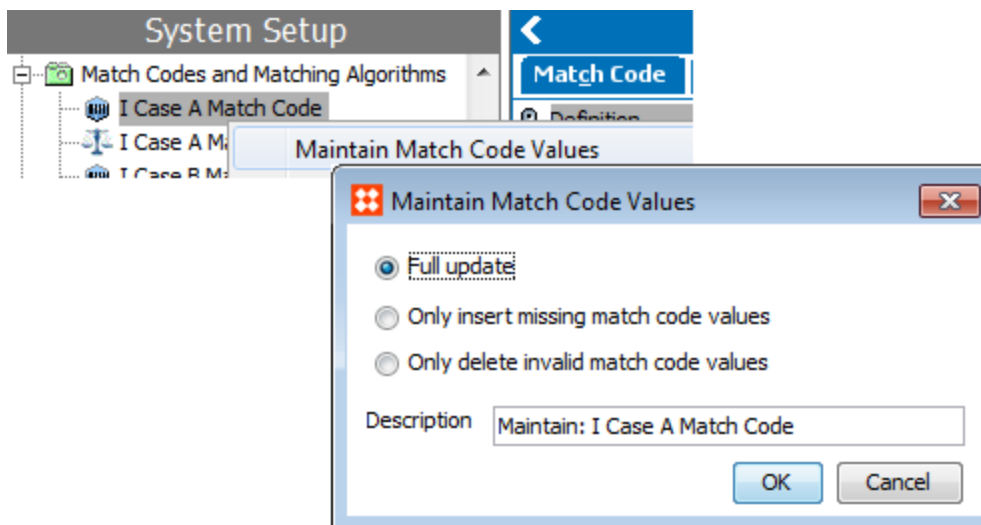
For more information, see Generating Match Codes and Running a Matching Algorithm in the Matching and Linking documentation.

Improved matching and linking using event processors

The 'Run Matching Algorithm Process' option, found on the Matching Algorithm right-click menu, has been removed. When used, the matching algorithm always ran a full update in a dedicated background process, processing all objects, regardless of whether or not any relevant data had changed on them. Additionally, when generating golden records, the objects were only reliable once the full process had completed. As an intermediate step to improve this functionality, Trailblazer 8.0 expanded the 'Matching' plugin in event processors, allowing match codes to be updated incrementally based on changes to the relevant data, and providing better reliability and execution statistics.

In Trailblazer 8.1, an event processor is now *required* to run all matching algorithms. Existing algorithms must be linked to an event processor before they can be run. This ensures that all matching processes are utilizing the improved event-based functionality, providing more reliable updates and improved performance. The exception to the event processor requirement is algorithms used for Find Similar functions, which call a matching algorithm upon object creation to search for potential duplicates of an object that has not yet been created, based on some input parameters within the Find Similar interface(s). As the object to be compared does not yet exist, it is not applicable to run events on these algorithms and therefore event processors are not required.

As a full re-run will at times still be required, a new 'Generate Events for Matching' option has also been added, accessible via right-click on the algorithm. This option should be used when the algorithm is originally created and after any existing algorithms have been updated. This is comparable to the previously existing 'Run Matching Algorithm Process' option, allowing users to manually run a full update (updating match codes, a match algorithm, or both, depending on the configuration of the event processor).
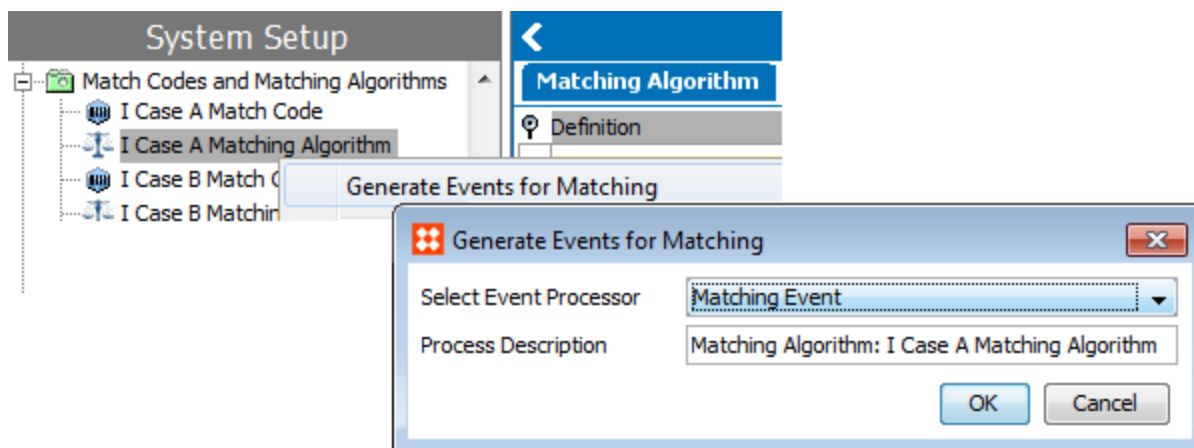
For more information on managing match codes and matching algorithms, see the Generating Match Codes and Running a Matching Algorithm section of the Matching and Linking documentation.

Find Similar functionality extended

In an effort to avoid duplicating addresses in STEP, the Find Similar functionality has been added to the Address Detail component via the Find Existing action. Users can input an address and then run a Find Existing action that

searches objects for a similar match using the matching setup that the customer creates and uses for duplicate handling.

Furthermore, the Find Existing action can also be added to the Store Single Referenced Target component framework on an Initiate Item screen. This deduplication effort allows users to evaluate referenced objects prior to linking them to direct objects during the creation process, and/or prior to doing a Find Similar direct object / referenced object combination search on the Initiate Item screen.

For more information, see the Improved Address Handling section of the STEP Trailblazer 8.1 Release Notes and the Data Onboarding Enhancements section of the STEP Trailblazer 8.1 Release Notes .
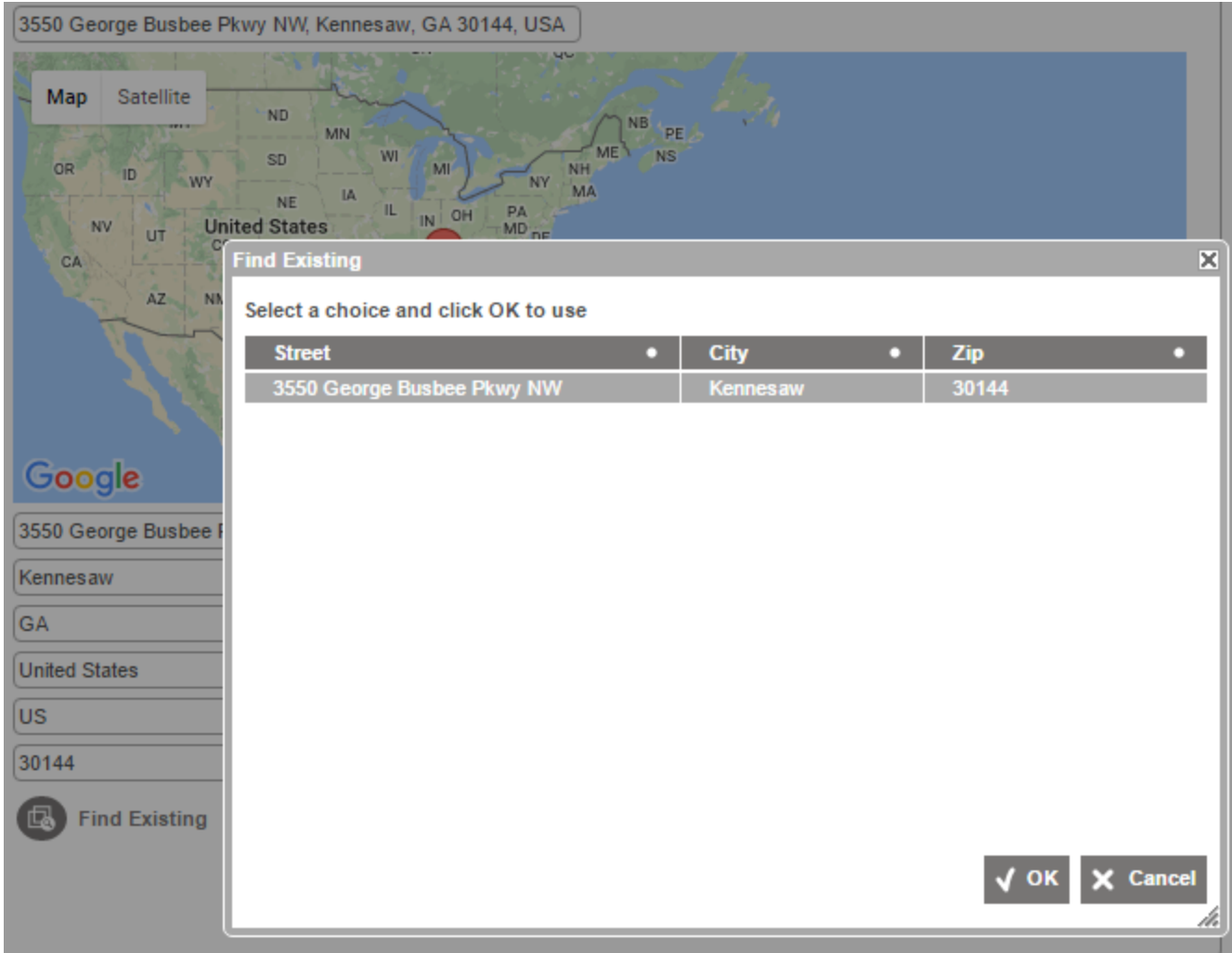
The Dialog List Screen, which displays the results from Find Similar, Find Existing, and Create From Template searches, can now be configured to display reference data, if applicable to the search performed. Also, to support the new STEP data modeling functionality, data container attributes can also be added. These updates allow the user to make a more qualified selection based on comprehensive object data.

See the Data Onboarding Enhancements section of the STEP Trailblazer 8.1 Release Notes for more information.

Data Onboarding Enhancements

Summary

A variety of enhancements and new features have been added that improve the object creation and data onboarding processes. These include options to:

- Assign user privileges specific to object creation, allowing administrators to give users access to specify values for specific data points (such as attributes, references, etc.) during the creation process only
- Search referenced object attribute values when working in Initiate Item screens in Web UI to identify existing referenced objects for use when doing additional Find Similar efforts or to link to new objects being created
- Use a template when creating and initiating new objects into a workflow, allowing for faster onboarding of new objects
- Expand results list capabilities when searching for objects and templates, making it easier for data stewards to identify and select the correct objects to work with

Details

New option to grant specific privileges during object creation only

Administrators can set permissions for users when creating new objects in STEP via the 'Object Creation' parameter which is available when configuring user privileges. The 'Object Creation' parameter is intended for use on Mass Creation, Simple Importer, and Initiate Item in Web UI, as well as when using Smartsheets and/or the STEP Importer (e.g. Import Manager or inbound integration endpoints).
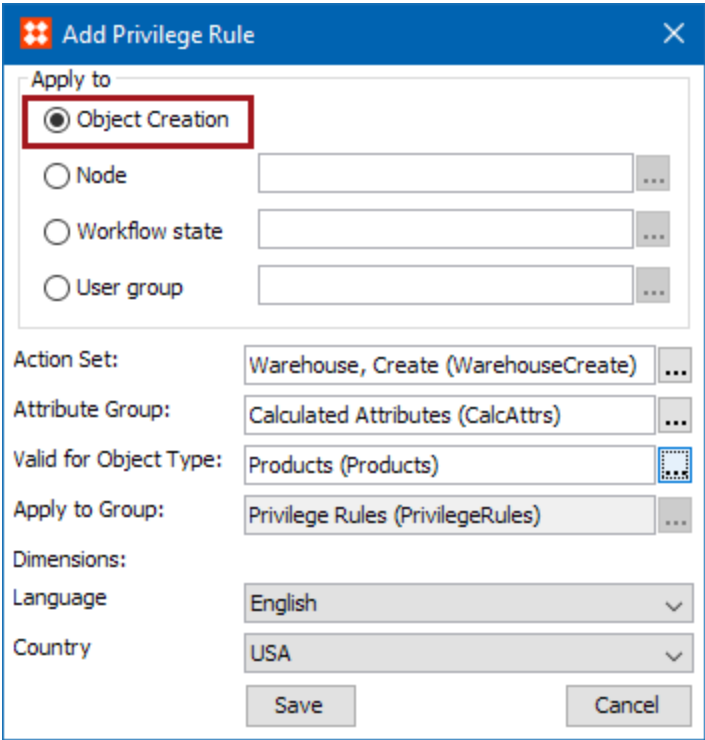
This allows for more granular control over data so that users can be given access to data during the creation process only, but not to the same data after the object has been created. Following creation of the object, any global or workflow specific permissions will take over. Use of the Object Creation parameter is optional, allowing for complete backwards compatibility. Users who previously had privileges to create objects continue to be able to and will notice no changes in behavior of the system, unless privileges are edited to remove those rights. However, for users that have not been given create privileges, or for administrators who wish to restrict the access of existing users, this new option can be used to provide targeted access during the creation process.

