

Tridion Docs Release Notes

Tridion Docs 15.1.1

June 2024

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Welcome to Tridion Docs Release Notes

This document contains the complete Release Notes for Tridion Docs 15.1.

Customer support

To contact Technical Support, connect to the Customer Support Web Portal at <https://gateway.sdl.com> and log a case for your RWS product. You need an account to log a case. If you do not have an account, contact your company's RWS Support Account Administrator.

Acknowledgments

Tridion Docs products include open source or similar third-party software.

[@ant-design/cssinjs](#)

Component level cssinjs solution used in ant.design. It's a subset of Emotion with design token logic wrapper.

[@ant-design/icons](#)

The abstract trees of the Ant Design SVG icons.

[@ant-design/icons-svg](#)

The abstract node of the Ant Design SVG icons.

[@ant-design/react-slick](#)

Carousel component built with React. It is a react port of slick carousel

[@emotion/hash](#)

A MurmurHash2 implementation

[@emotion/is-prop-valid](#)

Check whether a prop is valid for HTML and SVG elements

[@emotion/unitless](#)

An object of css properties that don't accept values with units

[@ljharb/through](#)

Easy way to create a Stream that is both readable and writable.

[@monaco-editor/react](#)

Monaco Editor for React

[@popperjs/core](#)

Tooltip & Popover Positioning Engine

[@rc-component/context](#)

React way perf context selector

[@rc-component/mini-decimal](#)

A mini decimal calculator which only supports add, multi or compare operation for mini bundle size.

[@rc-component/mutate-observer](#)

MutateObserver for React.

[@rc-component/portal](#)

React 18 supported Portal Component.

[@rc-component/tour](#)

React 18 supported Tour Component.

[@types/hoist-non-react-statics](#)

This package contains type definitions for hoist-non-react-statics

[@types/prop-types](#)

This package contains type definitions for prop-types

[@types/react](#)

This package contains type definitions for react

[@types/scheduler](#)

This package contains type definitions for scheduler

[@types/stylis](#)

This package contains type definitions for stylis

[@types/use-sync-external-store](#)

This package contains type definitions for use-sync-external-store

[7zip](#)

Is a file archiver with a high compression ratio. 7-zip is delivered under the GNU LGPL License.

[7zip SFX Modified Module](#)

The SFX Modified Module is a plugin for creating self-extracting archives. It is compatible with three compression methods (LZMA, Deflate, PPMd) and provides an extended list of options. Reference website <http://7zsfx.info/>.

[Akka](#)

Akka is a toolkit and runtime for building highly concurrent, distributed, and fault tolerant event-driven applications on the JVM.

[Amazon Ion Java](#)

Amazon Ion Java is a Java streaming parser/serializer for Ion. It is the reference implementation of the Ion data notation for the Java Platform Standard Edition 8 and above.

[Amazon SQS Java Messaging Library](#)

This Amazon SQS Java Messaging Library holds the Java Message Service compatible classes, that are used for communicating with Amazon Simple Queue Service.

[Animal Sniffer Annotations](#)

Animal Sniffer Annotations provides Java 1.5+ annotations which allow marking methods which Animal Sniffer should ignore signature violations of.

[ansi-escapes](#)

ANSI escape codes for manipulating the terminal

[ansi-styles](#)

ANSI escape codes for styling strings in the terminal

[ANTLR](#)

ANTLR is a powerful parser generator that you can use to read, process, execute, or translate structured text or binary files.

[Apache ActiveMQ](#)

Apache ActiveMQ is the most popular and powerful open source messaging and Integration Patterns server.

[Apache Ant](#)

Apache Ant is a Java library and command-line tool whose mission is to drive processes described in build files as targets and extension points dependent upon each other. The main known usage of Ant is the build of Java applications. Ant supplies a number of built-in tasks allowing to compile, assemble, test and run Java applications. Ant can also be used effectively to build non Java applications, for instance C or C++ applications. More generally, Ant can be used to pilot any type of process which can be described in terms of targets and tasks.

[Apache Commons BeanUtils](#)

The Java language provides *Reflection* and *Introspection* APIs (see the `java.lang.reflect` and `java.beans` packages in the JDK Javadocs). However, these APIs can be quite complex to understand and utilize. The *BeanUtils* component provides easy-to-use wrappers around these capabilities.

[Apache Commons Codec](#)

Apache Commons Codec (TM) software provides implementations of common encoders and decoders such as Base64, Hex, Phonetic and URLs.

[Apache Commons Collections](#)

The Java Collections Framework was a major addition in JDK 1.2. It added many powerful data structures that accelerate development of most significant Java applications. Since that time it has become the recognized standard for collection handling in Java.

[Apache Commons Compress](#)

The Apache Commons Compress library defines an API for working with ar, cpio, Unix dump, tar, zip, gzip, XZ, Pack200, bzip2, 7z, arj, lzma, snappy, DEFLATE, lz4 and Z files.

[Apache Commons Configuration](#)

The Commons Configuration software library provides a generic configuration interface which enables a Java application to read configuration data from a variety of sources. Commons Configuration provides typed access to single, and multi-valued configuration parameters.

[Apache Commons DBCP \(Database Connection Pools\)](#)

Many Apache projects support interaction with a relational database. Creating a new connection for each user can be time consuming (often requiring multiple seconds of clock time), in order to perform a database transaction that might take milliseconds. Opening a connection per user can be unfeasible in a publicly-hosted Internet application where the number of simultaneous users can be very large. Accordingly, developers often wish to share a "pool" of open connections between all of the application's current users. The number of users actually performing a request at any given time is usually a very small percentage of the total number of active users, and during request processing is the only time that a database connection is required. The application itself logs into the DBMS, and handles any user account issues internally. There are several Database Connection

Pools already available, both within Apache products and elsewhere. This Commons package provides an opportunity to coordinate the efforts required to create and maintain an efficient, feature-rich package under the ASF license.

[Apache Commons FileUpload](#)

The Commons **FileUpload** package makes it easy to add robust, high-performance, file upload capability to your servlets and web applications.

[Apache Commons HttpClient](#)

HttpClient was started in 2001 as a subproject of the Jakarta Commons, based on code developed by the Jakarta Slide project.

[Apache Commons IO](#)

Commons IO is a library of utilities to assist with developing IO functionality.

[Apache Commons JEXL \(Java EXpression Language\)](#)

JEXL is a library intended to facilitate the implementation of dynamic and scripting features in applications and frameworks written in Java.

JEXL implements an Expression Language based on some extensions to the JSTL Expression Language supporting most of the constructs seen in shell-script or ECMAScript. Its goal is to expose scripting features usable by technical operatives or consultants working with enterprise platforms.

[Apache Commons Lang](#)

The standard Java libraries fail to provide enough methods for manipulation of its core classes. Apache Commons Lang provides these extra methods.

Lang provides a host of helper utilities for the java.lang API, notably String manipulation methods, basic numerical methods, object reflection, concurrency, creation and serialization and System properties. Additionally it contains basic enhancements to java.util.Date and a series of utilities dedicated to help with building methods, such as hashCode, toString and equals.

[Apache Commons Logging](#)

The Logging package is an ultra-thin bridge between different logging implementations. A library that uses the commons-logging API can be used with any logging implementation at runtime. Commons-logging comes with support for a number of popular logging implementations, and writing adapters for others is a reasonably simple task.

[Apache Commons Net](#)

Apache Commons Net™ library implements the client side of many basic Internet protocols. The purpose of the library is to provide fundamental protocol access, not higher-level abstractions.

[Apache Commons Pool](#)

Pool provides an Object-pooling API, with three major aspects:

1. A generic object pool interface that clients and implementers can use to provide easily interchangeable pooling implementations.
2. A toolkit for creating modular object pools.
3. Several general purpose pool implementations.

Apache FOP

Apache FOP (Formatting Objects Processor) is a print formatter driven by XSL formatting objects (XSL-FO) and an output independent formatter. It is a Java application that reads a formatting object (FO) tree and renders the resulting pages to a specified output. Output formats currently supported include PDF, PS, PCL, AFP, XML (area tree representation), Print, AWT and PNG, and to a lesser extent, RTF and TXT. The primary output target is PDF.

Apache Geronimo

Apache Geronimo is an open source server runtime that integrates the best open source projects to create Java/OSGi server runtimes that meet the needs of enterprise developers and system administrators.

Apache HttpClient

Although the `java.net` package provides basic functionality for accessing resources via HTTP, it doesn't provide the full flexibility or functionality needed by many applications. HttpClient seeks to fill this void by providing an efficient, up-to-date, and feature-rich package implementing the client side of the most recent HTTP standards and recommendations.

Designed for extension while providing robust support for the base HTTP protocol, HttpClient may be of interest to anyone building HTTP-aware client applications such as web browsers, web service clients, or systems that leverage or extend the HTTP protocol for distributed communication.

Apache HttpComponents

The Apache HttpComponents™ project is responsible for creating and maintaining a toolset of low level Java components focused on HTTP and associated protocols.

Within the HttpComponents project, [HttpCore](#) is a set of low level HTTP transport components that can be used to build custom client and server side HTTP services with a minimal footprint. HttpCore supports two I/O models: blocking I/O model based on the classic Java I/O and non-blocking, event driven I/O model based on Java NIO

Apache Log4j

Apache Log4j 2 is an upgrade to Log4j that provides significant improvements over its predecessor, Log4j 1.x, and provides many of the improvements available in Logback while fixing some inherent problems in Logback's architecture.

Apache Lucene, SOLR

The Apache Lucene™ project develops open-source search software.

Apache Tomcat, Tomcat Embed

Apache Tomcat is an open source software implementation of the Java Servlet and JavaServer Pages technologies.

Apache XBean :: Spring

XBean :: Spring provides a schema-driven proprietary namespace handler for Spring contexts.

Apache Xerces

The Apache Xerces Project is responsible for software licensed to the Apache Software Foundation intended for the creation and maintenance of:

- XML parsers
- related software components

Apache XML

The Apache XML Project used to be the home for many XML-related subprojects, many of which have moved to top-level project status recently or are currently in migration. The Apache XML Project slowly transforms into an place where you can find pointers to XML-related projects here in The Apache Foundation.

Apache XML Commons External Components

The External Components portion of xml-commons contains interfaces that are defined by external standards organizations.

archiver

A streaming interface for archive generation.

archiver-utils

A streaming interface for archive generation.

array-tree-filter

Filter by keys in array tree

ASM

ASM is an all purpose Java bytecode manipulation and analysis framework. It can be used to modify existing classes or dynamically generate classes, directly in binary form. Provided common transformations and analysis algorithms allow to easily assemble custom complex transformations and code analysis tools.

AspectJ

AspectJ is a seamless aspect-oriented extension to the Java programming language. It is Java platform compatible easy to learn and use.

Async

Async is a utility module which provides straight-forward, powerful functions for working with asynchronous JavaScript.

async-validator

Validate form asynchronous. A variation of <https://github.com/freeformsystems/async-validate>

AWS SDK for Amazon SQS

The AWS Java SDK for Amazon SQS module holds the client classes that are used for communicating with Amazon Simple Queue Service.

AWS SDK for Java Core

The AWS SDK for Java - Core module holds the classes that are used by the individual service clients to interact with Amazon Web Services. Users need to depend on aws-java-sdk artifact for accessing individual client classes.

b4a

Buffer for Array (B4A) provides a set of functions for bridging the gap between the Node.js Buffer class and the Uint8Array class. A browser compatibility layer is also included, making it possible to use B4A in both Node.js and browsers without having to worry about whether you're dealing with buffers or typed arrays.

base64-js

base64-js does basic base64 encoding/decoding in pure JS.

bl

A Node.js Buffer list collector, reader and streamer thingy.

buffer

The buffer module from node.js, for the browser.

buffer-crc32

crc32 that works with binary data and fancy character sets, outputs buffer, signed or unsigned data and has tests.

Byte Buddy

Byte Buddy is a code generation and manipulation library for creating and modifying Java classes during the runtime of a Java application and without the help of a compiler.

camelize

recursively transform key strings to camel-case

CDI APIs

APIs for CDI (Contexts and Dependency Injection for Java).

cglib

cglib is a powerful, high performance and quality Code Generation Library, It is used to extend JAVA classes and implements interfaces at runtime.

chalk

Terminal string styling done right

chardet

Chardet is a character detection module written in pure JavaScript (TypeScript). Module uses occurrence analysis to determine the most probable encoding.

Checker Qual

Checker Qual is the set of annotations (qualifiers) and supporting classes used by the Checker Framework to type check Java source code.

ClassMate

ClassMate is a library for introspecting generic type information of types, member/static methods, fields. Especially useful for POJO/Bean introspection.

classnames

classnames is a simple JavaScript utility for conditionally joining classNames together.

cli-cursor

Toggle the CLI cursor. The cursor is gracefully restored if the process exits.

cli-spinners

70+ spinners for use in the terminal

cli-width

Get stdout window width, with four fallbacks, tty, output.columns, a custom environment variable and then a default.

commander

The complete solution for node.js command-line interfaces.

[CommandLineParser](#)

C# command line parser that brings standardized *nix `getopt` style, for .NET. Includes F# support.

[compress-commons](#)

Compress Commons is a library that defines a common interface for working with archive formats within node.

[Config \(Typesafe\)](#)

A configuration library for JVM languages.

[crc-32](#)

Standard CRC-32 algorithm implementation in JS (for the browser and nodejs). Emphasis on correctness, performance, and IE6+ support.

[crc32-stream](#)

`crc32-stream` is a streaming CRC32 checksumer. It uses the `crc` module behind the scenes to reliably handle binary data and fancy character sets. Data is passed through untouched.

[cross-spawn](#)

A cross platform solution to node's `spawn` and `spawnSync`.

[css-color-keywords](#)

A list of all CSS color keywords.

[css-to-react-native](#)

Convert CSS text to a React Native stylesheet object

[csstype](#)

Strict TypeScript and Flow types for style based on MDN data

[date-fns](#)

`date-fns` provides the most comprehensive, yet simple and consistent toolset for manipulating JavaScript dates in a browser & Node.js

[dayjs](#)

Day.js is a minimalist JavaScript library that parses, validates, manipulates, and displays dates and times for modern browsers with a largely Moment.js-compatible API. If you use Moment.js, you already know how to use Day.js.

[decamelize](#)

Convert a camelized string into a lowercased one with a custom separator. Example: `unicornRainbow` → `unicorn_rainbow`

[diff](#)

A JavaScript text differencing implementation.

[DITA-OT](#)

The DITA Open Toolkit is a Java-based implementation of the OASIS DITA Technical Committee's specification for DITA DTDs and schemas. It contains ANT, SAXON,...

[DockPanel Suite](#)

.Net Docking Library for Windows Forms

[dom4j](#)

dom4j is an easy to use, open source library for working with XML, XPath and XSLT on the Java platform using the Java Collections Framework and with full support for DOM, SAX and JAXP.

[dsinfo](#)

The dsinfo library enables you to easily use Scala-side information in implementations of embedded (internal) domain-specific languages. dsinfo is implemented using Scala macros which are an experimental feature of Scala 2.10 and 2.11.

[dsprofile](#)

The dsprofile library provides general facilities to implement domain-specific profiling in Scala and Java programs.

[edtFTPj/Free](#)

Free Java FTP library gives Java developers extensive FTP functionality.

[Ehcache](#)

Ehcache is an open source, standards-based cache for boosting performance, offloading your database, and simplifying scalability. It's the most widely-used Java-based cache because it's robust, proven, and full-featured. Ehcache scales from in-process, with one or more nodes, all the way to mixed in-process/out-of-process configurations with terabyte-sized caches.

[Elasticsearch RESTful client](#)

A RESTful client for the Elasticsearch search engine.

[emoji-regex](#)

emoji-regex offers a regular expression to match all emoji symbols and sequences (including textual representations of emoji) as per the Unicode Standard. It's based on emoji-test-regex-pattern, which generates (at build time) the regular expression pattern based on the Unicode Standard. As a result, emoji-regex can easily be updated whenever new emoji are added to Unicode.

[Error Prone](#)

Error Prone is a static analysis tool for Java that catches common programming mistakes at compile-time.

[excss](#)

ExCSS (Pronounced Excess) is a CSS 2.1 and CSS 3 parser for .NET. The goal of ExCSS is to make it easy to read and parse stylesheets into a friendly object model with full LINQ support.

[external-editor](#)

A node module to edit a string with a users preferred text editor using \$VISUAL or \$ENVIRONMENT.

[fast-fifo](#)

A fast fifo implementation similar to the one powering nextTick in Node.js core. Uses a linked list of growing fixed sized arrays to implement the FIFO to avoid allocating a wrapper object for each item.

[FastInfoSet](#)

Fast Infoset (or FI) is an international standard that specifies a binary encoding format for the XML Information Set (XML Infoset) as an alternative to the XML document format. It aims to provide more efficient serialization than the text-based XML format.

Fast Serialization

Fast Serialization reimplements Java Serialization with focus on speed (up to 10 times faster), size and compatibility. This allows the use of FST with minimal code change.

figures

Unicode symbols with fallbacks for older terminals

Fizzler

Fizzler is a W3C Selectors parser and generic selector framework for document hierarchies.

fn-name

Get the name of a named function. There is a name property on functions, but it's not supported in all browsers. This module tries that property then falls back to extracting the name from the function source.

Font Awesome

Font Awesome gives you scalable vector icons that can instantly be customized - size, color, drop shadow, and anything that can be done with the power of CSS.

Fonto Editor

Fonto is an online XML editor designed for people with no knowledge of XML or any other technology that comes with structured content authoring.

fs-extra

fs-extra adds file system methods that aren't included in the native fs module and adds promise support to the fs methods. It also uses graceful-fs to prevent EMFILE errors. It should be a drop in replacement for fs.

fs.realpath

A backwards-compatible fs.realpath for Node v6 and above. In Node v6, the JavaScript implementation of fs.realpath was replaced with a faster (but less resilient) native implementation. That raises new and platform-specific errors and cannot handle long or excessively symlink-looping paths. This module handles those cases by detecting the new errors and falling back to the JavaScript implementation. On versions of Node prior to v6, it has no effect.

GeckoFX

Gecko is a free and open source layout engine used in many applications developed by the Mozilla Foundation and the Mozilla Corporation (notably the Firefox web browser).

geckofx45.64

library that allows embedding gecko in C# applications.

glob

glob functionality for node.js

globalize

JavaScript globalization and localization. Formats and parses strings, dates and numbers in over 350 cultures.

GNU Aspell

GNU Aspell is a Free and Open Source spell checker designed to eventually replace Ispell. It can either be used as a library or as an independent spell checker. Its main feature is that it does a superior job of suggesting possible replacements for a misspelled word than just about any other spell checker out there for the English language. Unlike Ispell, Aspell can also easily check documents in UTF-8 without having to use a special dictionary. Aspell will also do its best to respect the current locale setting. Other advantages over

Ispell include support for using multiple dictionaries at once and intelligently handling personal dictionaries when more than one Aspell process is open at once.

Specifically we are using GNUASpell dictionaries for de-CH, de-DE, en-CA, en-GB, en-US, es-ES, fr-FR, fr-CH, nl-NL.

google-code-prettify

google-code-prettify is a Javascript module and CSS file that allows syntax highlighting in an html page.

google-gson

google-gson is a Java library to convert JSON to Java objects and vice-versa.

Google Guava

The Guava project contains several of Google's core libraries that we rely on in our Java-based projects: collections, caching, primitives support, concurrency libraries, common annotations, string processing, I/O, and so forth.

Google J2ObjC

J2ObjC is an open-source command-line tool from Google that translates Java source code to Objective-C for the iOS (iPhone/iPad) platform. This tool enables Java source to be part of an iOS application's build, as no editing of the generated files is necessary.

graceful-fs

graceful-fs functions as a drop-in replacement for the fs module, making various improvements. The improvements are meant to normalize behavior across different platforms and environments, and to make filesystem access more resilient to errors.

GraphQL-Java

The Java implementation of GraphQL.

HdrHistogram

A High Dynamic Range Histogram that supports recording and analyzing sampled data value counts across a configurable integer value range with configurable value precision within the range. Value precision is expressed as the number of significant digits in the value recording, and provides control over value quantization behavior across the value range and the subsequent value resolution at any given level.

Hibernate

Hibernate is a high-performance Object/Relational persistence and query service. The most flexible and powerful Object/Relational solution on the market, Hibernate takes care of the mapping from Java classes to database tables and from Java data types to SQL data types. It provides data query and retrieval facilities that significantly reduce development time. Hibernate's design goal is to relieve the developer from 95% of common data persistence-related programming tasks by eliminating the need for manual, hand-crafted data processing using SQL and JDBC.

HK2 Framework

HK2 is a light-weight and dynamic dependency injection framework.

HSQldb (HyperSQL DataBase)

HSQldb (HyperSQL DataBase) is the leading SQL relational database engine written in Java. It offers a small, fast multithreaded and transactional database engine with in-memory and disk-based tables and supports embedded and server modes. It includes a powerful command line SQL tool and simple GUI query tools.

Hunspell

Hunspell is the spell checker of LibreOffice, OpenOffice.org, Mozilla Firefox 3 & Thunderbird, Google Chrome, and it is also used by proprietary software packages, like Mac OS X, InDesign, MemoQ, Opera and Trados Studio.

i18next-http-backend

This is a simple i18next backend to be used in Node.js, in the browser and for Deno. It will load resources from a backend server using the XMLHttpRequest or the fetch API.

i18next-intervalplural-postprocessor

This is a i18next postProcessor enabling interval based plurals.

iconv-lite

Convert character encodings in pure javascript.

IdentityModel

A .NET standard helper library for claims-based identity, OAuth 2.0 and OpenID Connect.

IdentityModel OidcClient

A C#/NetStandard OpenID Connect Client Library for native Applications.

ieee754

Read/write IEEE754 floating point numbers from/to a Buffer or array-like object.

inflight

Add callbacks to requests in flight to avoid async duplication

inherits

Easy simple tiny inheritance in JavaScript

inquirer

A collection of common interactive command line user interfaces.

InstallAnywhere

InstallAnywhere is the leading multi-platform development solution for application producers who need to deliver a professional and consistent cross installation experience for physical, virtual and cloud environments. From a single project file and build environment, InstallAnywhere creates reliable installations for on-premises platforms - Windows, Linux, Apple OS X, Solaris, AIX, HP-UX, and IBM iSeries - and enables you to take existing and new software products to a virtual and cloud infrastructure.

is-fullwidth-code-point

Check if the character represented by a given Unicode code point is fullwidth

is-interactive

Check if stdout or stderr is interactive

is-unicode-supported

Detect whether the terminal supports Unicode

Jackson tooling

Inspired by the quality and variety of XML tooling available for the Java platform (StAX, JAXB, etc.), the Jackson is a multi-purpose Java library for processing JSON data format. Jackson aims to be the best possible combination of fast, correct, lightweight, and ergonomic components for developers.

[Jakarta Activation API](#)

The JavaBeans Activation Framework API JAR.

[Jakarta XML Bind API](#)

Jakarta's XML bind API.

[Java API for RESTful web services \(javax.ws.rs\)](#)

Java API for RESTful Web Services.

[JavaBeans Activation Framework](#)

With the JavaBeans Activation Framework standard extension, developers who use Java technology can take advantage of standard services to determine the type of an arbitrary piece of data, encapsulate access to it, discover the operations available on it, and to instantiate the appropriate bean to perform said operation(s).

[JavaBeans Validation](#)

Bean Validation (JSR-303) API.

[Javassist \(*Java Programming Assistant*\)](#)

Javassist (*Java Programming Assistant*) makes Java bytecode manipulation simple. It is a class library for editing bytecodes in Java; it enables Java programs to define a new class at runtime and to modify a class file when the JVM loads it. Unlike other similar bytecode editors, Javassist provides two levels of API: source level and bytecode level. If the users use the source-level API, they can edit a class file without knowledge of the specifications of the Java bytecode. The whole API is designed with only the vocabulary of the Java language. You can even specify inserted bytecode in the form of source text; Javassist compiles it on the fly. On the other hand, the bytecode-level API allows the users to directly edit a class file as other editors.

[javax.annotation](#)

JSR 250 Common Annotations For The Java Platform.

[javax.cache](#)

Caching Java API

[Javax Expression Language](#)

Expression Language Java API

[javax.inject](#)

Dependency Injection Java API

[javax.validation](#)

Bean Validation API

[javax.jms](#)

The Java Message Service (JMS) API is a messaging standard that allows application components based on the Java 2 Platform, Enterprise Edition (J2EE) to create, send, receive, and read messages. It enables distributed communication that is loosely coupled, reliable, and asynchronous.

[JAXB](#)

The goal of the JAXB project is to develop and evolve the code base for the Reference Implementation (RI) of JAXB, the Java Architecture for XML Binding. The JAXB specification is developed through the Java Community Process following the process described at jcp.org. This process involves an Expert Group with a lead that is responsible for delivering the specification, a reference implementation (RI) and a Technology Compatibility Kit (TCK). The primary goal of an RI is to support the development of the specification and to

validate it. Specific RIs can have additional goals; the JAXB RI is a production-quality implementation that is used directly in a number of products by Oracle and other vendors.

JBoss Java Annotation Indexer (Jandex)

A Java Annotation Indexer for JBoss

JBoss Logging Framework

The JBoss Logging Framework.

jedis

A blazingly small and sane Redis Java client.

Jersey RESTful WS

Developing RESTful Web services that seamlessly support exposing your data in a variety of representation media types and abstract away the low-level details of the client-server communication is not an easy task without a good toolkit. In order to simplify development of RESTful Web services and their clients in Java, a standard and portable JAX-RS API has been designed. Jersey RESTful Web Services framework is open source, production quality, framework for developing RESTful Web Services in Java that provides support for JAX-RS APIs and serves as a JAX-RS (JSR 311 & JSR 339) Reference Implementation.

Jettison

Jettison is a collection of Java APIs (like STaX and DOM) which read and write JSON. This allows nearly transparent enablement of JSON based web services in services frameworks like CXF or XML serialization frameworks like XStream.

Jetty

The Jetty Web Server provides an HTTP server and Servlet container capable of serving static and dynamic content either from a standalone or embedded instantiations. Starting from Jetty version 7, the Jetty webserver and other core components are hosted by the Eclipse Foundation.

JLine

JLine is a Java library for handling console input. It is similar in functionality to BSD editline and GNU readline. People familiar with the readline/editline capabilities for modern shells (such as bash and tcsh) will find most of the command editing features of JLine to be familiar.

JMESPath Java

JMESPath is a query language for JSON. You can extract and transform elements from a JSON document. This is a Java implementation

Joda-Convert

Joda-Convert provides a small set of classes to provide round-trip conversion between Objects and Strings. It does not tackle the wider problem of Object to Object transformation.

Joda-Time

Joda-Time provides a quality replacement for the Java *date* and *time* classes. The design allows for multiple *calendar* systems, while still providing a simple API. The 'default' calendar is the http://www.joda.org/joda-time/cal_iso.html standard which is used by XML. The Gregorian, Julian, Buddhist, Coptic, Ethiopic and Islamic systems are also included, and we welcome further additions. Supporting classes include time zone, duration, format and parsing.

JOL (Java Object Layout)

JOL (Java Object Layout) is the tiny toolbox to analyze object layout schemes in JVMs. These tools are using Unsafe, JVMTI, and Serviceability Agent (SA) heavily to decoder the *actual* object layout, footprint, and references.

jQuery

jQuery is a fast, small, and feature-rich JavaScript library. It makes things like HTML document traversal and manipulation, event handling, animation, and Ajax much simpler with an easy-to-use API that works across a multitude of browsers. With a combination of versatility and extensibility, jQuery has changed the way that millions of people write JavaScript.

jQuery CheckBoxTree

A jQuery based checkbox tree plugin that displays your hierarchical data in a tree structure with checkboxes.

jquery-cookie

jQuery plugin for reading, writing and deleting cookies.

jquery.datatables

DataTables is a plug-in for the jQuery Javascript library. It is a highly flexible tool, based upon the foundations of progressive enhancement, which will add advanced interaction controls to any HTML table.

jquery.dataTables.columnFilter

Adds advanced filter capabilities to the DataTables. JS file.

jQueryFileUpload

File Upload widget with multiple file selection, drag&drop support, progress bar, validation and preview images, audio and video for jQuery.

jquery.TypeScript.DefinitelyTyped

TypeScript Definitions (d.ts) for jquery.

jQuery.Gantt

Draw Gantt charts with the famous jQuery ease of development.

jQuery Highlight

Highlights the search keywords/terms in a preview.

jQuery UI

jQuery UI is a set of user interface interactions, effects, widgets, and themes built on top of the jQuery JavaScript Library.

json2mq

Generate media query string from JSON or javascript object

jsonfile

Easily read/write JSON files in Node.js. Note: this module cannot be used in the browser.

JSON-js

JSON is a light-weight, language independent, data interchange format. See <http://www.JSON.org> / The files in this collection implement JSON encoders/decoders in JavaScript. JSON became a built-in feature of JavaScript when the ECMAScript Programming Language Standard - Fifth Edition was adopted by the ECMA General Assembly in December 2009. Most of the files in this collection are for applications that are expected to run in obsolete web browsers. For most purposes, json2.js is the best choice.

[Json.NET](#)

Json.NET is a popular high-performance JSON framework for .NET.

[jsoup](#)

jsoup is a Java library for working with real-world HTML. It provides a very convenient API for extracting and manipulating data, using the best of DOM, CSS, and jquery-like methods.

[JTA \(Java Transaction API\)](#)

The `javax.transaction` package. It is appropriate for inclusion in a classpath, and may be added to a Java 2 installation.

[Kiama](#)

The Kiama test library contains a collection of examples, tests that use those examples, and useful test support code.

[Knockout JavaScript library](#)

Knockout is a JavaScript library that helps you to create rich, responsive display and editor user interfaces with a clean underlying data model. Any time you have sections of UI that update dynamically (e.g., changing depending on the user's actions or when an external data source changes), KO can help you implement it more simply and maintainably.

[Kryo](#)

Kryo is a fast and efficient binary object graph serialization framework for Java. The goals of the project are high speed, low size, and an easy to use API. The project is useful any time objects need to be persisted, whether to a file, database, or over the network.

Kryo can also perform automatic deep and shallow copying/cloning. This is direct copying from object to object, not object to bytes to object.

[kXML 2](#)

kXML is a small XML pull parser, specially designed for constrained environments such as Applets, Personal Java or MIDP devices. In contrast to kXML 1, kXML 2 is based on the XML pull API.

[LatencyUtils](#)

The LatencyUtils package includes useful utilities for tracking latencies. Especially in common in-process recording scenarios, which can exhibit significant coordinated omission sensitivity without proper handling.

[lazystream](#)

Create streams lazily when they are accessed (read from/written to).

[lodash.isequalwith](#)

A modern JavaScript utility library delivering modularity, performance, & extras.

[lodash-es](#)

A modern JavaScript utility library delivering modularity, performance, & extras.

[Logback](#)

Logback is intended as a successor to the popular log4j project, picking up where log4j leaves off.

[log-symbols](#)

Colored symbols for various log levels

[loose-envify](#)

Fast (and loose) selective process.env replacer using js-tokens instead of an AST. Works just like envify but much faster.

[MapStruct](#)

MapStruct is a code generator that greatly simplifies the implementation of mappings between Java bean types based on a convention over configuration approach. The generated mapping code uses plain method invocations and thus is fast, type-safe and easy to understand.

[MathJAX](#)

MathJax is an open-source JavaScript display engine for LaTeX, MathML, and AsciiMath notation that works in all modern browsers. It was designed with the goal of consolidating the recent advances in web technologies into a single, definitive, math-on-the-web platform supporting the major browsers and operating systems.

