



# SDL Tridion Docs Release Notes

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***SDL Tridion Docs 14 SP1***

**December 2019**

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# **Welcome to Tridion Docs Release Notes**

This document contains the complete Release Notes for SDL Tridion Docs 14 SP1.

## Customer support

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

## Acknowledgments

SDL products include open source or similar third-party software.

### 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.

### 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.

### **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.

### **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.

### **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.

### **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.

### **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.

### **Config (Typesafe)**

A configuration library for JVM languages.

### **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.

### **Error Prone**

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

### **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.

### **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.

### **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.

### **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).

### **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.

### [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 SDL Trados Studio.

### **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.

### **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

### **Java 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](http://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](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.

### [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.

### [Logback](#)

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

### [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 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).

### [Minlog](#)

MinLog is a tiny Java logging library.

### [MVC Web Projects](#)

Auxiliary MVC Web Project libraries.

### [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+.

### [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 free logging platform for .NET, Silverlight and Windows Phone with rich log routing and management capabilities. NLog makes it easy to produce and manage high-quality logs for your application regardless of its size or complexity.

### [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.

### [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.

### [PATRICIA Trie in Java](#)

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

### [Postal.Mvc5](#)

Generate emails using ASP.NET MVC views

### [Project Reactor](#)

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

### [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.

### [React](#)

React is a JavaScript library for building user interfaces.

### [Reactive Streams](#)

A Protocol for Asynchronous Non-Blocking Data Sequence

### [Reactor Core](#)

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



### [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.

### [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.

### [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++.

### [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.

### [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.

### [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.

### [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.

### [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.

### [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.



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**1**

# **Release Notes - SDL Tridion Docs**

This section describes all that is new and changed in SDL Knowledge Center's capabilities and client tools for this version.

## What's new in Tridion Docs

This section provides a description of the high level changes introduced in Tridion Docs: changes that impact more than one capability.

### From Tridion Docs 14 to Tridion Docs 14 SP1

#### Review Space

Docs 14 SP1 introduces a new browser-based user interface called Review Space. Reviewers can use Review Space to create *annotations*, that is, to comment on, and suggest improvements to, content 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, the Draft Space interface can also be used to show, and respond to, annotations.

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

#### Collaborative Review obsolete

Collaborative Review has been made obsolete in Tridion Docs 14 SP1 in favor of Review Space. All the content related to Collaborative Review has been removed from this documentation.

Note that Tridion Docs 14 SP1 offers no solution out of the box to migrate comments that were submitted using Collaborative Review to Review Space. If you want to convert your Collaborative Review comments into Review Space annotations, we suggest that you arrange for a custom migration project that uses the APIs to perform such a migration.

### From Knowledge Center 13 to Tridion Docs 14

Knowledge Center was renamed Tridion Docs in the first service pack after the release of Knowledge Center 13. Some other product-level highlights are:

- Content Editor, based on SDL Xopus, is no longer part of Tridion Docs. Content Editor used to provide single-topic editing capabilities.
- Collaborative Review is now focused on reviewing capability. The removal of Content Editor means that the **Edit** button and single-topic editing is gone.
- Legacy Content Delivery, also known as Reach-External, is no longer delivered.
- Reference Implementation is replaced by Dynamic Documentation, which is a specific module on DXA starting version 2.1. Dynamic Documentation reproduces the features that Reference Implementation provided.
- Quality Assistant, also known as Enrich, is no longer part of Tridion Docs.
- Proper OASIS DITA specialization is now standard across the solution.
- **BatchImport** is no longer part of Tridion Docs. A massive refresh of Content Importer is the alternative.



- Content Manager public API 2.0 have been removed. Alternative API 2.5 were already available for multiple releases. See "Content Manager API compatibility across releases" on page 53