The intention of this functionality is to allow users to provide data during basic object creation that they would not otherwise have access to. For example, a user could have permission to fill values in for certain attributes and references, but once created, they cannot go back to the product and change these values again. Therefore, it is only applicable to creation of products, entities, classifications, and assets, and is intended for use only in the interfaces and create methods listed above. Note that this excludes Web Services and creation in workbench outside of an importer. It is not recommended for use with imports where the importer is creating references to objects that are being created as part of the same import as this may result in errors. Furthermore, administrators should ensure that only the attributes that the privilege is applied to are available in the user interface, else the user will receive a privilege error. See the Object Creation Privileges topic in the System Setup / STEP Super User Guide documentation for more information.

Find Similar functionality expanded to support the evaluation and deduplication of referenced objects during item initiation

The Find Similar functionality, previously introduced to the Initiate Item screen with the STEP Trailblazer 8.0 release, has been extended to the Store Single Referenced Target component (also used within the Initiate Item screen). The Find Similar functionality is accessible via a Find Existing action that is displayed within the Store Single Referenced Target component and can be used to evaluate referenced objects. Overall, its property configuration matches that of Find Similar, including the use of a matching algorithm and presentation of a Dialog List of search results.

Find Similar, when used on the Initiate Item screen in conjunction with the Store Single Referenced Target component, must be configured with a matching algorithm that compares attributes between objects of the same object type, while also comparing attributes from a referenced target object. Successful searching relies on the existence of the reference link between the direct and referenced objects being searched. In contrast, the new Find Existing action requires simpler comparator expressions, written to compare attributes of the same (referenced) object type only.

For more information regarding the setup, see the Initiate Item Screen topic within the Workflows in Web UI documentation.
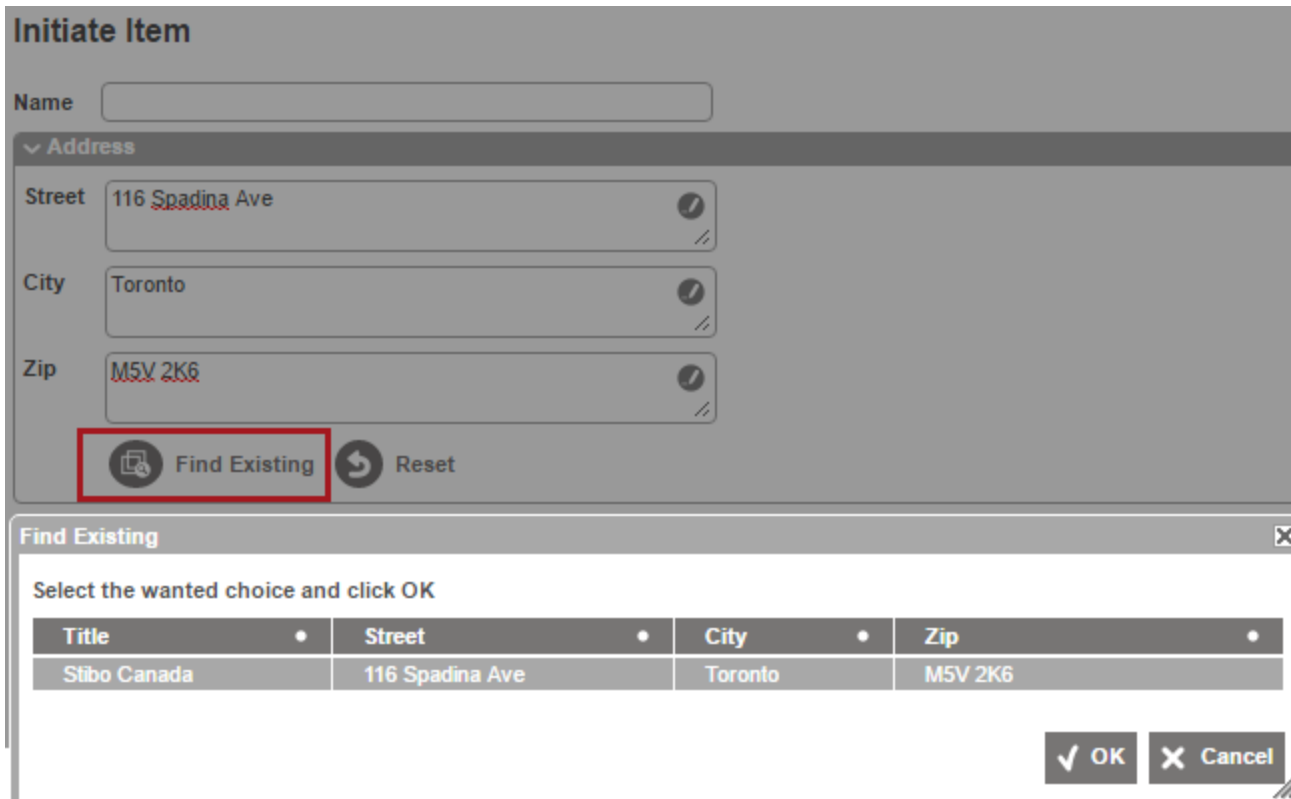
Find Existing is also being introduced to the Address Detail component. For more information, see the Improved Address Handling section of the STEP Trailblazer 8.1 Release Notes for more information.

New option for template-based object creation added to the Create Object in Workflow screen

Using a template to create a new object is now an option when using the Create Object in Workflow screen within Web UI. A template object allows for pre-filled attribute values to be applied to the new object. Using this functionality to create and initiate objects gives users an advanced starting point when working with the new object.

Configuration is done through a new set of parameters within the Create Object in Workflow Properties and use of a Dialog List Screen component. The setup is similar to the Create From Template option available with the Multi-Reference Editor 'Add reference' action. If the create warning is enabled, it will display prior to the 'Templates' dialog.

For information regarding the setup and use of the Create From Template functionality within the Create Object in Workflow Properties, see the Bypassing the Initiate Item Screen topic within the Workflows in Web UI documentation.
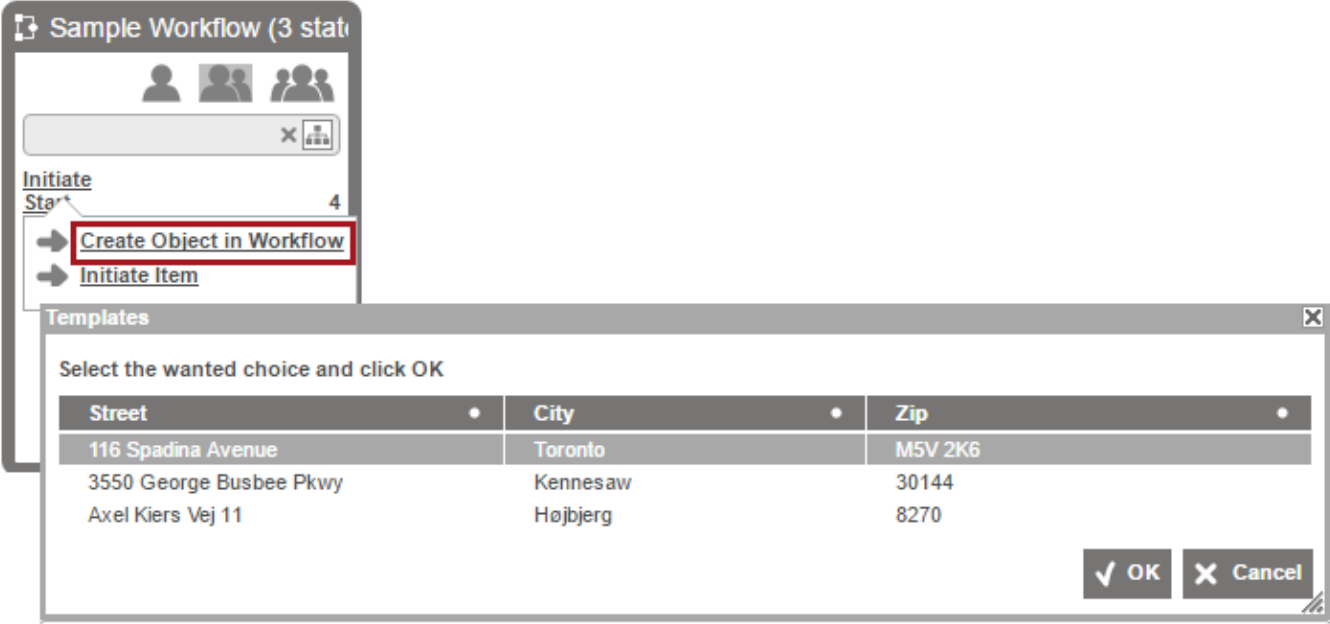
Dialog List capabilities updated to include referenced object attributes

The Dialog List Screen, which displays the results from Find Similar, Find Existing, and Create From Template searches, can now be configured to display reference data, if applicable to the search performed. This allows the user to make a more qualified selection based on comprehensive object data.

For more information regarding the setup required for Dialog Lists, see the Find Similar topic and Find Existing topic within the Web User Interfaces documentation.
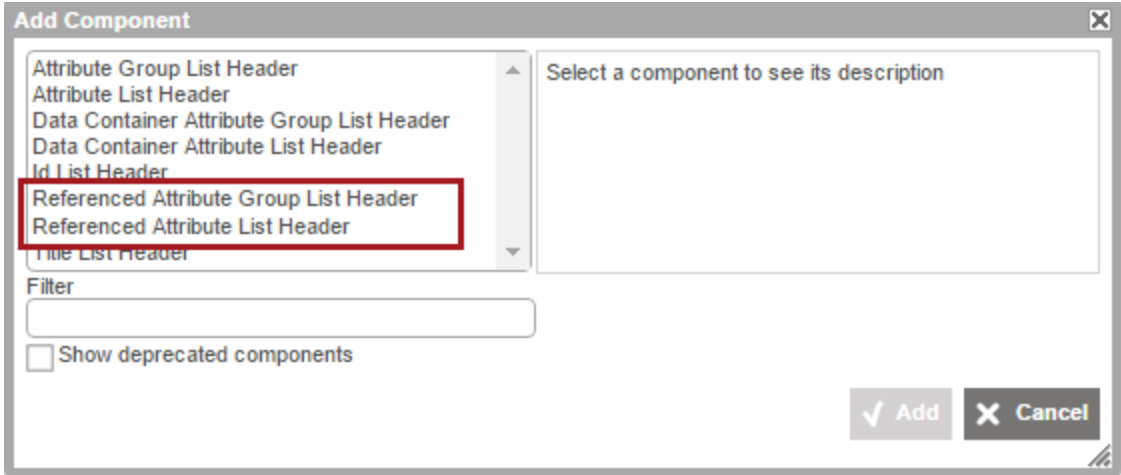
To support the new STEP data modeling functionality, data container attributes can also be added to the Dialog List when relevant to the action being performed.

For information regarding Data Containers and their associated attributes, see the New Data Containers for Simplified Data Modeling with Entities section of the STEP Trailblazer 8.1 Release Notes for more information.

Workflow Enhancements

Summary

Several new features have been added and improvements to existing functionality have been made to enhance the user experience when working with workflows.

- Workflow Profiles can now be accessed through a tabular view in Web UI, which allows users to easily monitor live and historical workflow data.
- Two new Web UI widgets have been introduced that display both live and historical workflow profile data, allowing users to monitor workflows from the Web UI homepage.
- User privileges are now split between viewing and maintaining STEP Workflow Profiles, allowing admins to control who can configure profiles.
- Status Flags can now be displayed in Workflow Profiles, providing users with an efficient method for monitoring the status of objects in a workflow.
- In Web UI users are now able to assign a workflow task directly to themselves from an object details screens if it was accessed through a task list screen. This enables the user to act on the object without having to navigate back to a task list to claim it.
- When using the Advanced Search screen as a task list, workflows are easier to identify based on default behavior improvements and the ability to add a workflow-specific title.
- Users can create and initiate new objects into workflows by using a template object.

Details

New workflow profile displays available in Web UI

Previously, Workflow Profiles could only be accessed via STEP Workbench. With Trailblazer 8.1, these profiles can now be viewed in Web UI via a new screen component called 'Workflow Profiles'. Like its workbench counterpart, this component displays Workflow Profile data in a tabular format that is easy to navigate.

This view is split into two tabs: Live Data and Historical Data.

The Live Data tab displays workflow information as it currently exists. For the 'States' and 'Assignees' domains, the view is divided into a master table at the top and a details table at the bottom. Data on the details table is populated based on what is selected in the master table. For all domains, any columns displayed are based on the profile definition.