[Micrometer](#)

Micrometer provides a simple facade over the instrumentation clients for the most popular monitoring systems, allowing you to instrument your JVM-based application code without vendor lock-in. Think SLF4J, but for metrics.

[Microsoft.Bcl.AsyncInterfaces](#)

Provides the `IAsyncEnumerable<T>` and `IAsyncDisposable` interfaces and helper types for .NET Standard 2.0. This package is not required starting with .NET Standard 2.1 and .NET Core 3.0.

[microsoft.extensions.configuration.abstractions](#)

Provides abstractions of key-value pair based configuration. Interfaces defined in this package are implemented by classes in `Microsoft.Extensions.Configuration` and other configuration packages.

[microsoft.extensions.dependencyinjection](#)

Supports the dependency injection (DI) software design pattern which is a technique for achieving Inversion of Control (IoC) between classes and their dependencies.

[microsoft.extensions.dependencyinjection.abstractions](#)

Supports the lower-level abstractions for the dependency injection (DI) software design pattern which is a technique for achieving Inversion of Control (IoC) between classes and their dependencies.

[microsoft.extensions.logging](#)

`Microsoft.Extensions.Logging` is combined with a core logging abstraction under `Microsoft.Extensions.Logging.Abstractions`. This abstraction is available in our basic built-in implementations like console, event log, and debug (`Debug.WriteLine`) logging.

[microsoft.extensions.logging.abstractions](#)

`Microsoft.Extensions.Logging.Abstractions` provides abstractions of logging. Interfaces defined in this package are implemented by classes in `Microsoft.Extensions.Logging` and other logging packages. This package includes a logging source generator that produces highly efficient and optimized code for logging message methods.

[**microsoft.extensions.options**](#)

Microsoft.Extensions.Options provides a strongly typed way of specifying and accessing settings using dependency injection and acts as a bridge between configuration, DI, and higher level libraries. This library is the glue for how an app developer uses DI to configure the behavior of a library like HttpClient Factory. This also enables user to get a strongly-typed view of their configuration. Within this package, you'll find an options validation source generator that generates exceptionally efficient and optimized code for validating options.

[**microsoft.extensions.primitives**](#)

Microsoft.Extensions.Primitives contains isolated types that are used in many places within console or ASP.NET Core applications using framework extensions.

[**microsoft.extensions.dependencyinjection**](#)

Supports the dependency injection (DI) software design pattern which is a technique for achieving Inversion of Control (IoC) between classes and their dependencies.

[**microsoft.identitymodel.abstractions**](#)

A package containing thin abstractions for Microsoft.IdentityModel.

[**microsoft.identitymodel.jsonwebtokens**](#)

Includes types that provide support for creating, serializing and validating JSON Web Tokens. This is a newer, faster version of System.IdentityModel.Tokens.Jwt that has additional functionality.

[**microsoft.identitymodel.logging**](#)

Includes Event Source based logging support.

[**microsoft.identitymodel.protocols**](#)

Provides base protocol support for OpenIdConnect and WsFederation.

[**microsoft.identitymodel.protocols.openidconnect**](#)

Includes types that provide support for OpenIdConnect protocol.

[**microsoft.identitymodel.tokens**](#)

Includes types that provide support for SecurityTokens, Cryptographic operations: Signing, Verifying Signatures, Encryption.

[**Microsoft JDBC Driver for SQL Server**](#)

Microsoft provides a Java Database Connectivity (JDBC) driver for use with SQL Server, and Azure SQL Database. The driver provides Java database connectivity from any Java application, application server, or Java-enabled applet. This driver is a Type 4 JDBC driver that provides database connectivity through the standard JDBC application program interfaces (APIs).

[**microsoft-windowsapicodpack-core**](#)

This is a fork of the Microsoft Windows API Code Pack, based on a repository created by Aybe. Due to the lack of updates to the original package, this fork was created to include all open pull requests on the original repository, apply fixes and add support for all current .NET Framework and .NET Core versions.

[**microsoft-windowsapicodpack-shell**](#)

This is a fork of the Microsoft Windows API Code Pack, based on a repository created by Aybe. Due to the lack of updates to the original package, this fork was created to include all open pull requests on the original repository, apply fixes and add support for all current .NET Framework and .NET Core versions.

[minimatch](#)

A minimal matching utility. This is the matching library used internally by npm. It works by converting glob expressions into JavaScript RegExp objects.

[minimist](#)

parse argument options

[Minlog](#)

MinLog is a tiny Java logging library.

[mute-stream](#)

Bytes go in, but they don't come out (when muted). This is a basic pass-through stream, but when muted, the bytes are silently dropped, rather than being passed through.

[MXP1](#)

MXP1 is a stable XmlPull parsing engine that is based on ideas from XPP and in particular XPP2 but completely revised and rewritten to take the best advantage of latest JIT JVMs such as Hotspot in JDK 1.4+.

[nanoid](#)

A tiny (124 bytes), secure, URL-friendly, unique string ID generator for JavaScript

[neo-async](#)

Neo-Async is thought to be used as a drop-in replacement for Async, it almost fully covers its functionality and runs faster

[NHunspell](#)

NHunspell brings the spell checking, hyphenation and thesaurus to the Microsoft® .NET Framework. NHunspell is C# library and wraps native libraries for Hunspell, Hyphen and MyThes. One design goal of this library and wrapper is to keep the source code of the included libraries as unmodified as possible. New versions of the base libraries can therefore easily adopted to NHunspell.

The integrated libraries are used in OpenOffice and they work with the dictionaries published on OpenOffice.org.

[NLog](#)

NLog is a flexible and free logging platform for various .NET platforms, including .NET standard. NLog makes it easy to write to several targets. (database, file, console) and change the logging configuration on-the-fly.

[nlog.extensions.logging](#)

NLog.Extensions.Logging makes it possible to use NLog together with Microsoft ILogger-abstraction and Dependency Injection.

[NLog.WindowsEventLog](#)

NLog.WindowsEventLog provides access to the EventLog-target for NetStandard

[normalize-path](#)

Normalize slashes in a file path to be posix/unix-like forward slashes. Also condenses repeat slashes to a single slash and removes and trailing slashes, unless disabled.

[Objenesis](#)

Objenesis is a small Java library that serves one purpose: to instantiate a new object of a particular class.

okhttp

An HTTP+HTTP/2 client for Android and Java applications.

okio

A modern I/O API for Java.

once

Run a function exactly one time

ora

Elegant terminal spinner

Oracle JDBC Drivers

Drivers used for making a JDBC connection from Java to an Oracle database.

Oracle PKI (Public Key Infrastructure)

Oracle public key infrastructure (PKI) is used by Oracle Enterprise Security Manager, LDAP-enabled Oracle Enterprise Manager, Oracle's Secure Socket Layer (SSL) authentication, Oracle Database, and Oracle Application Server.

Oracle Security Developer Tools (OSDT)

Oracle Security Developer Tools provide you with the cryptographic building blocks necessary for developing robust security applications, ranging from basic tasks like secure messaging to more complex projects such as securely implementing a service-oriented architecture. The tools build upon the core foundations of cryptography, public key infrastructure, web services security, and federated identity management.

path-key

Get the PATH environment variable key cross-platform

Path-to-RegExp

Turn a path string such as `/user/:name`` into a regular expression.

PATRICIA Trie in Java

An implementation of the Practical Algorithm to Retrieve Information Coded in Alphanumeric (PATRICIA).

picocolors

The tiniest and the fastest library for terminal output formatting with ANSI colors.

Postal.Mvc5

Generate emails using ASP.NET MVC views

postcss

PostCSS is a tool for transforming styles with JS plugins. These plugins can lint your CSS, support variables and mixins, transpile future CSS syntax, inline images, and more.

postcss-value-parser

Transforms CSS declaration values and at-rule parameters into a tree of nodes, and provides a simple traversal API.

Project Reactor

Reactor is a fourth-generation Reactive library for building non-blocking applications on the JVM based on the Reactive Streams Specification.

[property-expr](#)

Tiny property path utilities, including path parsing and metadata and deep property setters and getters

[PS Cmdlet Help Editor](#)

PowerShell Cmdlet Help Editor is the tool that helps you to create and edit XML-based help files for your PowerShell modules and PSSnap-Ins.

[qrcode.react](#)

A React component to generate QR codes for rendering to the DOM.

[queue-tick](#)

Next tick shim that prefers process.nextTick over queueMicrotask for compat

[rc-align](#)

React Align Component. Wrapper around <https://github.com/yiminghe/dom-align>.

[rc-cascader](#)

React Cascader Component. Cascade select in one box

[rc-checkbox](#)

Checkbox ui component for react.

[rc-collapse](#)

React Collapse / Accordion. rc-collapse ui component for react

[rc-dialog](#)

react dialog component

[rc-drawer](#)

React Drawer

[rc-dropdown](#)

react dropdown component

[rc-field-form](#)

React Performance First Form Component.

[rc-image](#)

React Image.

[rc-input](#)

React Input Component

[rc-input-number](#)

React Input Number

[rc-mentions](#)

React Mentions

[rc-menu](#)

React menu component. port from <https://github.com/kissyteam/menu>

[rc-motion](#)

React lifecycle controlled motion library.

rc-notification

React Notification UI Component

rc-overflow

Auto collapse box when overflow

rc-pagination

React Pagination Component.

rc-picker

All Date Pickers you need.

rc-progress

React Progress Bar

rc-rate

React Rate Component

rc-resize-observer

Resize observer for React.

rc-segmented

React Segmented Control.

rc-select

React Select

rc-slider

Slider UI component for React

rc-steps

React steps component.

rc-switch

Switch ui component for react.

rc-table

React table component with useful functions.

rc-tabs

React Tabs component.

rc-textarea

Pretty Textarea react component used in ant.design.

rc-tooltip

React Tooltip

rc-tree

Tree component.

rc-tree-select

React TreeSelect Component

rc-trigger

React Trigger Component

[rc-upload](#)

React Upload

[rc-util](#)

Common Utils For React Component.

[rc-virtual-list](#)

React Virtual List Component which worked with animation.

[react-dom](#)

React package for working with the DOM.

[react-fast-compare](#)

The fastest deep equal comparison for React.

[react-i18next](#)

react-i18next implements internationalization for react using the i18next i18n ecosystem.

[react-is](#)

React is a JavaScript library for building user interfaces.

[Reactive Streams](#)

A Protocol for Asynchronous Non-Blocking Data Sequence

[ReactJS](#)

React is a JavaScript library for building user interfaces.

[Reactor Core](#)

Reactor Core is a non-blocking reactive foundation for the JVM.

[react-popper](#)

Official React library to use Popper, the positioning library

[react-scrollbar-size](#)

React hook to calculate the size of browser scrollbars.

[readable-stream](#)

Node-core streams for userland. This package is a mirror of the streams implementations in Node.js 18.19.0.

[readdir-glob](#)

Recursive fs.readdir with streaming API and glob filtering.

[Red Hat Linux](#)

Red Hat Enterprise Linux OpenStack Platform delivers an integrated foundation to create, deploy, and scale a secure and reliable public or private OpenStack cloud. Red Hat Enterprise Linux OpenStack Platform combines the world's leading enterprise Linux and the fastest-growing cloud infrastructure platform to give you the agility to scale and quickly meet customer demands without compromising on availability, security, or performance.

[ReflectASM](#)

ReflectASM is a very small Java library that provides high performance reflection by using code generation. An access class is generated to set/get fields, call methods, or create a new instance. The access class uses bytecode rather than Java's reflection, so it is much faster. It can also access primitive fields via bytecode to avoid boxing.

[resolve-pathname](#)

Resolve URL pathnames using JavaScript

[run-async](#)

Utility method to run function either synchronously or asynchronously using the common ``this.async()`` style.

[Rx .NET](#)

Reactive Extensions for .NET library used to validate entered values

[Scala](#)

The Scala programming language fuses object-oriented and functional programming in a statically typed programming language. It is aimed at the construction of components and component systems.

[Scallop](#)

Scallop is a command line parser.

[scheduler](#)

React is a JavaScript library for building user interfaces.

[scroll-into-view-if-needed](#)

`Element.scrollIntoView` ponyfills for things like "if-needed" and "smooth"

[shallowequal](#)

Performs a shallow equality comparison between two values (i.e. value and other) to determine if they are equivalent.

[shebang-command](#)

Get the command from a shebang

[SitemapGen4j](#)

SitemapGen4j is a library to generate XML sitemaps in Java.

[SLF4J](#)

The Simple Logging Facade for Java (SLF4J) serves as a simple facade or abstraction for various logging frameworks (e.g. java.util.logging, logback, log4j) allowing the end user to plug in the desired logging framework at deployment time.

[SnakeYAML](#)

YAML is a data serialization format designed for human readability and interaction with scripting languages. SnakeYAML is a YAML parser and emitter for the Java programming language.

[SNMP4J](#)

SNMP4J is an enterprise class free open source and state-of-the-art SNMP implementation for Java™ 2SE 1.4 or later. SNMP4J supports command generation (managers) as well as command responding (agents). Its clean object oriented design is inspired by SNMP++, which is a well-known SNMPv1/v2c/v3 API for C++.

[source-map](#)

This is a library to generate and consume the source map format described here.

[source-map-js](#)

Difference between original source-map: TL;DR: it's fork of original source-map@0.6, but with performance optimizations.

[SpringFox](#)

Automated JSON API documentation for API's built with Spring.

[Spring Framework](#)

The Spring Framework provides a comprehensive programming and configuration model for modern Java-based enterprise applications - on any kind of deployment platform. A key element of Spring is infrastructural support at the application level: Spring focuses on the "plumbing" of enterprise applications so that teams can focus on application-level business logic, without unnecessary ties to specific deployment environments.

[StAX](#)

StAX is a standard XML processing API that allows you to stream XML data from and to your application. This StAX implementation is the standard pull parser implementation for JSR-173 specification.

[streamx](#)

An iteration of the Node.js core streams with a series of improvements.

[string_decoder](#)

Node-core v8.9.4 string_decoder for userland

[strip-ansi](#)

Strip ANSI escape codes from a string

[styled-components](#)

styled-components are visual primitives for the component age, enabling you to use ES6 and CSS to style your apps.

[supports-color](#)

Detect whether a terminal supports color

[SVG.NET](#)

Public fork of the C# SVG rendering library. This started out as a minor modification to enable the writing of proper SVG strings. But now after almost two years we have so many fixes and improvements that we decided to share our current codebase to the public in order to improve it even further.

[Swagger](#)

Swagger is a simple yet powerful representation of your RESTful API. With the largest ecosystem of API tooling on the planet, thousands of developers are supporting Swagger in almost every modern programming language and deployment environment. With a Swagger-enabled API, you get interactive documentation, client SDK generation and discoverability.

[Swashbuckle.Core](#)

Seamlessly adds a Swagger to WebApi projects.

[synchronous-promise](#)

A prototypical animal which looks like an A+ Promise but doesn't defer immediately, so can run synchronously, for testing

[system.configuration.configurationmanager](#)

Provides types that support using XML configuration files (app.config). This package exists only to support migrating existing .NET Framework code that already uses System.Configuration. When writing new code, use another configuration system instead, such as Microsoft.Extensions.Configuration.

[system.diagnostics.diagnosticsource](#)

Provides Classes that allow you to decouple code logging rich (unserializable) diagnostics/telemetry (e.g. framework) from code that consumes it (e.g. tools)

[system.diagnostics.eventlog](#)

This package provides types that allow applications to interact with the Windows Event Log service. When an error occurs in a Windows machine, the system administrator or support representative must determine what caused the error, attempt to recover any lost data, and prevent the error from recurring. It is helpful if applications, the operating system, and other system services record important events, such as low-memory conditions or excessive attempts to access a disk. The system administrator can then use the Windows Event Log to help determine what conditions caused the error and identify the context in which it occurred.

[system.identitymodel.tokens.jwt](#)

Includes types that provide support for creating, serializing and validating JSON Web Tokens. As of IdentityModel 7x, this is a legacy tool that should be replaced with Microsoft.IdentityModel.JsonWebTokens.

[system.memory](#)

Provides types for efficient representation and pooling of managed, stack, and native memory segments and sequences of such segments, along with primitives to parse and format UTF-8 encoded text stored in those memory segments.

[system.runtime.compilerservices.unsafe](#)

Provides the System.Runtime.CompilerServices.Unsafe class, which provides generic, low-level functionality for manipulating pointers.

[system.security.accesscontrol](#)

Provides base classes that enable managing access and audit control lists on securable objects.

[system.security.permissions](#)

Provides types supporting Code Access Security (CAS).

[system.security.principal.windows](#)

Provides classes for retrieving the current Windows user and for interacting with Windows users and groups.

[system.servicemodel.http](#)

Provides the types that permit SOAP messages to be exchanged using Http (example: BasicHttpBinding).

[system.servicemodel.primitives](#)

Provides the common types used by all of the WCF libraries.

[system.text.encodings.web](#)

Provides types for encoding and escaping strings for use in JavaScript, HyperText Markup Language (HTML), and uniform resource locators (URL).

[system.text.json](#)

Provides high-performance and low-allocating types that serialize objects to JavaScript Object Notation (JSON) text and deserialize JSON text to objects, with UTF-8 support built-in. Also provides types to read and write JSON text encoded as UTF-8, and to create an in-memory document object model (DOM), that is read-only, for random access of the JSON elements within a structured view of the data.

[tar-stream](#)

tar-stream is a streaming tar parser and generator.

[Thinkecture IdentityModel](#)

Helpers and client libraries for OpenID Connect, OAuth 2.0 and claims-based Identity.

[Thinkecture IdentityServer](#)

Front-end Secure Token Service to serve SAML tokens.

[throttle-debounce](#)

Throttle and debounce functions.

[tmp](#)

Temporary file and directory creator for node.js

[TwelveMonkeys Common](#)

TwelveMonkeys Common library contains common utility classes relating to languages, I/O and images.

[TwelveMonkeys ImageIO](#)

TwelveMonkeys ImageIO is a collection of plugins and extensions for Java's ImageIO. These plugins extends the number of image file formats supported in Java, using the `javax.imageio.*` package. The main purpose of this project is to provide support for formats not covered by the JRE itself.

[TXW2](#)

TXW is a library that allows you to write XML documents.

[ua-parser](#)

A multi-language port of Browserscope's user agent parser.

[universalify](#)

Make a callback- or promise-based function support both promises and callbacks.

[use-sync-external-store](#)

React is a JavaScript library for building user interfaces.

[util-deprecate](#)

The Node.js `util.deprecate()` function with browser support

[valid-filename](#)

Check if a string is a valid filename

[value-equal](#)

value-equal determines if two JavaScript values are equal using `Object.prototype.valueOf`.

[warning](#)

A mirror of Facebook's Warning

[wcwidth](#)

Port of C's `wcwidth()` and `wcswidth()`

[WebGrease](#)

Web Grease is a suite of tools for optimizing javascript, css files and images.

which

Like which(1) unix command. Find the first instance of an executable in the PATH.

WiX

The WiX toolset builds Windows installation packages from XML source code. The tool-set integrates seamlessly into build processes.

Woodstox

Woodstox is a high-performance validating namespace-aware StAX-compliant (JSR-173) Open Source XML-processor written in Java.

wordwrap

Wrap your words.

wrap-ansi

Wordwrap a string with ANSI escape codes

wrappy

Callback wrapping utility

Xalan-Java

Xalan-Java is an XSLT processor for transforming XML documents into HTML, text, or other XML document types. It implements XSL Transformations (XSLT) Version 1.0 and XML Path Language (XPath) Version 1.0 and can be used from the command line, in an applet or a servlet, or as a module in other program.

Xerces Java Parser

The Xerces Java Parser 1.4.4 supports the XML 1.0 recommendation and contains advanced parser functionality, such as support for the W3C's XML Schema recommendation version 1.0, DOM Level 2 version 1.0, and SAX Version 2, in addition to supporting the industry-standard DOM Level 1 and SAX version 1 APIs.

XML Pull Parsing

An XML Pull Parsing API.

XStream

XStream is a simple library to serialize objects to XML and back again.

XULRunner

XULRunner is a runtime environment developed by the Mozilla Foundation to provide a common back-end for previewing.

zip-stream

zip-stream is a streaming zip archive generator based on the ZipArchiveOutputStream prototype found in the compress-commons project.

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Release Notes

This section describes all that is new and changed in Tridion Docs capabilities and Client Tools for this version. Tridion Docs Release Notes are also available as a downloadable PDF.

Note: These Release Notes are currently a work in progress prior to release. As long as you see this message, you should not consider them complete.

Tridion Docs 15.1 Release Notes PDF [AWAITING UPDATE]

What's new in Tridion Docs

This section describes the new features and changes introduced in this release of Tridion Docs that impact more than one capability.

From Tridion Docs 14 to Tridion Docs 15.1

The most important product-level features that were introduced between Tridion Docs 14 and Tridion Docs 15.1 were:

Feature	Description	Introduced in
Time zone storage change for date-time items in Content Manager database	<p>Prior to Tridion Docs 15.1, timestamps (date-time values) were stored in the Content Manager database in the time zone of the application server(s). As from Tridion Docs 15.1, timestamps are stored in the Content Manager database in the UTC time zone. This change is reflected in log files, both on the client side and on the server side.</p> <p>Note: Because the DBUpgradeTool needs to convert all timestamps in the database to UTC, this upgrade will take more time than previous Content Manager database upgrades you may have performed.</p> <p>This change does not affect end users or implementers. They will continue to see the same timestamps as before.</p> <p>However, this change does enable the following infrastructure improvements, with some caveats:</p> <ul style="list-style-type: none"> Previously, the application server(s) needed to be in the same time zone as the database server. After you have upgraded the DBUpgradeTool (DBUT), your database server and your application server(s) to Tridion Docs 15.1, this is no longer necessary. However, RWS strongly recommends to keep the application server(s) close to the database server, to avoid performance issues. Previously, the application server(s) could not be moved from one time zone to another time zone. After you have upgraded the DBUpgradeTool (DBUT), your database server and your application server(s) to Tridion Docs 15.1, it is possible to move your application server(s) to a different time zone. However, moving them means that users looking at publish logs and translation logs will see different timestamps after the move, because these logs show timestamps in the local time zone of the application server(s). <p>Note: It is still true that if you use multiple application servers, all of them need to be in the same time zone.</p>	15.1.0
Show a user's Display name instead of User name	<p>The Collective Spaces user interfaces, Organize Space user interface and all the client tools now display a user's Display name (for example, "John Doe") instead of their User name (for example, "jdoe" or "u65876"). We have made this improvement to help in situations where the value of the User name does not clearly identify a user to other system end-users, such as for customers that use unique identifiers for the User name.</p> <p>This enhancement can be seen in various places in Draft Space, Review Space and Organize Space. In general, this includes anywhere users are identified in relation to various actions they have performed in the system, for example, the Locked by and Last modified by properties.</p> <p>The following are some of the places the Display name is now shown:</p> <ul style="list-style-type: none"> Options for search or filtering a list Properties pane for topics and maps Document history Annotations Revision history for objects in Organize Space Translation job properties in Organize Space Publication Hub assignments in Organize Space Inbox list in Organize Space 	15.1.0

Feature	Description	Introduced in
User interfaces and product documentation for end user user interfaces in Canadian French	<p>The user interfaces for Organize Space, Draft Space, Review Space and the desktop client tools are now available in Canadian French (in addition to US English, Japanese and Simplified Chinese).</p> <p>The documentation deliverables for the desktop client tools are now also available in Canadian French (in addition to US English, Japanese and Simplified Chinese).</p>	15.1.0
Modern authentication with Tridion Access Management	The modern authentication feature offers improved, modernized user authentication based on the OpenID Connect protocol and provides the Tridion Access Management application (or simply Access Management) as a single, simplified interface for managing access to Tridion applications by end users and by the APIs for other applications.	15.0.0
Veracode	Tridion Docs applications are now verified by Veracode to incorporate application security best practices embedded in the software development process. Public listings can be found on https://www.veracode.com/verified/directory/rws-group .	14.0.4
Semantic AI	<p>Semantic AI capabilities streamline and automate the process of tagging information while adding powerful search capabilities when content is delivered through Tridion's Dynamic Experience Delivery (DXD) module.</p> <ul style="list-style-type: none"> • Users can create and manage a multilingual, SKOS (Simple Knowledge Organization System) standard taxonomy easily with tools such as corpus analysis, import and customize other taxonomies, with a true linked data approach, through our new Taxonomy Space user interface • A new Smart Tagging feature suggests useful concepts from the organizational taxonomy managed by Taxonomy Space • Fully automated tagging on batches of content that allows content teams to tweak tags manually after they are applied • With DXD, smart search and dynamic filters enable improved information findability and discovery. 	14.0.4

What's new in Content Manager

For this release, Content Manager has these new features that support Tridion Docs functionality.

New and changed in Content Manager

New or changed features and functionality in Content Manager are described.

Some of the new features introduced are a direct result of product improvement ideas suggested by our user community. To suggest an improvement yourself, visit [Tridion Docs Ideas](#).

All Content Manager API changes are described in the Content Manager API chapter.

New and changed in version 15.1.1

Tridion Docs 15.1 Update 1 introduces new functionality to the product.

Metrics

The Metrics reporting feature enables you to measure the effectiveness of your use of structured content, and of your content reuse, through reporting and analytics. Specifically, the features enables you to:

- produce out-of-the-box reporting
- measure content reuse
- provide return-on-investment (ROI) metrics
- identify cost savings gained through the use of structured content
- validate team efficiency and productivity by business unit

Note: This product improvement is the direct result of an idea suggested by our user community.

Important: To use the Metrics feature, you must synchronize your Content Manager database with Metrics storage by running a synchronization script.

Organize Space toolbar improvements

This release improves the usability and accessibility of the Organize Space user interface with the following changes to the toolbar buttons:

- Adding text labels to the buttons
- Grouping related buttons

Organize Space grid view and grid resolution

Organize Space users can now apply an alternate grid layout to the list view, which is particularly useful for viewing multimedia content. This enhancement uses the latest technology, which provides an improved user experience over conventional thumbnails.

The grid view is available when working in the **Content** area from any of these Organize Space tabs: **Structured content**, **Inbox** and **Search**.

The grid view is useful to users primarily while they are working with images, but it applies also to non-image objects. For non-images, the grid view shows a larger icon representation of the object type.

In support of the grid view, 15.1.1 adds a new resolution, **Grid resolution**. As with other resolutions, system administrators can define this resolution in Organize Space under **Settings > System > Default Settings**. The default grid resolution is `Low`.

Review resolution for Organize Space

You can define the *review resolution* setting to change the image resolution that is used in Collective Spaces whenever a user chooses the option to view an image in the review resolution.

Along with editing and reviewing the textual content, your Collective Spaces users may need to review the images that are part of a document, such as the details of diagrams. If a Collective Spaces user wants to see an image in more detail, they can right-click on the image and select the option to **View image in review resolution**. The image appears in a new browser window and uses the *review resolution*.

The review resolution defaults to the value configured for **Preview resolution**, as found under **Settings > System > Default Settings** in Organize Space. If the review resolution does not display images clearly or with enough detail, you can configure it so that Collective Spaces uses one of the other Tridion Docs image resolutions, such as "High".

Content Manager OpenAPI

Tridion Docs 15.1 Update 1 introduces OpenAPI as a new public API for use with Content Manager. Tridion Docs OpenAPI is a RESTful web service that is the preferred API for interacting with Content Manager. OpenAPI is used by the Organize Space user interface.

Compared to the existing WCF-based API, the new OpenAPI offers the following advantages:

- Easy to use
- Support for HATEOAS links and JSON-based models
- Support for language-agnostic and platform-independent development
- Authentication through Tridion Access Management using OpenID Connect

Add-on configuration available for background extensions

Previously, because Add-on configurations were transferred via the Extensions endpoint, they were available only for front-end extensions. Now, the configuration is also loaded into application memory, so now back-end extensions can also read the configuration.

New and changed in version 15.1.0

An overview of new features and enhancements, as well as improved or changed functionality in Content Manager 15.1, compared to the previous version of the product.

New third-party software support (15.1.0)

Generally, RWS provides platform support for up to two versions of any given platform to provide more flexibility in how organizations incorporate vendor changes. Typically, RWS provides support for the latest and previous version of a third party platform. This previous version is implicitly marked as deprecated.

Software component support that was added in this release

Runtime environments

- Microsoft .NET 8 LTS
- Adoptium Eclipse Temurin 21.0.x x64 based on OpenJDK 21 LTS
- Oracle Java Development Kit 21.0.x x64 also known as Oracle JDK 21 LTS

Editors

- JustSystems XMetaL 18.0 x64
- Syncro Soft Oxygen XML Author 26.x x64

Software component support that was removed in this release

Runtime environments

- Microsoft .NET 6 LTS

Editors

- JustSystems XMetaL 14.0 x64
- Syncro Soft Oxygen XML Author 23.x x64

Integration

- SWC PoolParty 8.1 LTS

Content Manager core changes (15.1.0)

This release includes several improvements to the Content Manager core.

Added support for plugins in Web service API

Tridion Docs 15 now supports `IWrite` plugins for `Baseline` and `BaselineItems`, and supports `IDelete` plugins.

Note: This product improvement is the direct result of an idea suggested by our user community.

For details, see: <https://community.rws.com/ideas/tridion-ideas/i/tridion-docs-ideas/delete-plugins-similar-to-write-plugins>

Automatic XML configuration upgrade when upgrading from Tridion Docs 15

When you perform an upgrade from Tridion Docs 15 to Tridion Docs 15.1, the upgrade transforms your XML configuration files to become valid against Tridion Docs 15.1 schemas. If you are upgrading from an earlier version than Tridion Docs 15, you still need to make those modifications yourself.

Resilient response to invalid XML configuration

Before Tridion Docs 15.1, a service would fail on startup if its XML configuration was invalid. As from Tridion Docs 15.1, a service with an invalid XML configuration will instead throw an exception and wait for a valid XML configuration. This is true for the following services:

- BackgroundTask
- TranslationBuilder
- TranslationOrganizer

Additional metadata fields, sourced from a simple, out-of-the-box taxonomy system

Tridion Docs 15.1 introduces a new XML configuration file, `Admin.XMLTaxonomyConfiguration.xml`, which users that have the new Taxonomy Management privilege can configure from Organize Space at **Settings > XML Settings > Taxonomies**. This file configures a basic taxonomy consisting of the following metadata properties, along with some out-of-the-box sample values:

- PRODUCTFAMILY
- PRODUCTRELEASE
- GOAL
- AUDIENCE

This configurable taxonomy offers customers who don't use the Semantic AI feature the ability to create and manage a more structured, less "flat-list" collection of metadata properties. Customers who *do* use Semantic AI can hook up the configuration to their PoolParty instance.

The new fields are also defined in `MetadataConfig.xml`, as follows:

Name in taxonomy config	Name in <i>MetadataConfig.xml</i>	Content type	Level
PRODUCTFAMILY	Product Family Name	publication	logical
PRODUCTRELEASE	Product Release Name	publication	version
GOAL	Goals	topic, map, Library Topic	logical
AUDIENCE	Audience	topic, map, Library Topic	logical

You can replace the flat-list LOVs "Product family name" (`FISHPRODUCTFAMILYNAME`) and "Product release name" (`FISHPRODUCTRELEASENAME`) with the `PRODUCTFAMILY` and `PRODUCTRELEASE` properties, respectively, by running a migration script called `MigrateToIshTaxonomies.ps1`.

Note: To work correctly, the new taxonomy system requires that a number of XML configurations (for extensions, background tasks, write plug-ins, publish plug-ins, and for the taxonomy itself) are correctly upgraded, in line with the new out-of-the-box configurations. Follow the instructions in “Manually creating or updating XML configurations (upgrade only)” on page 0 carefully to make sure that your XML configurations are properly upgraded.