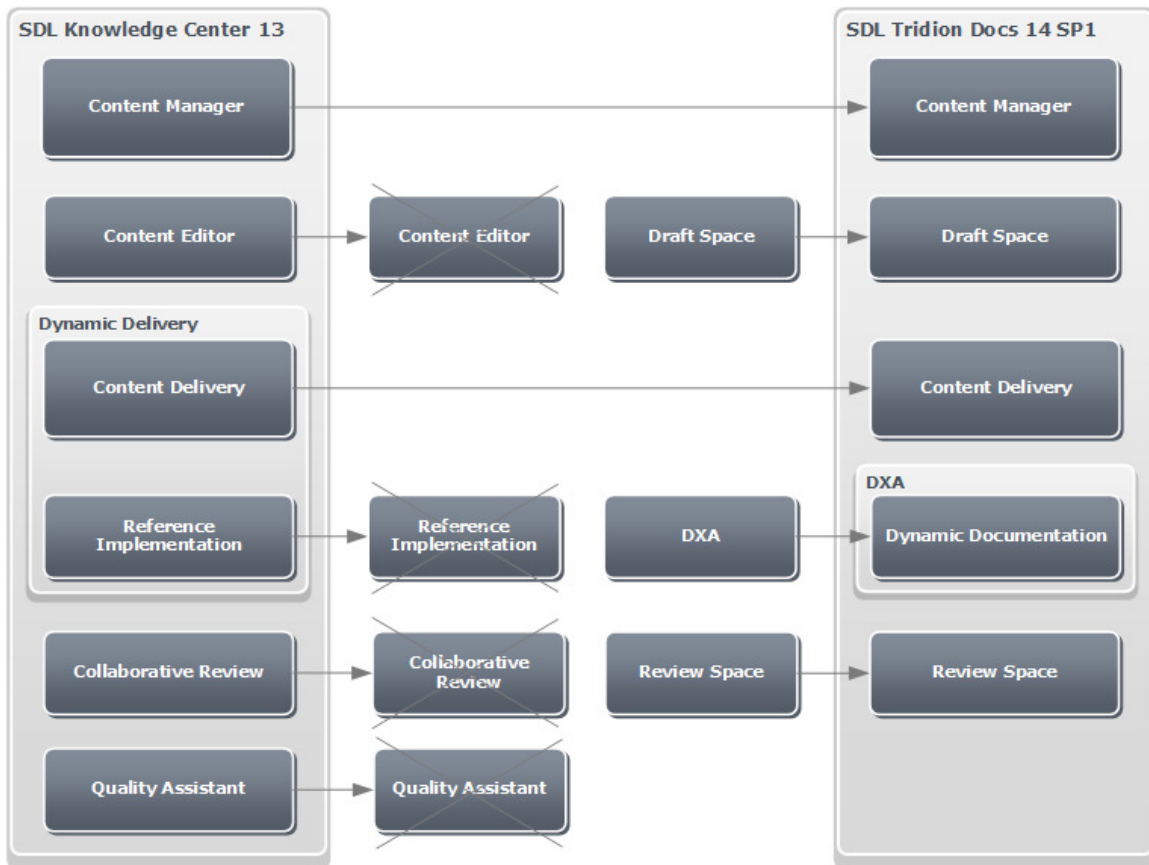


Figure:

## What's New in Content Manager

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

### New and changed

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

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

## 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, SDL provides platform support for up to two versions of any given platform to provide more flexibility in how organizations incorporate vendor changes. Typically, SDL 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 RDBMs 19.3.0.0.0
- 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 RDBMs database systems performance, setup or process.

### Empty database

This applies to both Microsoft SQL server and Oracle RDBMs.

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 RDBMs

We are now supporting Oracle 19.

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 RDBMs 19c. We expect all Oracle RDBMs 19c 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 RDBMs 12c that gathers statistics on the fly during query execution. When set 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 RDBMs 19c 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 SDL Tridion Sites Content Manager WebDAV URLs rather than SDL 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 SDL 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 SDL 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, SDL provides platform support for up to two versions of any given platform to provide more flexibility in how organizations incorporate vendor changes. Typically, SDL 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 RDBMs 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. Validation and clean-up of pre-translations are performed on the server.

### 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 the Web Client 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 the Web Client, 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 of Content Manager: **XML Publish Plug-In Settings**.

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 of Content Manager: **XML Publish Plug-In Settings**. 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

Issues that were fixed from Content Manager are described.

### 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 `ishtype= ISHPublication` is filtered `in` for the publication properties dialog and filtered `out` for the publication output properties dialog.
  - A condition `ishtype= 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

The following are known issues in this version.

### Web/App/DB Servers

- 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.
- 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]
- 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]
- This warning `Trisoft.InfoShare.BackgroundTask.Entities.NewProcessTaskHost.SendForceShutdown Calling ServiceMustClose resulted in exception System.ServiceModel.EndpointNotFoundException` is logged if the parent process is asked to stop (either console CTRL-C or service panel). The parent `BackgroundTask.exe` communicates to all its running tasks to stop. In case a running task is handled through a new process, so a child `BackgroundTaskIso.exe`, it can happen that the `BackgroundTaskIso.exe` process is already stopped when the disposal of the newproc task happens, resulting in the above warning. [TS-9037]
- *Light weight Windows Authentication* based on ISHSTS is not Network Load Balancing (NLB) ready. We only describe the steps to set up a single FrontEnd Web/App server when using our ISHSTS for Windows Authentication. The reason is that making ISHSTS NLB-friendly requires a big investment to something we do not consider our core business - there are free alternatives like Microsoft Active Directory Federated Services (ADFS) provided as a free role with a Windows Server.
- When using a web browser to ISHSTS, therefore using Content Manager as your identity provider with registry entry `AuthMaximumPasswordAge` enabled, the system can return the message *Your password has expired. Please enter a new password or contact your system administrator.* The Client Tools rely on the active protocol (WS-Trust) for authentication where we cannot easily distinguish between a regular no access or a no access because your password is expired like we could do for the Web Client which is based on the passive protocol (WS-Federation). So when a user has a doubt