Workflow Profiles

Sample Workflow Profile ▼

Live Data | Historical Data

State	Workflow	Objects in state
Enrich Data (Enrich_Data)	Sample Workflow with Parallels	14
Enrich Data Complete (Enrich_Dat	Sample Workflow with Parallels	8
Gather Data (Gather_Data)	Sample Workflow with Parallels	3
Review	Sample Workflow with Parallels	0
Review Data (Review_Data)	Sample Workflow with Parallels	3
Review Images (Review_Images)	Sample Workflow with Parallels	0
Start	Sample Workflow with Parallels	72

Object	Workflow	Assignee
(111777)(2) (188279)	Sample Workflow with Parallels	Super Users (Super user)
(179653) (179653)	Sample Workflow with Parallels	Super Users (Super user)
(181939) (181939)	Sample Workflow with Parallels	Super Users (Super user)
(181940) (181940)	Sample Workflow with Parallels	Super Users (Super user)
(181942) (181942)	Sample Workflow with Parallels	Super Users (Super user)

Unlike the Live Data tab, the Historical Data tab is updated on-demand, and displays historical information about the workflow(s).

Workflow Profiles

⚙ ⌂

Sample Workflow Profile ▼

| Live Data | **Historical Data** |

State	Workflow	Throughput this month
End	Sample Workflow with Parallels	0
Enrich Data (Enrich_Data)	Sample Workflow with Parallels	0
Enrich Data Complete (Enrich_Data_Complete)	Sample Workflow with Parallels	0
Gather Data (Gather_Data)	Sample Workflow with Parallels	1
Gather Images (Gather_Images)	Sample Workflow with Parallels	1
Parallel	Sample Workflow with Parallels	0
Product Assets (Product_Assets)	Sample Workflow with Parallels	0
Product Assets Complete (Product_Assets_Complete)	Sample Workflow with Parallels	0
Review	Sample Workflow with Parallels	0
Review Data (Review_Data)	Sample Workflow with Parallels	1
Review Images (Review_Images)	Sample Workflow with Parallels	0

Information last updated by user USER3 (User 3) 5 days ago

Update historical data

Users can access this new view via a navigation link on the Web UI home page or via a Workflow Profiles widget.

For more information, see the Workflow Profile Screen section of the Web User Interfaces documentation.

New profile widgets available in the Web UI homepage

Two new Web UI widgets have been introduced to replace the Workflow Historical Line Dashboard and Workflow Profile Chart Dashboard widgets. Though never officially released, these two widgets previously resided within the KPI Widget component, which is used for displaying data from data profiles, and provided configuration options that are not relevant to workflow profiles.

With Trailblazer 8.1, these widgets have been replaced by the new Workflow Profile Historical Data and Workflow Profile Live Data widgets, and are no longer wrapped within the KPI Widget component.

The new Workflow Profile Live Data Widget displays live data of the specified Workflow Profile as a pie or bar chart. The example image below depicts the distribution of objects in different states of a specific workflow.

Pie-chart for STEP Workflow profile
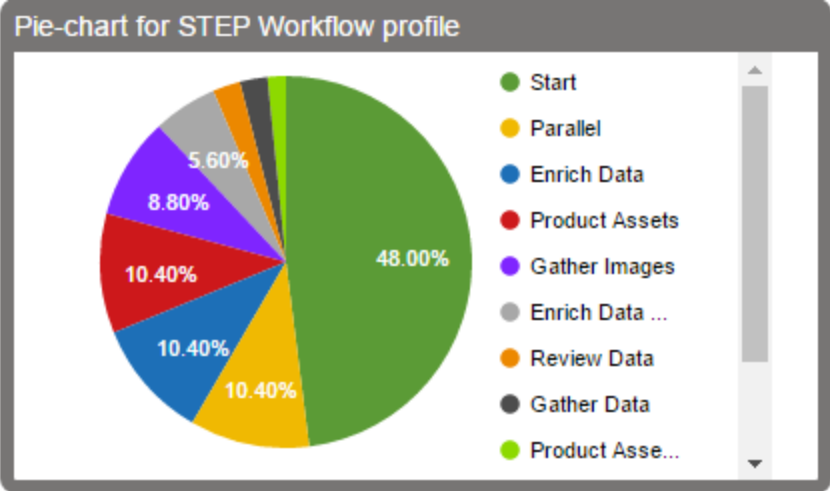
The new Workflow Profile Historical Data widget displays historical data of the specified Workflow Profile as a line chart. This data must be generated on-demand via the Workflow Profile itself (in either workbench or Web UI). The example image below depicts how much time was recently spent in each state of a specific workflow.

Historical line-chart for STEP Workflow profile
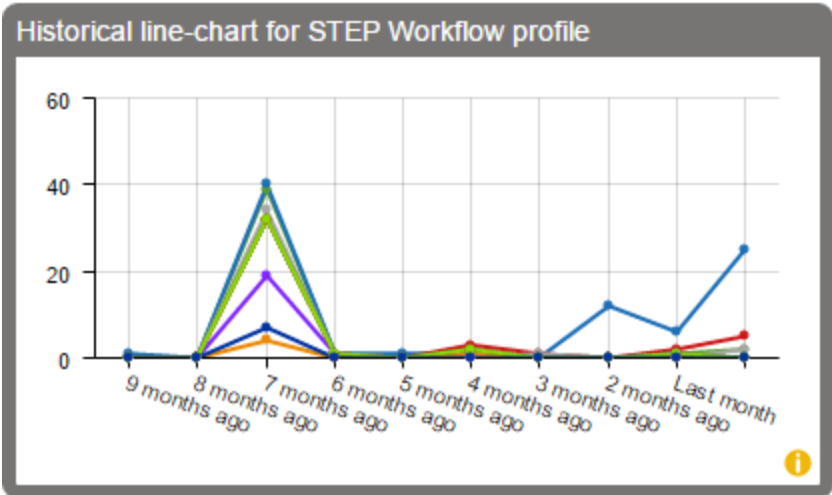
For more information on the Workflow Profile Live Data widget, see the Workflow Profile Live Data Widget section of the Web User Interfaces / Web UI Getting Started documentation.

For more information on the Workflow Profile Historical Data widget, see the Workflow Profile Historical Data Widget section of the Web User Interfaces documentation.

New privileges available for viewing and maintaining profile data

Previously, the View and Maintain STEP Workflow Profile setup action allowed users to both view and configure workflow profiles. Now, this setup action has been split into two parts: 'Maintain STEP Workflow Profile' gives users the ability to configure workflow profiles and 'View STEP Workflow Profile' only allows users to view workflow profiles. This allows admins to grant different levels of access to users based on their roles and responsibilities.

For existing systems, no special migration is necessary. Any users that previously had access via the View and Maintain STEP Workflow Profile setup action will automatically have the new privileges. Additionally, any action sets that had the old setup action will automatically get the 'View STEP Workflow Profile' setup action.

For more information, see the Setup Actions section of the System Setup / Super User Guide documentation.

Status Flag column now available in Workflow Profiles

Status Flags can now be displayed as a configurable column on Workflow Profiles, in both workbench and Web UI. Previously, it was possible to display task priorities in this manner, but this functionality has since been replaced by status flags. Note that the Status Flag column is only available for Workflow Profiles configured with a State or Assignee domain.
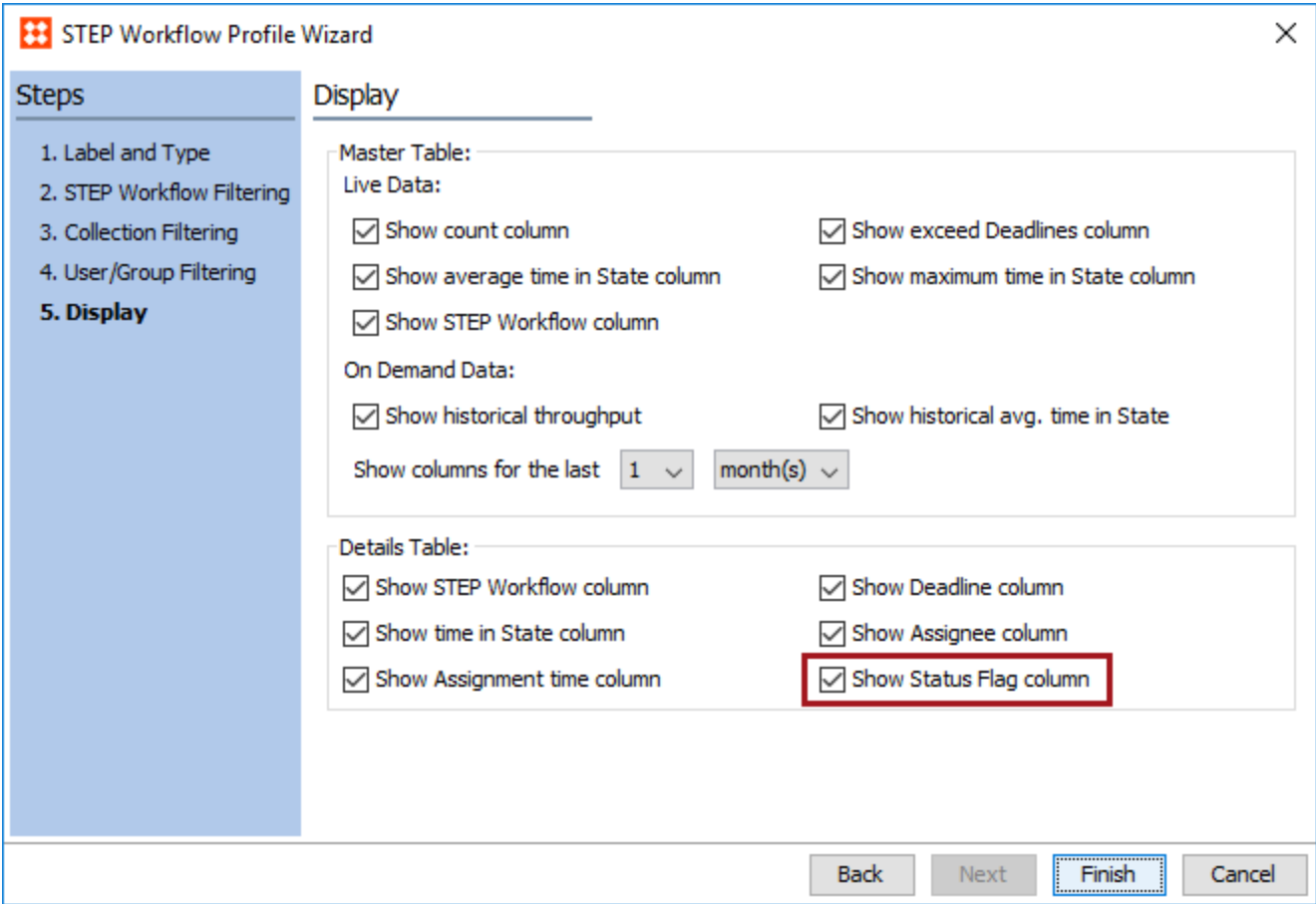
If configured for a Workflow Profile, users can efficiently monitor the status of multiple objects across workflow states and assignees.

Item	>	STEP Workflow	>	Assignee	>	Status Flag	>
> Cosmic Horror Game		SampleWorkflow		Super Users		Normal	
> Space Adventure Game		SampleWorkflow		Super Users		Normal	

For more information, see the Monitoring Workflows section of the Workflows documentation.