Applications migrated to .NET Core to support reading configuration from multiple sources

In our journey to configure Tridion Docs from a centralized configuration system, individual Content Manager applications need to support reading their configuration from multiple sources, such as from a configuration file or another configuration system. Converting the applications to .NET Core makes this transition easier, as it already provides support for reading configuration from multiple sources.

The following system components are now migrated: Crawler, Background task, Translation Builder, Translation Organizer, TrisoftSolrLucene

As a result of the migration, the names and locations of configuration files have changed as follows:

Application	Old file and location	New file and location
Background tasks	\InfoShare\App\BackgroundTask\Bin\BackgroundTask.exe.config	\InfoShare\App\BackgroundTask\Bin\appsettings.json
Translation Builder	\InfoShare\App\TranslationBuilder\Bin\translationbuilder.exe.config	\InfoShare\App\TranslationBuilder\Bin\appsettings.json
Translation Organizer	\InfoShare\App\TranslationOrganizer\Bin\TranslationOrganizer.exe.config	\InfoShare\App\TranslationOrganizer\Bin\appsettings.json
TrisoftSolrLucene	\InfoShare\App\Applications\TrisoftSolrLucene\Bin\TrisoftSolrLucene.exe.config	\InfoShare\App\TrisoftSolrLucene\Bin\appsettings.json

Solr Lucene 9.4.1

The Content Manager search engine is now upgraded to Solr Lucene 9.4.1. Because this new version of Solr implements Server Name Identification (SNI), the keystore should contain all allowed IP addresses. For this reason, the peer name check (expressed through the `SOLR_SSL_CHECK_PEER_NAME` property) was disabled by default in `solr.cmd` as from Tridion Docs 15.1. You can enable it, together with a new keystore, yourself.

Delete Publication Version business rule

This release adds a new business rule that triggers the automatic deletion of a publication whenever the last remaining version of a publication is deleted. This rule prevents having an invalid publication that contains no versions.

Collective Spaces changes (15.1.0)

This release includes several changes to Collective Spaces, that is, Draft Space and Review Space.

General improvements to Collective Spaces

Collective Spaces is now even more user friendly because of the following UX and feature improvements:

Resetting filters

Users can more easily and quickly reset filters for comments to their default state in the Comments navigation panel. For example, if you have selected to filter your comments to unresolved comments only, submitted by user John Doe in the first month of 2024, you can now reset all filters to default by selecting **Reset filters** in the navigation panel.

Accessibility improvements

In the document outline, the background color of the selected item is now darker and more prominent.

User interface in Canadian French

Draft Space and Review Space are both available in Canadian French.

Draft Space improvements

The following improvements are specifically for Draft Space:

New Draft Companion feature for improving content quality

The new Draft Companion feature gives authors and editors a powerful yet easy-to-use tool for improving text, or even generating completely new text, using powerful AI capabilities.

The feature is available from Draft Space's side panel. Without leaving Draft Space, authors and editors can quickly get content suggestions and incorporate them into the draft.

Based on the user's selection of content and selected prompts, Draft Companion analyzes selected text and makes suggestions for transforming and improving text, even generating completely new text, using its powerful AI capabilities. Users can select from several predefined prompts or enter a custom prompt in a conversational interaction.

This release comes with the following predefined prompts:

- **Improve readability**
- **Fix grammar and punctuation**
- **Summarize**
- **Try again** (to rephrase using different wording)

The available prompts and other aspects of Draft Companion are customizable through Organize Space.

Note that although the Large Language Model (LLM) behind Draft Companion is capable of producing results in multiple languages; this release of Draft Companion provides full support for American English only.

Condition builder interface

Where previously, setting a condition on a piece of content required you to manually enter a condition string, now, as from 15.1, a more sophisticated condition builder interface lets you create complex conditions interactively.

Note: This product improvement is the direct result of an idea suggested by our user community.

Edit attributes option on the Outline menu

A new **Edit attributes** option is available from the context menu that is available when users right-click on items in the Outline menu. This feature supports various use cases, such as adding conditions to entire topics or submaps.

Selecting this option opens the Attributes panel in the right sidebar and enables authors to edit the attributes of the following:

- Any map in the publication.
- Links to submaps that are referenced in a parent map.
- Links to topics that are referenced in a map.

Note: When a map is selected, there are *two* **Edit attributes** options, one for map itself and the other for the map's reference in the parent map.

Improved change tracking for tables

This release improves how changes to tables are displayed. When a column or row has been added, the change is highlighted in green, and when removed, the highlighting is red.

Note that the highlighting applies only when the table is *not* embedded within a paragraph element.

Options for managing Navigation titles

The outline view's right-click menu now includes options for managing navigation titles. For any topic or map, the following options appear under the **Navigation** group: **Add**, **Edit**, **Remove**, **Lock** and **Unlock**

Configuration improvements

The `BehaviorConfig.xml` file includes the following improvements:

- Prior to this release, the `toggletemplate` element allowed you to specify an XML element by its `elementname` but not any additional attributes. With release 15.1, you can now include an optional `attributes` section with one or more `attribute` elements.

Review Space improvements

New display options

Review Space now includes these options for easier viewing:

- A **Zoom** menu is available with the button located at the top left of the page, above the outline.
- In addition to increasing or decreasing the size of text, the **Wide canvas** option enables users to increase the width of the display area without changing the font size.

Organize Space changes (15.1.0)

The Tridion Docs 15.1 release introduces several improvements to Organize Space.

Publication Hub

The Publication Hub in Organize Space is a central place for teams to access a publication that is in development and for individual members to access specific assignments for work on that publication. The Publication Hub is located under a new tab in Organize Space called **Publication Hub**.

Settings tab

All the screens under the **Settings** tab, some of which were copies of the old Web client screens, have now been modernized and restyled to match the overall Organize Space user experience.

Adding and deleting publications and publication outputs

Organize Space now enables you to add and delete publications in a publication-type folder, and add and delete publication outputs for a publication.

Open in Publication Manager option

From Organize Space, users can now open a publication in the Publication Manager desktop application (provided the user has the Publication Manager software installed on their system).

New screens for XML configurations

The following new screens have been added under **Settings > XML Settings**:

- The **AI Assistant** screen, in which you configure the new Draft Companion feature
- The **Delete Plug-ins** screen, in which you configure the new delete plug-ins
- The **Taxonomies** screen, in which you configure the new, simple taxonomy.

User interface in Canadian French

The Organize Space user interface is available in Canadian French.

Client Tools changes (15.1.0)

This release includes several improvements to the desktop client tools.

Across client tools

Sign in and sign out

Users can now sign out from all desktop clients and sign in again, including as another user.

The options to sign in and out are available from the Accounts window. The following options are available both on the toolbar and on the right-click menu of a selected account:

- The **Sign in** action signs the user in to the selected account and across all user interfaces.
- The **Sign out** action signs the user out from the selected account on the current user interface. They will remain signed in to the account in other user interfaces.

Improved "Where used" user experience

User of the Content Manager client tools have an improved user experience when tracking down where objects are used. Previously, there were limited places in the user interface where users could view the "Where used" information, specifically, only in Publication Manager for an open publication or in Authoring Bridge for an open topic. The information is now available from many more places, including when browsing through the repository and when viewing search results.

Note: This product improvement is the direct result of an idea suggested by our user community.

Focus on newly created items

When creating new items in the Browse Repository window, the focus is now automatically on the newly created item.

User interface in Canadian French

All client tools are now available in Canadian French, and so is the documentation for the client tools.

Condition Builder

A number of improvements have been made in the Condition Builder in the client tools, including a quick condition or condition value finder for customers with lots of conditions and condition values.

Publication Manager

Improvements to disabling Review Space or Draft Space

If you disable Review Space, Draft Space or both, then Publication Manager users no longer see the corresponding **Copy link for > Review Space** menu item, **Copy link for > Review Space** menu item, or **Copy link for** submenu, respectively, in Publication Manager.

As from Tridion Docs 15.1, the place to disable Review Space or Draft Space is no longer in the `clientconfig.xml` configuration file, because that could lead to setting being out of sync. Instead, you now disable Review Space or Draft Space in the Organize Space user interface, under **Settings > System > Default Settings**.

Avoiding accidental changes when scrolling

A user scrolling their mouse wheel could inadvertently select a different value in a dropdown list that had focus. Such a change was additionally difficult to notice. As from Tridion Docs 15.1, scrolling the mouse wheel no longer has this effect.

Alphabetically sorted Resources folder

In the tree view of a publication, the items in the **Resources** folder were presented in no particular order. As from Tridion Docs 15.1, these items are now automatically sorted alphabetically by object title.

Note: This product improvement is the direct result of an idea suggested by our user community.

Better display of output formats

When selecting an output format to add to the **Output** tab, the available output formats were presented in a grid view, which truncated the names of the output formats and made them hard to tell apart. As from Tridion Docs 15.1, output formats appear in a list view, with the name of each output format displayed in full.

Note: This product improvement is the direct result of an idea suggested by our user community.

Smart Tagging

Users can now access the Smart Tagging feature from the Browse Repository window, specifically, the **Apply tags** option on the right-click menu.

Authoring Bridge

Third-party tool compatibility

This release includes the following updates for compatibility with the latest third-party authoring tools:

- Authoring Bridge for Oxygen now works with Syncro Soft Oxygen XML Author 26.x x64.
- Authoring Bridge for XMetaL now works with JustSystems XMetaL 18.0 x64.

This release is no longer compatible with the following third-party authoring tools:

- Authoring Bridge for XMetaL now no longer works with Syncro Soft Oxygen XML Author 23.x x64.
- Authoring Bridge for XMetaL now no longer works with JustSystems XMetaL 14.0 x64.

Oxygen compatibility check

The installer now allows your release of the Oxygen editor to be a higher release than the officially supported release(s). This means that you can use an unsupported, untested Oxygen release (at your own risk) without awaiting formal platform support and regression testing by RWS.

Database layer changes (15.1.0)

Changes and additions impact Microsoft SQL Server and Oracle database systems performance, setup or process.

Reduced minimum rights for Oracle databases

The minimum rights required for installing, upgrading or configuring an Oracle database have been reduced. As a result, some `ALTER SYSTEM` commands now need to be executed by hand rather than by Tridion Docs database scripts.

Additional database

This release introduces the new Metrics database, `InfoShareMT`, which serves as secondary storage for separate aggregation and calculations of future statistics.

Database refactoring

The refactoring to one database layer (dropping COM+), which was started in Tridion Docs 15, has continued inside the database:

- For Microsoft SQL Server, `ISHCore_ListToStringTableNVC255/ISHCore_ListToNumberTableD10` was replaced with the more optimized `STRING_SPLIT`. Additionally, indices were optimized with `IncludeColumns`.
- For Oracle RDBMs, the `isource/ InforShareCM` database no longer requires the `ANY` privilege. Additionally, indices were cleaned up and tuned.

New and changed in version 15.0.0

An overview of new features and enhancements, as well as improved or changed functionality in Content Manager 15.0.0, compared to the previous version of the product.

New third-party software support (15.0.0)

Generally, RWS provides platform support for up to two versions of any given platform to provide more flexibility in how organizations incorporate vendor changes. Typically, RWS provides support for the latest and previous version of a third party platform. This previous version is implicitly marked as deprecated.

Software component support that was added in this release

Operating systems

- Microsoft Windows Server 2022
- Microsoft Windows 11

Database servers

- Microsoft SQL Server 2022 (Standard Edition or Enterprise Edition). The "Always On Availability groups" feature is supported. For more information about this high-availability and disaster-recovery feature, see [here](#).

Content Delivery systems

- Tridion Docs Content Delivery (DXD/UDP) 12.0.0

Translation management software

- TMS 12.7.x
- WorldServer 11.8.x

Runtime environments

- Microsoft .NET 6 LTS (which you install by installing ASP.NET Core Hosting Bundle, version 6)

Editors

- JustSystems XMetaL 17.0 x64
- Syncro Soft Oxygen XML Author 25.x x64

Integration

SWC PoolParty 9.0 LTS

Software component support that was removed in this release

Operating systems

- Microsoft Windows Server 2016 x64
- Microsoft Windows 8.1 x64
- Microsoft Windows 8.1 x86

Database servers

- Microsoft SQL Server 2017 (Standard Edition or Enterprise Edition)
- Microsoft SQL Server 2016 SP2 (Standard Edition or Enterprise Edition)
- Microsoft SQL Server 2016 SP1 (Standard Edition or Enterprise Edition)
- Oracle Database 12.2 (12.2.0.1)
- Oracle Database 12c (12.1.0.2.0)

Database clients

- Oracle Data Access Client (ODAC) 19c(19.3.0.0)
- Microsoft OLE DB Driver for SQL Server

Runtime environments

- Eclipse Temurin OpenJDK 11 (18.9 LTS release)
- Oracle Java 11 (18.9 LTS)
- .NET Runtime 4.7.2

Editors

- JustSystems XMetaL 13.0 x64
- JustSystems XMetaL 13.0 x86
- JustSystems XMetaL 12.0 (Japanese) x64
- JustSystems XMetaL 12.0 (Japanese) x86
- JustSystems XMetaL 12.0 x64
- JustSystems XMetaL 12.0 x86
- Syncro Soft Oxygen XML Author 21.1 x64
- PTC Arbortext Editor 7.1 x64
- PTC Arbortext Editor 7.0 x64

Note: As from this release, PTC Arbortext Editor is no longer supported in any version.

Organize Space introduced (15.0.0)

The Tridion Docs 15 release introduces Organize Space, a successor and replacement for the Web Client.

Organize Space is built from the ground up using ReactJS and the Tridion Docs OpenAPI. In addition to providing the features and functionality that were present in the Web Client, this new interface provides the following enhancements:

Better usability

- A completely new user interface provides a more intuitive user experience.
- Better filtering, sorting and search functionality make it easier to find what you are looking for.

Feature toggles

System default settings enable you to easily show or hide certain features.

In this release, the following features can be individually enabled:

- Smart Tagging
- Draft Space
- Draft Space document history
- Review Space
- Review Space document history

Note that all these features require a paid license.

Privileges for non-administrators

More granular privileges on the User Role enable you to give more control to non-administrators. The following are just some of the privileges that are available:

- Creating and updating a user
- Undo checkout
- Modifying status definitions

- Modifying output formats
- Managing list of values

Extensibility

You can extend the capabilities of the user interface, for example, by adding a custom sidebar.

This release offers the following extensions:

- Menu item
- Action button
- Custom (disclaimer) links
- Insight sidebar area

Exporting all objects from search results

In Organize Space, you can export all objects that result from a search action in one go, even if there are more results than can be shown on one results screen. There is no need to first make a selection of objects to export.

Content Manager core changes (15.0.0)

This release includes several improvements to the Content Manager core.

Privileges

- Starting from Tridion Docs 15, only users with "System Administrator" privilege or "Translation Management" privilege will be able to create, update or delete translation jobs.
- New privilege "Undo Checkout Content Privilege" that allows for undoing the checkout status of any document, even if it's not checked out by the same user. This is introduced to allow for unblocking checked out objects in case the user who originally checked them out is not available to check in the object themselves. Undo checkout means that no changes are saved, the object goes back to the state it was before check out.

Configuration changes

The configuration XML for Inboxes and for Background Tasks has changed. The release ships with conversion scripts to turn your existing configurations into new configurations.

Generating Dynamic Delivery URLs based on logical IDs rather than based on language IDs

A Dynamic Delivery URL for a topic contains two numbers. For example, `https://docs.example.com/363466/473844/myproduct/installing-myproduct/`. By default, the second number represents a specific version and language of that topic: for example, version 5 of the Spanish translation of the topic "Installing MyProduct."

The potential issue with this is that if you create a new version for one of the topics in the publication and then republish the hotfixed publication, the second number in the URL of the topic changes to, say, `https://docs.example.com/363466/834254/myproduct/installing-myproduct/`. Worse still, if you didn't unpublish your publication before republishing, then the older version of your topic is still retrievable by visiting the old URL, showing up as an "orphan topic".

To deal with this issue, the `IPublishPostProcessPlugin` - `DitaDeliveryPrepareOverallPackage` plugin now has a new parameter,

`ContentObjectIdLevel`. By default, the value of this new parameter is `logical`, which means that, unlike in previous releases, publishing will generate numbers based on logical IDs. Because logical IDs don't change when the version or language of the topic changes, the number in the URL also stays the same, regardless of the version or language of the topic.

If you need to restore the previous behavior, you can set `ContentObjectIdLevel` to `lng`, which means that the product behaves as before.

Note: If this parameter has the value `logical`, then the **Resolutions to export** setting for your Dynamic Delivery output formats must have the value **First Matching Resolution Only**. If it has the value **All Resolutions**, then two resolutions of the same image would be assigned the same output URL, which leads to conflicts.

Conversion Scripts

Like the example code, the conversion scripts, such as the inbox configuration conversion script, are now located in the **__Resources** folder on the CD. The path should look as follows: `__Resources\InfoShareScripts\Upgrade140xTo1500\`

New web applications and databases

The various new features introduced in this release have resulted in a number of new web applications and databases.

Allowing longer machine names

Various parts of Content Manager imposed a 15-character limit on machine names, truncating longer machine names to 15 characters. This maximum has now been raised from 15 to 50.

Project configuration caching

This release introduces `ProjectConfiguration` time-based caching for user role vs privileges (invalidated after 1 minute), and list-of-values and card field setup (refreshes after 10 minutes). Note that Windows registry settings still require a process restart/recycle.

TLS 1.3 support

Version 1.3 of TLS (Transport Layer Security) is supported on operating systems that support it. RWS recommends enabling only TLS 1.2 or 1.3, and disabling older protocol versions such as SSL 3, TLS 1.0 and TLS 1.1.

Solr Lucene 9.1.1

The Content Manager search engine is now upgraded to Solr Lucene 9.1.1. This means that if you upgrade, you must remove your old index and reindex your search collection, but using the `Invoke-ISHFullTextIndexMaintenance` cmdlet offered by ISHDeploy.

New delete behavior

The Document Object Delete behavior has changed to become more intuitive:

Action	Behavior prior to <i>Tridion Docs 15</i>	Behavior as from <i>Tridion Docs 15</i>
Delete a logical object	Delete the object, all of its versions and all of its languages	Delete the object, all of its versions and all of its languages
Delete a version of an object	Delete the version and all its languages	<ul style="list-style-type: none"> • If this is the latest or only version of the object, delete the version, all of its languages and the logical object • Otherwise, delete the version and all its languages
Delete a language of an object	Delete this language	<ul style="list-style-type: none"> • If this is the only language of the object, delete the language, the version and the logical object • Otherwise, delete this language object

Case-insensitive "like" in search

A new operator called `cilike` (case-insensitive like) is available. It's used by default for finding publications in Organize Space and Publication Manager.

ISHDeploy and ISHRemote

- Tridion Docs 15 introduces ISHDeploy 3.0.0. For details on all the changes in this release, see "*ISHDeploy changes (3.x)*" on page 23.
- The articles for ISHDeploy that were previously provided on GitHub have moved to the main Tridion Docs documentation that you are currently using. Note that the reference documentation for individual cmdlets remains, for now, on GitHub, but this information will also be added to this documentation in the near future. The cmdlet reference information also remains part of the ISHDeploy code, available using the `Get-Help` cmdlet.
- Both the ISHDeploy and ISHRemote PowerShell modules are now included with the Tridion Docs release assets, so if you have no internet connection, you can install the assets delivered with the product. By default, get the latest version of these modules by installing them from PowerShell Gallery.

Unreleasing a publication (API only)

Releasing a publication makes the published output immutable. This means that nobody, not even an administrator-level user, can delete or republish the publication. However, there are some exceptional scenarios when you may need to undo the releasing of a publication:

- You have a very large number of publications, and you need to delete some of them, simply to free up space.
- You have published to an external system (such as shared drive or Dynamic Delivery), and something has gone wrong with it.

To allow for these unusual circumstances to be resolved, Tridion Docs allows you to unrelease your publication. This can only be done through API calls and requires the Unrelease Publication Output Privilege.

Collective Spaces changes (15.0.0)

This release includes several changes to Collective Spaces, that is, Draft Space and Review Space.

General improvements to Collective Spaces

Collective Spaces is now even more user friendly because of the following UX and feature improvements:

Improved layout

The outline (table of contents) has been moved out of the sidebar and added to the left side of the screen. Users can collapse and expand the outline to adjust the screen area as they like. Intuitive badge icons have been added to the outline to make it easier for users to identify the topics that need attention, and they can go to a specific item directly by clicking on its icon. Moreover, these icons can be customized for any statuses. There are more icons available to choose from at the Fontawesome library.

Annotations in balloons

Annotations have been created as bubbles/balloons right next to the selected text, making it easier to browse through them.

Save and Share

There is a new **Save and Share** button available, which allows you to instantly create and share the annotation in a single step.

Comment filtering: resolved and unresolved

When filtering comments, users no longer have to choose for either resolved or unresolved comments. Instead, they can filter on both, and refine the resolved comments filter further.

Unseen annotation due to conditioned-out content

If content has been annotated, but has also been made conditional with a condition that evaluates to "false", Collective Spaces alerts you the existence of this annotation.

Reason field for Suggestions can be optional

Previously, when creating a suggestion in either Draft Space or Review Space, the **Reason** field was always required. The field remains required as the default, but you can also configure it to be optional using the new `annotationsuggestionreason` element in the `Admin.XMLCollectiveSpacesConfiguration.xml` file.

Improved handling of mixed content

Mixed content (XML elements that contain text and other child elements) is handled much better while editing and rendering content, making it a better experience when working with complex content structures.


Feature toggles

There are new feature toggle options available in Organize Space to individually enable or disable the Draft Space and Review Space applications. There are also separate feature toggles for each application's Document History feature.

Authentication through Access Management

Like the Client Tools, Collective Spaces also follows the new authentication protocols and Access Management rules. There are new feature toggle options available in Organize Space to enable or disable Draft and Review Spaces and the Document History feature.

Clear marking of reused content

Whenever Draft Space or Review Space displays reused content (conrefs), a box is drawn around that content, with the recycling icon  in the top right corner.

Draft Space improvements

The following improvements are specifically for Draft Space:

- Users can now select multiple cells of a table and perform group operations like merge, change font, clear, etc.
- Users can now access and edit the attributes of a `colspec` element of a table
- Users can now upload a new revision of an image even for released topics, along with an option to refresh to update the current image
- A new menu enables users to easily insert elements into a Reference topic type
- The **Version** property is now shown by default when you open the **Properties** pane, without having to select **Show optional fields** first. (Note that you can customize Draft Space to make any property appear in the **Properties** pane by default, by making that property mandatory.)
- The ability to use the `Tab` key in a code block to insert a tab character, rather than move to a different field in the user interface

Review Space improvements

The following improvements are specific to Review Space:

- Better handling of tables, specifically the ability to expand tables for a better view, even in topics that are released
- A new attributes panel for Review Space, which reviewers can enable if they need to access to technical information related to elements
- The ability to enable a custom sidebar for additional functionality where required

Client Tools changes (15.0.0)

This release includes several improvements to the desktop Client Tools.

Changes to the desktop Client Tools include the following:

Authentication through Access Management

The Client Tools have been upgraded in association with the Modern Authentication enhancement and, like other Content Manager applications, they now follow the OpenID Connect authentication protocol. User access to all client applications is configured in Access Management. When a client tool is launched, the user is redirected to the default browser to complete the authentication process

Better scaling

The user interfaces of all client tools have been optimized to support windows scaling, primarily when using a high DPI monitor.

Content Importer

Content Importer now has new command-line options that enable users to do the following:

- Separate the convert and import phases
- Sign in to Content Importer using a service account client ID and secret

Condition Manager

To update conditions, users can now use a familiar "check out" and "check in" approach rather than upload and download conditions.

Authoring Bridge

This release includes the following updates for compatibility with the latest third-party authoring tools:

- Authoring Bridge for Oxygen now works with Syncro Soft Oxygen XML Author 25.x x64.
- Authoring Bridge for XMetaL now works with JustSystems XMetaL 17.0 x64.

Note also that Authoring Bridge for Arbortext is no longer available as of this release.

ISHDeploy changes (3.0.0)

This release introduces version 3.0 of ISHDeploy.

Cmdlet name	Status	Description
Multiple cmdlets	updated	All necessary cmdlets have changed for setting up Organize Space
Set-ISHServiceAccount	added	New cmdlet for setting <code>ClientId</code> and <code>SecretClient</code> in the configuration file for Translation Organizer
<ul style="list-style-type: none"> • Get-ISHConnectionString • Set-ISHConnectionString • Test-ISHConnectionString 	added	Cmdlets to get, set and verify the connection string for the following components according to the database purpose: <ul style="list-style-type: none"> • Content Manager • Tridion Access Management • Backend for Frontend (BFF) • Tridion Docs Identity Provider
Invoke-ISHMaintenance	updated	The cmdlet has changed in the following ways: <ul style="list-style-type: none"> • Renamed to <code>Invoke-ISHFullTextIndexMaintenance</code> • Simplified the cmdlet syntax • Removed parameters: <code>-Crawler</code>, <code>-FullTextIndex</code>
Set-ISHServiceUser	updated	Adding <code>IshServiceUser</code> for Translation Organizer was removed

Cmdlet name	Status	Description
Set-ISHFontoSchemaExperience	updated	Adapted to create the <code>SchemaLocationConfig.xml</code> file and compiled schemas files in the shared "custom" folder
Set-ISHOSUser	updated	Adapted to set anonymous access only to websites inside ISHCS folder, but not to the folder itself
<ul style="list-style-type: none"> Enable-ISHUICollectiveSpaces Enable-ISHUICollectiveSpaces 	updated	Adapted to only enable/disable Windows services for Review Space and Draft Space
<ul style="list-style-type: none"> Disable-ISHServiceFontoDeltaXmlCmdlet Enable-ISHServiceFontoDeltaXmlCmdlet Get-ISHServiceFontoDeltaXmlCmdlet Set-ISHServiceFontoDeltaXmlCmdlet 	removed	Cmdlets for <code>fontoDeltaXml</code>
<ul style="list-style-type: none"> Get-ISHCOMPlus Enable-ISHCOMPlus Disable-ISHCOMPlus 	removed	Cmdlets for <code>ISHComPlus</code>
<ul style="list-style-type: none"> Move-ISHUIButtonItem Move-ISHUIMainMenuBarItem Move-ISHUISearchMenuBarItem Remove-ISHUIButtonItem Remove-ISHUIMainMenuBarItem Remove-ISHUISearchMenuBarItem Set-ISHUIButtonItem Set-ISHUIMainMenuBarItem Set-ISHUISearchMenuBarItem Move-ISHUIEventManagerMenuBarItem Remove-ISHUIEventManagerMenuBarItem Set-ISHUIEventManagerMenuBarItem Enable-ISHUITranslationJob Disable-ISHUITranslationJob 	removed	Cmdlets for configuring buttons and menu items on the obsolete Web Client
<ul style="list-style-type: none"> Disable-ISHUIContentEditor Enable-ISHUIContentEditor Set-ISHContentEditor Test-ISHContentEditor Disable-ISHUIQualityAssistant Enable-ISHUIQualityAssistant 	removed	Cmdlets for obsolete features Content Editor (Xopus) and Quality Assistant (BlueLion)
Set-ISHCMCUILResourceGroup	removed	The cmdlet for setting a resource group in the configuration file <code>~\Author\ASP\UI\Extensions_config.xml</code>

Cmdlet name	Status	Description
<ul style="list-style-type: none"> Get-ISHSTSRelyingParty Set-ISHSTSRelyingParty 	removed	Cmdlets for ISHSTS relying party
<ul style="list-style-type: none"> Disable-ISHIntegrationSTSInternalAuthentication Enable-ISHIntegrationSTSInternalAuthentication 	removed	Cmdlets for ISHIntegrationSTS
<ul style="list-style-type: none"> Get-ISHIntegrationDB Set-ISHIntegrationDB Test-ISHIntegrationDB 	removed	Cmdlets for multiple versions of SQL Server
Set-ISHIntegrationSTSWSTrust	removed	The cmdlet for integration with WS-Trust
Set-ISHIntegrationSTSWSFederation	removed	The cmdlet for integration with WS-Federation

New and changed in version 14.0.4

An overview of new features and enhancements, as well as improved or changed functionality in Content Manager 14.0.4, compared to the previous version of the product.

New third-party software support

Generally, RWS provides platform support for up to two versions of any given platform to provide more flexibility in how organizations incorporate vendor changes. Typically, RWS provides support for the latest and previous version of a third party platform. This previous version is implicitly marked as deprecated.

Software component support that was added in this release

Internet Browsers

- Microsoft Edge Chromium (all versions)

Integration

- SWC PoolParty 8.1 LTS

OS

- Oracle Java 17 (21.9 LTS)
- Eclipse Temurin 17

RWS

- UDP 11.6.0
- TMS 12.6.x

Editor

- <oXygen/> XMLAuthor/Editor 23.1

Software component support that was removed in this release

Internet Browsers

Microsoft Edge Spartan

Collective Spaces changes

Several changes have been applied to Collective Spaces (That is Draft Space and Review Space). You enable one or both of these user interfaces with the `Enable-ISHUICollectiveSpacescmdlet` available over `ISHDeploy` module; using the `-DraftSpace` switch, the `-ReviewSpace` switch, or both.

Changes in Draft Space

Smart Tagging in Draft Space

As part of Semantic AI capabilities the Smart Tagging feature is introduced to Draft Space. Smart Tagging allows users to automatically generate tags in components' properties, that drastically improves searching capabilities.

Content Quality check for Draft Space

Optional Content Quality add-on that provides en-US spell check using Hunspell dictionary.

Document History

Optional add-on that provides a detailed view of revision history and changes in a topic.

MathML Editing

Optional add-on that provides a capability to edit complex math equations.

New content type support

Outline view supports DITA bookmarks.

Outline View improvements

The Outline side panel received improvements to customize workflow and make working with large publications easier:

- expand/collapse all items in publication at once
- side panel keeps items collapsed/expanded while switching between side panels

- outline items can be filtered on any search term
- items in the Outline are displayed with an overlay indicating the state item is currently in
- drag and drop items in the Outline tab.

Metadata Form State

Metadata Form brings improvements on clean view of component's properties. Users can limit the view using "Show optional fields" switch, and collapse property fields of their choosing. Draft Space preserves that state of Metadata Form when:

- saving changes
- switching between components
- re-opening Properties panel.

Note: Note that Metadata Form State is preserved in all metadata form, within one session in an individual browser tab.

Tables

Tables in Draft Space received following improvements:

- it is possible to select multiple cells at once
- tables bigger than 10x10 collapse automatically to ensure performance
- conditions for tables are now displayed with expected green/red colors

Accept Changes for suggestions

Editorial suggestion comments can be applied with just one click. Apply Suggestion button appears only for shared comments and when used it replaces the highlighted text with a suggestion in the comment.

Inline images

Image attribute `@placement` can be set to:

- `inline` - image is rendered as an inline image with surrounding text in the same line
- `break` - image is rendered as a block image with surrounding text rendered as blocks before and after the image

Note: Note that if attribute is not set it defaults to inline image. Image size is ignored for inline images.

UX improvements

following UX improvements are introduced:

- additional submenus for Machinery Task that allow to insert preliminary and closing requirements and to insert elements allowed in the requirements
- specialized menus for Learning Objects and Learning Groups was added and allows to insert elements special to them
- visual improvements for Learning Assessment content being displayed
- new "Interaction" menu that allows inserting all types of learning questions
- visualization improvements for inserting Object or Object with parameter by adding the Advanced tab.

Changes in Review Space

Document History

Optional add-on provides a detailed view of revision history and changes in a topic.

Behavior Configuration Extension - Menu structure

Menu structure allows for multiple custom menus definition using `<menuconfiguration>` behavior element. Out of the box menus cannot be changed.

Behavior Configuration - Read Only Table

There is a new behavior element `<readonlynarrowtable>`. It is intended for basic tables and has a limitation that does not allow for grouping of multiple column or row cells into one.

New link resolve for Related Links, `topicref`, and `xref`

New way displays the resolved link text in case no specific text is provided. Insert dialog makes sure that the inserted item exists in the publication.

Client Tools changes

Below you can find changes introduced to Client Tools in this release.

Authoring Bridge

Now supports Oxygen ver. 23.1

New and changed in version 14.0.3

An overview of new features and enhancements, as well as improved or changed functionality in Content Manager 14.0.3, compared to the previous version of the product.

New third-party software support

Generally, RWS provides platform support for up to two versions of any given platform to provide more flexibility in how organizations incorporate vendor changes. Typically, RWS provides support for the latest and previous version of a third party platform. This previous version is implicitly marked as deprecated.

Software component support that was added in this release

Integration

- SDL TMS 12.5

Software component support that was removed in this release

Internet browsers

- Internet Explorer (all versions)

Collective Spaces changes

Several changes have been applied to Collective Spaces (That is Draft Space and Review Space). You enable one or both of these user interfaces with the `Enable-ISHUICollectiveSpacescmdlet` available over `ISHDeploy` module; using the `-DraftSpace` switch, the `-ReviewSpace` switch, or both.

Changes in Collective Spaces

Optional Annotation Resolution Text Field

Resolution Text Field is now optional by default. To make it required add `<annotationresolutioncomment required=yes>` in the `<commonsettings>` section of the Collective Spaces Settings file.

Behavior Configuration Extension - Menu structure

Menu structure allows for multiple custom menus definition using `<menuconfiguration>` behavior element. Out of the box menus cannot be changed.

Behavior Configuration - Read Only Table

There is a new behavior element `<readonlynarrowtable>`. It is intended for basic tables and has a limitation that does not allow for grouping of multiple column or row cells into one.

New link resolve for Related Links, `topicref`, and `xref`

New way displays the resolved link text in case no specific text is provided. Insert dialog makes sure that the inserted item exists in the publication.

Relationship tables

Relationship tables are hidden by default; update `<commonsettings>` section of the Collective Spaces Settings file with `<relationshiptable enabled=yes>` to enable them. After enabling it is possible to:

- insert relationship tables to the map
- see relationship tables in the sheet frame of the map
- remove reltables from the map
- add/remove rows and columns
- see header text of the column
- change the type of the column
- insert single/multiple `topicref` in a cell
- see the target of the `topicref` being resolved
- remove a single `topicref` from a cell in the reltable

Changes in Draft Space

Browse dialog

The new Browse Dialog is used when inserting: reused content, existing content, figure with image or inline image. The Browse Dialog works also for Search functionality and it shows max 25 results. Folder location and search query are remembered and reopening the dialog takes you to the last location/search result.

Custom Sidebar

The Custom Sidebar functionality was built to enable integration with applications that don't require interaction with a document but do present some information regarding document and publication that can be useful for the Subject Matter Expert (SME) Author. The custom sidebar configurable via Domain Specific Language (DSL) by using `<sidebarconfiguration>` and `<extrasidebar>` elements.

Content Importer changes

Several changes have been applied to Content Importer.

Import job cards

Each import job has now a card on the main screen that reflects the status of the job and provides quick options to manage the import, like Restart, Check Errors and Warnings, Start a new import with the same settings, and Delete.

Import with generating new topic ids (GUIDs)

Import without conversion now can be done by checking the "Generate new identifiers" checkbox while setting up a Repository DITA Content import.

Target folder clean-up operation

Target folder for the import cannot contain any previous import artifacts. Instead of throwing an error message, now we present a warning with a button allowing for a quick clean-up of the target folder.

New UI messages and tool-tips

Content Importer has been upgraded with new tool-tips and more informative messages to deliver better user experience.

New and changed in version 14.0.2

An overview of new features and enhancements, as well as improved or changed functionality in Content Manager 14.0.2, compared to the previous version of the product.

New third-party software support

Support for databases has been updated.

Generally, RWS provides platform support for up to two versions of any given platform to provide more flexibility in how organizations incorporate vendor changes. Typically, RWS provides support for the latest and previous version of a third party platform. This previous version is implicitly marked as deprecated.

Software component support that was added in this release

Database servers

- Microsoft SQL Server 2019

Internet browsers

- Microsoft Edge (Chromium)

Software component support that was removed in this release

Database clients

- Oracle Client 12.1.0.1.2
- Oracle Data Access Components 12.2.0.1.1

Server operating systems

- Microsoft Windows 2012 R2 x64

Client operating systems

- Microsoft Windows 7

Run Times

- Microsoft .NET Runtime 4.6.1
- Oracle Java 10

Editors

- Arbortext 7.0
- <oXygen/> 16
- <oXygen/> 17.1

Integration

- SDL WorldServer 10.4.4
- SDL TMS 2011 SP6

Web Client changes

Some functionality has changed in the SDL Tridion Docs 14 SP2 release.

UGC and commenting dashboard

The UGC feature of Content Delivery is deprecated as of Tridion Docs 14 SP2. As a result, the Commenting Dashboard on the Content Manager side and commenting in DXA for Dynamic Documentation is also deprecated.

Publication Manager changes

Several changes have been applied to Publication Manager

Link for Draft Space, link for Review Space

If enabled, the Publication Manager now lets the user select a topic and copy a Draft Space URL or Review Space URL to the clipboard. The URL can then be pasted into a browser to jump directly to the topic in Draft Space or Review Space.

Collective Spaces changes

Several changes have been applied to Collective Spaces (that is, Draft Space and Review Space). You enable one or both of these user interfaces with the `Enable-ISHUICollectiveSpaces` cmdlet available over `ISHDeploy` module; using the `-DraftSpace` switch, the `-ReviewSpace` switch, or both.

Changes in both Collective Spaces interfaces

Outline: quick navigation

The **Outline** area is a representation of the map of the document, rather than a table of contents. Users can search for topics, also using the `Ctrl+G` keyboard shortcut.

Whitespace handling

Improvements were made in how content with whitespace is rendered in both interfaces. Previously, too much whitespace was being displayed unnecessarily.

Changes specific to Draft Space

Outline area improvements

In the **Outline** area, users can add new or existing content, remove content and reorder content. Users can also see document history and create deep links.

XML attributes

The **Outline** area has a tab for a subset of the XML attributes of the currently selected item.

Content Manager properties

The **Outline** area has a tab for a number of Content Manager properties of the currently selected topic. Implementers can modify the metadata configuration file, `metadataconfig.xml`, to configure which properties to show here.

Conditional content

Users can insert new conditions and edit existing conditions applied to conditional content, but for now, in this release, users can only enter conditions and condition values as free text, rather than selecting them from lists. The strings entered are also not yet validated.

Variables

Users can see variable references and what they resolve to, and modify or remove such references, but they cannot yet insert new ones. Users can also see the source library topic that contains the variable definitions.

Search and replace

Draft Space search and replace functionality searches in all Content Manager content of the document shown, regardless of whether all that content is loaded in the user interface. For all topics that are in a draft workflow state, so users having write access, replace functionality is available. Users cannot replace text in released topics - so when write access is missing.

The new scoped search feature allows users to select a list of topics in which to search.

Document History

If enabled, the **Outline** area has a **Show changes** button (users can also use the `Ctrl+Shift+Y` keystroke) that saves any unsaved changes in the currently selected topic, and then reveals all changes made to the current version of the topic.

Changes specific to Review Space

Search

Review Space search functionality searches all content of the document shown in Content Manager, regardless of whether all content is loaded in the user interface.

Quick navigation to reviewable items

Next and **Previous** controls in the user interface allow users to jump back and forth to reviewable items. Implementers can configure the definition of "reviewable" in the Collective Spaces configuration file, `Admin.XMLCollectiveSpacesConfiguration.xml`.

Annotations

Users can now:

- make global annotations, referring to the document as a whole
- make annotations on variables, images (including `glossSymbol` and `hazardSymbol`) and variable references
- see annotations grouped by topic
- see "orphan annotations" for deleted content
- see unresolved annotations by default
- filter annotations by type, time range, resolution type or creator
- see annotations in the most likely place, even if the topic was edited outside Draft Space, thanks to position recovery
- copy the suggested text of an annotation to the clipboard

Language selector allows you review translations

When starting Review Space from the Web Client, users can select the language in which they want to review content. (Annotations made for one language do not appear in other language versions of the same document.)

Translation Organizer changes

Some changes have been made to the Translation Organizer.

The pre-translation feature is already deprecated for multiple releases. The interface where pre-translation relies on, like `ITargetXmlFileGenerateContext` and siblings, is also deprecated as of SDL Tridion Docs 14 SP2. Note that Collective Spaces does not respect the Translation Management extension interface - so in practice purging pre-translation is simply not happening and Collective Spaces doesn't know how to handle `<pretranslation>` tags.

New and changed in version 14.0.1

An overview of new features and enhancements, as well as improved or changed functionality in Content Manager 14.0.1, compared to the previous version of the product.

New third-party software support

Support for databases, operating systems and XML editors have been updated.

Generally, RWS provides platform support for up to two versions of any given platform to provide more flexibility in how organizations incorporate vendor changes. Typically, RWS provides support for the latest and previous version of a third party platform. This previous version is implicitly marked as deprecated.

Software component support that was added in this release

Application server

- Oracle Database 19c (19.3.0.0)
- Microsoft .NET Framework 4.8.0

Integration

Client software overview

- JustSystems XMetaL 14.0 (64-bit only)
- Syncro Soft <oXygen/> XML Author 21.1 (64-bit only)

Note: oXygen 21.1 is delivered with an OpenJDK 12.0.1 package in addition to Java 1.8. Oxygen recommends the Java 1.8 package and so do we: we have fully tested it. The OpenJDK 12.0.1 package only received basic verification.

Review Space

Tridion Docs 14 SP1 introduces Review Space, a web-based tool that lets you add annotations to the content, and manage them.

Docs 14 SP1 introduces a new browser-based user interface specifically intended for content reviewers, called Review Space. Reviewers can use Review Space to create annotations; that is, they can comment on, and suggest improvements to, content that they select. Review Space also allows for users to respond to reviewer comments or suggestions.

Review Space shares many functional elements, as well as a look-and-feel, with Draft Space. Specifically, SMEs working in Draft Space interface can also see and respond to, the annotations created by reviewers, and can also create annotations of their own. Conversely, reviewers working in Review Space get a read-only view of the content.

Review Space and Draft Space are jointly referred to as "Collective Spaces."

Web/App/Db server

Web/App/Db server have been improved in this version.

The `activityfilter` attribute

The `activityfilter` attribute that you can use in list of values in the `MetadataConfig.xml` file is now fully functional. This attribute takes two possible values:

- `active`
- `inactive`

Setting a list of values entry to `inactive` makes the value not selectable via the user interface. Do note that `inactive` values are still valid values.

Draft Space

The layout and behavior of the template selection window, that is used when creating an object to be inserted in the document, has been improved.

Web Client changes

Web Client improvements for this version.

Publication output download

Publication outputs are now downloaded from the Web Client in chunks rather than in one piece. This reduces the memory footprint of the download and also reduces the risk of issue happening in the middle of an output download for very large publications.

Collective Spaces changes

Several changes have been applied to Collective Spaces (that is, Draft Space and Review Space).

Configuration

The ability to configure Collective Spaces is expanded and now has a dedicated configuration file called `BehaviorConfig.xml`. You can customize the behavior of the Collective Spaces user interfaces in multiple ways. You can configure:

- a DITA specialized Schema
- rendering behavior
- context menus
- custom actions in the top bar menu
- annotation types
- annotation resolution types
- resolving resolutions

Draft Space user interface reorganization

The Draft Space user interface has reorganized its controls compared to the previous release. Specifically, Draft Space now has a toolbar above each topic with options to:

- save all changes
- undo (discard all changes)
- change workflow status
- create a new topic version.

The same area shows errors and notifications.

New Draft Space controls for reviewing

Draft Space now has additional user interface items for reviewing content and processing content annotations. This brings the functionality of the Review Space interface into the Draft Space interface.

Translation Organizer changes

Translation Organizer has changed in this release

As of Tridion Docs 14 SP1, deleting a translation job has become more restricted. Administrator-level users can still delete any translation job at any time. But non-administrator-level users can only delete a translation job after it has been canceled, completed or exported.

Database layer changes

Changes and additions impact Microsoft SQL Server and Oracle database systems performance, setup or process.

Empty database

This applies to both Microsoft SQL Server and Oracle.

A ready-to-use database is available in order to facilitate fast setup. This database already contains the basic structure helping an immediate application, as well as all minimal settings.

Specifically:

- The database is upgraded to Content Manager 14.0.1.
- The latest out-of-the-box configuration files (e.g. `Admin.XMLStatusConfiguration.xml`) are submitted.
- All DITA 1.3 editor templates are submitted and released in English, German, Dutch, Japanese and Chinese.

Even if the database is up-to-date with the Content Manager version, you still need to run DBUpgradeTool (DBUT) to ensure that a database job is created, the latest database upgrade scripts are executed and all statistics for the indexes are generated.

Note: For demo purpose there is an equivalent "demo" database that contains everything for the Mobile Phone publication in addition to the structure mentioned above.

Oracle

We are now supporting Oracle Database 19c (19.3.0.0) .

The consequences are as follows:

- Oracle Data Access Client (ODAC) is raised from 12.2.0.1.0 to 19.3.0.0.0.
- We also moved the .NET components to `oracle Managed Data Access` which is now part of the delivered product and does not require extra installation. This means that only the OLEDB components of Oracle Data Access Client (ODAC) must be installed. However this also means that we need an extra system environment variable, `TNS_ADMIN`, to allow the .NET components to find `tnsnames.ora`. More details can be found in the *Oracle Data Access Components* chapter of our Content Manager installation documentation.

The setup needs to be adapted when upgrading our database from a previous Oracle setup to Oracle Database 19c (19.3.0.0) . We expect all Oracle Database 19c (19.3.0.0) environment to run with the following characteristics:

- Apply new database template files, that we deliver.
- `Dynamic sampling` is turned off. `Dynamic sampling` is a functionality introduced in Oracle Database 12c that gathers statistics on the fly during query execution. When switched on, it had a neutral to adverse effect on the performance during our testing. Therefore we decided to turn it off by default, and we apply it to Oracle Database 19c (19.3.0.0) as well: Oracle's `optimizer_dynamic_sampling` is set to 0 by default.

API changes

Significant API improvements for this version.

The Annotation API

We have created a new class of API, named `Annotation`. Its purpose is to customize part of the annotation feature used in Review Space. Note that "annotation" refers to the two objects that users can create in Review Space: comments and proposals.

In this release, the `Annotation` API contains methods for:

- Finding annotations
- Editing annotations
- Updating the status of annotations
- Replying to annotations
- Deleting annotations

The API will be further developed in future releases. All details can be found in the *Web Services 2.0 versus 2.5* chapter of our Content Manager API documentation.

Taxonomy connector changes

You can now configure the taxonomy connector using Tridion Sites Content Manager WebDAV URLs rather than Tridion Sites Content Manager URIs. This makes it easy to migrate your taxonomy connector across a DTAP (Development, Test, Acceptance, Production) setup.

Previously, you could only identify an Tridion Sites Category using its Content Manager URI. In a DTAP-type setup, the same Category has a different Content Manager URI in each Content Manager instance.

To fix this problem, you can (and should) instead configure the Category in your taxonomy connector configuration as a WebDAV URL, that is, a relative path through the Tridion Sites folder structure, which persists across Content Manager instances.

Similarly, previously, you could only identify a root Keyword using its Content Manager URI. In a DTAP-type setup, the same root Keyword has a different Content Manager URI in each Content Manager instance.

To fix this problem, you can (and should) instead configure the root Keyword in your taxonomy connector using its key, that is, the unique name of this root Keyword, which persists across Content Manager instances.

The use of Content Manager URIs remains supported, but such URIs are marked with a * during upgrading, to signify that they should be replaced with their WebDAV URL or key equivalent.

New and changed in version 14.0.0

An overview of new features and enhancements, as well as improved or changed functionality in Content Manager 14, compared to the previous version of the product.

This version includes the new and changed features and functionality of Content Manager versions 13.0.2 and 13.0.1.

New third-party software support

Support for databases, operating systems and XML editors have been updated.

Generally, RWS provides platform support for up to two versions of any given platform to provide more flexibility in how organizations incorporate vendor changes. Typically, RWS provides support for the latest and previous version of a third party platform. This previous version is implicitly marked as deprecated.

Software component support that was added in this release

Application server

- Microsoft Windows Server 2019 (64-bit)
- Microsoft SQL Server 2017
- Microsoft SQL Server 2016 SP2
- Oracle Database 12.2.0.1
- Microsoft Server .NET Framework 4.7.2 (pre-installed with Windows Server 2019)
- Eclipse Temurin OpenJDK 11 (formerly known as AdoptOpenJDK OpenJDK 11) with Hotspot 11+28 (64-bit)

Integration

- SDL Tridion Sites 9 (IMetadataBinding implementation called `TridionSitesTaxonomyConnector`)
- SDL TMS 12.0.x
- SDL TMS 12.1.x
- SDL TMS 12.2.x
- SDL WorldServer 11.3.x
- SDL WorldServer 11.4.x

Client software overview

- PTC Arbortext Editor 7.1 (64-bit only)
- JustSystems XMetaL 12.0 / 12.0 (Japanese) (64-bit only)
- Syncro Soft <oxygen/> XML Author 20.0 (64-bit only)

Web/App/Db server

Web/App/Db server have been improved in this version.

Added TMS username/password authentication to Translation Organizer

TMS versions 12.1 and later prefers a username and a password (instead of `apikey` and `secret`). Content Manager Translation Organizer has been adapted accordingly.

A new configuration option is available in the TMS integration set: `authenticationMode`. Possible values: `ApiSecret` (the SDL TMS legacy authentication mode), `UserCredentials` (the current SDL TMS authentication mode). The default value is `ApiSecret`.

The Resolutions to export property

A new property has been added to the **Output Format** form in order to be able to use the list of image resolutions, specified in **Resolutions**, as a fallback list: **Resolutions to export**. This property has an effect only when there is more than one resolution specified in **Resolutions**.

Resolutions to export has two values:

- **All Resolutions:** no fallback behavior. This is the default publishing behavior.
- **First Matching Resolution Only:** the first resolution in the list is preferred and the others are used as fallback.

The list of resolutions is used for choosing the image resolutions to export at the early stage of publishing, and is part of the criteria needed for a publication output to acquire a **Release Candidate** status.

- **Export:** by default all resolutions are exported, and only the first one is linked to topics in the publication, while the other resolutions are used in custom processes. With **First Matching Resolution Only**, only the first resolution in the list is exported. The other ones are used as fallback. For example, with resolutions "Low, High":
 - By default **Low** and **High** resolutions are exported for each image, or replaced by a missing object if they don't exist.
 - With **First Matching Resolution Only**, the **Low** resolution is exported for each image. The **High** resolution is exported only if the **Low** resolution does not exist. If none exist, the image is replaced by a missing object.
- **Release Candidate** status: by default all the resolutions must be released in order to acquire the status, as all resolutions are exported. With **First Matching Resolution Only**, the exported resolution must be released in order to acquire the status. For example, with resolutions "Low, High":
 - By default **Low** and **High** resolutions must be released to acquire the status (considering there is no missing object exported).
 - With **First Matching Resolution Only**, if **Low** has been exported, then it needs to be released in order to acquire the status (considering there is no missing object exported). If **High** has been exported, then that resolution needs to be released.

InstallTool input parameter `ps_java_home` is now a mandatory parameter

Following the adoption of the new Java module Eclipse Temurin OpenJDK, the value of `ps_java_home` is no longer calculated: it must be manually set at installation. `ps_java_home` is therefore now part of the list of "mandatory" parameters.

We also added `ps_java_jvmdll` to the list of optional parameters. It has a default value (`<ps_java_home value>\bin\server\jvm.dll`).

Translation Jobs of type 'File System' can be cancelled

When you submit a translation job using the file system, you can now cancel it after all the objects to translate acquired the status **In translation**, that is, after all the files have been compressed and exported.

After a delay, the translation job will acquire the status **Cancelled**, and the objects will be set back to the **To be translated** status.

Tridion Sites Taxonomy Connector supports TLS 1.2

The taxonomy connector that imports a Tridion Sites taxonomy (`IMetadataBinding`) in Tridion Docs has been upgraded to be fully compatible with TLS1.2, making the taxonomy accessible again with that version.

Enhanced Publishing plugin to start DITA-OT

The `IshRunDITAOT` publish plugin has been upgraded to provide better control of the way DITA-OT files are managed, with two new parameters:

- `AntHomeFolder`: lets you set a new location for `ANT_HOME`. The default value is the current `DITA-OT\InfoShare` folder.
- `BuildDITAOTFiles`: lets you skip the automatic generation of the DITA-OT build files. By default set to `yes` (automatically generates the files).

Web Client changes

Web Client improvements for this version.

Properties dialogs

Overview

The object's properties for all object levels (logical, version and language levels) are now displayed in the same dialog instead of in one dialog for each object level. When the dialog is summoned from the **Properties** button at a given object level, the properties' form scrolls down to the appropriate level. This major change affects the object creation procedure and the properties display behavior in the Web Client. It also affects the way you customize the object properties dialog during implementation.

Object creation

The grouping of object properties applies to the object creation dialog and procedure. This has the following consequences:

- You no longer follow a three-steps procedure to create an object, you now fill in a single list of fields.
- All three levels of the object are always created when an object is created.

During the creation process, you now need to select the object template first (it was previously an action carried out during the third and last step of the object creation). After you have selected the template, the object creation dialog will appear with some of the fields pre-filled according to the chosen template.

When you create an object, the language of the object is automatically the default language of the user who creates the object. That setting can no longer be changed. If you want the object to be in a different language, you need to create an additional language for this object after creation. The same applies to resolution for images.

When you create new versions/branches or new languages for an object, the single dialog with all properties is also used.

When you create a new version, the parent level (logical level in this case) fields in the creation dialog can be edited, as those properties are in display mode. The same goes for the language level: when you create one, the two parent levels are in display mode in the dialog.

For the publication object, only two levels are present at creation: logical and version. You must create specific output formats for the publication after the publication creation has completed.

Properties edition and display

For properties edition and display, you can access an object's properties from three different locations in the user interface depending on the level of the object you want to see: logical, version or language/resolution/output format.

In previous versions of CM, the displayed information was different depending on the location. Now all properties have been regrouped in a single dialog and that single dialog is accessed from any of the three locations. Depending on where you access it from, the view will scroll down to the appropriate group of fields.

If you display properties at the logical level (from the top menu bar), the Web Client will automatically display properties for the last version of this object, and for the default user language for this version. You need to select a specific version/branch, or a specific language /resolution, and use the appropriate level property button, if you want to display the properties for those object's levels.

Whenever you try to display properties for an object that has no version or an object version that has no language (created with earlier versions of Content Manager), an error message will be displayed instructing you to create the required version and language. You can view the properties only after you have created those. Note that all the rules for creation apply when you carry out the required action (for example, creating a new version will make the default user language pre-selected).

Dialog customization

The procedure for customizing properties dialogs in the Web Client is now identical to the procedure used for customizing them in Publication Manager. Both use the `MetadataConfig.xml` file.

The `MetadataConfig.xml` file now contains the `ClientName` condition that lets you specify the fields that you want to show in Publication Manager and not in the Web Client or vice

versa. This condition can be set for any Tridion Docs tool that uses the metadata fields. The details can be found in the configuration section of the Content Manager documentation.

Web Client preview resolves content references (@conrefs)

The content preview in the Web Client now also shows content references (@conref). The preview uses the latest available version of the libraries. This resolution is on by default: `ignoreObjectFragments=false`.

The resolution of navigation titles (`navtitles`) and link text in the Web Client preview is also available in this version, but is off by default as this may affect performance significantly: `ignoreNavigationTitles=true` and `ignoreLinkTexts=true`.

Language inheritance during language creation

The default language of the content passed on to a new language when this new language is created for an object, have changed.

In Content Manager version 13, when you created a new language of an object in the Web Client, the language of the content put in the new language would always be the default language of the user. It then had to be entirely translated.

Now we first search for a previous content in the created language in previous versions of the object, and use it if we find any. We search latest versions first.

For example: a Japanese language is created for the version 3 of your topic. Your default language is English.

1. If there is a Japanese language for the version 2, this content is used for the created language. If not...
2. If there is a Japanese language for the version 1, this content is used for the created language. If not...
3. The English content is used for the created language.

Other improvements

The ability to select a resolution from a list when creating a new image object in the Web Client is available again, in the new metadata form.

The preview is now correctly displaying right to left languages.

When the upload action (using the **Upload** button) returns an error, the error message is now more specific and adapted to the actual issue than the former `Oops, something went wrong`.

Client tools changes

Client Tools improvements for this version are explained.

Publication Manager improvements

Search through publications

The publication search feature available in the Web Client is now accessible from Publication Manager.

From the **Search** command dialog or from the **Browse Repository** dialog, you can now select the **Entire Repository for publications** search option. It lets you search for a publication by title, or by other properties if you open the **Advanced options** list. Right-clicking on an item in the list of results lets you access the **Locate** feature.

Among other things, you can find the publications by:

- Its identifier.
- A resource that it uses.
- Its baseline.
- An output format that it uses.

Current limitations:

- The title field is case sensitive.
- Only one resource or map can be specified at a time.

Viewing DITA Open Toolkit log

When a publish failed, you can now access the DITA Open Toolkit (DITA-OT) log directly from Publication Manager: in the **Output** tab, right-click on the failed output line and select **Save DITA Open Toolkit log as**. You can then save the log in the location of your choice and open it in your favorite editor. This

- Saves you the hassle of going in the Web Client and searching for the appropriate entry in the Even Log list.
- Lets you use all your Client Tools features for a faster log analysis.

Empty condition context

Publication Manager's behavior with conditions has been improved, especially in cases where conditions are absent. There are three states of note for the conditional context:

1. There is no defined conditional context (technically an empty field value). The message `This publication has no context set, so upon publishing all conditional content will be included.` is displayed in the **Conditions** tab and the conditional filtering is off. So all conditioned content is displayed in green in the preview and is published.
2. There is a conditional context but no condition or no condition value is defined, and the conditional filtering excludes all conditioned content from publishing (technically `<features></features>`). All conditioned content is displayed in red in the preview.
3. Condition and condition values are defined, and content is included or excluded as requested by the conditions (technically `<features><feature.../></features>`). The content is displayed in green or red accordingly.

Where Used

The stability of the **Where Used** feature has been increased, it displays all results and is no longer sensitive to certain content structures such as `<menucascade>`. The **Refresh** function's performance has also been improved.

Viewing comments

In Publication Manager, selecting **View > Comments** displays the list of comments related to the topics included in the publication. In previous versions, the topic's name in the **Topic** column was plain text. Now the name is a link that sends you to the topic in the publication tree, allowing to review the comment in context.

That link can be used before the comment has been published, but in this case the name of the topic is replaced by "Unknown".

DITA 1.3 support: TemplateSpecification.xml

We removed our proprietary attributes (`ishtype`, `ishlinkxpath`, `ishhyperlinkxpath`...) from the DTDs and added them to the file that specifies the XML element creation rules for Publication Manager and Authoring Bridge. This allows us to make Content Manager DITA 1.3 compatible out of the box by specializing our attributes, rather than depending on an adaptation of the standard OASIS DITA DTDs.

All Client Tools are 64-bit

Tridion Docs is now compatible with 64-bit versions of XMetaL, oXygen and Arbortext, and incompatible with the 32-bit versions of those tools. Consequently, Publication Manager and the Authoring Bridge have been adapted and any 32-bit version of these client tools need to be uninstalled.

Publication Manager, Content Importer, and Condition Manager switched to 64-bit. This means there is more memory space available to handle bigger publications and larger imports. Also important is that the Preview rendering engine used in Publication Manager but also in **Browse Repository** has switched to 64-bit.

Content Importer changes

Content Importer underwent major changes.

Overview

For Content Importer, we:

- Entirely re-designed the user interface
- Developed the translation import feature
- Improved the resume behavior
- Improved the performance
- Improved the progress information
- Distributed the metadata temporary storage among several files
- Regrouped all metadata operations within the conversion phase

These changes are making Batch Import obsolete. Therefore Batch Import is removed from Content Manager in this release.

The user interface

Content Importer's user interface now lets you choose between three types of import, depending on your requirements: with conversion, without conversion, and translation only. You then access to the settings corresponding to your choice.

During the import, the user interface provides detailed progress information. After the import, you can sort and locate files that returned errors, if any.

The guidance have been considerably improved. Moreover, additional information is provided such as links to folders and the ability to monitor last imports.

Translation import

Importing translations for objects already in the Repository with Content Importer is now simple and reliable. It can be done with multiple languages in one go.

The only metadata operation for this import is a change of status for the imported translation.

Resume

If an import is interrupted and then resumed, the already converted files are not re-run, and the imported files are not imported again. However, the conversion is run again on files that have been changed after the interruption, and added files are converted as well. The files that are no longer in the source content folder are removed from the conversion folder.

The resume feature does not apply if a `filemap.xml` file is provided by the user in the source folder, or if the import settings are changed after the interruption.

Performance

The performance of several steps has been improved. Those steps include:

- The loading of the `filemap`.
- The resolving of resolutions.
- The resolving of mixed content in maps.
- The resolving of content types for folders.
- The retrieval of titles.

Progress information

You now have a more precise view of the current progress of an import. Also, you can now easily detect at which stage the interruption occurred in case of interruption:

- Percentage information for steps is provided in addition to the amount of objects.
- The `Apply XSL` step is now reported.
- Only one line is printed for each object.
- The UI is refreshed less often.

Metadata storage

During the conversion and import processes, the metadata is now stored in separate files having a `.3sish` extension, created in the same folder as the XML. This replaces the single `filemap.xml` file that could cause out of memory errors and decreased Content Importer throughput.

Metadata operations

All metadata operations are now performed during the conversion phase. Therefore, by examining the content of the metadata files produced after conversion, you will have a precise view of what will be imported in the Repository.

This metadata grouping also makes future metadata management improvement easier to implement.

Parallel use

You can now run multiple conversions and imports in parallel. The welcome screen shows the progression of the ongoing imports.

Other changes

- The interruption process is now more friendly: it doesn't kill the process but instead lets it end gracefully. This prevents from possible imported data corruption.
- When absolute URLs (starting with HTTP, HTTPS, etc.) are detected in `<href>` elements, Content Importer now adds a `scope=external` attribute for that link, and produces a warning. It is however possible to revert to the previous behavior, where Content Importer returned one error for each link, by changing the value of a new configuration item: `addScopeWhenExternalReference` (located in `Trisoft.ContentImporter.config`), by default set to `true`.

Deprecated filemap.xml

Since the previous version of Content Manager, we no longer copy the metadata information, created during the conversion phase, in the `filemap.xml` file. This was changed for performance reasons. However, it is still possible to use a `filemap.xml` as input file, which perpetuates the old process, and removes the performance gain.

With the Content Importer changes introduced in this version, there are additional reasons why the use of a `filemap.xml`, even though still available, should be abandoned. First it is not compatible with the resume feature. Second it typically contains custom changes that cannot be controlled by the application and it makes future automation and improvement of the process impossible.