New option to claim task from details pages in Web UI

Previously, users were only able to assign a workflow task to themselves on the Task List and Advanced Search screens via the 'Assign To Me Header' component. If a user navigated directly to an object from a task list without first claiming the task, they would be unable to take action on the object. Now users are able to assign a workflow task to themselves directly from the object if the 'Task Assignment Action' has been added to the Node Details screen. This adds the 'Assign to Me' button to the screen, which is only visible to the end user if they have accessed the screen via a task list. When the button is clicked, it assigns the task to the current user. When the current user is already the assignee, the button appears as 'Release Task'. Both the claim and release labels are customizable, and Web UI designer options also allow for the button to be configured with an icon only, text only, or both icon and text displayed.
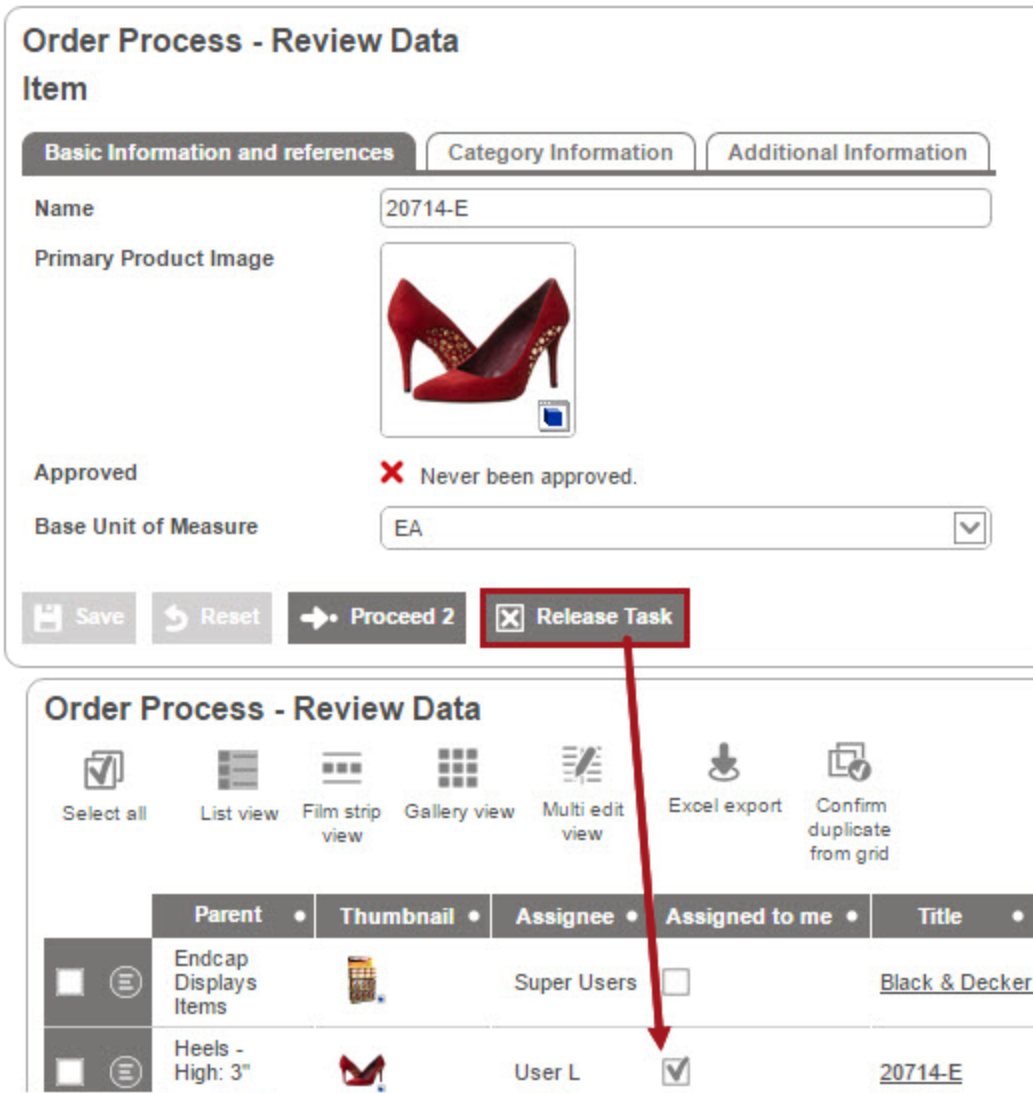
For more information see the Claiming / Releasing Tasks in Web UI topic in the Web User Interface documentation.

Improved functionality when using Advanced Search screens to display workflow tasks in Web UI

When accessing Advanced Search via a Status Selector (Homepage / Sidebar) widget, enhancements have been made to help end users better identify the workflow and workflow task they are working with. The title field of an Advanced Search screen can now be configured with placeholders ({WorkflowID}, {WorkflowState}, {WorkflowName}, and {StatusFlag}). Also, default behavior has been improved so that the populated workflow search criteria fields display on the screen allowing users to easily focus on their tasks without any concern that they may inadvertently take action on tasks that they do not own.

For additional information, see the Enhanced Advanced Search Functionality in Web UI section of the STEP Trailblazer 8.1 Release Notes for more information.

New option for template-based object creation added to the Create Object in Workflow screen in Web UI

Users can now create new objects by using an existing object as a template when using the Create Object in Workflow screen within Web UI. A template object allows for pre-filled attribute values to be applied to the new object. Using this functionality to create and initiate objects gives users an advanced starting point when working with the new object.

For more details, see the Data Onboarding Enhancements section of the STEP Trailblazer 8.1 Release Notes for more information.

Workflow Bugfixes

ISSUE-247601 - Fixed a tooltip bug in workbench in the workflow note column

In the workbench workflow note column, the tooltip for transitions with no Submit message incorrectly displayed 'null' as the message, and the tooltip did not display if the most recent transition did not have a Submit message. This has been fixed.

ISSUE-247332 - Fixed a Web UI highlight bug for mandatory attributes in workflows

When a workflow had been configured with a mandatory attribute, and the mandatory attribute did not have a condition set in the workflow designer, the field would not be highlighted correctly in the multi-edit display mode in the Web UI. This has now been changed so that empty values in the condition of a mandatory attribute for a workflow now implies mandatory state.

Business Rule Enhancements

STEP has received a number of bugfixes and minor enhancements regarding business rules as part of the Trailblazer 8.1 release. These are listed below:

New business rules tracing in admin portal

A new business rules tracing option has been added to the STEP System Administration (admin portal) tool to assist in troubleshooting issues with business rules. Additional information on this can be found in the New System Monitoring and Diagnostics Tools section of the Trailblazer 8.1 Release Notes.

Removed ability of business actions to commit

In Trailblazer 8.0, business rules could (sometimes inadvertently) commit changes to the database. However, if a commit occurs within a business rule, it is not possible to roll back the transaction. As business rules are executed as part of larger transactions (e.g. at workflow transition, approval, upon import, etc), it is the outer transaction that must have control of committing and/or rolling back the transaction. Therefore, with Trailblazer 8.1, the ability to commit changes within a business action has been removed. An error will now be thrown for any actions that attempt to commit changes. Any existing rules using commit actions should be updated to avoid these errors.

Business Rule Bugfixes

◆ **Corrected bug in line number reporting for errors in JavaScript business rules**

Previously, if a JavaScript business rule had an error in the syntax, STEP would incorrectly report the line number of the error. This has been corrected so that the line number being reported is accurate, allowing users to more quickly troubleshoot errors.

◆ **ISSUE-243519 - Corrected an issue using JavaScript throws for business actions**

This fix enables use of localized messages in business actions using JavaScript throws.

◆ **ISSUE-254362 - Fixed a bug in the business rule approve trigger**

Corrected an issue with classcast exception when handling localized error messages for business rule approve trigger when the error is in the referenced business action.

GDSN Enhancements

Summary

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

- New ability to select an IPGLN from a List of Values in a single Web UI instance when using the Register or Publish action buttons in the Web UI, eliminating the need to have a separate Web UI for each IPGLN
- Users now have the option to auto-approve GDSN import changes in the GDSN Receiver, streamlining the import process
- Error messages that are generated when registering or publishing product objects to GDSN now display a dialog that can be viewed within the Product Details screen, simplifying error resolution tasks
- Users of the GDSN provider solution now have the ability to select multiple target markets when registering or publishing GTINs, simplifying the register and publish processes
- A new 'GDSN Add Link Action' button has been created in Web UI, giving users the ability to send link ADD or link DELETE messages for the product hierarchy
- Older versions of the GS1 Business Message Standard (BMS) and 1WorldSync (1WS) data pool formats have been removed from STEP as they are no longer supported by GDSN

Details

New Dynamic IPGLN Mapping in Web UI

Users now have the ability to select the Information Provider Global Location Number (IPGLN) from a List of Values in a single Web UI instance when using the Register or Publish action buttons in the Web UI, eliminating the need to have a separate Web UI for each IPGLN.

Previously, the Information Provider Global Location Number (IPGLN) was configured in the Web UI using the GDSN Register Action and the GDSN Publish Action components. As a result, when creating a new GDSN Provider Web UI in the workbench, a context menu would appear requiring the user to provide the IPGLN. After providing the IPGLN, a new Web UI would be created for that IPGLN. This meant that each instance of an IPGLN would require a separate Web UI. Now, instead of the IPGLN being configured in the Web UI, it will be maintained as a LOV-based IPGLN attribute on the products that are being synchronized to the GDSN. Since the IPGLN will no longer be used as a parameter for setting up a GDSN Provider Web UI, only a single instance of the Web UI will be required.

For backwards compatibility, existing setups will need configuration adjustments to take advantage of the new feature. However, once a Web UI is configured to use multiple IPGLNs, it will not be possible to revert to the previous setup.

For detailed information describing how to configure a Web UI to employ IPGLN selection, see the Configuring Multiple IPGLNs in Web UI topic in the GDSN Provider documentation.

New Auto Approval Option for GDSN Receiver Imports

A new 'Advanced Settings' step has been added to the 'Configure Import Message' wizard, which is launched when editing the Import Configuration for a GDSN receiver. This step contains a new option, 'Approve Import Changes.' If the 'Approve Import Changes' box is ticked on, the GDSN importer will approve any object and all associated elements (such as values, references, and links) owned by the object that have changed during the import. Also, deletions of objects and all associated elements (such as values, references, and links) owned by the object will be approved.

Users who have configured a GDSN Import Message prior to the release of STEP 8.1 will need to go into the import configuration and check 'Approve Import Changes' for this option to take effect.
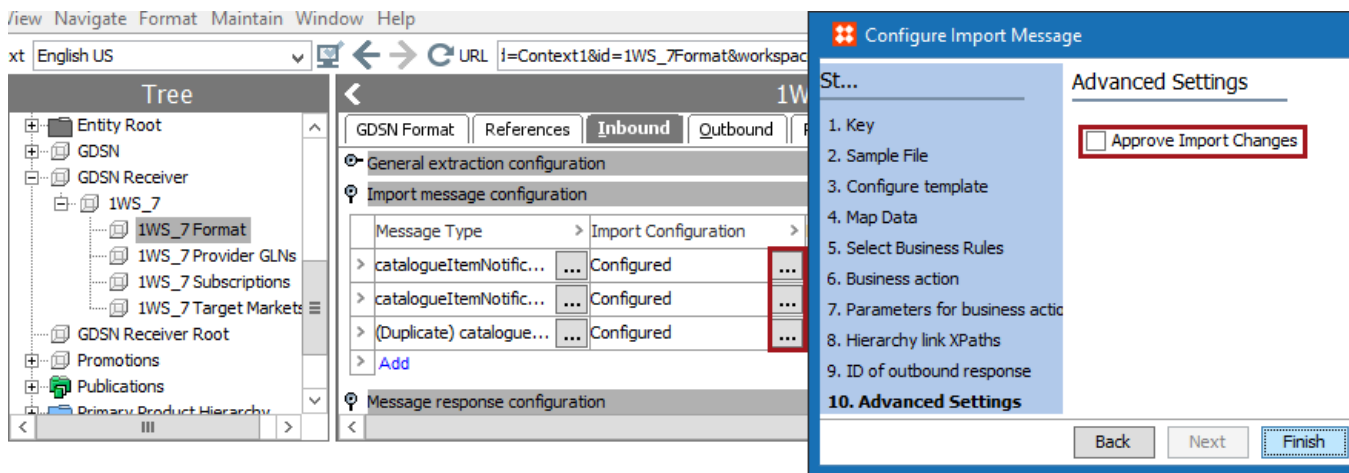
For more information regarding the GDSN Receiver Solution, please see 'GDSN Receiver' in the 'GDSN Receiver' documentation.

Improved GDSN Error Messaging

Validation error messages that are generated when registering or publishing product objects to GDSN now display a floating dialog that can be viewed from within the Product Details screen. Additional advantages related to this enhancement include:

- Ability to view error messages without having to navigate away from the product details screen

- Ability to correct data corresponding to the error message while viewing the error message in the same window

Previously, when validation errors occurred while registering or publishing product objects to GDSN, users would have to navigate from the product details screen to the background process screen in order to locate the problematic object and the error message associated with it. In order to correct the error, users had to navigate back to the product details screen, find the product object, and correct the error. This was especially cumbersome if there were multiple errors across multiple products.

For more information regarding the GDSN Provider solution, see the GDSN Provider documentation.

Multi-target market selector

Previously, users of the GDSN Provider solution could only register or publish GTINs (Global Trade Item Numbers) in one target market at a time. Now it is possible to register or publish GTINs in multiple target markets using the 'Register' and 'Publish' dialogs in the GDSN Provider Web UI.
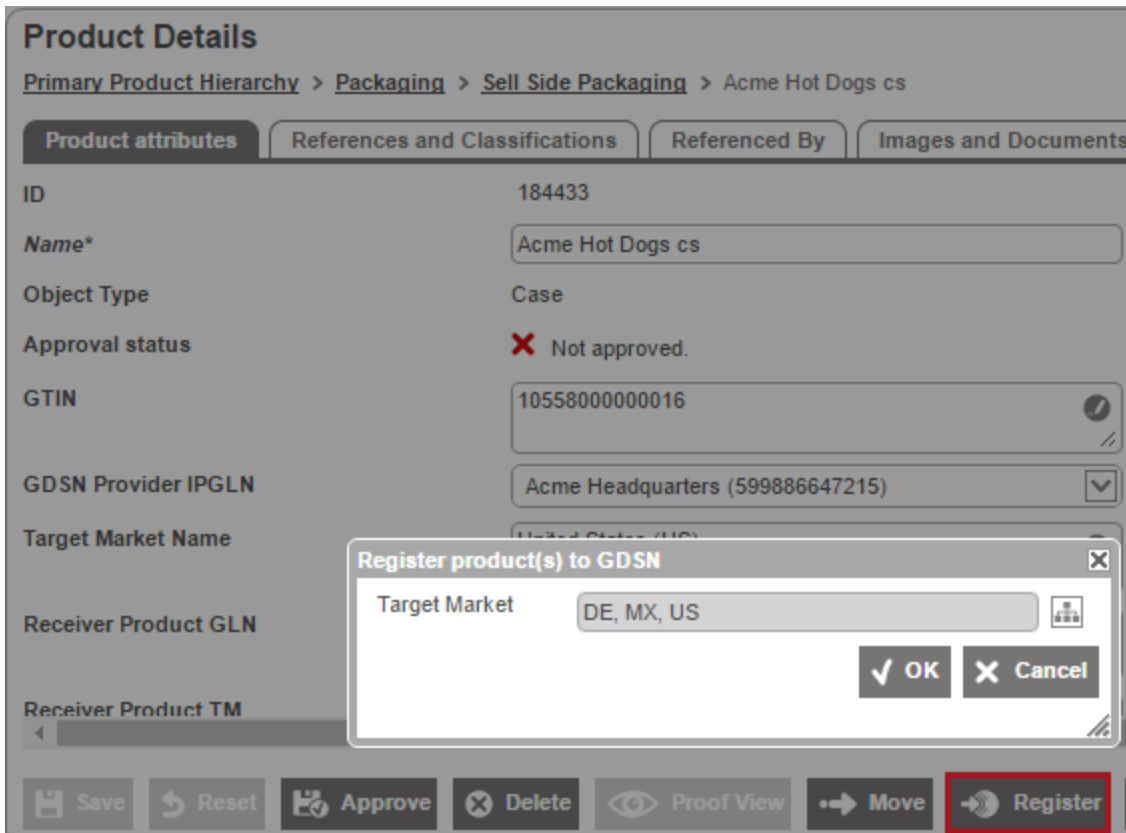
For more information regarding the GDSN Provider solution, see 'GDSN Provider' in the 'GDSN Provider' documentation.