Therefore, we strongly recommend that you no longer use a `filemap.xml` file as input file.

Draft Space introduction

Tridion Docs 14 introduces Draft Space, a web-based tool that lets you create, edit and re-organize content in the context of a publication.

Draft Space aims at providing subject matter experts (SMEs) with an easy to use environment for creating content and including it in a publication.

In the context of a publication, and through a user interface that shields you from all the technical DITA-related details, Draft Space lets you:

- Create topics
- Edit topics
- Insert and rearrange topics in the publication
- Create new versions for topics
- Upload and insert images
- Reuse content through content references
- Adapt a selection of topics properties

All create, edit and upload actions impact Content Manager's Repository. Besides, the list of actions available to you in Draft Space are consistent with your Workflow definitions. For example, if a topic has a current status that is defined as not editable for your user role, you will not be able to edit it in Draft Space. This also applies to security settings.

Draft Space user interface is available in English, German, Japanese and Simplified Chinese. The input method editor (IME) allows inline edition with Japanese, Simplified Chinese and Korean.

Unpublish

Whenever you need to clean up content deployed with Content Delivery, you can use the unpublish feature now available from Organize Space and from Publication Manager.

Overview

A publication published with the Dynamic Delivery output format is deployed by Content Delivery. During that phase, the publication status is set to **Deploying Draft** or **Deploying Release Candidate**, two statuses specific to this output format.

If later you publish the same publication again after you have removed obsolete content from it, even though the obsolete content is no longer related to the publication and cannot be accessed from it, it remains deployed and there is still a chance that a reader finds it. The new unpublish feature removes the publication from Content Delivery, including that obsolete content.

Usage

The unpublish feature affects the deployed content only. The saved content on the publication output is not removed.

- In Publication Manager, open the publication version you want to unpublish, select the Dynamic Delivery output format on the Output tab and use the **Unpublish** button from the tab's tool bar.
- In Organize Space, select the publication version and output format in the Repository and use the **Unpublish** button from the right-hand vertical tool bar.

When the unpublish is in the pending phase (status: **Unpublish Pending**), you can cancel the operation. An ongoing unpublish cannot be cancelled. Of course you can re-publish the publication afterwards if you want to deploy it again.

Implementation

The unpublish feature is provided out-of-the-box for the Dynamic Delivery output format. When this output format is used, the use of the **Deploying Draft** or the **Deploying Release Candidate** status (whenever the publication goes through the deployment phase) sets the `FISHPUBISDEPLOYED` field to `true`. That value, in turn, enables the unpublish process.

You can find

- A description of the unpublish process in the plugins chapter of the documentation.
- The complete XML for the Dynamic Delivery output format in the **Settings** tab, **XML Settings** subtab of Organize Space: **Publish Plug-Ins**.

When you create a custom output format that must allow the unpublish feature, the easiest is to publish to Content Delivery. The content is then deployed with Content Delivery using the transtype `ishditadelivery` and the publication will go through the appropriate statuses that make the unpublish available.

New publish flow extended

The new publish flow introduced in Knowledge Center 13 to publish to Dynamic Delivery has now been extended to all the other formats and platforms. Publishing to PDF, CHM, WebHelp and so on is now plugin-based.

Benefits

The benefits of the new publish flow now applies to all formats and platforms:

- Considerably improved performance
- Easier to automate
- Easier to maintain and debug
- More resistant to product upgrade

New and improved

The process itself has been improved, and new functionality have been added.

What we added and changed:

- A new *Publish* configuration item in the **Settings** tab and **XML Settings** subtab of Organize Space: **XML Publish Plug-Ins**. It contains all the publish process XML for all output formats, and is the reference location to find information about the sequence of plugins that are involved in the publishing of a given format.
- The possibility to raise different event types for a better error handling.
- The hyperlink/link syntax section is now in the publish configuration and no longer in the background task configuration.
- Better functionality for `<compare>`, including pre-processing.

What we improved:

- Better interaction with the background tasks
- Shorter export paths
- The fallback language behavior, including its interaction with the image resolution.
- Richer `<features>` in the *Publish* configuration for conditional filtering.
- Clearer handler structure in the *Publish* configuration XML.
- Better `<sequence>` structure, in the XML, when interacting with `<compare>` and `<combine>`.
- Better retry system: it can be configured differently depending on the type of exception.

The process changes requires that you recompile depending on which plugins you have used: find all details in the API section.

All details are provided

- about the process in the Content Manager “customizing publishing” on page 0 chapter.
- about the plugins in the Content Manager API section.

Change of behavior for image resolutions management during publish

The new publishing process reinstated one aspect of the publishing behavior that was faulty in earlier versions.

All resolutions specified in the **Resolutions** property of the **Add Output Format** form should exist and have a released status before a publication output may acquire the **Release Candidate** status. However, previous performance optimizations allowed that:

- When a list of image resolutions (for example: `High`, `Low`) were specified in the **Resolutions** field, the resolutions beside the first one were used as fallback resolutions during publishing.
- When the output format language was the same as the **Working language** of the publication version, a publication output could be **Release Candidate** if only one of the resolutions in the list was found released.

The fallback behavior no longer stands in this version. You can find a detailed description of the corrected publishing process (selection and export phases) in “” on page 0.

Commenting dashboard

A dashboard listing the comments that readers created when using Dynamic Documentation is now available in Content Manager.

Comments created in Dynamic Documentation by external readers are sent to Content Manager by DXA. You can view these *external* comments in a Content Manager dashboard provided you have the proper authorizations. The external comments are kept separated from the annotation that reviewers create in Draft Space or in Review Space.

The dashboard lets you:

- sort and filter comments
- reply to comments (in threads)
- select and delete multiple comments
- mark comments according to your workflow (**New**, **Approved**, **Completed**, etc.)

This feature is disabled by default. You can enable it by setting `commenting` as active in the `ishconfig.properties` configuration file (`active.features=commenting`).

Fixed issues in Content Manager

Issues that were fixed from Content Manager are described.

Fixed issues in version 15.1.1

An overview of bug fixes and issues that were addressed in Tridion Docs version 15.1 Update 1 compared to the previous release of the product.

Fixed issues in 15.1.1 Organize Space

An overview of bug fixes and issues that were addressed in Tridion Docs version 15.1 Update 1 Organize Space compared to the previous release of the product.

Organize Space does not show default values for tags as configured in MetadataConfig.xml

A default value for a field as configured in `MetadataConfig.xml` showed up in Publication Manager but not in Organize Space. This issue was resolved. [CRQ-38850]

Renaming a folder without changing its read access fails

When attempting to rename a folder without changing its read access, the operation would fail with the following error: Granting read access to user groups that have no read access on the parent folder is not allowed. The read access on the subfolder must be the same or stronger than the read access on the parent folder. This issue was resolved. [CRQ-39612]

Fixed issues in 15.1.1 client tools

An overview of bug fixes and issues that were addressed in Tridion Docs version 15.1 Update 1 client tools compared to the previous release of the product.

Apply Tags GUI option restricted to relevant content types

Previously, if you selected any item in the **Baseline** tab of Publication Manager or in the **Browse Repository** dialog anywhere in the client tools, the **Apply Tags** button in the button toolbar would always be selectable, even though the feature only makes sense for topics.

Similarly, if you right-clicked any item in the **Baseline** tab or **Browse Repository** dialog, the context menu that opened also always showed a selectable **Apply tags** menu option, even for non-topics.

If you then selected **Apply Tags** for any other type of item than a topic, a dialog would pop up claiming that the item was sent for tagging, and the Event Log started showing a tagging process for the item, even though effectively, nothing happened.

This issue is now resolved: the **Apply Tags** option is only selectable for topics. [SCTCT-1969]

Missing Add Tag hint

The client tools did not show an **Add Tag** hint for a mandatory single-value metadata binding-enabled field. [CRQ-38307]

Can't check out DITA maps in Oxygen 26

The error `com.sdl.trisoft.helpers.EditorHelper.getEditor: editor is not found` would appear if you tried to check out a DITA map in Oxygen 26, and the map would not load. This issue was fixed. [SCTCT-2039]

OverflowException occurs when opening client tools on a system where the decimal separator is a comma

If the regional settings of your operating system defined the comma as a decimal separator, opening one of the client tools (say, Condition Manager) would throw an `OverflowException`:

```
Error Trisoft.Common.Forms.ListView.ReadXmlError occurred: []  
System.OverflowException: Value was either too large or too small for an  
Int32.
```

This issue was fixed. [SCTCT-2047]

Unable to insert a new Condition Name without first closing the empty screen, redoing your action and dragging the screen

In Condition Manager, it was possible to get stuck trying to insert a new Condition Name. This issue was resolved. [CRQ-39014]

Can't preview topic after check-in from XMetaL

If you checked out a topic with XMetaL and then checked in the topic before saving your changes, the Publication Manager preview pane would show an error instead of the actual preview of the topic. This issue is now fixed. [SCTCT-2071]

List views in Publication Manager would show element names rather than labels for metadata fields

This issue was resolved. [SCTCT-2038]

Fixed issues in 15.1.1 Web/App/Db server

An overview of bug fixes and issues that were addressed in Tridion Docs version 15.1 Update 1 server-side software components compared to the previous release of the product.

Alias field in appsettings.json was made mandatory even though it isn't

When you configure a File System translation management system destination for Translation Organizer in `appsettings.json`, the `Alias` property had been made mandatory. This meant that you could neither configure no `Alias` property at all, nor make it an empty string. However, no `Alias` property is actually needed. This issue was resolved. [CRQ-38751]

Publishing to XPP resulted in a failure to run the ishrunsdlxpp.vbs script

The following error appeared in the event log when publishing to XPP:

```
Trisoft.InfoShare.Plugins.SDK.BackgroundTasks.BackgroundTaskException: The plugin 'ISHRUNSDLXPP' failed while running. Following error encountered: An error occurred trying to start process 'C:\Windows\sysnative\cscript.exe' with working directory 'D:\InfoShare\App\Utilities\PublishingService\Tools'. The system cannot find the file specified. This issue was resolved. [CRQ-38886]
```

Couldn't retrieve PoolParty tags if they contained an ampersand ('&') character

When Tridion Docs Content Manager attempts to retrieve a PoolParty tag that contained an ampersand character, it would throw an error: Error loading the XML for object "xmlFieldTags": an error occurred while parsing EntityName, Line X, position Y.

This error is returned by the following web service calls:

- `MetadataBinding.ResolveIds`
- `MetadataBinding.RetrieveTags`
- `MetadataBinding.RetrieveTagStructure`

As a result, any software component making these calls, including the client tools and ISHRemote, could produce this error.

This issue is now fixed. [CRQ-39149]

MetadataBinding fields didn't get resolved

The new `ishvaluetype` called `label` inadvertently caused a problem resolving `MetadataBinding` fields. This issue was resolved. [CRQ-38752]

Tridion Docs OpenAPI didn't get default values for tags as configured in MetadataConfig.xml

A default value for a field as configured in `MetadataConfig.xml` was not retrieved by the OpenAPI. As a result, the value showed up in Publication Manager only (because it doesn't use OpenAPI), and not in Organize Space (because it does). This issue was resolved. [CRQ-38850]

Renaming a folder without changing its read access failed

When attempting to rename a folder in Organize Space, without changing its read access, the operation would fail with the following error: Granting read access to user groups that have no read access on the parent folder is not allowed. The read access on the subfolder must be the same or stronger than the read access on the parent folder. This was an issue in the Tridion Docs OpenAPI, so it only occurred when using Organize Space. This issue was resolved. [CRQ-39612]

Creating an image through an XAPI call returned error

The message A null value was returned where an instance of IHttpActionResult was expected. would appear when trying to create an image through an XAPI endpoint. This was resolved by changing the HTTP response from "201 - Created" to "200 - OK". [SCTW-7102]

Performance of DBUpgradeTool declined due to time zone storage changes

A decline in performance of the DBUpgradeTool in Tridion Docs 15.1, attributable to a change in timestamp storage, was mitigated by performance improvements. [CRQ-39188]

DBUpgradeTool broke if the ConvertRevisionHistoryAndDateValues encountered invalid XML

The tool was upgraded to handle this gracefully. [CRQ-38902]

Configuring a nonexistent ClientId in the appsettings.json configuration file caused Translation Organizer to stop working

This was fixed; the nonexistent client ID is now logged. [SCTCA-457]

Security vulnerabilities

Multiple changes were made to fix vulnerabilities discovered during security scans. [SCTCT-2078]

After upgrade, system has two translation templates for File System

After running the DBUpgrade Tool, the system showed two file system translation templates to select, when there should be only one. This issue was fixed. [CRQ-38619]

ConvertBackgroundTaskConfiguration.ps1 did not convert to the correct version

The script converted to the 2.1 version only. This issue was resolved and now updates to version 3.1. [CRQ-38964]

Tridion Docs was logging too much information to the Windows Event Viewer

As a general rule, the Windows Event Viewer should only show the starting and stopping of services. All other information should be written to the log only. This is now fixed. [SCTCA-448]

UpdateMBFieldsWithConcepts.ps1 script could not process PRODUCTFAMILY or PRODUCTRELEASE fields

The script was improved to be able to process these fields if they contained multiple values. [SCTCA-487]

The ISHDITADELIVERYUPDATEPUBLICATIONOUTPUTMETADATA plugin in Admin.XMLWriteObjPluginConfig.xml triggered SageMaker and OpenSearch after each publication publish

This unnecessary action was removed from the configuration. [SCTCM-3557]

Fixed Issues in version 15.1.0

An overview of bug fixes and issues that were addressed in Tridion Docs Content Manager 15.1.0 compared to the previous version of the product.

Fixed issues in 15.1.0 Organize Space

A number of Organize Space issues were fixed in Content Manager 15.1.0.

- The report configuration logic that defines the next status for each selected workflow status was not reflected in the **Select workflow action** dropdown in the workflow report in Organize Space. This issue was resolved. [CRQ-34125]
- The workflow report in Organize Space, the **Resolution** column listed the resolution for an image, even if the image did not exist in that resolution. This was considered confusing, so the **Status** column now shows an exclamation mark. Hovering over it explains that the item does not exist in that resolution. [CRQ-34215]
- When you modified the value of the **EDT** field of an existing output format in the **Settings > System > Output Formats** in Organize Space, the value would not actually be modified, and opening the output format again after committing your change would continue to show the old value. This issue is now resolved. [CRQ-38206]
- When uploading object content through Organize Space specifically, rather than through a Publication Manager check-in or an `ISHRemove` call, the `context.ObjectStream` method would return null. This issue is now resolved. [CRQ-36864]
- Under certain conditions, Organize Space could return the following error: `Value was either too large or too small for an Int32`. This issue traces back to numbers of type `long` being defined as 32-bit numbers in the past. The issue was resolved. [CRQ-36704]

Fixed issues in 15.1.0 client tools

A number of client tools issues were fixed in Content Manager 15.1.0.

- When using Oxygen, if you created a cross-reference from one topic to another, and the cross-reference pointed to the ID of a specific element within the target topic, the resulting hyperlink would not jump to the position of that element within the target topic. The issue is now resolved. [SRQ-20038]
- In Publication Manager, switching the user interface language would cause image previews to stop displaying. The issue is now resolved. [CRQ-36918]
- Under certain conditions, the client tools could return the following error: `Value was either too large or too small for an Int32`. This issue traces back to numbers of type `long` being defined as 32-bit numbers in the past. The issue was resolved. [CRQ-36704]
- In the **Baseline** tab of Publication Manager, the **Refresh** button would only refresh items if the last-modified date of the logical item had changed. Items for which only its version or language items had changed would not refresh. As a result, changes to custom metadata fields on the version or language level would not be updated after a refresh. This issue was resolved. [CRQ-36355]
- The metadata files that the Content Importer application produced would contain the (localized) titles of resolutions (for example, High or Low) rather than their identifiers (for example, `VRESHIGH` or `VRESLOW`). This issue was resolved. [CRQ-36237]

- When using XMetaL, authors could no longer conref a `<lines>` element. This issue was resolved. [CRQ-34478]

Fixed issues in 15.1.0 Web/App/DB server

A number of Web/App/DB server issues were fixed in Content Manager 15.1.0.

- Previously, the following warning was logged under certain situations a BackgroundTask parent process was asked to stop (either console CTRL-C or service panel):

```
Trisoft.InfoShare.BackgroundTask.Entities.NewProcessTaskHost.  
SendForceShutdown  
Calling ServiceMustClose resulted in exception System.IO.IOException: No  
process is on the other end of the pipe.
```

The error no longer occurs.

- Content (such as translation reports or workflow reports) that was exported as CSV would not be opened in Microsoft Excel with the data properly organized into columns. because of Excel making incorrect assumptions about which separator was used. The exported CSV now has an instruction at the top of the file that makes it possible to open the file properly in Excel without manual actions. [CRQ-37669]
- When using a `coderef` element, the `ref` attribute may contain advanced URIs with bookmarks like `line-range`, `line` and `token`, During publishing, such bookmarks could not be validated, resulting in a publication publish output status of Draft rather than Release Candidate. This issue is resolved. [CRQ-37583]
- The method `context.IsFieldValueChanged()` would incorrectly return `true` if a string field had no original value and was given either no value, or the empty string as a value. [CRQ-36397]
- If an object in a translation report was selected twice, this could cause a Content Manager expert to fail. This issue was resolved. [CRQ-38298]

Fixed Issues in version 15.0.0

An overview of bug fixes and issues that were addressed in Tridion Docs Content Manager 15.0.0 compared to the previous version of the product.

Fixed issues in 15.0.0 Collective Spaces

The following Collective Spaces issues were fixed in Content Manager 15.0.0.

- Collective Spaces interfaces would get into trouble rendering numbered lists with very large numbers of items (200 or more). [SRQ-22190]
- When metadata field labels were defined in the file `DialogStrings.xml` in the folder `InfoShare\Web\Author\ASP\Resources\`, those labels would not appear in Draft Space, and had to be hardcoded in `InfoShare\Web\Author\ASP\ClientConfig\MetadataConfig.xml` instead. [SRQ-19114]

Fixed issues in 15.0.0 Organize Space

A number of issues that existed in the Web Client are nonexistent in Organize Space.

Because Organize Space replaces the Web Client, a number of issues that existed in the Web Client have been resolved, in the sense that these issues do not exist in Organize Space:

- The List Views in the Web Client could not display taxonomy fields. As a consequence, a search or a report could not return results based on taxonomy. [SRQ-9456]
- When using the properties dialog for any object from the Web Client using Microsoft Edge, placing the cursor over the dialog closing buttons **Modify** and **Close** displayed a link that partially covered the buttons. This made using the buttons difficult. [SCTW-818]
- In the Web Client, List Of Values entries holding a single (') or double (") quote could cause unexpected behavior in some locations. For example, a single quote in a status would make the Initial Statuses page return HTTP 500. [TS-10462]
- You could create a logical ID with spaces. However, in the Web Client, trying to use a template to create the initial document would return errors along the lines of The object "JIRA TS 2031" contains invalid XML OR Multiple names found in attribute value when only one was expected. The OASIS DITA document types specify the @id attribute as a true identifier, blocking spaces in the identifier. Organize Space completely forbids the usage of spaces in identifiers. [TS-2110]
- The sorting result on Inbox items in the Web Client was not correct. Uppercased letters come before lowercased ones, which is the typical ASCII sorting order based on their numerical (not alpha) representation. [TS-2933]
- Previewing a topic in the Web Client would show images in default resolution rather than in preview resolution. [CRQ-32684]
- A number of security improvements were made after analyzing the results of penetration tests [CRQ-29448]
- In the Web Client, in the properties dialog for a translation job, column headers would not display at the width configured for those columns in `MetadataConfig.xml`. [SRQ-20405]
- In the Web Client, when trying to add items to an existing translation job, scrolling down the list of items would produce a display issue. [SRQ-20292]
- In the Web Client, when trying to add items to an existing translation job, not all subfolders of the **My Favorites** folder. [SRQ-20421]
- In the Web Client, opening the properties of an image in the **Editor Template > Illustrations** folder would fail if the latest version and working language had multiple resolutions [CRQ-27440]

Fixed issues in 15.0.0 client tools

The following client tools issues were fixed in Content Manager 15.0.0.

- In Publication Manager, it was not possible to insert the same value from a List of Values into a multivalue field twice or more, even if `allowduplicates` was switched on for that multivalue field. [CRQ-19607]
- In Publication Manager, running a compare between two versions of a topic would sometimes result in an error (for example when comparing topic versions that contain nested unordered lists). [CRQ-23939]

- In XMetaL, there was no DPI scaling of docked tabs when using the editor on high-resolution, large monitors, causing some UI elements to not be properly scaled. [SCTCT-960]
- In XMetaL, it was not possible to open the **Condition Builder** dialog from the `ishcondition` attribute in the **Attribute Inspector** pane. [SCTCT-1365]
- Similarly, in XMetaL, from map view, it was not possible to select a topic reference and then open a repository dialog from the `href` attribute in the **Attribute Inspector** pane for that topic reference. [SCTCT-1372]

Fixed issues in 15.0.0 Web/App/DB server

The following Web/App/DB server issues were fixed in Content Manager 15.0.0.

- An error in the file `BackgroundTask.exe.config` caused problems if Tridion Docs was installed across multiple drives (specifically, if the folder for data was configured to be on a different drive than the folder for web). [CRQ-31474]
- If a Translation Job was created for multiple target languages, to be delivered to TMS or WorldServer, and if translation into one language would be completed more than 30 days before translation into another language, then TMS or WorldServer would archive the completed translation. This would lead to problems with the job. [CRQ-25068]
- Large, asynchronous delete content object operations could sometimes lead to (dead)locks. A number of improvements were made to prevent timeouts and generally ensure a better handling of large-scale delete operations. [CRQ-33488]

Fixed Issues in version 14.0.4

An overview of bug fixes and issues that were addressed in Content Manager 14.0.4 compared to the previous version of the product.

Fixed issues in 14.0.4 Client Tools

The following Client Tools issues are fixed in Content Manager 14.0.4.

- Fixed issue with nested variables in Authoring Bridge that resulted in error message: `Error while parsing external reference`. Now nested variables are resolved correctly.
- Fixed an issue in Publication Manager that caused "Baseline autocomplete" task go into infinite loop if there are any `href` elements that point to non-existing repository object.

Fixed issues in 14.0.4 Collective Spaces

The following Collective Spaces issues are fixed in Content Manager 14.0.4

- SVG images can now be rendered without width and height attributes -
- In Review Space Outline icons were not shown for components that not finished loading - Now Outline icons for components are shown for all components. [SRQ-14973]
- Unable to configure custom block element to enter multiline content - we added a button to insert `<pre>` element to OOTB menu on Structure tab, which provides the expected behavior of font type, insertion of line breaks, and preserving spaces

- Map editing not working with Learning and Training content - fixed by adding specialized menus in Learning Objects and Learning Groups that allow to insert elements. [SRQ-17066]
- LearningAssessment content is not displayed. This issue is fixed by change to OOTB configuration that allow for rendering and operations on Learning Assessment topics

Fixed issues in 14.0.4 Web/App/DB server

The following Web/App/DB server issues are fixed in version 14.0.4

- For libraries re-used in a lot of publications (over 2500) the list of baselines is too big and fails with error. It's fixed by introducing a business logic that uses a specific database query to retrieve the released publication outputs in the specified language having the specified baselines.
- Publish post process plugin ISHREMOVEFIXEDANDNONDITAXMLATTRIBUTES fails for maps without encoding in xml declaration with error message: Name cannot begin with the '.' character. This is fixed during export by adding `encoding= "UTF-16"` in the xml declaration (if no encoding is present).

Fixed issues in 14.0.4 Web Client

The following Web Client issues are fixed in Content Manager 14.0.4

- Web Client UserList sorts the lastLogin by text and not by DateTime - the OOTB metadataconfig.xml configuration is changed to use `typedatetime` so "Last login on" column is sorted by date and time. [SRQ-17294]
- Searching for publications in Web UI returns `Hidden1` when results list is too big. It is fixed by loading results in chunks.

Fixed issues in version 14.0.3

An overview of bug fixes and issues that were addressed in Content Manager 14.0.3, compared to the previous version of the product.

Fixed issues in 14.0.3 Client Tools

The following client tools issues are fixed in Content Manager 14.0.3 compared to 14.0.2.

- Using a variable inside a topic and then updating this variable in the variable library does not change the value in the topic body. A fix is applied to change this to an expected behavior: updating a variable in the variable library applies the new value in the topic body. [CRQ-21664]
- Publication Manager fails with "Collection was modified; enumeration operation may not execute" when publishing 18 or more publication outputs is fixed. Now it is possible to publish many publication outputs without failing. [CRQ-19969]
- Publication Manager crashes on large publications due to erroneous reporting of circular reference warnings was solved by improving behavior for internal conrefs or xrefs, which address elements within the current document. [CRQ-19659]
- Issue with Publication Manager HTML Preview displaying blank boxes for keydef map

was fixed by adjustments to the stylesheet. [CRQ-21986]

- Content Importer 14 SP2 does not consider validateReferences parameter issue was fixed in the new version of Content Importer. Content Importer 14 SP3 can be used with Content Manager 14 SP2. [CRQ-20964]

Fixed issues in 14.0.3 Web/App/DB server

The following Web/App/DB server issues are fixed in Content Manager 14.0.3 compared to 14.0.2.

- For the issue when Baseline. Copy failed with "object reference not set to an instance of an object" for baselines with 101 items (on Oracle); there is a fix applied that recreates the DataSet after each update/insert/delete batch instead of setting that only at the beginning. [CRQ- 21413]
- Issue with deep links with a Plus sign in the publication title blocks opening Draft or Review Space got fixed by the following characters "+", "%", "&", "*", ":", ">", "<", "?", " ", and "#" being replaced with a "_" character. [CRQ-21328]
- Issue with Translation Organizer timeout on the World Server was fixed by making the timeout configurable. [CRQ-21062]
- Until now, Tridion Docs was sending UTF-16 content and expecting back content from World Server in UT-16 as well; otherwise, Translation Organizer would throw the error: "Task target asset has wrong encoding ('UTF8'). Only UTF-16 is supported". There is a new REST api call that allows to set up Tridion Docs with World Server to use UTF-8 locales instead of forced UTF-16. [CRQ-19637]
- Content with variable references can become invalid with a mixture of DITA 1.2/1.3 was fixed by adding 'ishtype' and 'ishpreviewversion' to the value of SkipPersistFixedAttributesList in the out-of-the-box Publish configuration. [CRQ-20946]
- "Search failed" error message when the search term is the abbreviation for Oregon (OR) was fixed by adding double quotes around the Solr keywords "OR", "AND" and "NOT". [CRQ-19608]
- Oracle - performance issue for stored procedure CheckIfDeleteIsAllowed was fixed by replacing the complex query with the table by a loop per card. [CRQ-19915]

Fixed issues in version 14.0.2

An overview of bug fixes and issues that were addressed in Content Manager 14.0.2, compared to the previous version of the product.

Fixed issues in 14.0.2 Web/App/DB server

The following Web/App/Db server issues are fixed in Content Manager 14.0.2 compared to 14.0.1.

- If you implemented a custom field for your objects and if you were trying to set that field to a value provided in the translation job during the translation management process, Content Manager would try to set that field value for all objects in your job, even for objects that didn't have that field. This was fixed by only setting a value on objects that actually have the custom field. [CRQ-17942]

- When comparing two versions of a Publication, you might see the error The plug-in "IshPublishCompare" returned the following error: "An item with the same key has already been added." This could happen if the Publication contained one or more images whose set of resolutions differed between versions (for example, if version 1 of your Publication contained version 18 of an image with two resolutions, Low and High, while version 2 of your Publication contained version 19 of the same image, but now with two resolutions, Low and Master). Specifically, this would happen if the output format had **Resolutions** set to, say, **Master, Low** and **Resolutions to export** set to **First Matching Resolutions Only**. This issue was resolved. [CRQ-17574]
- If you created a taxonomy field with an annotated label containing an ampersand (&) character, opening a dialog that should show that annotated label would instead fail, with the logs showing the following error message: `Trisoft.InfoShare.BorderControl.ErrorLoadingXMLException: Error loading the XML for the object "xmlFieldTags": ' ' is an unexpected token. The expected token is ';' .` This issue was resolved. [CRQ-17415]

Fixed issues in 14.0.2 Client Tools

The following client tools issues are fixed in Content Manager 14.0.2 compared to 14.0.0.

Fixed issues in Publication Manager

- When the user selects a PDF object in Publication Manager, the preview area showed a spinner instead of the contents of the PDF. The preview area now displays a message that no preview is available. To see the contents of a PDF, right-click the PDF object and from the context menu that opens, select **Open** or **Open with**. [CRQ-13674]
- In Publication Manager, if a user selected **My Favorites** from the repository tree in the **Browse Repository** dialog, there was no quick way to go to the repository location of an item in the list. By contrast, the Web Client already offered a **Go to location** button for this purpose. Now, the Publication Manager also has a **Go to location** button. [CRQ-12631]

Fixed issues in 14.0.2 Web Client

The following Web Client issues are fixed in Content Manager 14.0.2 compared to 14.0.1.

- A penetration test revealed cross-site scripting (XSS) vulnerabilities in multiple places, for example, in the **Lists of Values** screen (under **Settings**). These issues were resolved. [CRQ-17469]
- Requesting a publication report for a very large Publication (using **Reports**) would show no results after **Show Report** was selected. The issue was resolved. [CRQ-17594]
- If you use Firefox, in the **Inbox** tab, an inbox that shows many columns sometimes showed the content of one column overlapping the text content of an adjacent column. The issue was resolved. [CRQ-17763]
- When modifying multiple objects in batch, the error `Update Completed with N errors`, where *N* is a number, sometimes appeared. This would happen if the user, for example, left a mandatory field empty or attempted a workflow transition that was not allowed for all selected items. The issue was resolved. [CRQ-14999]

Fixed issues in version 14.0.1

An overview of bug fixes and issues that were addressed in Content Manager 14.0.1, compared to the previous version of the product.

Fixed issues in 14.0.1 Web/App/DB server

The following Web/App/Db server issues are fixed in Content Manager 14.0.1 compared to 14.0.0.

- When an inbox were created (in the Web Client) without a value for the **The current user identified as** field, and a user attempted to open that inbox from Publication Manager, the client tool returned an `Input string was not in the correct format` error. The calls to the database have been improved and the inbox now opens as expected. [CRQ-16299|CRQ-16319|SRQ-11822]
- A publish no longer fails when the publication contains several maps not translated into the publication's language. [CRQ-16419|SRQ-11875]

Fixed issues in 14.0.1 Web Client

The following Web Client issues are fixed in Content Manager 14.0.1 compared to 14.0.0.

It is no longer possible to non-administrator users to create new folder types for Repository folders: the list of values has been made private. [SCTCM-803]

Fixed issues in 14.0.1 Collective Spaces

The following Collective Spaces issues are fixed in Content Manager 14.0.1 compared to 14.0.0.

Draft Space

- When selecting an existing topic to be inserted in a document, if the topic was not available in the user's language, the preview of the topic failed. The preview displays correctly now. [SCTW-2057]
- When a **Related link** is inserted in a topic, it can now be used to display the related content it points to, instead of producing the `Nonfatal error: operation-failed` error. [SCTW-2105]
- Due to check-out collisions, when 2 users edited a topic at the same time, the changes of the second user were overriding the changes of the first user (first and second being the order in which each user saved the changes). The lock mechanism has be adapted so to properly request and carry out successive check-ins. [CRQ-16428|SRQ-11718]

Fixed issues in version 14.0.0

An overview of bug fixes and issues that were addressed in Content Manager 14.0.0, compared to the previous version of the product.

Fixed issues in Web/App/Db server

The following Web/App/Db server issues are fixed in Content Manager 14.0.0 compared to 13.0.0.

- When a custom plugin operation carried out from an inbox called an API, it produced an "object not initialized" error, even if the action completed successfully. That issue has been fixed. [SRQ-11233|CRQ-14852]
- During publish, when a custom plugin adds extra report items, the publish failed on an `Unable to cast object` error. That issue has been fixed. [CRQ-14727]
- Content Manager no longer crashes when an invalid character is introduced in the Baseline name, from a publication title for example. We now return an error instead. [SCTCM-729]
- The publish plugin `IshRemoveNotLockedNavTitles` no longer removes `navtitles` for non-DITA objects. [SCTCM-714|SRQ-10570]
- When Translation Organizer is integrated with WorldServer using REST APIs, a call to retrieve a client could cause errors such as `Sequence contains no matching element`. That issue has been fixed. [SCTCM-640|SRQ-10063|CRQ-13761]
- A retry on a specific WorldServer web services call (`CreateProjectGroup`) caused Content Manager to create a duplicate of the translation job project. The retry has been removed. The fix applies to both SOAP and REST APIs. [SCTCM-709|SRQ-10626|CRQ-13792|CRQ-13761]
- The conversion during publish to Dynamic Delivery no longer processes external `<xref>` elements containing `mailto` or `ftp` addresses as broken links, and therefore no longer removes the links from the published result. [SCTCM-696|SRQ-10546|CRQ-13550|CRQ-13613]
- The `IshSaveFilesToRunLegacyScripts` plugin now provides the correct file paths for compare folders in a legacy report. [SCTCM-609|SRQ-9975]
- Using a taxonomy field on only a part of the topics or maps in a publication no longer returns the error `Trisoft.InfoShare.BorderControl.InvalidObjectException: The field [FIELDNAME] does not exist` when the publication is published or when the Baseline fields are displayed. [SRQ-10737|CRQ-13835]
- A non-responding URL error is now correctly captured when resolving field values: we now display an appropriate error message instead of the former system failure exception. [SCTCM-731]
- During a pretranslation purge, the XML attribute values are now correctly processed when they contain entity references: the references are no longer escaped. [SCTCM-713]
- The `ISHRUNDITAOT` plugin never allowed draft comments to be published, whether or not the `Include draft-comments` option was enabled. The plugin now takes account of the option's value. [SRQ-9571|CRQ-14125]
- Email notification after a status change is no longer failing and returning the `An unexpected system failure occurred. Object variable or With block variable not set.`

Fixed issues in 14.0.0 Client Tools

The following client tools issues are fixed in Content Manager 14.0.0 compared to 13.0.0.

Publication Manager

- Publication Manager no longer displays object reference errors when a new resource file is added to a publication, or when new versions are created for resource files or for files containing conrefs. [SRQ-10030|SRQ-10847|CRQ-12767|CRQ-14120]
- Publication Manager is now taking into account daylight saving time changes, which removes the risk of having publications failing to open and returning the `DateTime` error. The supplied `DateTime` represents an invalid time. For example, when the clock is adjusted forward, any time in the period that is skipped is invalid. Parameter name: `dateTime`. [SCTCT-407|CRQ-11329|SRQ-9612]
- Publication Manager no longer crashes when opening the preview of a topic that contains links to Media Manager when the comments are enabled [SCTCT-305|SCTCT-273].
- Custom metadata field names that contain the characters `VERSION` no longer cause a fail along with an error in the publication version selection window, when the custom metadata is added to the list of columns in that window [SRQ-8604|CRQ-9419].
- Condition filtering via `MetadataConfig.xml` for `ISHPublication` and `ISHPublicationOutput` has been restored as before Content Manager 13.0.0:
 - A condition `isstype= ISHPublication` is filtered `in` for the publication properties dialog and filtered `out` for the publication output properties dialog.
 - A condition `isstype= ISHPublicationOutput` is filtered `out` for the publication properties dialog and filtered `in` for the publication output properties dialog. [SRQ-8416|CRQ-9392].
- Publication Manager no longer requests the user to enter a language combination, or takes the first language combination in the list, whenever a new version of a publication is created. Instead it uses the language combination of the previous version, as was its behavior in Content Manager versions before 13.0.0 [SRQ-8509|SCTCT-252|SRQ-8511|CRQ-9358].
- The **Auto Hide** and window control features of publication output reports no longer generates a failure along with an error when **View Report** is selected again [SRQ-8452|TS-12624|SRQ-8220].
- In the **Output** tab, when you select any output format in a list then use **Refresh**, the selection no longer changes for the output format at the top of the list: instead, the selection remains on the chosen output format [SCTCT-222|SRQ-8383|CRQ-9376].

Content Importer

The incorrect spelling of an attribute that prevented taxonomy-linked metadata to be imported has been fixed. The correct spelling of the necessary attribute is `ishvaluetype`. [SRQ-9339|CRQ-10789]

Client tools and XML

- With oXygen, it is now possible to refer (using `xref`) to content located in versions and branches of a topic [SRQ-7612|CRQ-8870].

Fixed issues in 14.0.0 Web Client

The following Web Client issues are fixed in Content Manager 14.0.0 compared to 13.0.0.

- When creating a new resolution for an image already in the Repository, no language was selected in the form. Now the default language is selected in the form as expected. [SCTW-2010|SRQ-11064|CRQ-14883]
- For topics created with a DITA 1.3 DTD, downloading or restoring a specific revision produced the error `Reference to undeclared namespace prefix: 'xlink'..` The retrieval method has now been adapted so these operations complete normally. [SRQ-11073|CRQ-14976]
- The language inheritance behavior has been restored: when a new version of an object is created, the data is copied from the latest available language rather than the latest available version. [SRQ-11021]
- When a custom error or warning is produced during the release of a published output, the display of the error/warning message is now persistent. [CRQ-12755]
- Creation of an object in the Web Client using Internet Explorer: the **Language** drop-down list layout is no longer broken [SCTW-222].
- Creation of a publication output in the Web Client using Internet Explorer: the auto-completion assistant for language selection now works as expected [SCTW-193|SCTW-180].
- Creation of a publication output in the Web Client using Microsoft Edge: the **Language combination** drop-down list layout is no longer transparent [SCTW-202].
- When using the properties dialog in the Web Client using any browser: the suggestion lists no longer interfere with the drop-down lists [SCTW-237].
- When using the thumbnail view of an image from an image folder in the Web Client: the image name is now displayed correctly when names contain non ASCII characters [SRQ-8400|CRQ-9263].
- When using the thumbnail view of an SVG image in the Web Client using some browsers (Internet explorer and Chrome for instance): the image thumbnail is now displayed correctly [SRQ-8050|CRQ-9056].
- The languages that are part of a **Language combination** for a publication output are no longer automatically sorted in alphabetical order, as they were in the previous version. The order of the languages determines the next fallback language value if a language is missing for an object [SCTW-528].
- The conflict between mimetypes for file formats, that prevented some file formats to be uploaded to the previous version of the Web Client, has been resolved. The capacity to upload all the file formats that are part of the EDT list is restored [SRQ-8222|CRQ-8695].
- From a field defined as string in MetadataConfig.xml, it is now possible to display a checkbox in both Publication Manager and the Web Client [SRQ-8262|CRQ-8758].

Known issues in Content Manager

The following are known issues in Content Manager.

Web/App/DB Servers

- After you have applied Update 1 to Tridion Docs 15.1, you must remove the parameter `DatabaseUsers` with the Access Management database upgrade script for Microsoft SQL Server, `Upgrade Access Management database.ps1`, which is located in the `Database\InfoShareAM\MSSQL\`.
- The `IshReplaceTitle` PI inside `GlossaryEntry` is not replaced when creating a new object.
- Limitation: the maximum `PublicationOutput` storage size for PDFs and ZIPs in the database is limited to 2GB.
- Renaming languages in settings area will not adapt `@xml:lang` and language combinations. Avoid changing the label of a language (for example, from en to EN or en-us) when it is in use, because the following problems can occur [TS-6472]:
 - When changing the label of the language, the existing files in that language are not automatically adapted, and therefore become invalid. This happens because the `@xml:lang` attribute and the processing-instruction no longer match the label of the language. In this case, you have to resubmit each file.
 - The publication outputs that have a language combination containing the modified language become invalid and must be recreated.
- The Trisoft InfoShare Crawler service is responsible, among other things, for keeping the full-text index up-to-date. The service submits updated content to the full-text index, and it deletes outdated records from the full-text index, as well as from the database. At least one instance of the Trisoft InfoShare Crawler service should always be running to avoid issues with deleted objects. If the Trisoft InfoShare Crawler service is not running or if it lags, removing and then adding again the same language to an illustration with multiple languages can throw the following exception: `Violation of PRIMARY KEY constraint 'ISH_CONTENTOBJECT_PK'. Cannot insert duplicate key in object 'dbo.ISH_CONTENTOBJECT' . . .`. This issue may occur when the service has already deleted the language record from the full-text index, but it has not performed the same operation on the corresponding database record yet. [TS-9089]
- Remember, some of the content in the full-text index are labels from list of values (e.g. status,...) or referenced objects (e.g. users, EDTs, ...) which are used as metadata on the objects. Whenever the labels of those objects (e.g. users) or list of values (e.g. status,...) are changed, a reindex of the full-text index should be triggered manually, otherwise the full-text index will not find objects using the new label. In order to trigger a full reindex you should stop the Trisoft InfoShare Crawler service, run the `ISHDeploy` cmdlet invocation `Invoke-ISHFullTextIndexMaintenance -ReIndex` and restart the Trisoft InfoShare Crawler service.

API usage

- API read functions like `PublicationOutput25.RetrieveMetadata` can handle element name retrieval for controlled fields through the `@ishvaluetype` attribute. The `CTPUBLICATIONOUTPUT` field `FISHPUBLNGCOMBINATION` is a special field, that is linked to the `DLANGUAGE` field on the application level, while most other fields are linked in the database. So you cannot retrieve something like `VLANGUAGEEN+VLANGUAGENL+VLANGUAGEFR`, you will get the label `en+nl+fr` and you'll have to parse it yourself if required. [TS-10382]
- API write functions like `DocumentObj25.SetMetadata` will save an incoming entry like `EUR, AFR, EUR, ASA, EUR, EUR` to a multi-value string field as `EUR, AFR, ASA` because a unique filter is applied before persisting in the database. [TS-9560]

Authentication

Security Token Service for externalized authentication and Single Sign-On is deprecated as of Tridion Docs 15.

- The ISHSTS (ThinkTecture IdentityServer) user interface allows selection of certificates by subject name. If however you have multiple certificates in your certificate store with the same subject name but with different thumbprint, the code will simply resolve this to the first hit provided by the certificate store. So in case of a certificate roll over, it could be that you are unlucky and select the expired certificate instead of the fresh certificate. Workaround exists in removing the conflicting certificate from the certificate store. [TS-11686|SRQ-5424]

Collective Spaces

Collective Spaces status icons cut off in Firefox

In the Mozilla Firefox browser, the status icons used in the outline view appear partially cut off. They appear correctly in other supported browsers.

To fix this issue, the end user can change Firefox's `layout.css.has-selector.enabled` config property to `true`. Access Firefox properties by entering `about:config` in the browser bar.

Collective Spaces user interfaces render only the first conreffed element in a conref range

If a series of reusable elements is referenced from a topic as a conref range (for example, several consecutive steps in a Library Topic being referenced through a single conref range), then Draft Space and Review Space only shows the first referenced element in the range.

Collective Spaces does not resolve keyref or conkeyref elements

Draft Space and Review Space display a `keyref` element by showing its `keyref` attribute value, rather than the referenced content. Similarly, Draft Space and Review Space display a `conkeyref` element by showing its default text.

Collective Spaces is not guaranteed to render table rows correctly that are referenced through a conref

Draft Space and Review Space should not be expected to not render a row in a table correctly if that row is a `conref` reference to a `row` element in another resource (typically a Library Topic). The same is true for other table elements, like individual cells.

Organize Space

Duplicate entries in Added Items

The Translation Job user interface will show duplicate entries in the **Added Items** section, such as for example two times the same publication version. This is a cosmetic issue, the repository only holds one entry. [TS-10476]

Downloading deleted item

When using Organize Space on Firefox, there is no error message shown when a user tries to download an item that has already been deleted.

Deeplink URL too long when too many items are selected

When selecting multiple items in Organize Space Explore view or Object Details view, there is a URL generated for deep linking. This URL contains the IDs of all selected items, and if the number of selected items is too high, the URL can become too long to open.

Filter selector and sorting dropdown popups not showing in third-party modal dialog used in an extension

This issue occurs if all of the following is true:

- You have created a user interface extension with a button that opens a third-party modal dialog,
- Your modal dialog implementation uses the `useItemSelector` hook from the Tridion Docs extensions library and opens the item selector.

Under these conditions, the user cannot see the filter selector popup or sorting dropdown popup of the table that is displayed in the item selector. [SCTW-6794]

To work around this issue, add the following lines to the CSS file for your extension:

```
/* Workaround to fix the popup coming before the ItemSelector for Filters
& Sort */
div[data-test~='popup'] { z-index: 9999; /* Adjust this value as needed */
}
body > div[style*='position: absolute'] > div > div[class*='ant-select-
dropdown'] { z-index: 10000; }
```

Non-Western Language Searches

- Solr uses the Boolean **OR** operator when multiple words are detected in a search. Note also that for non-Western languages, Solr uses language analysis features to break down terms into smaller components, so if you enter a Japanese search for **リンク解析** Solr breaks it into two words: **リンク** and **解析**. In this case, the default behavior is to search for **リンク OR 解析**. This may not return the expected results.
- Therefore, when you search in non-Western languages such as Japanese, Solr can be configured to use the Boolean **AND** operator between words instead of the default **OR** operator.
- To specify the Boolean **AND** operator in these instances, add `<str name="q.op">AND</str>` in the `<lst name="invariants">` part of the `requestHandler` section in the `\Trisoft\Solr\Lucene\Solr\LuceneCatalog\conf\solrconfig.xml` file.
- If this is done, when Solr uses its language analysis features to break down a term into smaller components, the Boolean **AND** operator is applied instead of the **OR** operator. However note that this does not affect words entered with a space between them as the

search criteria. A whitespace between words still assumes use of the default Boolean OR operator. [TS-6497]

Client Tools and XML editors

General

- All Client Tools require 64-bit Operating Systems and a 64-bit flavor of xml editors. We do not offer the 32-bit versions anymore.
- Taxonomy: when inserting a taxonomy tag in a list of existing tags in the properties dialog, sometimes the tag is not inserted at the position of the cursor. You need to re-position it manually [SCTCT-306].
- When creating a folder you can assign a UserGroup that the current user has no access to. The folder will be created, but any refresh action afterwards will not show you that folder and potentially can trigger an error message such as `The object does not exist. [c:"894969"]` [TS-8652]
- When the **Browser Repository** dialog is opened from a third-party XML editor, the clipboard keyboard shortcuts (`CTRL-C`, `CTRL-V`, ...) cannot be used in the search field of this dialog's **Search** tab. The `Del` key cannot be used either in that field [TS-11221 | SRQ-4898].
- Depending on your content architecture, the feature Dynamic Link Text resolving can have a negative performance impact to show you the accurate values in a preview. A safety mechanism will avoid infinite recursion. [TS-5966 | SRQ-1200]
- Refresh operations might function incorrectly if the content object in question is created in multiple phases. Typically all content objects are created with logical-version-language levels in one go. Technically it is possible to create each level on its own, which can confuse the refresh operation. The advice is to adapt the routines that perform separate level creation. [SRQ-2432]
- You cannot connect with a second user to the same data source if the first user was already connected to the same data source. You can have two accounts, so two usernames, pointing to the same repository. You just cannot be connected at the same time. Switching accounts requires a client tools restart. [TS-8656]
- Although multiple third-party XML editors are supported in this release of Content Manager, use of a single third-party editor is recommended. RWS is not responsible for how the third-party editors handle XML and DITA and the behavior might differ for each XML editor. As a result, if you use more than one, you may find cross-compatibility issues with the way the different editors handle DITA. If you decide to use multiple third-party XML editors and find cross-compatibility issues with DITA, RWS recommends that you interact with the vendor of the XML editor to resolve the issue. [TS-4957 | TS-5260]
- Uninstalling the Authoring Bridge for XMetaL causes a problem when you then try to upgrade to the new installation. You must first uninstall XMetaL then you can uninstall Authoring Bridge. Reinstall XMetaL, then upgrade or reinstall the Authoring Bridge. [SCTS-380]
- **Search > Advanced options**; searching on a version is always done on `AllVersions` [TS-4222]
- In `ServiceReferences` there is no check about the ability of a user to enter the application. So the authentication works but Content Manager might still block authorization by a `ProfileMismatchException`. [TS-4292]

- Client Tools using SSL might crash when using a URL that does not match the certificate. [TS-571]
- Avoid opening multiple instances of editors (so there is only one process of the editor running) to prevent possible locking of files in the profile folder of the Mozilla Gecko renderer component. [TS-4682]
- Where Used Report [TS-7037] known issues. When doing a where used on an object in the client tools, be aware that the shown publications are determined by performing a `PublicationOutput25.Containing` API method. This means:
 - The `PublicationOutput25.Containing` first calculates the baselines in which the logical object is present (see `Baseline.Containing`). These baselines are used to retrieve the publication versions (see `PublicationOutput.UsingBaseline`). As a consequence, when the baseline is shared between multiple publications, the result can contain publications in which the topic is not used.
 - Selecting a specific version of a map forces version selection for all referenced topics. Changing the version of a map can give less referenced topics, but those topics could still be in the baseline. This can result in publications shown in the report where the topic is no longer used.
 - If a library contains `@conrefs` with illustrations or links to other topics, all referenced objects will be returned as part of the publication even if they are not used.
 - If a library contains variable definitions with illustrations or links to other topics, all referenced objects will be returned as part of the publication even if they are not used.
 - Conditional filtering is ignored!

DITA

- Only references to DITA topics and DITA maps are supported. References to images and other formats (for example, PDF, DOC) are not properly supported or not supported at all. [TS-5731]
- When using the `<stylesheet>` element in `styleSheets.xml` at `<download>` time, you are actually forcing an XSLT processor to handle the file from the repository. The XSLT processor will always add default attributes - like `@class`, `@domains`, `@ishlabelxpath`, etc - to the resulting XML file. Our typically configured `Filters/Dita11ToDita12.xsl` which takes care of automated `@navtitle` attribute to `<navtitle>` element conversion immediately removes these unwanted default attributes. This stripping does not affect the `@processing-role` attribute on the `<keydef>` element. You can either disable the `<stylesheet>` or tweak the XSLT file to your needs. [TS-8692]
- The current list of elements explicitly resulting in resolved link text in the Client Tools preview are: `<xref>`, `<link>`, `<topicref>` and their basic `@class` attribute based specializations. Many other elements like the `<mapref>`, `<topicsetref>`, `<anchorref>`, `<topicgroup>`, `<topicset>` elements or `<navref>` will not be resolved while previewing. [TS-8298]
- When conrefing a `glossentry` which is part of a `glossgroup` topic, a `glossentry` is created with an incorrect value in the `conref` attribute. Publish warns that there is an unresolvable conref during publish because the conref value is incorrect. [TS-4630]

Note: `glossentry` is derived from `topic`, so the `conref` value should be the same as when you conref a complete topic. Instead of creating a conref with `topicid#topicid/elementid`, it should be `topicid#elementid`

- The @id attribute cannot contain OASIS DITA control characters like slash (/) and hash (#) - even on the <resourceid> element as the parsing engine cannot distinguish it anymore when using the OASIS DITA linking system (e.g. LOGICALID#TOPICID/ANCHORID). If you use this construct, it could give unexpected results in the Publication Manager tree list views like **Baseline**, **Folders**, **WhereUsed**, etc. [TS-10488|TS-10540|TS-10553|SRQ-4015]

JustSystems XMetaL

- When attempting a search-and-replace on a file that either has a **Released**-type status or that is not checked out, a dialog with the following error may appear: `MFOResultObject.prototype.XMReplace() = Error: Invalid document object`. If you encounter this error, create a new version of any **Released** topic you want to modify, and check out any topic that is checked in. Then try the search-and-replace again. [SCTCT-1833]
- When using, from the RWS menu, the **Browse Repository** dialog, in the **Advanced options** of the **Search** tab, the drop-down lists of values cannot be closed by clicking outside the list. You need to use the arrow again to collapse the list [SCTCT-142].
- When you open a map and open a referenced (RELEASED) file from within the map, you get an unrelated message *Please choose a topicref to a DITA topic*. The message is not blocking, just select **OK**. [SCTCT-265].
- The DEL key and CTRL-V key combination do not work in the search text field of a Browse Repository dialog. [TS-4117|TS-11220|SCTCT-141|SCTCT-142]
- When using XMetaL Resource Manager on a DITA Map holding an equal sign (=) in its metadata title field (FTITLE) functionality like opening and saving might return unexpected results and throw messages in the line of *'mapApp' is null or not an object* or *A Dita Map was not selected or A specialized map was selected*. As a workaround, use the full editor view. [TS-10541]
- Using the ALT-TAB key combination to another application while doing a **checkout/checkin/keep checked out** of an item with (con)keyref blocks XMetaL. The XMetaL **Configure Key Space Association** dialog pops up when (re)opening the item, but the focus is on the main XMetaL window, which makes it impossible to close the **Configure Key Space Association** dialog. When trying to close XMetaL, it detects that there is still a script/dialog running and it cannot close. Using Microsoft Windows Task Manager you can kill the **Configure Key Space Association** dialog; you can also disable that dialog in XMetaL's **Tools > DITA Options** on the tab named **Update Content**: Uncheck the checkbox marked *Prompt if the document is not associated with a key space when refreshing references*. [TS-5641]
- Dynamic Link Text Resolving of <related-links> are sometimes not resolved from the referenced document if no text was given, although **DITA Options > Refresh xref/related-links** is enabled. This is caused by unwanted whitespace, it can be worked around in the .CTM files by disabling the pretty print options. [TS-9788]
- Publishing from within XMetaL is not supported. The following menu items are not fully supported (may not work):
 - **File > Generate Output for DITA Map...**
 - **File > Generate Output for DITA Topic...**
 - **File > View Output Log...**
 - **File > Preview in Browser...**

- Local Publish with a Topic/task etc. which has an `xref` inside it does not work. [TS-5182|TS-5184]
- The Page Preview view is not supported (may not work). [TS-5526]
- Page Preview produces an error `null is null or not an object` when a `xref` topic contains unresolved references. [TS-4438]
- Do remember that installing the Authoring Bridge for XMetaL on Windows machines requires you have to have full access to folders `C:\Program Files (x86)\Common Files\XMetaL Shared` and `C:\Program Files (x86)\XMetaL x.y` before performing the installation.
- XMetaL will show the value of an `ishcondition` attribute that contains the following special characters `"`, `<`, `>`, `&` in the **Tags On View** and **Normal View** with their corresponding XML predefined entities `"`, `<`, `>`, `&`. Note that all other characters should not be shown as XML character entities.
For example the following `ishcondition` value: `Department='R&D'` and `version > 3.1.1` will show up as: `Department='R&D'` and `version > 3.1.1`. [TS-8004]
- Inserting a `conref` to a multimedia object is not always resolved correctly. Either it shows you the object twice or it shows a blue outlined diamond. [TS-8458|TS-8663]
- If the Authoring Bridge is uninstalled, the **Tridion Docs** menu will remain in the menu bar, with all menu options greyed out. The user must start XMetaL while pressing the `CTRL` key in order to have XMetaL clean up the menu bar and remove the **Tridion Docs** menu. [TS-10128]

Oxygen XML Author/Editor

- Multi select insert via Topic Ref isn't working as the XML editor's `InputURLChooserCustomizer` can only handle one. [TS-9449]
- Issues may arise with Find and Replace when used on a DITA map. A common error made when doing a find/replace on map is setting the wrong filter in the Include Files field of the UI. When performing a find/replace on a map, users should change the filter to the asterisk wildcard character, `*`. The default is `*.*`. (Only on 15.2)
- The Add account window does not disappear after pressing **Cancel**. This is a known issue when using remote desktop technologies. [TS-5654]
- Oxygen XML Author/Editor performs a save operation on all your open files when you access an Authoring Bridge menu, which allows you to CheckIn or CheckOut. This issue is caused by a difference in threading paradigm between the JAVA based XML editor and the .NET-based Authoring Bridge SDK components.
- Oxygen XML Author/Editor is only available on a Microsoft Windows platform because the Authoring Bridge SDK is made of .NET libraries
- Oxygen XML Author/Editor menu items and buttons do not get disabled when a document is visible in the editor but not checked out. The user can still access the dialogs and perform actions, which can be confusing because the document is locked and cannot be edited. [TS-5140]

Publication Manager

- Checking in a previewed map that is already checked in may cause Publication Manager to return errors and crash. Clicking on the error `Checking in of the object '{Map name}' failed. Object has to be checked out.` can allow you to continue the session.
- When a `conref` is made to an image in the same topic, an erroneous message is

displayed for circular references: Warning: The object <x> is mentioned within the object itself, creating a circular reference. [TS-3449]

- Find option (CTRL+F) in Publication Manager for the current document no longer has the option to Match whole word. The find on a whole word functionality was dropped; it is not supported by the new browser component (Gecko). [SCTS-469]
- After checking in topics, there is a delay before the changes can be found by the search. When using the scope Current Publication it will be asked to check in the topics, but even then changes might not be part of the search results. There is a delay between checking in and the indexing into the full text index. A refresh of the search result pane will resolve the problem after the index is generated for the checked in topics. [TS-8322]
- There is no cursor when adding or replying to a comment in the Publication Manager. Typically happens when you switch to another application and then move back to Publication Manager. The issue is caused by a bug in the Gecko renderer component.
- Inbox gives an error when one of the files in the list has a `conref - conrefend` pair that don't refer to the same document. The error is: Begin and end id require to be in the same document when a bookmark is given. [TS-2207]

Content Importer

- When files to be imported include images that have the same name but not the same format, with a resolution map that attributes a different resolution for each image format, only one resolution is imported instead of one per format. [SCTCT-472]
- The user interface shows a possibility for **Default resolution** which never gets used because the system always expects a mapping from file extension to Electronic Document Type (EDT) to be configured. Unconfigured file extensions will simply be ignored. [SRQ-3216]
- In Content Importer, changing the resolution of a selected image is not available. For setting a new resolution, you need to delete the image and reload it with the new resolution. [TS-7705]
- When importing multiple versions, languages or resolutions of the same logical object and the logical object does not exist, you might get `ObjectNotFoundException`. This is caused by both files trying to create the same logical object and for one of them this will fail with `ObjectAlreadyExists`. The automatic retry in Content Importer is to do an update of the failing one, but this will throw `ObjectNotFoundException` because only the logical level already exists. A manual retry will import the failing objects without issues. The advice to prevent this is to split the initial creation of a logical object in one version and language, from the other versions, languages and resolutions.

Workaround for failed import with a language level entry with error on preview or not all langs/resolutions imported:

1) Check files still exist in CI 'source' folder and CI remains open. 2) Delete the version of the object which has failed, do not delete the logical object. Deleting the language level will always fail.

3) Re-import the same files.

Preview

- The image files of type SVGZ are not rendered. You can submit and use them throughout the application. The only exception is that the client tools will render an embedded SVGZ in the preview. Organize Space preview of SVGZ results in an XML parsing error. The XML parsing error is caused by the mime type. The mime type for

both SVGZ is `text/xml+svg`. The `text/xml` portion of the mime type enables SDL product components to process the content as XML. However, the SVGZ content is actually a zip archive of SVG content. That is, the format is not XML, but a zip archive of XML text. The zip archive of XML content causes the parsing or loading error. [SCTS-532 | TS-7667]

- WMF and TIFF files are not displayed in the preview. They cannot be rendered by any client tool.

Publishing

- All PublishService output formats are delivered as examples. We expect all customers to skin and apply company layout and logos. We package improvements on a best effort basis without guarantees. [SRQ-3139] Publishing to Dynamic Delivery:
- The conversion from XML to HTML performed by the `ishditadelivery` plugin has the following limitations:
 - `<topicmeta>` elements inside the DITA XML content are transformed to `<head><meta>` elements in the HTML files that are uploaded. Any content inside the head cannot be viewed.
 - For dynamic conditioning (conditional display of the content when the end user selects condition values when reading), we are persisting the `ishcondition` attributes from the XML to the generated HTML elements. When it cannot be done because the element does not produce an output in the HTML, we add a `<tc:If condition="">` element. However in some cases we had to abandon the element, therefore the condition is ignored (the end user can not use the condition and all content is visible).

In *topics*, the conditions set on these elements are dropped:

- `<titlealts>` and all its child elements.
- `<prolog>` and all its child elements.
- `<metadata>` and all its child elements.
- `<data>` and all its child elements: These elements are not rendered in the output XHTML as stated by the DITA Language specifications.
- All child elements of `<area>` other than `<xref>`, as they are rendered as attributes (e.g. `shape`, `coords`, etc.).
- All child elements of `<object>`, as they are rendered as attributes.
- `<alt>` and all its child elements, as they are rendered as attributes.
- All child elements of `<syntaxdiagram>`.
- `<desc>` and all its children, as they are currently rendered as `<alt>` or `<hover>` attributes.

In *maps*, the conditions set on these elements are dropped:

- `<topicmeta>` elements.
- `<navtitle>` elements.
- `<reltable>` elements and their child elements are not propagated to the topic's **related links** section.
- The `<anchor>`, `<anchorref>` and `<navref>` elements are not rendered, as the DITA specification states that these elements are primarily designed for the *Eclipse Help* output format.

- When the `<xref>` element does not contain text and the `href` attribute refers to a XML element that does not contain a `<title>` element (e.g. `<xref href="GUID-X#GUID-X/OL1"/>`), the `ishditadelivery` stylesheets will show the `href` attribute value (so `GUID-X#GUID-X/OL1`) as hyperlink text in the resulting HTML page.
- During a publish of changed content, if the **Remote Status** of the publication output is set to **Online**, a user can potentially see an intermediate state of the content, including finding through search a topic that has been removed.
- An `<indexterm>` element with no content will cause the publish to Dynamic Delivery output format to fail
- For some elements like `<alt>` or `<desc>`, only the text is put in the HTML, so child elements are ignored. Note that these child elements might have had a condition. `<image xxx><alt>An image of the longest river, the <ph ishcondition="Europe">Volga River</ph><ph ishcondition="Africa">Nile River</ph></alt></image>`
- For DITA maps, any `ishcondition` attributes on the `<topicmeta>` or `<navtitle>` elements are not propagated to the Table of Content `<naventry>/<title>` elements.
- For DITA maps, any `ishcondition` attributes on the `<reltable>` element or any child element of `<reltable>` are not propagated to the topic related links section.
- We don't do anything for DITA conditions (neither while applying conditions when publishing nor allowing the user to apply them dynamically)
- A map with `<topicref>` elements referring to topics having the `<toc>` attribute set to `<no>` are not kept in the Table of Content (as in standard DITA), but the pages for those topics are uploaded.
- As the DITA spec states that `<anchor>`, `<anchorref>` and `<navref>` might not render for every output format (and are mainly intended for the "Eclipse Help" output format), we do not render them in our "DITA Delivery" output.
- Conditions around key definitions should be evaluated during publishing. The key definition will not be resolved and applied correctly when the conditions around the key definition would be set dynamically by the web site end user.
- If you republish a publication, we use eventual consistency, so we do not take the publication offline in the web app. This means a user can potentially see an intermediate situation. Note that we don't delete any content in CD stack when republishing, so topics that were present in the original publication and are not referenced from the Table of Content anymore might still be found as a result of a search.
- We did not solve the fixed texts in the stylesheets that might disappear during dynamic delivery: For example, a text like "Related links" is hardcoded as text in the XSL stylesheets and is not a `<div class="rellinks">` with styling yet, so depending on what the webapp will do if no links are left after dynamic conditioning, it can be hard to remove by CSS styling. The same goes for menu cascades with conditions: "Edit" > "Indent" > "Increase line indent", as the > characters are hardcoded texts added by the stylesheets, if one of the parts before or after the > would be conditionally filtered away dynamically, the > between them should be removed as well.
- MathML is not supported, SVG in doubt. Imagemaps do not work, `<object>` and `<embed>` elements are not tested.