New GDSN Register Link Action Button

Previously, links were included with the register messages. It is now possible to separate the messages using a dedicated component for this, which will not require selection of a target market. Additionally, there is a validation check done prior to adding the link to ensure all of the products in the product hierarchy are registered.

For more information regarding the GDSN Provider Solution, see the GDSN Provider documentation.

Removal of Old Format Templates from the GDSN Component Model

When creating receiver and provider data pools using the 'Easy setup' option via the GDSN component models, GS1 BMS (2.8) and 1WorldSync 6.8.8 have been removed (where applicable) as format options. The current standards remain: BMS 3.1 and 1WS 7 formats for the receiver data pool and 1WS 7 for the provider data pool. Contact your Stibo Systems account manager for documentation to assist in upgrading an existing GDSN implementation.

For more information, see the Setting Up the GDSN Receiver Data Pool section and the Setting Up GDSN Provider Data Pools section of the GDSN documentation.

GDSN Bugfixes

◆ ISSUE-256304 - Corrected a business rules issue in the GDSN validation process

Fixed a problem with exceptions from referenced business rules in GDSN validation being suppressed in BGP execution reports.

◆ ISSUE-238307 - Fixed a bug in the GDSN publisher solution

The GDSN publisher solution is now slightly more robust when certain message types are received. Previously the inbound integration endpoint would abort upon receipt of certain messages and would have to be restarted manually. This change will allow the background process to fail with an error instead of stopping the integration endpoint.

Translation Enhancements

Summary

STEP's translation functionality has been updated to improve overall flexibility and enhance the users' ability to add more automation to their translation processes. These improvements touch on a number of key aspects of the translation functionality, all working together to make translation more effective and easier to use. The enhancements include:

- The two previously existing translation XML formats have been combined into a single XML format that supports all functionality previously available in the individual formats
- Reference and link metadata will now be included in translation XML export files
- Objects can now be selected for translation via collections, giving users more flexibility in how objects are identified for translation
- Structured translations can now be automated through scheduling, including set up of recurring translations
- Users now have the option to immediately initiate translation requests, without having to validate that the export should occur after completing the request process
- Users may now opt-out of the previous requirement that all objects to be translated must first be fully approved

Details

Consolidation of previously existing translation formats

With this release, STEP has combined the two existing XML translation formats into one, and has resolved the previous formats' limitations. Now, there is one XML translation format and it allows users to translate values for attributes with multiple dimension dependencies.

It is important to note that, as a result of the merging of these two XML formats, one of the two formats (the non-default) may no longer be used. Any customers currently using the XML format enabled through the use of the configuration property 'Translation.EnableDomainModeXMLTranslation' should be aware that this translation XML format has been deprecated as of this release, and must be removed prior to starting this update.

Include reference metadata in offline translation

STEP now exports language-dependent reference and link metadata into XML files when using the structured translation XML export. Previously, reference link metadata could only be translated through manual translation, and could not be made to appear in the structured translation XML export. Now, when a reference or link has been added to an object included in a translation export, any language-dependent metadata is supported for product references, classification references, image and document/asset references, entity references, and product-classification links owned by either products or classifications.

It is important to note that this functionality does not extend to translation exports for Excel files, only XML.

Select data objects to be translated based on a collection

Previously, translation processes could be started based on either a selection in the Tree or an imported file containing a list of STEP IDs of objects to be translated. In this release, a third option has been added: users may now select a collection that contains the objects to be translated. Collections of data objects (products, classifications, assets) or setup objects (LOVs, attribute names) can now be translated using the structured translation process. If a collection is search-based, meaning a collection is comprised of the results of a saved search, users may activate a 'Refresh Automatically' checkbox in the Request Translation Wizard. Doing so will re-run the configured search for the selected collection prior to exporting into a translation file.

It is useful to note that this added capability has also prompted a change to the Request Translation Wizard. The translation options available from the File menu dropdown have changed so users will no longer select from Products, Classifications, Assets, and Setup Data, but rather from Data Objects and Setup Objects. Additionally, changes have been made to the 'Object Selection' step in the Request Translation Wizard.

For more information on starting a structured translation using the Request Translation Wizard, see the Starting a Structured Translation documentation.

Scheduling enabled for translation extracts

The ability to automate STEP's translation capability has made a significant advancement with the new translation scheduling feature. Users may now schedule a structured translation export (either XML or Excel) to begin at any future date, or set a translation export to recur based on an interval configured by the user.

New option to skip validation

Previously, when users started a translation export in STEP using the Request Translation Wizard, they were required to go to the translation request's background process and confirm whether or not the export should

proceed with the selected objects. Now, users can elect to skip this step when starting a structured translation export.
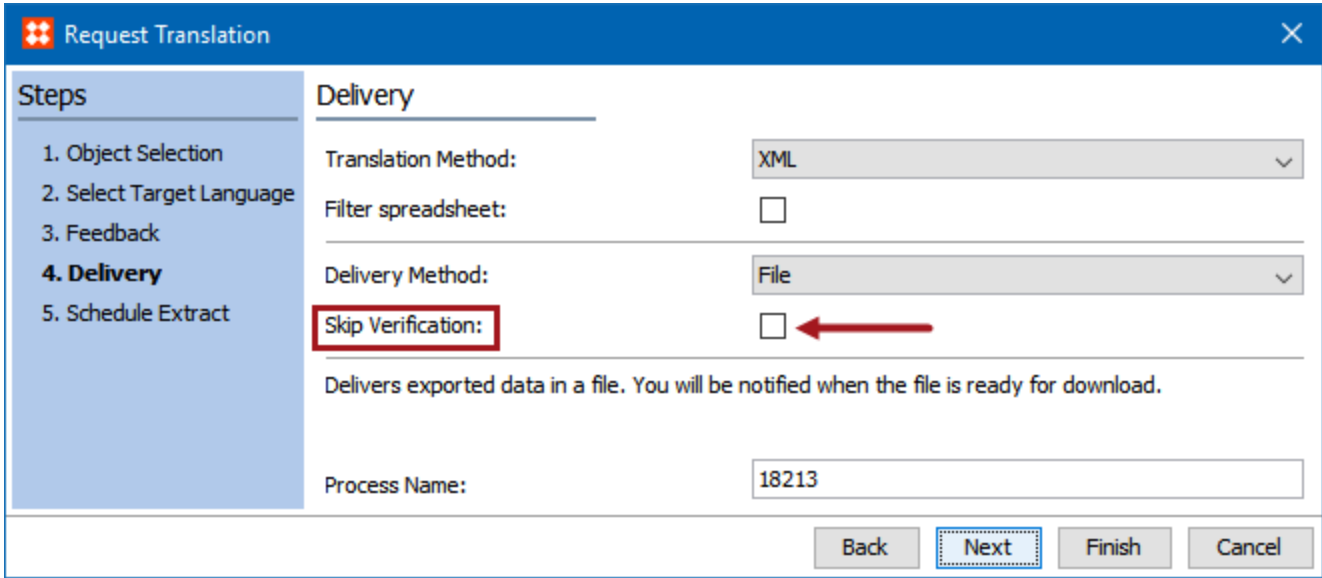
For users initiating multiple translation exports at one time, this enhancement is likely to provide an appreciable time savings.

New option to translate data that is not fully approved

Translation exports can now be created even if the selected object is not fully approved in the source context. This enhancement may be useful for some customers in that, even if an object is taken out of fully approved status because a low-impact action has been taken on that object (moved beneath a new parent, new reference is added, non-dimension-dependent attribute is modified, etc.), that object can still be included in the translation export. Users may simply opt out of the approval requirement by un-checking the box for **Completely Approved Source** when using the Request Translation Wizard.

It is useful to note that whether the **Completely Approved Source** box is checked or unchecked, the content to be included in a translation export is taken from the Approved workspace.
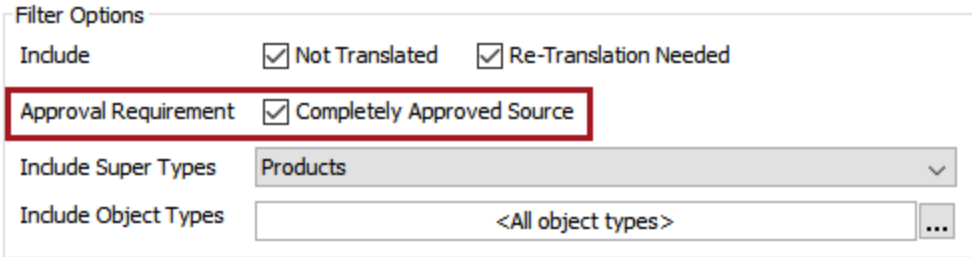
For more information about STEP's translation capabilities, see the Translation documentation (including all child topics).

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
- Redesign and split of the STEP Template Palette in InDesign, allowing for a more simplified view of template options and a more intuitive regrouping of template options that belong together
- New ability to convert sample documents created outside of STEP into STEP'n'design product templates, simplifying the template creation process
- Ability to change the display context of STEP palettes in InDesign, enabling users to view object names in a different language than that of the publication version they are currently working with
- Support for export and import of layer mapping configurations from publications
- New ability to select specific table types and/or fully remount tables in all locations where actual pages can be updated from the workbench
- Enhanced and simplified management of InDesign server renderers
- New enhancements to manage the InDesign DTP queues and simplify DTP operations

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 2015.4 (CC11.4.0, June 2016 release) is now available
- InDesign CC 2014 (CC10) is no longer supported
- Previously existing support for InDesign versions CS6 and CC 2015 (CC11) continues

STEP'n'design Template Palette split and redesign for usability improvements

The STEP Template Palette has been split into two separate palettes: 'STEP Template Frame' and 'STEP Template Content.' The two new palettes allow a simpler view of all available template options and easier distinction between which options apply to the contents *within* a frame (for example, 'Delete Before' and 'Delete After', which are now located in the STEP Template Content palette) and which options apply to the *entire* frame (for example, 'Delete no Content', which is now located in the STEP Template Frame palette).
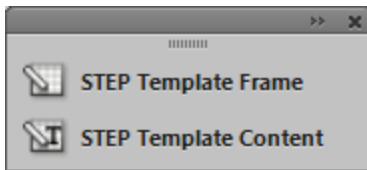
By splitting the STEP Template Palette into two sections, the palette becomes considerably easier to use. As numerous new options (and their corresponding checkboxes, dropdowns, radio boxes, and text fields) were added over the years, the palette grew in complexity. In addition to the visible options, numerous other options were 'hidden' under the Options menu. As a result, the available functionality in the STEP Template palette became disorganized, with many options not always visible to users.

Other changes related to the redesign of the template palettes include:

- All selections have been removed from the Options menu except for 'Show Adornments,' which is now the sole item in the Options menu on the STEP Template Frame palette. There is no Options menu available on the STEP Template Content palette.

- All other selections previously available in the Options menu have either been moved onto the STEP Template Content palette or have been made available as right-click actions within text frames.

- Numerous labels have been updated for clarity and consistency to make them more understandable to users and easier to search for in the online help documentation. For example, the label 'Cond requires all' has been changed to 'Condition requires all.' In addition, cosmetic changes (such as changes to punctuation and capitalization) have been made to labels to enhance readability.