Translating

When files are sent to WorldServer for translation, some special characters are not recognized as valid by WorldServer if they are used in the file's title. In this case WorldServer changes the file name to `tmp` making it impossible to match the WorldServer task back to the translation job item. When this happens, the job receives the **SendingFailed** status. [TS-12482]

Deprecated, obsolete or restricted in Content Manager

The following issues are deprecated, obsolete or restricted in Content Manager.

Generally, RWS provides platform support for up to two versions of any given platform to provide more flexibility in how organizations incorporate vendor changes. Typically, RWS provides support for the latest and previous version of a third party platform. This previous version is implicitly marked as deprecated.

Important: The list provides a high-level summary. The release notes and API guide will explain per version what exactly is altered (e.g. API function deprecation, etc).

Since Content Manager 15.1

The support for the following software components is deprecated in this release: no software is deprecated in this release.

The support for the following software components is obsolete in this release:

- Microsoft .NET 6 LTS
- Syncro Soft Oxygen XML Author 23.x x64
- JustSystems XMetaL 14.0 x64
- SWC PoolParty 8.1 LTS

Support for the Tridion Connector for Tridion Sites is now obsolete, which means that you can no longer connect from Tridion Docs to Tridion Sites for a mashup implementation.

Since Content Manager 15

The support for the following product features has become obsolete in this release:

- The Tridion Docs web client is replaced with the new Organize Space user interface.
- The Batch Import tool has been removed from Content Manager following the recent improvement and development of Content Importer.
- The pre-translation and pull translation functionality have been removed from Content Manager.
- The DITA-OT reference output format IshHtmlHelp has been removed, because it no longer works with Java 17, the only supported Java version. Use the DITA-OT plugin for HTML Help instead.
- The Collaborative Review feature (previously known as Reach) is now obsolete.
- The Content Editor feature is now obsolete.
- Content Manager 15.0.0 no longer uses COM+ or Classic ASP technology. Apart from

the email notification feature, which is now obsolete, all other functionality using these technologies has been reimplemented.

- The User Generated Content (UGC) feature of Content Delivery is obsolete as from Tridion Docs 15. As a result, the Commenting Dashboard on the Content Manager side and commenting in DXA for Dynamic Documentation are obsolete. The Commenting Dashboard that was available in the web client is not available in its replacement, Organize Space.

Furthermore, the following features have been limited:

- In the new Organize Space user interface, you can request a push translation only for a publication. A push translation for a map can now only be requested through the Content Manager API.

The support for the following software components is deprecated in this release:

- Tridion Docs Content Delivery (DXD/UDP) 11.1.0
- Tridion Docs Content Delivery (DXD/UDP) 11.5.0
- SDL Tridion Sites 9.1
- SDL Tridion Sites 9.5
- TMS 12.4.x
- TMS 12.5.x
- WorldServer 11.5.x
- WorldServer 11.6.x
- Microsoft Windows 10
- JustSystems XMetaL 14.0 x64
- Syncro Soft Oxygen XML Author 23.x x64
- Microsoft Windows Server 2019 x64
- SmartLogic Semantic Enhancement Server 3.7.3

The support for the following software components is obsolete in this release:

- Tridion Docs Content Delivery (UDP) 10.1.1
- Microsoft Windows Server 2016 x64
- Microsoft Windows 8.1 x64
- Microsoft Windows 8.1 x86
- Microsoft SQL Server 2017 (Standard Edition or Enterprise Edition)
- Microsoft SQL Server 2016 SP2 (Standard Edition or Enterprise Edition)
- Microsoft SQL Server 2016 SP1 (Standard Edition or Enterprise Edition)
- Oracle Database 12.2 (12.2.0.1)
- Oracle Database 12c (12.1.0.2.0)
- Oracle Data Access Client (ODAC) 19c(19.3.0.0)
- Microsoft OLE DB Driver for SQL Server
- Eclipse Temurin OpenJDK 11 (18.9 LTS release)
- Oracle Java Development Kit 11.0.x x64 also known as 18.9 LTS

- .NET Runtime 4.7.2
- JustSystems XMetaL 13.0 x64
- JustSystems XMetaL 13.0 x86
- JustSystems XMetaL 12.0 (Japanese) x64
- JustSystems XMetaL 12.0 (Japanese) x86
- JustSystems XMetaL 12.0 x64
- JustSystems XMetaL 12.0 x86
- Syncro Soft Oxygen XML Author 21.1 x64
- PTC Arbortext Editor (any version)

Security Token Service for externalized authentication and Single Sign-On is deprecated as of Tridion Docs 15. We recommend that you configure all identity providers through the Access Management application. The exceptions are WCF .SVC web services, which will continue to use STS for this release.

Since Content Manager 14 SP4

The support for the following software components is deprecated in this release:

- DITA-OT reference output format IshHtmlHelp
- Pull translations functionality
- Oxygen v20 and below.

Since Content Manager 14 SP3

The support for the following software components is deprecated in this release:

- Arbortext Editor
- Condition Management - Synchronize functionality

Since Content Manager 14 SP2

The UGC feature of Content Delivery is deprecated as of Tridion Docs 14 SP2. As a result, the Commenting Dashboard on the Content Manager side and commenting in DXA for Dynamic Documentation is also deprecated.

The pre-translation feature is obsolete. The Translation management extension where pre-translation relies on, through interfaces like `ITargetXmlFileGenerateContext` and siblings, is also deprecated as of Tridion Docs 14 SP2. Note that Collective Spaces does not respect the Translation Management extension interface (deprecated) - so in practice purging pre-translation is simply not happening and Collective Spaces doesn't know how to handle `<pretranslation>` tags.

The support for the following software components is deprecated in this release:

- Microsoft SQL Server 2017
- Windows 8.1
- <oxygen/> 17.1

The support for the following software components is obsolete in this release:

- Oracle Client 12.1.0.1.2
- ODAC 12.2.0.1.1
- Microsoft Windows 7

- Microsoft .NET Runtime 4.6.1
- Oracle Java 10
- Arbortext 7.0
- <oXygen/> 16
- SDL Web 8.5 no longer supported over TridionSitesTaxonomy connector
- SDL WorldServer 10.x.x no longer supported by Translation Organizer

Since Content Manager 14 SP1

Integrations to the Collaborative Review component (previously also known as Reach) are disabled in the user interface and configuration. This means no Collaborative Review originating comments in Publication Manager, no possibility to publish or synchronize to Collaborative Review and more. The component Collaborative Review was deprecated earlier. The alternative is Collective Spaces, Review Space in particular.

Since Content Manager 14

The Batch Import tool is now obsolete. This feature have been removed from Content Manager following the recent improvement and development of Content Importer.

The support for the following software components is deprecated in this release:

- Content Delivery (UDP) 10.1.1
- SDL TMS 11.0.x through 12.1.x
- SDL WorldServer 11.0.x through 11.3.x
- SDL XPP 9.1
- JustSystems XMetaL 12 (Japanese) (64-bit) support files
- SyncroSoft <oXygen/> XML Author 20.0 (64-bit) support files
- Microsoft Windows 2016 SP1 (64-bit)
- Oracle RDBMS 12.2.0.1
- Microsoft SQL Server 2016 SP1
- Microsoft SQL Server 2016 SP2
- Eclipse Temurin OpenJDK 11 (formerly known as AdoptOpenJDK OpenJDK 11) with Hotspot 11.0.0+28 (64-bit)
- Eclipse Temurin OpenJDK 11 (formerly known as AdoptOpenJDK OpenJDK 11) with Hotspot 11.0.3+7 (64-bit)
- AntennaHouse XSL Formatter 6.5 and 6.6
- Microsoft Edge (Spartan/LegacyEdge)

The support for the following software components is obsolete in this release:

- Microsoft Windows Server 2012R2 (64-bit)
- Windows 8
- Microsoft Windows PowerShell 5.0 (part of Windows Management Framework 5.0)
- .NET Runtime 4.6.1
- <oXygen/> XML Author 19.1 (64-bit)
- Internet Explorer (all versions)

Since Content Manager 13 SP2

Due to the complete removal of legacy code from Content Manager 13.0.2, the earliest version from which you can upgrade directly to Tridion Docs 13 SP2 is SDL LiveContent 2013 (released with Architect 10.0.0). Upgrading from earlier versions requires that you first upgrade to SDL Knowledge Center 2016 (released with Content Manager 12.0.0).

The support for the following software components is obsolete in this release:

- Microsoft SQL Server 2014
- Java Runtime 10.0.1 (64-bit)
- Java Development Kit 10.0.1 (64-bit)
- Eclipse Help (output format)

Since Content Manager 13 SP1

There are exceptional evolutions for software support in the 13 SP1 release. One of them is the new support for 64-bit versions of XML Editors and at the same time the obsolescence of *any 32-bit versions of those tools*.

Because of the changes in software support, upgrading to Content Manager 13.0.1 from any earlier version makes the following versions obsolete:

- Windows 7 32-bit
- JustSystems XMetaL 10.0 / 10.0 (Japanese) (32-bit)
- JustSystems XMetaL 11 and any 32-bit version
- <oXygen/> XMLAuthor/Editor 17 and any 32-bit version
- Arbortext Editor 7.0 and any 32-bit version

Since Content Manager 13

Translation review flow:

- The simple translation review flow, without the approval step, is deprecated when WorldServer and TMS are set with a REST API protocol. It is however possible to maintain the old flow removing the approval steps from the out-of-the-box version of the flow.
- The simple flow without the approval step should be used with the file system or when WorldServer is set with a SOAP API protocol. Whenever 'rejected' objects need to be sent again for translation, however, you need to either submit everything again for translation with the **Include items already sent...** checkbox selected, or manually change the rejected topics' status to **In translation**.
- In all cases, it is no longer possible to send **Only previously rejected translation items**.

The support for the following software components is obsolete in this release:

- Microsoft Windows 2008R2/x64 SP0/SP1
- Oracle Database 11.2
- Microsoft SQL Server 2012 SP3
- JustSystems XMetaL 10.0
- JustSystems XMetaL 10.0 Japanese
- <oXygen/> XMLAuthor/Editor 16

- Microsoft Internet Explorer 10

Since Architect 2013 (10.0.x)

- Reusable Objects are marked as deprecated, Support will be removed from the code base. Please contact SDL Support to discuss your usage and legacy conversion. [TS-4673]
- Index Terms are Obsolete [TS-1232]
- Limited Batch Metadata Operations [TS-768]
- Client Tools using SSL might crash when using a URL that does not match the certificate
- Authoring Bridge for XMetaL on Windows Vista/7 machines you have to have full access to folders `C:\Program Files (x86)\Common Files\XMetaL Shared` and `C:\Program Files (x86)\XMetaL 6.0` before doing the installation.
- The new WCF Web Services API deprecates the previous ASMX API. Although we continue to support the ASMX API in this release, it may be dropped in the next release. We strongly advise customers using the ASMX API to consider upgrading to the new API.

Software compatibility across releases

Information about third-party or client software is packaged, configured and tested for a specific software version release.

Introduction

Content Manager is qualified on an English version of our supported operating systems only. Other languages of these operational systems are not used for quality check purposes.

The following tables — available for informational purposes only — indicate:

- The Content Manager client tools versions which should be used against a certain release of the server side components.
- The Third Party software which is configured or integrated inside a certain release of the server side components.
- The Third Party software such as operating systems, sqls, and runtimes which we use to conduct quality assurance testing for the server side components.

Be aware that:

- Exact versions indicate a version which we did regression testing; these are usually also available for download. Note that other versions may work but are not quality assured. If a problem is encountered we only accept the issue if it is reproducible on the listed versions.
- The relation between the Content Manager client tools and the XML editors are not defined in the tables. Installation packages are not always available for all XML editor versions.
- For the most up-to-date information you should always verify the latest installation documentation. There are other requirements than the ones listed here.
- The names, trademarks, designs, logos, service marks, intellectual property, etc., of the

products shown are exclusive property of their respective owners.

Terminology used:

- S: is short for Supported which means that the software was used, configured or integrated in the version.
- -: means that there is no information available for this combination. Usually because one of them was not around yet during the mentioned era or because it is simply not a supported combination anymore.
- D: is short for Deprecated which means the software was used/configured or integrated in the version; but you are strongly advised to not use this combination anymore.

Tridion Docs client tools

The Tridion Docs client tools are the Windows software components that interact with the Content Manager server:

- Publication Manager
- Authoring Bridge
- Condition Manager
- Content Importer

Each release of Tridion Docs ships with a server and client tools that all share the same version.

If your client version and your server version don't match, the following general principles apply:

Scenario	Result	Example
Connecting from an older client version to a newer server version	This does not work.	Trying to connect from your 15.0.0 client tool to a 15.1.1 server results in errors and does not work.
Connecting from a newer client version to an older server version	This works, provided that you don't try to use any features that are unavailable on the server.	You can connect from a 15.1.1 client to a 15.0.0 server, but any features that were not yet available in 15.0.0 do not work.
Connecting from a client version to a server version where one is updated and the other is not	This works.	A 15.1.0 client tool can connect to a 15.1.1 server, and a 15.1.1 client tool can connect to a 15.1.0 server.

Tridion Docs and Content Delivery

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1*
Tridion Docs Collaborative Review 7.7	S	D (removed in 14SP1/14.0.1 as publicly announced in 14.0.0.)	-	-
Tridion Docs Content Delivery (UDP) 10.1.0	S DDWebApp 1.1.0 (Java)	-	-	-
Tridion Docs Content Delivery (UDP) 10.1.1	S (from 13.0.1) DDWebApp 1.2.0 (Java)	D	-	-
Tridion Docs Content Delivery (DXD/UDP) 11.0.0	- (from 13.0.2) DDWebApp 1.2.1 (Java) and 2.1 (.NET)	D DDWebApp 1.2.1 (Java) and 2.2 (Java/.NET)	-	-
Tridion Docs Content Delivery (DXD/UDP) 11.1.0	-	D DDWebApp 1.2.1 (Java) and 2.2 (Java/.NET)	-	-
Tridion Docs Content Delivery (DXD/UDP) 11.5.0	-	D DDWebApp 1.2.1 (Java) and 2.2.6+ (Java/.NET)	D DDWebApp 1.2.1 (Java) and 2.2.6+ (Java/.NET)	D DDWebApp 1.2.1 (Java) and 2.2.6+ (Java/.NET)
Tridion Docs Content Delivery (DXD/UDP) 11.6.0	-	D DDWebApp 2.2.6+ (Java/.NET)	D DDWebApp 2.2.6+ (Java/.NET)	D DDWebApp 2.2.6+ (Java/.NET)
Tridion Docs Content Delivery (DXD/UDP) 12.0.0	-	S DDWebApp 2.2.9+ (Java/.NET)	S DDWebApp 2.2.9+ (Java/.NET)	D DDWebApp 2.3.0 (Java/.NET)

Note: *DDWebApp* is more formally known as DXA for Dynamic Documentation.

Tridion Sites

	13.0.x / 13	14.0.x / 14	15.0.x/15.1.x / / 15 15.1*	
SDL Web 8.5	D (from 13.0.1 via Tridion Sites Taxonomy Connector)	-	-	-
SDL Tridion Sites 9	S (from 13.0.1 via Tridion Sites Taxonomy Connector)	D (from 14.0.2, added over .NET Standard-based Tridion Sites Taxonomy Connector)	-	-
SDL Tridion Sites 9.1	-	D (from 14.0.2, added over .NET Standard-based Tridion Sites Taxonomy Connector)	-	-
SDL Tridion Sites 9.5	-	D (from 14.0.2, added over .NET Standard-based Tridion Sites Taxonomy Connector)	D	-
Tridion Sites 9.6	-	S (from 14.0.2, added over .NET Standard-based Tridion Sites Taxonomy Connector)	D	-
Tridion Sites 10	-	-	S	-

Note: * As from Tridion Docs 15.1, support for the Tridion Connector for Tridion Sites is obsolete, which means that you can no longer use Tridion Sites Categories and Keywords to categorize Tridion Docs content directly. However, you can still integrate Tridion Docs with Tridion Sites by making use of the same Content Delivery instance and PoolParty instance in a Semantic AI implementation.

TMS

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
TMS 11.0.x	D	D	D	D
TMS 11.1.x	D	D	D	D
TMS 11.2.x	D	D	D	D
TMS 11.3.x	D (The earliest TMS version that supports the translation reject flow.)	D	D	D
TMS 11.4.x	D (from 13.0.1)	D	D	D

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
TMS 12.0.x	S (from 13.0.1)	D	D	D
TMS 12.1.x	-	D	D	D
TMS 12.2.x	-	D	D	D
TMS 12.3.x	-	D	D	D
TMS 12.4.x	-	D (from 14.0.1)	D	D
TMS 12.5.x	-	D (from 14.0.2)	D	D
TMS 12.6.x	-	D (from 14.0.2)	D	D
TMS 12.7.x	-	S (from 14.0.2)	S	D

Note:

WorldServer

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
WorldServer 11.0.x	D	D	D	D
WorldServer 11.1.x	D	D	D	D
WorldServer 11.2.x	D *	D *	D *	D *
WorldServer 11.3.x	S *	D *	D *	D *
WorldServer 11.4.x	-	D *	D *	D *
WorldServer 11.5.x	-	D (from 14.0.1)	D *	D *
WorldServer 11.6.x	-	D (from 14.0.2)	D *	D *
WorldServer 11.7.x	-	D (from 14.0.2)	D *	D *
WorldServer 11.8.x	-	S (from 14.0.2)	S	S

Note: * Both SOAP and REST API protocol can be used, default is REST. Use REST API protocol to support the new translation reject flow.

Windows

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
Microsoft Windows 7	-	-	-	-
Microsoft Windows 8.1	D (from 13.0.1) Only Windows 8 / 8.1 (64-bit) is supported.	D	-	-
Microsoft Windows 10	S (from 13.0.1) Only Windows 10 (64-bit) is supported.	S	D	D
Microsoft Windows 11	-	-	S	S

Arbortext

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
PTC Arbortext Editor 7.1 x64 support files	S (from 13.0.1) Verified on F000	S	-	-
PTC Arbortext Editor 8.0 x64 support files	-	-	-	-
PTC Arbortext Editor 8.1 x64 support files	-	-	-	-

XMetaL

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
JustSystems XMetaL 10.0 x86 support files	- (removed in 13.0.1)	-	-	-
JustSystems XMetaL 10.0 (Japanese) x86 support files	- (removed in 13.0.1)	-	-	-
JustSystems XMetaL 11.0 (32-bit) support files	- (removed in 13.0.1)	-	-	-
JustSystems XMetaL 12.0 x64 support files	D	D	-	-

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
JustSystems XMetaL 12.0 (Japanese) x64 support files	D *	D *	-	-
JustSystems XMetaL 13.0 x64 support files	-	-	-	-
JustSystems XMetaL 14.0 x64 support files	-	S (from 14.0.1)	D	-
JustSystems XMetaL 15.0 x64 support files	-	-	-	-
JustSystems XMetaL 16.0 x64 support files	-	-	-	-
JustSystems XMetaL 17.0 x64 support files	-	-	S	D
JustSystems XMetaL 18.0 x64 support files	-	-	-	S

Note: *JustSystems XMetaL indicated that a J(apanese) edition is not happening for 14 and up. Customers should migrate to the regular edition.)

Oxygen

Important: Oxygen is supported only on the Windows platform.

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
Syncro Soft Oxygen XML Author 17.1 x86 support files	- (removed in 13.0.1)	-	-	-
Syncro Soft Oxygen XML Author 19.1 x64 support files	D (from 13.0.1)	-	-	-
Syncro Soft Oxygen XML Author 20.0 x64 support files	S (from 13.0.1 - verified on XML Author 20.0, build 2018032903)	D	-	-
Syncro Soft Oxygen XML Author 21.1 x64 support files	-	S (from 14.0.1)	-	-
Syncro Soft Oxygen XML Author 22.x x64 support files	-	-	-	-

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
Syncro Soft Oxygen XML Author 23.x x64 support files	-	S (from 14.0.4)	D	-
Syncro Soft Oxygen XML Author 25.x x64 support files	-	-	S	S
Syncro Soft Oxygen XML Author 26.x x64 support files	-	-	-	S

Note: Starting 14SP4/14.0.4 the Authoring Bridge installer will suggest which are verified combinations but after consent will allow you to install on an unsupported version.

Windows Server, .NET and Active Directory

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
Microsoft Windows Server 2012 R2 x64	D	-	-	-
Microsoft Windows Server 2016 SP1 x64	S	D	-	-
Microsoft Windows Server 2019 x64	-	S	D	D
Microsoft Windows Server 2022	-	-	S	S
Microsoft Windows PowerShell 5.1 (part of Windows Management Framework 5.1)	S	S	S	S
Microsoft PowerShell 7.x	-	-	-	-
Microsoft .NET Framework 4.6.1	S	-	-	-
Microsoft .NET Framework 4.7.2	-	D	-	-
Microsoft .NET Framework 4.8	-	S	S	S
Microsoft .NET 6 LTS	-	-	S	-
Microsoft .NET 8 LTS	-	-	-	S
Microsoft Active Directory Federated Services (ADFS) 2.0	-	-	-	-
Microsoft Active Directory Federated Services (ADFS) 2.1	D	D	-	-
Microsoft Active Directory Federated Services (ADFS) 3.0	S	S	-	-

Note: Starting 15/15.0.0 there is no longer direct integration with Microsoft ADFS. You can set up Microsoft ADFS over the OpenID Connect protocol to federate into our Access Management component.

Databases

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
Oracle Data Access Client (ODAC) 12.1.0.1.2	-	-	-	-
Oracle Data Access Client (ODAC) 12.2.0.1.0	S	-	-	-
Oracle Data Access Client (ODAC) 19c(19.3.0.0)	-	S (from 14.0.1)	-	-
Oracle Database 12.1.0.2	D	D	-	-
Oracle Database 12.2.0.1	S (from 13.0.2)	D	-	-
Oracle Database 19c (19.3.0.0)	-	S (from 14.0.1)	S	S
Oracle Database 21c (21.3.0.0)	-	-	-	-
Oracle RDBMs 23c (23.2.0.0)	-	-	-	-
Microsoft SQL Server 2014 SP2	D	-	-	-
Microsoft SQL Server 2016 SP1	S	D	-	-
Microsoft SQL Server 2016 SP2	-	D	-	-
Microsoft SQL Server 2017	S (from 13.0.2)	D	-	-
Microsoft SQL Server 2019	-	S (from 14.0.2)	D	D
Microsoft SQL Server 2022	-	-	S	S
Note: The "Always On Availability groups" feature is supported. For more information about this high-availability and disaster-recovery feature, see here .				

Java

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
Oracle Java Runtime 1.8.0_144 x64	D	-	-	-
Oracle Java Runtime 10.0.1 x64	D	-	-	-
Oracle Java Development Kit 1.8.0_144 x64	D	-	-	-

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
Oracle Java Development Kit 10.0.1 x64	D (not a Long Term Service release)	-	-	-
Oracle Java Development Kit 11.0.x x64 also known as 18.9 LTS	-	S	-	-
Oracle Java Development Kit 17.0.x x64 also known as Oracle JDK 17 LTS	-	S (from 14.0.4)	S	S
Oracle Java Development Kit 21.0.x x64 also known as Oracle JDK 21 LTS	-	-	-	S
Eclipse Temurin OpenJDK 11 (formerly AdoptOpenJDK OpenJDK 11) x64 with Hotspot 11.0.x	-	S	-	-
Adoptium Eclipse Temurin 17.0.x x64 based on OpenJDK 17 LTS	-	S (from 14.0.4)	S	S
Adoptium Eclipse Temurin 21.0.x x64 based on OpenJDK 21 LTS	-	-	-	S

DITA-OT

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
DITA-OT 1.8.5	-	-	-	-
DITA-OT 2.3	S	S	S	S

DITA DTDs/Catalog configuration

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
IBM DITA 1.3.2 DTD/Catalog configuration Note: We strongly advise to change to OASIS DITA. The provided IBM DITA setup is only for backward compatibility. No new features will be implemented on these DTDs.	D	D	D	D
OASIS DITA 1.0 DTD/Catalog configuration Note: The public identifier of OASIS DITA has no version, so when we introduced OASIS DITA 1.1 we had to redirect the version-less identifier to this latest fully backward compatible version in our catalog files.	D	D	D	D
OASIS DITA 1.1 DTD/Catalog configuration Note: The public identifier of OASIS DITA has no version, so when we introduced OASIS DITA 1.2 we had to redirect the version-less identifier to this latest fully backward compatible version in our catalog files.	D	D	D	D
OASIS DITA 1.2 DTD/Catalog configuration	S	S	S	S
OASIS DITA 1.3 DTD/Catalog configuration Note: Technically unreachable as public identifiers of OASIS DITA without version are redirected to the SDL provided OASIS DITA 1.2 for backward compatibility.	S (from 13.0.2)	S	S	S
SDL DITA 1.3 DTD/Catalog configuration Note: Only reachable when using editor templates holding SDL DITA public identifiers.	S (from 13.0.2)	S	S	S

AntennaHouse

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
AntennaHouse XSL Formatter 6.2	-	-	-	-
AntennaHouse XSL Formatter 6.5	S	D	-	-
AntennaHouse XSL Formatter 6.6	-	D	-	-
AntennaHouse XSL Formatter 7.0	-	S	S	S
AntennaHouse XSL Formatter 7.2	-	-	S	S

Browsers

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
Microsoft Internet Explorer 10	-	-	-	-
Microsoft Internet Explorer 11	S	No version supported	-	-
Microsoft Edge (Spartan/LegacyEdge)	S	D *	-	-
Microsoft Edge (Chromium-based; Microsoft's Modern Lifecycle Policy release update channel)	-	S (from 14.0.2)	S Verified on version 114	S Verified on version 125
Google Chrome (Chromium-based; release update channel)	S Verified on version 61	S Verified on version 67	S Verified on version 114	S Verified on version 126
Mozilla Firefox (release update channel)	S Verified on version 56	S Verified on version 75	S Verified on version 114	S Verified on version 126

Note: Legacy Edge browser based on the Spartan edge, so the pre-chromium based browser, has been marked obsolete by Microsoft.

Acrolinx

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
Acrolinx 5.0	-	S	S	S
Acrolinx Plug-in for <oxygen/>	<p>S</p> <p>Verified for oXygen 17.1 using Acrolinx classic plugin 3.5.1</p> <p>Verified for oXygen 20.0 using Acrolinx sidebar plugin 1.1, 1.2, 1.3, 1.4, 1.5 or 1.6</p>	<p>S</p> <p>Verified for oXygen 20.0 using Acrolinx sidebar plugin 1.1, 1.2, 1.3, 1.4, 1.5 or 1.6</p> <p>Verified for oXygen 21.1 using Acrolinx sidebar plugin 1.5 or 1.6</p>	<p>S</p> <p>Verified for oXygen 25 using Acrolinx sidebar plugin 2.2</p>	<p>S</p> <p>Verified for oXygen 26 using Acrolinx sidebar plugin 2.2</p>
Acrolinx Plug-in for XMetaL	<p>S</p> <p>Verified for XMetaL 11 using Acrolinx 4.7.2 for 13.0.0</p> <p>Verified for XMetaL 12 using Acrolinx sidebar plugin 1.1 for 13.0.1</p>	<p>S</p> <p>Verified for XMetaL 12 using Acrolinx sidebar plugin 1.1 for 14.0.1</p> <p>Verified for XMetaL 12 using Acrolinx sidebar plugin 1.2, 1.2.1 or 1.3 for 14.0.2</p> <p>Verified for XMetaL 13 using Acrolinx sidebar plugin 1.2, 1.2.1 or 1.3 for 14.0.2</p> <p>Verified for XMetaL 14 using Acrolinx sidebar plugin 1.3 for 14.0.2</p>	<p>S</p> <p>Verified for XMetaL 14 using Acrolinx sidebar plugin 1.3 for 15.0.0</p> <p>No Acrolinx plugin version currently works with XMetaL 17.</p>	<p>S</p> <p>Verified for XMetaL 17 and XMetaL 18 using Acrolinx sidebar plugin 2.0</p>

Other

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
SDL Quality Assistant 2.2.0	<p>S</p> <p>Verified for Content Editor integration</p>	-	-	-
SDL XPP 9.1	S	D	D	D

	13.0.x / 13	14.0.x / 14	15.0.x / 15	15.1.x / 15.1
SmartLogic Semantic Enhancement Server 3.7.3	S Verified for IMetadataBinding integration	S Verified for IMetadataBinding integration	D Verified for IMetadataBinding integration	D Verified for IMetadataBinding integration

What's new in Content Delivery

If you are upgrading from a release older than SDL Knowledge Center 13, this release includes Content Delivery technology that is new to the Tridion Docs solution. If you are upgrading from SDL Knowledge Center 13, this release introduces important functional changes to Content Delivery, as well as a number of fixed issues.

New and changed in Content Delivery

An overview of the functional changes and enhancements to Content Delivery that you will get if you upgrade to this release.

Content Delivery functionality introduced in Tridion Docs 15

The Tridion Docs 15 release introduces several functional changes to Content Delivery.

New caching mechanism

As from Tridion Docs 15, Content Delivery offers a new implementation of caching on the server, based on the JCache (JSR107) specification, as implemented in Apache Ignite. This new implementation, called embedded caching, replaces the old implementation using the Cache Channel Service and/or Java Messaging Service (JMS). Embedded caching is configurable in terms of caching nodes and clients.

For more information, refer to these topics:

- "" on page 0
- "" on page 0
- "" on page 0

Recommendations

As from Tridion Docs 15, the `search` query contains a `recommend` argument to find recommended content. The query can be written to make recommendations on the basis of an existing item ("Find me more content like this"), on the basis of a set of concepts ("Find me content with these properties"), or a combination of both.

For more information, refer to these topics:

- "" on page 0
- "" on page 0

Simplified microservice packaging

A number of improvements were made to package our microservices in line with Java Spring-based packaging best practices. Specifically:

- The use of `services\` folders is discontinued. Instead, all your custom items go in a new `custom\` folder.
- A number of settings that were, for example, only configurable on the command line, are now set in the `application.properties` file of the microservice.
- The `springprofilesactive` placeholder, which was used by both the Content Service and the Content Deployer, is discontinued in favor of separate `contentspringprofilesactive` and `deployerspringprofilesactive` placeholders, so that both services can run in the same environment, each with their own `spring.profiles.active` setting.
- The new cache feature is enabled or disabled in `application.properties`.
- Semantic Content Model configuration is in `application.properties`.
- OpenSearch configuration properties have been moved from the properties file `search.properties` into `application.properties`.
- Similarly, properties from the properties file `endpoint.properties` have been moved into `application.properties`.

IQ Combined Service

Instead of the IQ Index Service and IQ Query Service, which existed prior to Tridion Docs 15, there is now an IQ Combined Service instead, which combines indexing and querying functionality.

Additionally, the IQ Combined Service is a microservice that is only intended for internal use by the product itself, specifically by the Content Deployer. As an implementer, you cannot use the new IQ Combined Service to query. Use the Public Content API instead.

Note that the latest version of the Dynamic Delivery web application (with DXA with the latest hotfix applied) also no longer uses an IQ microservice to query, but uses the Public Content API instead.

Improved performance for Content Delivery database upgrades

As of Tridion Docs 15, the performance of upgrading a relational database for Content Delivery is much improved.

More robust security

A number of security issues revealed by a Veracode analysis led to significant security improvements. Also, a Tomcat Attack Vector was closed.

GraphQL queries specific to Tridion Docs

As from Tridion Docs 15, the Public Content API contains a number of new root queries that are specific to Tridion Docs. Use these new root queries to explore the Tridion Docs content model by fetching publications or topics, or by exploring the table of contents of a publication.

Persistent topic identifier in Dynamic Delivery URL across versions

When you publish a publication to Dynamic Delivery, each webpage has a URL in the following kind of format: `https://internaldocs.example.com/986917/139451`. The two numbers are generated in the following way:

- The first number identifies the specific version of the publication you published, in the specific language in which you published it.

- The second number, until now, identified the specific version of the topic you published, in the specific language in which you published it.

This meant that if you changed a topic in a publication that was already published, and then republished that publication, the second number would change, and so the URL would change as well (say, to `https://internaldocs.example.com/986917/233435`). Even worse, if you didn't *unpublish* your publication first, the original URL would continue to exist, showing the wrong, uncorrected topic.

As from Tridion Docs 15, a numerical ID for a topic is generated based only on its GUID, its unique identifier in Content Manager. That way, creating a new version of the topic won't result in a different URL.

Library Topics no longer published to Dynamic Delivery

Prior to Tridion Docs 15, when you published a publication to Dynamic Delivery, not only topics and images, but also Library Topics would be published. While these Library Topics did not appear in the table of contents panel, they could still show up as a search result to a user who had entered a search string contained in a Library Topic. Library Topics are not supposed to be seen by the reader.

As from Tridion Docs 15, Library Topics are no longer included during publishing, and so they are no longer present or findable in the published publication on the Dynamic Delivery website.

Content Delivery functionality introduced in UDP 11.6.0

As from Tridion Docs 14 SP4 and UDP 11.6.0, new Content Delivery features are introduced.

Semantic search

Semantic search enables you to enhance your websites with a faceted search interface that improves the findability of your content. With the help of an external taxonomy provider, Tridion Docs enhances the Elasticsearch search index and introduces a new concept index. The Content Service makes the information in the taxonomy available to web developers. Web developers can then use the Public Content API to write GraphQL queries that:

- present the taxonomy as a series of facets on a webpage, allowing visitors to filter their search queries
- apply selected facets search to search queries in order to filter the search results

Additional functionality includes:

- a type-ahead feature so that the visitor can get search results as they type the beginning of a specific facet
- making search suggestions based on taxonomical proximity
- localization of facet names and values, so that the visitor can search in their own language
- support for synonyms

Making queries from the DXA model extension available in the main Tridion Docs product

The root queries `sitemap` and `sitemapSubtree` that were previously only available through the DXA model extension, have now been made also part of the Content Delivery core and so are available out-of-the-box in Tridion Docs. You can use them in combination with Semantic Content Modeling.

New and changed in 11.5.0

As from Tridion Docs 14 SP3, new Content Delivery features are introduced.

Liquibase database management

This release uses Liquibase to perform database installations and upgrades for Content Delivery. Liquibase replaces native SQL scripting, making database installation and upgrades simpler and more robust. Database installation and upgrade is still done by running a Powershell script, but this Powershell script now uses Liquibase rather than native SQL script.

New and changed in version 11.1.0

Tridion Docs is compatible with Content Delivery 11.1.0.

Health and info check URLs have changed and are configurable

Previously, you could append `/info` or `/health` to the end of a base URL `http://HOST:PORT`, where `HOST` and `PORT` identified the location of a Content Delivery microservice, to obtain basic information about the microservice and its health.

Additionally, you can now customize the URL to your liking by editing the new `management.context-path` property in the `application.properties` file of the microservice.

Now, the URL to which you append `/info` or `/health` is the full microservice URL, say, `http://HOST:PORT/content.svc`.

Required Elasticsearch version is now 6.7

The supported Elasticsearch version for IQ services Experience Optimization is now version 6.7 (both for on-premises setups and for Cloud-based setups). Refer to the following Elasticsearch documentation topics for more about the impact of this change:

- [Removal of mapping types](#)
- [Search and Query DSL changes](#)

Scheduling a cleanup of the State Store database

By setting environment variables on the machine on which Content Deployer runs, you can instruct the system to periodically clean up obsolete records in the State Store database.

Logging of Spring boot messages if log level is set to TRACE

As of this release, the Logback configuration files (`logback.xml` files) by default contain a logger for Spring boot services. This logs the endpoint mappings. Request mapping is logged under the `TRACE` log level.

Indexing of titles and other fields in multiple languages

Using the new `indexLanguage` and `rawLanguageTitle` fields, you can make titles and other content fields searchable in other languages than the default.

Improved security through new HTTP headers in Content Deployer response

When the Transport Service on the Content Manager receives an HTTP response from the Content Deployer on the Content Delivery side, the response now includes the following HTTP headers:

- X-XSS-Protection
- X-Frame-Options

Note: These new HTTP headers were already available as a hotfix in SDL Web 8.5, as hotfix CD_8.5.0.12106.

New and changed in version 11.0.0

SDL Tridion Docs is compatible with Content Delivery 11.0.0.

Enhanced user condition

Before SDL Tridion Docs 13 SP2, the only way to pass conditions provided by the website visitor from the web application to the Content Service was by using the ISH Cartridge (`ish_ambient_cartridge.xml`) to add the `taf: ish: userconditions` Claim to the Claim Store. As of SDL Tridion Docs 13 SP2, you can trigger the client API, passing these visitor-provided condition values. The client retrieves these values, merged with Publication conditions, from the Ambient Data Framework, and passes those merged conditions in the `contextData` parameter in its `keyword()` and `categories()` calls. The queries return Taxonomies filtered using all of the conditions.

UGC threaded commenting

Previously, comments were necessarily a flat list: one comment could not be a response to another comment.

Now, the `UgcCommentApi` interface has a method called `retrieveThreadedComments()` (and a counterpart, `retrieveFlatComments()`) to make this functionality possible. This method does not support filtering by status; how you handle comment threads containing comments with differing statuses is up to you.

The `Comment` interface also has two new methods, `getParent()` and `getChildren()`, for navigating a comment thread.

For more information, refer to the Content Delivery API reference documentation.

Enhanced comment filtering capabilities in the Java Content Interaction Library (CIL) for UGC

The `SimpleCommentFilter` class now contains a number of new ways to paginate, traverse and filter comments and comment threads.

New Content Service API controller to get a public link to a binary resource

You can now create a Content Service URL that returns the public URL of a (specific variant of a) binary resource.

Public Content API

The product now has a new API called Public Content API, consisting of new GraphQL endpoints for the Content Service and the Session-enabled Content Service, based on the GraphQL API query language, and using the same RESTful endpoints as before for the Content Deployer and IQ Indexing and Querying services. You can explore the GraphQL part of the new API interactively using an in-browser IDE such as GraphiQL. The new API uses an inheritance-based domain model, offers support for multiple namespaces and strongly typed models, requires fewer roundtrips and minimizes the overfetching or underfetching of data in each request.

Note that Footprint functionality is not supported in this new API. If you are using (and want to continue using) Footprints, continue using the (now deprecated) SDL Web RESTful API for the Session-enabled Content Service.

The existing SDL Web RESTful API has become a legacy API; it is deprecated.

Content Delivery configuration files are now validated against their XSD schemas when their microservice starts

Previously Content Delivery configuration files (such as `cd_storage_conf.xml`) shipped with XSD schemas, but the product didn't actually validate the files against their schemas. From now on, when a microservice starts, a check is performed to see if each configuration file is valid against its schema file. If, for whatever reason, one of your configuration files is not valid, the product raises an error and fails to start the microservice.

New and changed in version 10.1.1

SDL Tridion Docs is compatible with Content Delivery 10.1.1. This release improves the .NET CIL for UGC, and expands search beyond US English.

The .NET UGL CIL improvements

A number of improvements were made to the UGC CIL (Content Interaction Libraries) for .NET. Refer to the API reference documentation to see the improved API.

Search extended to languages beyond US English

Search queries now work in all languages, not just in `en-us` (US English).

New and changed in version 10.1.0

This product uses technology for Content Delivery that originates from the product known as SDL Tridion Sites, SDL Web or SDL Tridion. SDL Knowledge Center 13 was the first release to use Content Delivery, specifically, Content Delivery 10.1.0.

Content Delivery, now also a platform for delivering DITA content

With the introduction of the new Content Delivery, you can now use a proven content delivery platform for your presentation environment. Content Delivery was previously only used for web content. For use in Tridion Docs, we've modified Content Delivery to make it more generic and capable of delivering DITA content for a documentation site. This new platform is:

- robust
- scalable

- highly customizable and highly extensible
- Cloud-ready

In addition, SDL Digital Experience Accelerator (DXA) is a development environment designed to allow you to rapidly develop a custom DITA-based website and to make use of additional Content Delivery functionality such as Contextual Image Delivery.

Major changes

In order to support DITA content, RWS has made a few changes to Content Delivery for the benefit of SDL Knowledge Center 13 and beyond.

Here is a summary of the major changes:

- Added support for multiple content sources within the delivery platform repository
- Added support for Tridion Docs Deployer plugin pipeline
- Added support for Tridion Docs CIL extension APIs
- Added search indexing and query support to the Content Delivery

Fixed issues in Content Delivery

Tridion Docs 15.1 fixes a number of issues compared to the initial Content Delivery instance.

Fixed issues in Content Delivery 11.0.0

With the release of Content Delivery 11.0.0, with which the product is compatible as of SDL Tridion Docs 13 SP2, a number of Content Delivery issues were fixed.

ID	Description
CRQ-6874	Because authorization was not supported, you had to disable the X-Pack Plugin in your Elasticsearch environment. This is now fixed.
CRQ-5822	It was possible to retrieve search results and page content non-securely from an OAuth-secured IQ Query Service. You now need authentication.
CRQ-5853	If you remove a topic and then republish the publication, the <code>sitemap.xml</code> would still contain the topic. This was resolved.
CRQ-5858	If you remove a topic and then republish the publication, you could still access the topic through its specific URL and as a search result. This is no longer the case.
CRQ-5844	If the content was published with multiple condition values available (that is, if the content is made personalizable by the visitor), the visitor could not successfully personalize the output using a condition containing non-Latin characters (like, say, Hebrew characters). This is resolved.
CRQ-5788	An <code><area></code> DITA element, representing an area inside an image map, rendered as an HTML <code><a></code> element when it should be an HTML <code><area></code> element. This is now resolved.

ID	Description
CRQ-3581	Unlike standard storage configuration in the Storage Layer configuration file, <code>cd_storage_conf.xml</code> , State Store storage configuration in the Content Deployer configuration file, <code>deployer-conf.xml</code> , only allowed you to configure connecting with SID. It did not enable you to set a <code>serviceName</code> property, but it does now.
CRQ-3116	The Unix version of the express installation script <code>quickinstall.sh</code> did not accept the <code>--all</code> switch. It does now.

Fixed issues in Content Delivery 10.1.1

As of SDL Tridion Docs 13 SP1, the product is compatible with Content Delivery 10.1.1, which fixes a number of issues.

ID	Description
CRQ-3725	Publish transactions sometimes remained stuck in the status "Ready to Transport", reporting the error <code>Error while trying to reserve spots!</code>
CRQ-5725	Searching using the <code>wildCard()</code> method did not always yield the same result as making an equivalent non-wildcard call.
CRQ-5723	Calling the <code>.groupedAnd()</code> method did not yield the same result as calling a chain of <code>.and()</code> methods.
CRQ-5728	It was not possible to search with escaped double quotation marks.
CRQ-5827	The IQ Query Service was able to retrieve search results, including page content, without OAuth authentication.
CRQ-5840	Condition values containing non-Latin characters were incorrectly decoded in the back-end, causing incorrect condition processing
CRQ-5788	<code><tccl:Link></code> tag with an <code>htmlElementName</code> attribute set to <code>area</code> was converted to the HTML <code></code> instead of the correct HTML, <code><area href="..."></code>
CRQ-6927	Custom metadata key-value pairs were not processed correctly when filtering comments for UGC.
CRQ-8353	UGC did not include milliseconds in its date responses (<code>CreationDate</code> and <code>ModifiedDate</code>).

Known issues in Content Delivery

The following list describes issues that are known to exist in Content Delivery.

In a search query, the `sortBy` parameter only works with metadata text fields

By default, search results are returned sorted by score. You can use `sortBy` to sort search results by a field instead. The main use case for sorting on field content in a search would be for criteria-based searches that return a small number of results; say, a search that returns all pages that have a particular metadata field, sorted by another metadata field. In this scenario, the field to sort by will typically be an alphanumeric custom metadata field. The known issue is that `sortBy` only works if the field is a metadata field, and only if that metadata field is a text field.

Publishing to a Dynamic Delivery output fails if the publication contains a topic without a <title> element

If you attempt to publish a publication to a Dynamic Delivery output that contains topics with no <title> element, then publishing fails with the following message in the logs: 'Failed to deploy 'ZIPFILE' because of Error: Step execution failed with message: Couldn't parse title from meta.', where ZIPFILE is the name of a zip file that Content Delivery was attempting to deploy.

To work around this problem, ensure that all your topics have <title> elements, which are set to a nonempty value.

PoolParty projects whose concepts have labels in variants of the same language are not supported

If the PoolParty project you use as an external taxonomy contains concepts with labels in multiple variants of the same language (for example, US English (en-US) and British English (en-GB), then deployment of these concepts will fail.

Semantic Content Model does not support metadata for Keywords

If you include Keywords in your Semantic Content Model, any metadata that these Keywords might have (as defined in an accompanying Metadata Schema) is not supported and cannot be queried from the published website.

Semantic Content Model does not support ECL items

The Semantic Content Model does not support ECL (External Content Library) items. That includes PoolParty external taxonomies.

A GraphQL query with a Boolean expression with three or more operands does not give correct results if groupBy is not used

When constructing a GraphQL query that contains a Boolean expression with three or more operands, it makes sense to want to construct a query of the following form:

```
criteria:{
  O1,
  or: {
    O2
  }
  or: {
    O3
  }
}
```

where O1, O2 and O3 are the operands of the Boolean expression.

However, even though they are executed as if they are valid, such queries give incorrect results. For example, a query with operands like above may yield *fewer* results than a query with two of the three operands. This is obviously false: the three-operand query should always yield *as many or more* results.

The correct way to construct a Boolean expression with three or more operands is by using `groupBy`, as follows:

```
criteria:{
  {
    groupBy: {
      O1,
      or: {
        O2
```

```

    }
  },
  or: {
    o3
  }
}

```

In faceted search, concept IDs are case-sensitive

When constructing a GraphQL query that makes use of the faceted search feature, keep in mind that any concept IDs you enter are case-sensitive. This is a known limitation.

Creating an embedded Schema called Link creates problems with Semantic Content Models

If you try to access an embedded field in an embedded Schema that you have named `Link`, your query can yield errors or unexpected results. To work around this issue, give your embedded schema a different name.

The OpenSearch Ingest plugin cannot reliably identify the language of a binary component

As part of indexing a binary item, the OpenSearch Ingest plugin returns a property `binaryLanguage`, set to the presumed language of the binary content. However, the language identifier is often not correct. RWS recommends not to use this property, as it is not reliable.

Content that fails to be deployed may still get indexed in OpenSearch

If deployment of content to the Content Data Store fails, that same content may still have been successfully sent to OpenSearch, and indexed there. This in turn leads to your content being findable through search, but not retrievable.

Metadata for Regions in Pages is not indexed

If a Page contains one or more Regions, then any metadata fields associated with the Region(s) does not get indexed when the Page is published.

Some versions of Apple iWorks files cannot be indexed

This problem may occur if you have any of the following Apple iWorks file types configured in a Multimedia Schema in Content Manager:

Application	File extension
Keynote	<code>.key</code>
Pages	<code>.pages</code>
Numbers	<code>.numbers</code>

To index files of these types, you would include these extensions in your Pipeline configuration. But publishing may sometimes fail, because files of certain versions of these file types fail to index. Refer to [this Apache Tika API reference page](#) to learn which versions of Apple iWorks file types are supported, and which are not.

After loading an Add-on, affected microservices must be restarted

After uploading an Add-on containing Extensions to Content Delivery microservices, you must restart each microservice that has been extended in order for the Extension or Extensions to take effect.

No status is reported if the same Extension is loaded twice from two different Add-on packages

If you upload two Add-ons, both of which contain the same Extensions to a Content Delivery microservice, the microservice does not report a problem, even if in fact, the two Extensions cause a conflict.

If multiple base URLs were specified when configuring a Content Delivery environment in Topology Manager, Content Delivery queries return a random base URL

In Topology Manager, the `Add-TtmWebsite` script for configuring a website allows you to specify a list of one or more base URLs for the website. Specifying multiple base URLs can be useful if visitors access your website using multiple base URLs, say, by the site's IP address or by a hostname.

However, with the website configured this way, a Content Delivery query return a URL that randomly uses one of the base URLs specified. For example, imagine that you have set the `BaseUrls` property of the `Add-TtmWebsite` command to `"http://myhost:84/"`, `"http://122.3.4.5/"`, and that your website runs the following query to get an image called `example.jpg`:

```
{
  tcm_binary: link(namespaceId: 1, publicationId: 5, itemId: 258, type:
    BINARY) {
    url
  }
}
```

The response to this query would now randomly be one of the following:

```
http://myhost:84/example.jpg
```

or

```
http://122.3.4.5/example.jpg
```

To prevent this from happening, set `BaseUrls` to a single value when you run the `Add-TtmWebsite` script.

Content API filtering on a Float format returns null

Here is an example of a GraphQL Content API query that does not return proper results, but instead returns null:

```
{
  publications(namespaceId: 2, filter: {value: "ishlogicalref.object.id=
    1312760.0", valueType: FLOAT, queryType: CUSTOM_META}) {
    edges {
      cursor
      node {
        publicationId
        itemType
      }
    }
  }
}
```

Large sitemaps may lead to connection timeout errors

On a Java/JSP site, out of the box, the value of the `ConnectionTimeout` attribute in the client configuration file, `cd_client_conf.xml`, may prove too short for retrieving a large sitemap. To work around this issue, increase `ConnectionTimeout` to a value that can handle your sitemap.

Custom number fields turned to float

Integer and number values are stored in a float column type in the Content Delivery broker database. Therefore the values are rounded when they are retrieved. This may introduce inaccuracies for certain decimal numbers. This affects only custom fields.

Content Service throws null pointer exception in response to a query with a non-existent URL

When using the dynamic metadata API to get back Page metadata for a URL that does not exist, the Content Service throws a null pointer exception, rather than a friendly and informative error message.

Publish transactions fail in a high-volume publishing scenario

If you are executing a high-volume publish, you might find that some publish actions fail.

This is due to incidental conflicts that occur when the Content Data Store database is updated. Content Delivery has a fallback mechanism to deal with this problem: it retries the deployment of the content for up to 10 times. But if the number of conflicts is too high, this may not be enough.

If this happens, you have the following options:

- You can set up your Content Deployer as a separate endpoint and worker, and set up multiple Content Deployer workers so that you can handle high-volume publishing.
- If you want to limit yourself to a single Content Deployer worker, contact RWS Customer Support to obtain the latest hotfixes for Tridion Docs 15.1, and go through the Troubleshooting section to learn how to fine-tune your Publisher and Content Deployer.
- Finally, you can republish the content that failed.

The Content Interaction Library cannot be used to render JSP or ASCX fragments

It is not possible to render dynamic component presentations based upon ASCX Web Controls or JSP Script fragments through the client-side Content Interaction Library. Instead customers should publish their content using the Render Engine Language (REL).

PageContentAssembler limitation

When you use this class, the file system page name must match the Page name in Content Manager. If not, Experience Manager cannot render correctly using the Context Interaction Database.

A Taxonomy Keyword with multiple parents can no longer retrieve its multiple parents

In the event that a Keyword in your Taxonomy has multiple parents, a call to `primaryKeyword.getParentKeywords()` used to be able to retrieve said parents. But this API call no longer works properly.

Context Engine Cartridge does not work in combination with Footprint functionality in Experience Manager

Because the Footprint functionality overrides an Ambient Data Framework Claim indicating browser model, but not the user agent Claim, unexpected behavior occurs. This is because the Context Engine Cartridge determines the value of its `browser.model` property on the user agent.

What's new in Dynamic Documentation

This section describes new or changed functionality in the presentation environment for Tridion Docs, known as Dynamic Documentation web application, or Dynamic Documentation for short.

New and changed in Dynamic Documentation

New or changed features and functionality in Dynamic Documentation.

New and changed in version 1.2.0

An overview of major changes with release 1.2.0 of Dynamic Documentation.

Commenting

The commenting feature in Dynamic Documentation is complete with this release.

Commenting dashboard

The Comment Dashboard is accessible from the Content Manager Web Client. It enables you and approved users to manage the feedback left by visitors, and to take specific actions based on your assessment of them. Specific things you can do include:

- View all comments in the system.
- Reply to a visitor's comment.
- View, edit, change status, delete individual comments.
- Select and delete multiple comments.
- Use a link from the comment to view the original topic.
- Filter the comments based on properties such as dates, language, publication, comment status and user.
- Change the status of a comment from New to Approved, Declined or Completed.

Commenting pane in Content Manager

With a publication open in Dynamic Documentation, visitors can leave comments on the pages they visit.

Architecture

The Commenting feature is composed of the following elements:

- The User Generated Content (UGC) service in Content Delivery.
- UGC-related client APIs in the Content Delivery CIL.
- The ISH UGC module in Dynamic Documentation.
- A commenting pane UI in Dynamic Documentation
- A commenting dashboard UI for managing comments accessed from the Web Client.

Product family and multiple version support

Enhancements to navigation in the Dynamic Documentation includes improved support for product families.

The main navigation can be viewed as belong to the following three levels:

- All product families — The Home Page lists all product families. You can now classify the same publication as part of multiple product families and reorder product families on the front page.
- Product Family — When you select **View More** for a Product Family on the Home Page, the page displays all Publications in the Product Family version. If there are multiple versions of a Product Family, the page include a drop-down list for selecting alternative versions.
- Publication — For an individual Publication, the page displays the publication's root-level TOC entries. Selecting **View More** displays the full publication.

The following fields Content Manager now support multiple values and ordering:

- FISHPRODUCTFAMILYNAME
- FISHPRODUCTRELEASENAME

You can choose a publication of the desired product version from the Product Family dropdown list.

New and changed in version 1.1.0

An overview of major changes with release 1.1.0 of Dynamic Documentation.

A new presentation environment: Dynamic Documentation web application

The RWS Knowledge Center 13 introduces the Dynamic Documentation web application (Dynamic Documentation for short). Dynamic Documentation is a web application you can use to present DITA content published to Content Delivery.

Benefits of using Dynamic Documentation

Dynamic Documentation is:

- available for implementers as a RWS GitHub project: [Dita Delivery Web Application Customization examples](#)
- also provided in the product distribution as an example web site in the form of a WAR file (`web-app.war`)
- a single page, Java web application with responsive design and mobile support
- designed as a documentation portal
- built on top of the services provided by Content Delivery 10.1, such as content, query/index and, user generated content (commenting/community)
- highly extensible and customizable

This version includes the following:

- Content Delivery's Java API which is known as a Content Interaction Library (CIL), providing access to Content Delivery services.
- Digital Experience Accelerator(DXA), version 1.8.
- ISH modules named ISH, ISH UGC and ISH Search that are providing access to DXA functionality.

Dynamic Documentation, an example web application

When setting up your external presentation environment you can use the Dynamic Documentation to get started quickly. Dynamic Documentation is a Java web application that allows you quickly set up a working presentation environment based on the Content Delivery platform.

We built Dynamic Documentation with the following architecture:

- Based on Content Delivery.
- Communicates with Content Delivery via its API, which is known as a Content Interaction Library or CIL.
- The back end includes a Digital Experience Accelerator(DXA) layer, which facilitates setting up the DITA-based web application. In particular we have built and used three custom DXA modules named ISH, ISH Search and ISH UGC.
- For the front end we designed a modern, responsive graphical user interface or GUI.

Using and upgrading Dynamic Documentation

For changes to your web application you should be aware that Dynamic Documentation is subject to a relatively fast release cycle. Your implementers are encouraged to make changes to Dynamic Documentation that can be easily maintained after upgrades. Our list of configuration changes with backward compatibility is a guide for implementers. If you make changes that are not on this list, then you take the risk that after upgrading to a newer version of Dynamic Documentation, your web application may no longer work, or may no longer work as expected. Basic configuration changes with backward compatibility include:

- branding
- feature flags (toggle on/off)

- enabling/disabling widgets
- field configuration

You can install an example web site using the product distribution WAR file (`web-app.war`) for Dynamic Documentation to see how Dynamic Documentation works, but to develop your own presentation web application you should work from the SDL GitHub project: <https://github.com/sdl/dd-webapp-custom-examples/blob/master/docs/Getting-started.md>

Fixed issues in Dynamic Documentation

An overview of bug fixes and issues that were addressed in each release of Dynamic Documentation.

Fixed issues

These issues are fixed in Dynamic Documentation for the Tridion Docs 15.1 release.

Search

A search through content in a language other than the default language no longer produces results with titles only in the default language. Now the result titles are in the language of the searched content.

Images and multi-media

- Embedded videos were not appearing and could not be played.
- Images with a fixed size did not render properly and large images could not be viewed in their actual size.
Sometimes images need to maintain a fixed size, such as imagemaps that have clickable areas defined and these need to remain aligned with the image. You can give an image a fixed size within a topic by setting the `height` and `width` properties. DITA provides a `scaletfit` attribute, which achieves a fixed-size image when set to "no", but Dynamic Documentation ignored the attribute. Dynamic Documentation now maintains the `height` and `width` properties set for images, and it also provides scroll bars if the image is too big for the content pane.

Table of Contents and navigation issues

- The tree showed topic navtitles rather than the topic Title elements, as it should.
- Hovering over a tree node title or bookmark item should display a tooltip with the start of the topic's short description, but it did not.
- The panel did not properly word wrap words long titles, and was not resizable.
- Topic header titles in the sidebar are broken mid-word.
- A conref in a topic title did not appear in the TOC or breadcrumb.
- Tree panel would jump if you select a topic that occurs multiple times in the tree.

- Topic switcher dropdown appeared even if there was only a single item and it was not needed.
- Topic switcher dropdown does not take you to the same topic.

Topic formatting

- Some DITA elements were not rendering properly. The following problems in rendering have now been fixed with changes to the CSS for the Dynamic Documentation:
 - The `apiname` element should be rendered in a monospace font, but was not.
 - The `cmdname` element should rendered be in a monospace font, but was not.
 - The `filepath` element should rendered be in monospace bold, but was rendered in plain monospace.
 - The `option` element should rendered be in monospace font, but was not.
 - The `parmname` element should be in monospace font, but was instead rendered in bold.
 - Headers of a table should be rendered in mixed case, but were instead rendered in all caps.
 - The `varname` element should be rendered normally when used inside of a `codeblock` element, but it was missing the formatting (in this case, italic).
- In some instances, an entire topic appeared in italic font.
- The following issues with tables:
 - The space provided for tables was too small, and tables that were too large to fit displayed with a horizontal scrollbar.
 - Tables had centered headers when viewed in Internet Explorer.

Printing

Printing a page using the browser's built-in print option printed the entire page rather than the content pane.

When viewing a topic in Dynamic Documentation and you used your browser's Print option, the area printed included parts of the page that are not what a user typically wants to print, such as the navigation tree, and top banner. Now the printed area includes only the topic's title, body, and breadcrumbs. In addition, large images and tables are made to fit on the printable page without the need for scrolling.

Other fixed issues

- There was no way to connect a topic GUID to its URL, or vice versa. URLs no longer contain GUIDs, which is necessary for debugging purposes.
- The Front Page Management interface was not available.
- Filtered conditions were returned to their default values after the user refreshed the page.
- Publication was personalizable when it shouldn't be.

Known issues in Dynamic Documentation

The following list describes issues that are known to exist in Dynamic Documentation as distributed as part of the product as a WAR file (`web-app.war`).

Custom languages Dynamic Documentation

Using custom languages may result in content not being indexed, thus not searchable in Dynamic Documentation.

The search engine used in Dynamic Documentation requires the document languages to be added in the system settings with standard coding. Currently in Tridion Docs there is no validation or requirement for languages to follow standard coding such as for English, `en` or `en-us` or `en-uk`. If your system uses custom coding for languages, then you need to map your custom codes to standard 2-letter codes, or locales, in the Content Delivery configuration. For systems in which Content Delivery is hosted, you should ask RWS Customer Support to make this change for you.

Wildcards

Search will deliver no results if the search query you use includes wildcards. For example, if the word "mobile" is available in a topic presented by Dynamic Documentation, but your search query is "mob*le", then you will not find this word.

Fallback language (English) results

When using the search function, you should get results from content in both the search language and the fallback language. In Dynamic Documentation, the fallback language is English (`en`) and the search language is the current UI language. When the search language is non-English the results do not include hits from content in English as they should.

Also, while page title links should be displayed in English for an English topic, hits to pages in other languages are supposed to be displayed in the other non-English language. However we only display the page titles in the fallback language, English.

Comments

In the comment pane, users can leave comments together with their name and e-mail address. When a user uses the same browser session to add comments twice each time using a different name, then only the first name is shown for both comments after refreshing the browser. This is not the expected behavior. If two different users want to leave comments in a single browsing session, then you have two options between users: clear the browser data or start the browser in incognito mode.

Mobile devices

Minor displaying issues may be observed when viewing the pages on a mobile device.

What's new in Access Management

For this release, Access Management has these new features that support Tridion Docs functionality.

Access Management functionality introduced in Tridion Sites 10.1 Tridion Docs 15.1

Tridion Sites 10.1 Tridion Docs 15.1 introduces enhancements to the Access Management application. In particular, Access Management now enables you to build an even more comprehensive Single Sign-On experience with granular control over who can access to your applications.

Compatibility level for a Microsoft SQL Server database

To maintain performance stability when upgrading the Access Management database, this release adds support for the Microsoft SQL Server compatibility level.

Specifically, support is for compatibility level **150** on both of the following database versions:

- Microsoft SQL Server 2019
- Microsoft SQL Server 2022

By default, the script to create and upgrade the database sets the compatibility level with no manual configuration necessary.

Client secret expiration can be longer than one year

Client secrets for service accounts have a configurable expiration date. Previously, Access Management limited the expiration period to no longer than one year. As of this release, the default duration for expiration continues to be one year, but now you can, if necessary, extend the duration to beyond one year.

Remember authentication choice

In our cloud environment, customers encounter multiple identity providers (IdPs), but the majority consistently use a single provider. To streamline the sign-in experience, we've introduced a new feature: the **Remember my choice** checkbox on the Sign in screen. The new checkbox enables users to save their preferred identity provider as the default for future logins.

Once a user selects an identity provider and checks the box, their choice is saved to a cookie. These cookies persist across sessions, ensuring that users don't need to reselect their preferred IdP each time they sign in.

Users can reset their choice by signing out or manually clearing their cookies. Additionally, opening the browser in incognito mode will bypass the saved preference.