- The 'Template Type' selection is now under the STEP menu instead of on a template palette. Additionally, options in the STEP menu have been reorganized to provide additional clarity on which options are related to one another. Both enhancements are pictured in the below screenshot.
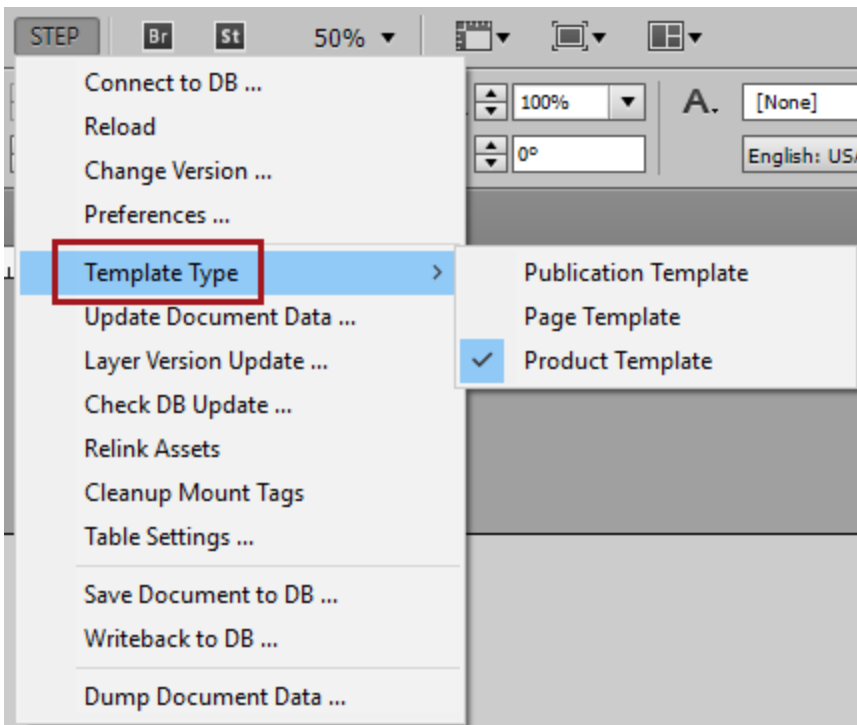
For more information on STEP'n'design palettes, see the STEP Palettes in InDesign section of the STEP'n'design documentation.

New functionality to convert sample documents to product templates

Two functions have been introduced in STEP'n'design that can be used to create STEP'n'design product templates from sample InDesign documents that were created outside of STEP: 'Convert to STEP Product Template' and 'Convert to STEP Tags.' The 'Convert to STEP Product Template' feature can be used to convert an entire sample document to a product template in a single action. 'Convert to STEP Tags' is used to convert individual frames or partial text within frames into STEP product template tags.

Previously, the process of creating product templates from sample documents was fully manual. Users had to visually identify content in the documents and determine the attributes that matched the text, the asset reference types that matched the images, and so forth. The new 'Convert to STEP Product Template' and 'Convert to STEP Tags' features greatly reduce time spent on such manual content matching.

The below screenshots show a 'before' (L) and 'after' (R) of a sample document converted to a template using these features.
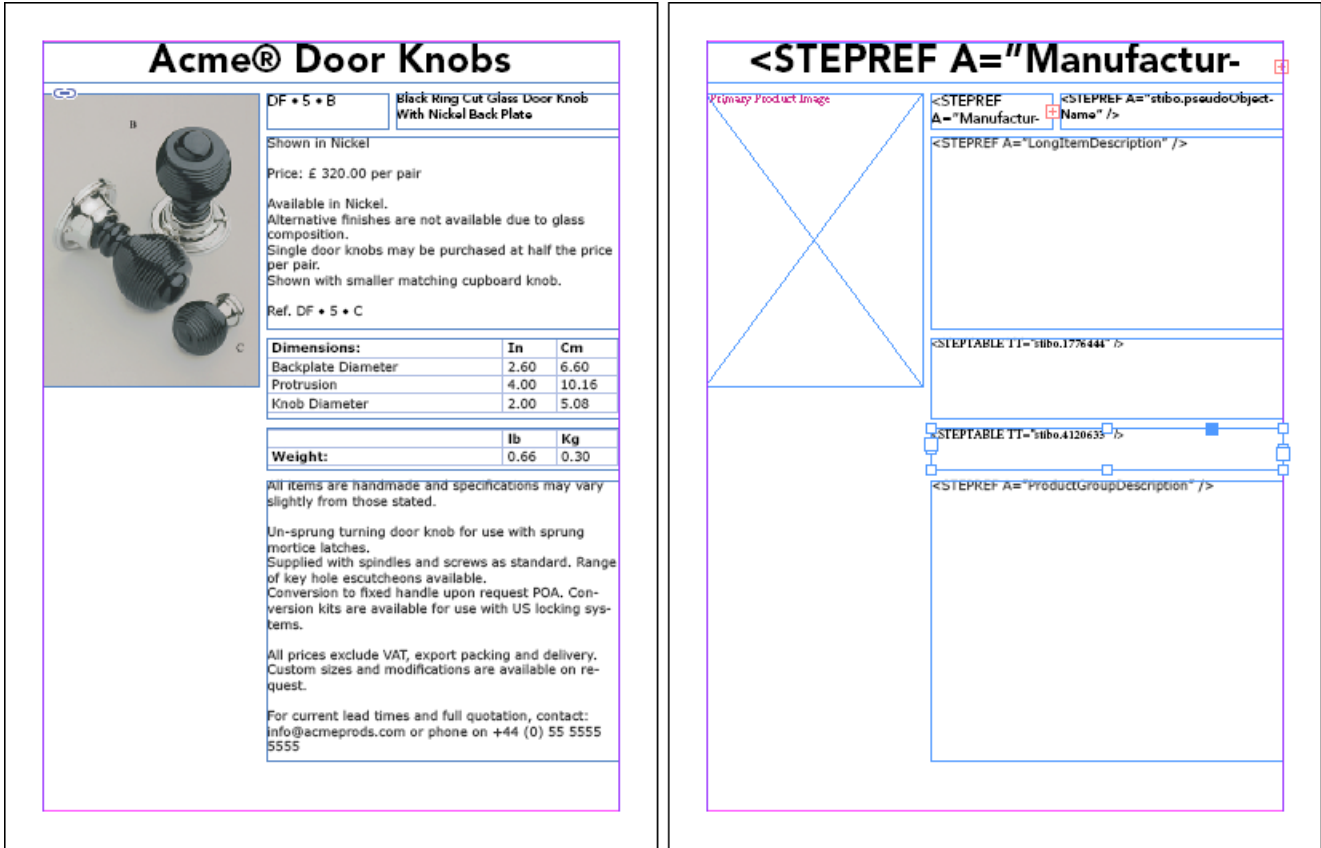
For more information on the Convert to STEP Product Template and Convert to STEP Tags features, see the Converting a Sample Document into a Product Template section of the STEP'n'design documentation.

Enhanced context-specific view options for STEP'n'design palettes

STEP'n'design now features the ability to change the display context of the STEP Structure View, STEP Template Content, STEP Images, and STEP Publication View palettes in InDesign, enabling users to view object names in a different language than that of the publication version they are currently working with.

Previously, the names of objects in all STEP'n'design palettes in InDesign would display in the currently selected publication version only, and the version itself would have to be changed to switch the views. This made it difficult for people that read in one language to know what to mount or not mount in another language because the names of the products and attributes would be in the other language. Now users can remain in the publication version that they are mounting but change the display context so they can see the names of attributes, attribute groups, products, classifications, entities, and publication hierarchy objects in the language of a different context.

This is accomplished with the new 'Display names in context' dropdown list that appears at the bottom of the 'Change Version' dialog in STEP'n'design (accessed through the STEP > Change Version ... menu option). The display language chosen from the dropdown is the language in which object names and attribute names will display. In this example, the French FR context is selected to be mounted, but English US has been selected for the display names context. Therefore, attribute *values* display in French and mount on the page in French, but the *names* of objects and attributes display in English in the STEP Structure View palette. This way, a user that might not understand French will still have the ability to select the appropriate objects and attributes to be mounted, as shown in the example below.
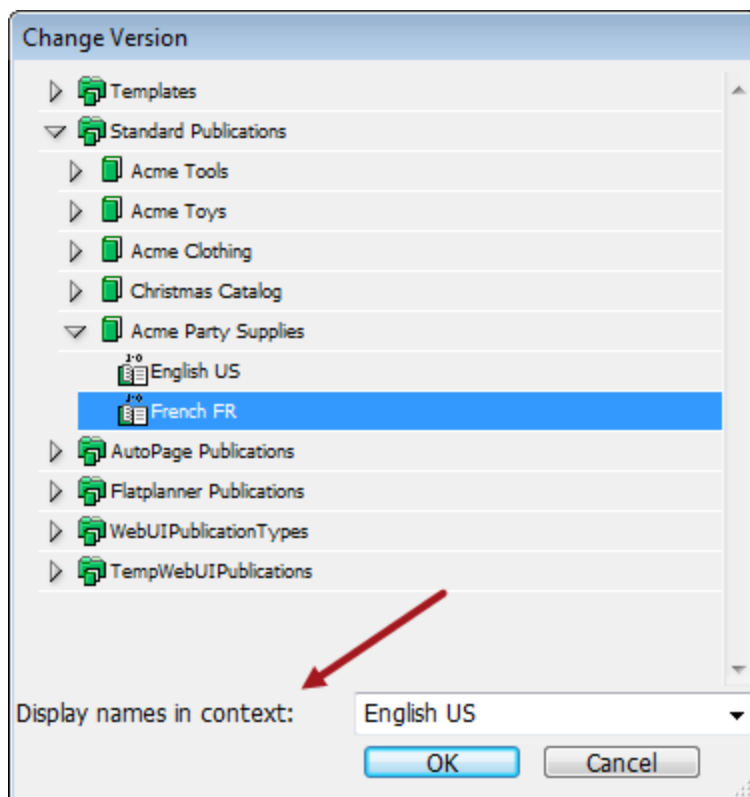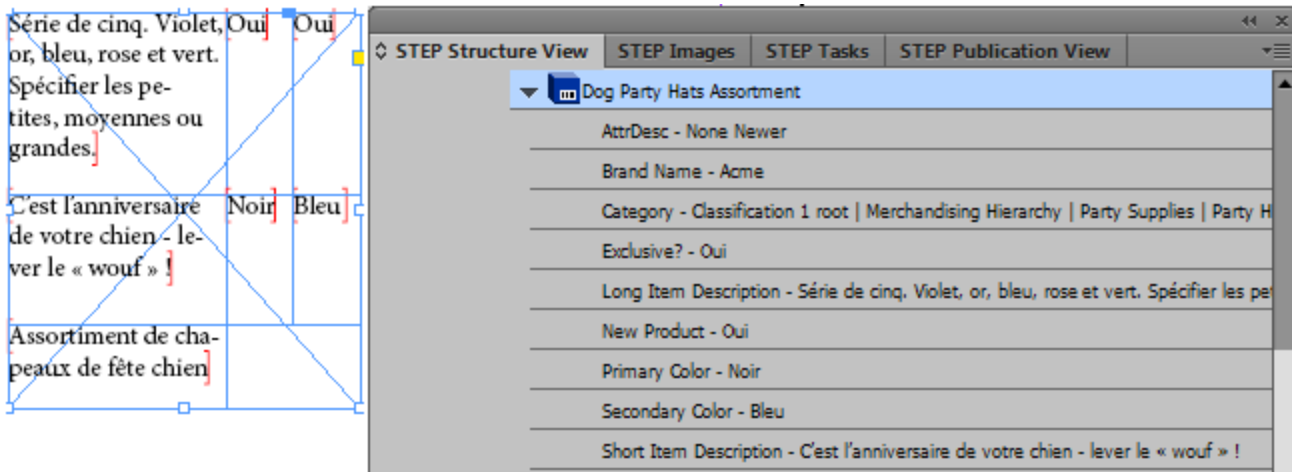
For more information, see the Description of the InDesign Interface section of the STEP'n'design documentation.

New ability to export and import layer mapping configurations from publications

Publication exports and imports now contain information about layer mapping configurations, both in the Publication Excel and STEPXML formats. This enhancement enables a publication to be exported and imported while retaining all layer mappings, thus eliminating the need for users to perform manual remappings of layers—which can be a tedious task if there are numerous layers—after importing a publication.

Three new columns have been added to the Publication Excel sheet to include layer mapping information: LayerMappingTemplate, LayerMappingDocument, and LayerMappingOwner. LayerMappingTemplate displays the name of the layer in the templates (publication, product, and InDesign-created page templates), LayerMappingDocument displays the name of the corresponding layer in the publication document (mounting page), and LayerMappingOwner displays whether the publication version to which the layer is mapped is the owner of the layer.

In the STEPXML format, a new <LayerMapping> tag has been added as a nested tag inside the <Version> section of the code.

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

Overwrite tables options for document updates in STEP Workbench

 Two new options for updating tables on actual pages—'Tables' and 'Table Types'—have been added to the 'Update' feature in all locations where actual pages can be updated from the workbench. The following screenshot shows the addition of 'Tables' and 'Types' to the 'Add Items' dropdown list that appears in the 'Update contents of documents' dialog (accessed by right-clicking on publications, sections, etc.). A similar dialog is also available elsewhere, such as in Bulk Update and from within the AutoPage Publication Planner.
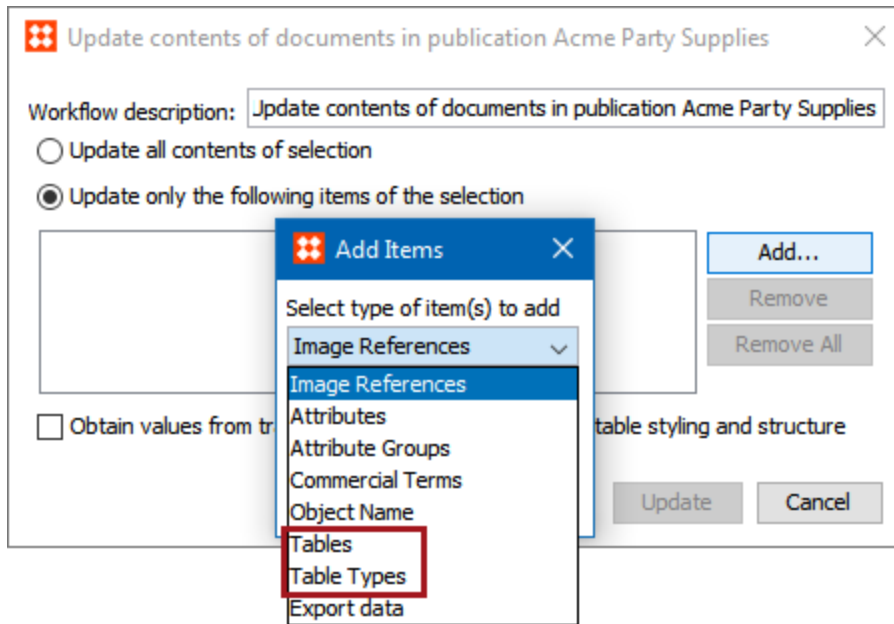
Selecting 'Tables' will update the contents of all tables mounted on actual pages within the publication or section. Selecting 'Table Types' will launch a dialog that allows users to select only the specific table types that should be updated.

Previously, the only way to update tables in publications / sections using the 'Update' option was to choose 'Update all contents of selection.' However, this blanket selection did not allow users to specify individual table types to mount, nor did it give users the option of completely remounting tables in order to overwrite local formatting, which is accomplished by unchecking the new 'Obtain values from transformed tables, preserve local table styling and structure' checkbox.

Note that as part of these updates, the previously existing label 'Obtain values from transformed tables, checking for table structural changes' has been renamed for clarity to 'Obtain values from transformed tables, preserve local table styling and structure' in all places where it appeared in the workbench and in InDesign.

For more information, see the Updating Documents From the Workbench section of the STEP'n'design documentation.

Improved monitoring and management of InDesign server renderers

Monitoring and management of InDesign server (IDS) queues and renderers is now available on the STEP System Administration console (admin portal), and additional monitoring information has also been added to the sidecar page.

A new IDS Logging tab has been added to the STEP admin portal that allows users to download and view the STEP'n'design logs for each renderer as well as download and upload configurations for each renderer. Previously, users had to log onto the machine hosting the InDesign server in order to access these logs and adjust the logging levels.
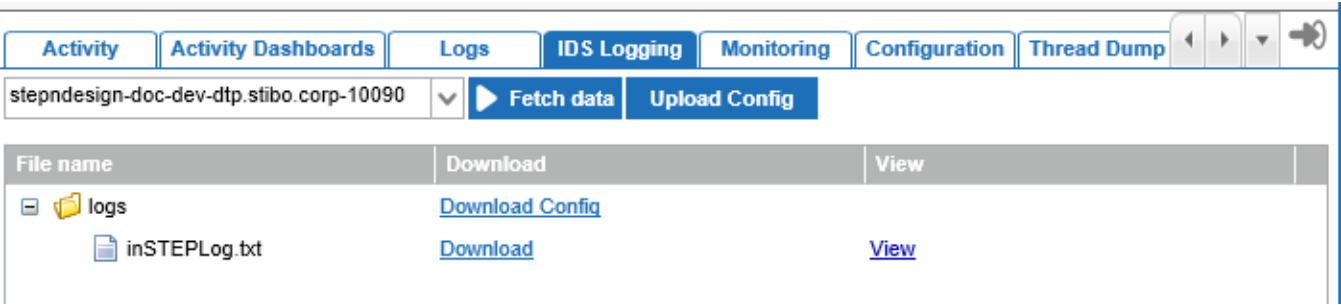
Additionally, all information on InDesign queue and renderer status has now been consolidated onto the sidecar status page and expanded to show the state per application server in a clustered environment.

Previously, information about the status of InDesign server sidecar renderers was available in two locations: inside the workbench on the System Setup 'InDesign Queue' editor and outside of the workbench on the sidecar page. The only information provided in the InDesign Queue editor was a simple online / offline status per renderer in a row labeled 'Online?' and a list of current tasks being performed by the renderers. The 'Online?' row has been removed from the workbench, as it could sometimes be inaccurate (for example, returning a status of 'offline' when the renderer was simply busy with a large job). Now, users do not have to go to multiple locations to monitor the status of the attached InDesign queues / renderers.

For more information about the IDS Logging tab in the Admin Portal, see the IDS Logging section of Admin Portal.

For more information on InDesign Queues, see the InDesign Queues section of the STEP'n'design documentation.

Additional DTP Queue enhancements

New enhancements have been added to the management of DTP queues that include:

- The ability to easily define and see which queue is the main (default) queue. Previously, only the system-generated default queue could be defined as the main queue. Now, the main queue can be defined by the user in a way that aligns with their business needs. Note that the (*) that previously identified the default queue has been removed and replaced with a new 'Main Queue' column that is easy to comprehend. Additionally, the system-generated default queue will not be removed automatically if no renderers are associated with it.
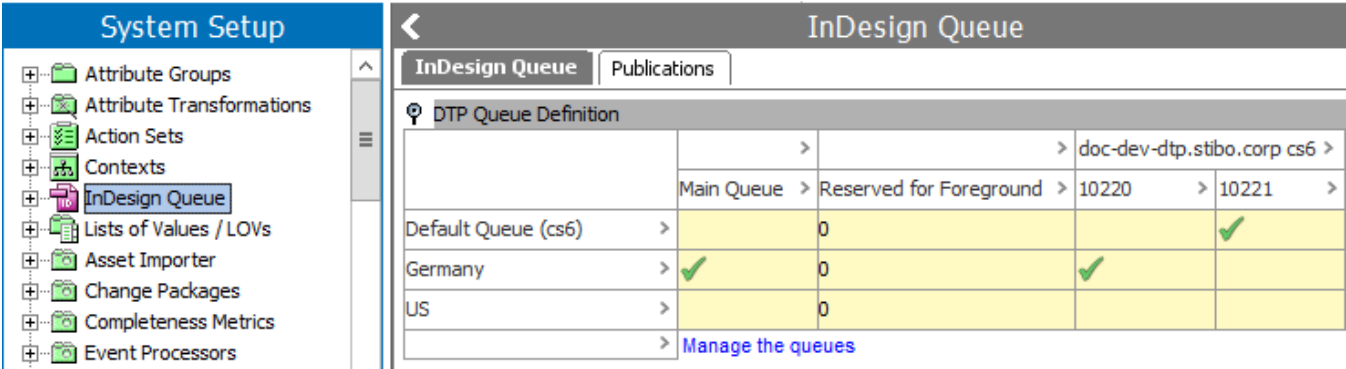
- The ability to edit the 'Reserved for Foreground' value for the default queue. It is now possible to edit this value as long as the value is one less that the number of renderers for the queue. The ability to edit the 'Reserved for Foreground' value for the default queue. It is now possible to edit this value as long as the value is, at most, one less than the number of renderers for the queue.
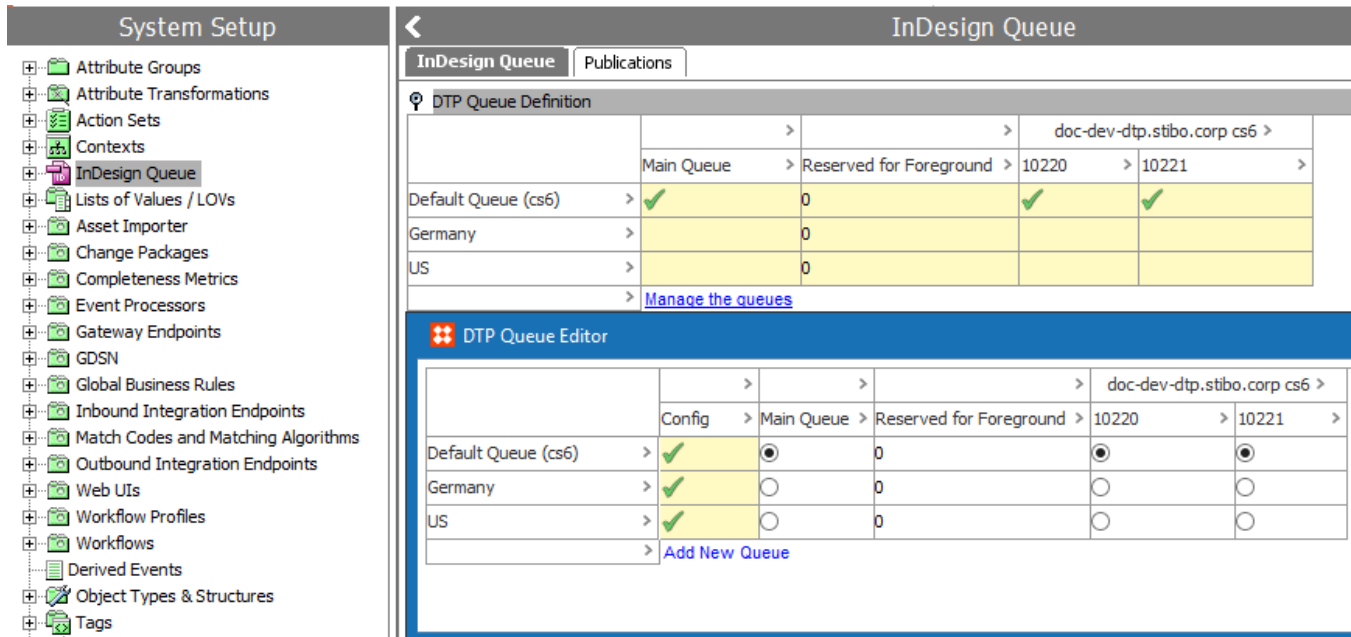
- The ability to designate a default queue at the publication group level, which will inherit down through the publications. Previously, DTP queues could only be assigned at the publication level. This could become cumbersome depending on the number of publications required to use a queue other than the default queue.
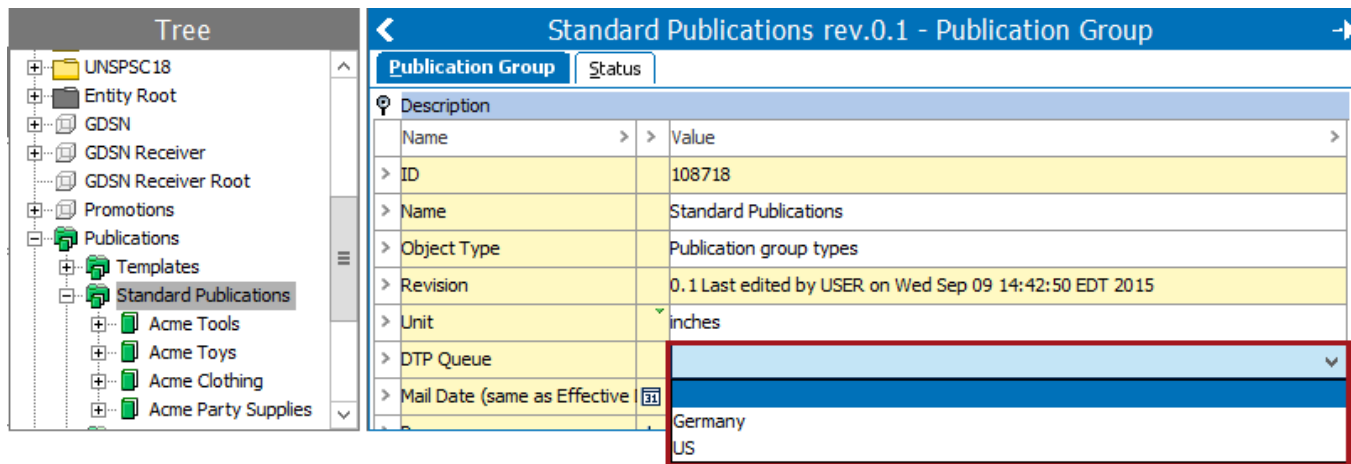
For more information, see the InDesign Queues section of the STEP'n'design documentation.

Print Publishing Bugfixes

◆ **ISSUE-246791 - Corrected an issue in STEP'n'design CC for the STEP Structure View palette**

In STEP'n'design, the 'Show mounted items' option did not highlight any mounted items in the STEP Structure View palette when using plugins for CC. This has been corrected.

◆ ISSUE-248769 - Corrected an issue related to commercial data lists

The URLs of the commercial data lists were incorrectly formed while copying from the menu or context popup. Now, the lists may be copied and pasted correctly.

◆ ISSUE-240935 - Fixed a whitespace bug in AutoPage

In STEP'n'design, if a product template had a group with frames set to 'delete no content' and some frames contained resolved data and others did not, AutoPage could result in unnecessary white space on the page. This has been corrected.

Tables Enhancements

Summary

Two enhancements have been made to the tables functionality in the workbench. These are:

- Updated text labels and screenshots for the STEP tables Pivot Transformation wizard, enabling a more informative textual and visual aid to users when identifying which area of the pivot table is being defined
- Addition of a new STEP'n'design event that allows for improved handling of merged cells in split tables

Details

Improved labels and screenshots for Pivot Transformation wizard

The Pivot Transformation for STEP tables has been enhanced to include updated text labels and screenshots on the wizard screens to give an improved and more informative visual aid to users to identify which area of the pivot table is being defined. For example, in step 1 of the wizard, the heading 'Row Headings' has been changed to 'Left Common Values,' and in step 2 the heading 'Row Headings' has been changed to 'Top Pivotal Values.' Also, the screenshots used in each step of the Pivot Transformation wizard more accurately reflect the area of the table that is being transformed for each step.

The Pivot Table documentation has been updated to reflect the enhancements and serve as a guide to the pivot tables.

For more information, see the Pivot Table Transformation section of the Tables documentation.

Improved handling of vertically merged table cells in split tables

A new STEP'n'design event called 'afterSetRowData' has been added that is raised during the mounting of a table when a row is inserted in the table. This new event allows the system to be aware each time a row is inserted, which becomes especially useful when tables need to be split across pages. For example, using the 'afterSetRowData' event, a script could be written to replace the 'Merge Equal Cells' transformation. In standard use of the transformation, tables with numerous vertically spanned row cells within a column can cause the height of a single merged cell to exceed the height of the page. This causes page mounting errors because InDesign does not know where to split the table, as tables cannot be split in the middle of a merged cell—tables can only be split between rows. Replacing the transformation with a script that takes action on the 'afterSetRowData' event allows for tables to be split across pages *before* cells are vertically spanned (merged).

For more information on scripting with STEP'n'design, see the STEP'n'design Scripting API document available in the STEP API documentation.

Tables Bugfixes

◆ **ISSUE-251222 - Corrected a table transformation issue related to lookup tables and commercial terms**

A substitution transformation using a lookup table could not handle cases when values were not present for commercial terms, as there was nothing to transform. Now the substitution transformation handles these cases correctly.

◆ ISSUE-255920 - Fixed a bug in the numeric sorting of the tables in workbench

Fixed a bug in the numeric sorting of the tables in workbench. Negative numbers did not sort correctly.

◆ ISSUE-253876 - Fixed a table mounting bug in the STEP'n'design client

Fixed an issue in the STEP'n'design client where mounting a table that splits over many columns or pages could incorrectly fail with a STEPTableTooLargeToSplit error.

◆ ISSUE-256980 - Corrected a bug in pivot table transformations

In the workbench table component, for pivot table transformations, it was possible to enter an illegal row / column selection in the transformation. It would throw an unchecked exception and, in some cases, the table could come into a state where it could not be maintained. Now the unchecked exception is no longer thrown. It is still possible to save the pivot table transformation with column / row numbers that do not exist in the table, but the transformation will not be processed as long as the configuration is invalid.

Miscellaneous Bugfixes and Minor Enhancements

STEP has received a number of bugfixes and minor enhancements in various areas of the software as part of the Trailblazer 8.1 release. These are briefly listed below.

Minor Enhancements

◆ **New reference data editing optimization option**

A new property, 'Reference Target Lock Policy', has been added to the Assets, Entities, Classifications, and Products object types to manage how objects should be locked while they are being referenced.

Previously, when a reference between two objects is being created in STEP, the target object has been locked to ensure that it is not being deleted while the reference is being created, meaning only one process or user can edit it. This can be an issue when running parallel imports where the first import locks the object type being referenced and the second import eventually stops running because it cannot access the locked object. Although STEP continues to retry the import, this can cause inbound feeds to be negatively affected. This behavior continues to be the default, corresponding to the 'Strict' setting on the property. Relaxed should NOT be used on an object type for objects that are often deleted – this could result in poor performance, and risk of locks and deadlocks.

The 'Relaxed' setting on the property puts a less restrictive lock on the reference target objects being edited so that they can be updated concurrently by more than one process and/or user, with a full lock being employed only in the case that a deletion is attempted. This setting, when used with object types that are frequently referenced but rarely deleted, will improve the performance and stability of parallel inbound imports, bulk updates, and users concurrently creating references to the same objects.
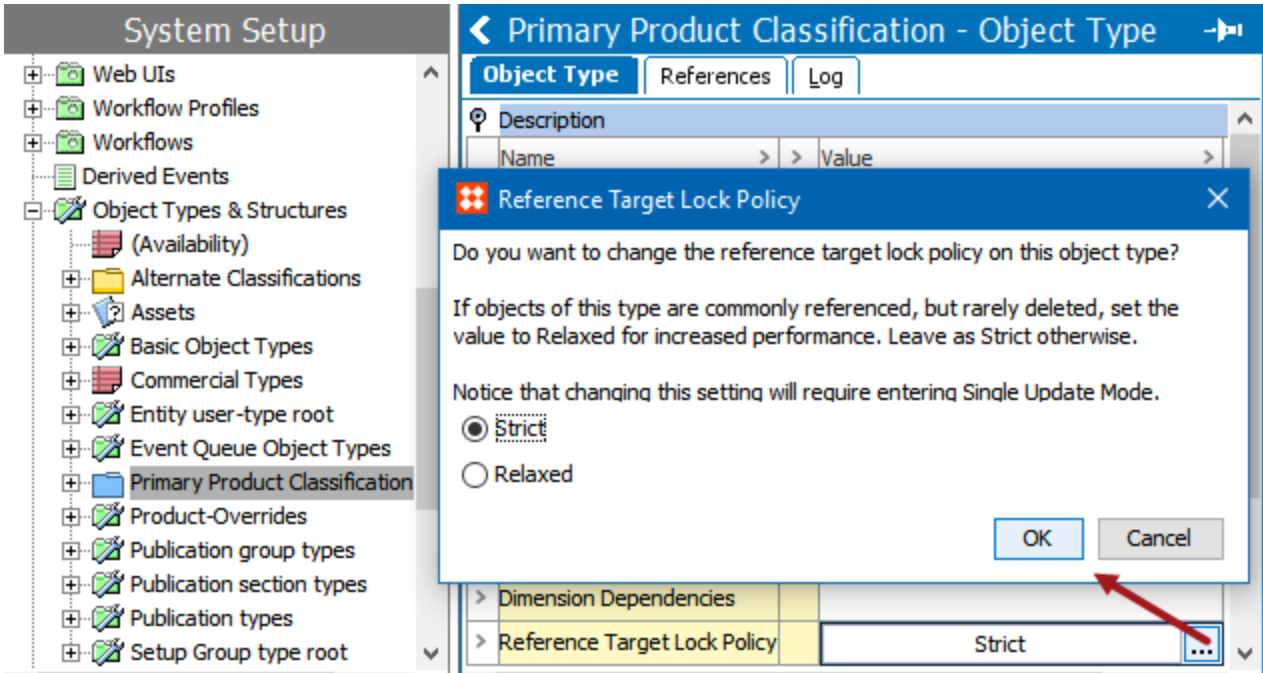
These Relaxed / Strict setting can be changed back and forth as needed, but changing the setting requires the system to enter Single Update Mode.

For more information, see the Reference Target Lock Policy on Object Types topic in the System Settings / Superuser documentation.

◆ Deprecation of legacy LDAP integration functionality

In STEP Trailblazer 7.3 and 7.4, the LDAP integration features were improved. This led to the creation of new configuration properties which could support the new functionality. However, the previous LDAP properties could still be used for accessing the old functionality.

With Trailblazer 8.1, these properties have been officially deprecated and will be removed, together with the features they enabled, in a future release.

In order to avoid problems and gain access to the latest LDAP functionality, please update the LDAP configuration at your earliest convenience. Documentation on how to use the latest configuration is provided in the STEP Authentication Guide available on the STEP API Documentation page accessed from the STEP WebStart page.

◆ Removed links in Open Source Components documentation

Previously the 'Library name' field in the third party software list in the online help (Open Source Components page) contained hyperlinks to the webpages of the external components. As these pages are external to STEP and not controlled by Stibo Systems, they would at times be changed and the links in the online help would subsequently be broken. Therefore, all links have been removed from the online help and users should search using standard web browser functionality if they wish to access external documentation for the libraries.

◆ Improvements to Scheduled BGP tracking information

The scheduled background process properties flipper has been updated to show additional data about the scheduled process. Now the user can see the next time that the process will run, in addition to the schedule. Fields that are not applicable to scheduled processes, like processing time and time in queue, have been removed. For details, see the Scheduled Process Properties section of the Scheduling Data Exports documentation.

Miscellaneous Bugfixes

◆ ISSUE-253595 - Fixed an issue in the eCatalog selection lists querying

Fixed an issue in the eCatalog selection lists querying where using attribute values with wildcards had stopped working. This has been corrected.

◆ ISSUE-241145 - Changed the time in the Quicksheet background description process from a 12-hour clock to a 24-hour clock

The root cause of the issue was that the service allowing Excel files to be downloaded operated with a background process description that contained the time in the 12-hour-clock format. The code has been fixed to represent the time in the 24-hour clock.

◆ ISSUE-254285 - Corrected an issue in the web publisher

The web publisher is now more robust with respect to data inconsistencies. An issue has been corrected that was caused by an asset being removed from a particular context as a side effect of a data inconsistency.

◆ ISSUE-256987 - Fixed a validation bug for Quicksheet templates

Since the September patch of STEP 8, Quicksheet templates without auto-ID's for products have produced error messages instead of validation results following online validation. This has now been fixed so that validation again displays the proper results.

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 8.0 to 8.1 are listed below.

- Oracle Java SE 8 has been updated from Java JDK 1.8.0_72+ 64-bit to Java JDK 1.8.0_102+ 64-bit
- Support has been added for Adobe InDesign CC 2015.4 Client
- Support has been added for Adobe InDesign CC 2015.3 Server
- Adobe InDesign CS 6 continues to be supported as the non-cloud offering
- Adobe InDesign CC 2014 (client and server) has been desupported

The complete list of platform and software support is available in the Platform and Software Support for Trailblazer 8.1 section of the System Release and Patch Notes documentation.

In addition, the legacy 3rd party Intalio and OpenAS2 (GDSN1.openas2 and openas2) libraries have been removed from the STEP application. Functionality associated with these libraries was previously deprecated and no longer in use so there is no impact to existing implementations. However, while no longer in use, it is possible that implementations that previously used functionality that required these libraries may have had related properties added to their sharedconfig.properties files. With the removal of the libraries, all related properties are no longer valid. Therefore, **if any of the below properties were added to the sharedconfig.properties file, they must be removed prior to upgrade.**

- Intalio.Instances
- Intalio.Tasks.FetchFromDB
- Intalio.TaskCache.Shared.GroupIDs
- Intalio.TaskCache.UpdateInterval
- Intalio.TaskList.FetchOnlyRealTasks
- Intalio.Server.MaxConnections
- Intalio.Server.TotalMaxConnections
- Intalio.Server.URL
- Intalio.Database.URL
- Intalio.Database.User
- Intalio.Database.Password
- Intalio.Database.Driver
- Intalio.LastStepCacheSize
- Intalio.EnableCustomMetaData
- Intalio.Sensor.Critical.Max
- Intalio.Sensor.Critical.Avg

- Intalio.Sensor.Critical.Max.dynamic
- Intalio.Sensor.Critical.Avg.dynamic
- Intalio.ProcessCacheSize
- Intalio.InstanceCaching.CaseData
- GDSN.OpenAS2.AS2Server
- GDSN.OpenAS2.AS2Port
- GDSN.OpenAS2.AS2MDNPort
- GDSN.OpenAS2.MyAS2ID
- GDSN.OpenAS2.MyAS2Name
- GDSN.OpenAS2.MyAS2CertificateName
- GDSN.AS2HotfolderScanIntervalInSeconds
- GDSN.OpenAS2SocketCommandPort
- GDSN.OpenAS2SocketCommandUserID
- GDSN.OpenAS2SocketCommandPassword
- GDSN.OpenAS2SocketLoggerPort

Future Updates

STEP is currently supported when used in Internet Explorer versions 9, 10, and 11. With STEP Trailblazer 8.2, Internet Explorer versions 9 and 10 will no longer be supported. Note that Microsoft desupported these versions as of January 2016. Customers should ensure that they are on the IE 11 or another supported browser to prepare for this change. Additional information on supported browsers can be found in the 'Platform and Software Support for Trailblazer 8.1' section of the System Release and Patch Notes documentation.