about password expiration, he should use his Web Client where he will also find a Change Password link on the login page. [TS-9465|TS-9433]

- We strongly advise to redirect your custom integration to `DocumentObj25/`  
`PublicationOutput25` instead of using the deprecated classes `DocumentObj20/`  
`Publication20/PublicationOutput20`. When throughput is important, the 2.0 code base might throw timeout errors like  
`Trisoft.InfoShare.API25.InfoShareException: Timeout expired. The timeout period elapsed prior to completion of the operation or the server is not responding.` If you use both the 2.0 and the 2.5 code base, you might also see errors like `System.Data.SqlClient.SqlException (0x80131904): Timeout expired. The timeout period elapsed prior to completion of the operation or the server is not responding. ---> System.ComponentModel.Win32Exception (0x80004005): The wait operation timed out.` The main reason is that the COM+-based 2.0 calls force `Serializable` on the transaction, potentially making all calls wait. This problem is solved when you switch your custom code to the 2.5 API calls. This is what we did for all of our client tools (Publication Manager, Authoring Bridge, Content Importer, etc). [TS-8739]
- Failed transactions block any further update on locked content objects (`DocumentObj`) or publication outputs (`PublicationOutput`) requiring manual actions to roll back the transaction. The following characteristics identify the problem:
  - `ORA-01591: lock held by in-doubt distributed transaction trans_id` or `ORA-02049: time-out: distributed transaction waiting for lock in the log files.`
  - The Microsoft Component Services panel holds entries marked with (only failed to notify) in the **Distributed Transaction Coordinator > Local DTC > Transaction List**. For example `ISAuthor.CPublicationOutput` (only failed to notify) or `ISAuthor.CDocument` (only failed to notify). All environments having this problem have the Oracle password expiration options set for our designated database user - typically `isource`. Usually near expiration time you'll see the messages appear like `ORA-28001: the password has expired` or `ORA-28002: the password will expire within x days`. We advise you to contact your DBA on this, the following statements are provided for convenience only:
    1. First check which profile `ISOURCE` is using: `SELECT profile FROM dba_users WHERE username='ISOURCE';`
    2. Optional query to show all the limit settings of this profile: `SELECT resource_name,limit FROM dba_profiles WHERE profile='DEFAULT';`
    3. Change the default profile to set the password lifetime to unlimited: `ALTER PROFILE DEFAULT LIMIT PASSWORD_LIFE_TIME UNLIMITED;`
    4. After setting the password lifetime you have to reset the password again. You can set it to the same password as it was: `ALTER USER isource IDENTIFIED BY isource;`
    5. We advise you to restart the database and any web/app server.
  - In case of network stability or connection problems (such as `ORA-03113 end-of-file on communication channel`) we advise you to setup the Oracle Microsoft Transaction Server (MTS) Recovery Service as documented on [http://docs.oracle.com/cd/E11882\\_01/win.112/e26104/recovery.htm#NTMTS003](http://docs.oracle.com/cd/E11882_01/win.112/e26104/recovery.htm#NTMTS003). This service resolves in-doubt Microsoft Transaction Server transactions. [TS-7822]
  - The EventMonitor logging system potentially shows the wrong final status `FAILED` in the overview when it actually was a `SUCCESS`. A failure is logged, but then the generic or the PublishService retry mechanism is started, that potentially results in a success.



The EventMonitor logging system then `CALCULATES` the result in the overview.  
[TS-8560]

- The automated shut down of the `Trisoft-InfoShare-AuthorIso` failed application sometimes results in `Invalid syntax`. You can ignore this message.
- 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 `StartReindex.bat` and restart the Trisoft InfoShare Crawler service.

## 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 `\TrisoftSolrLucene\SolrLuceneCatalog\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

- Only 64 bit versions of the XML editors are supported.
- 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 where 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].
- 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]

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**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`

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- 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]
- 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]
- 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]
- Although multiple third-party XML editors are supported in this release of Content Manager, use of a single third-party editor is recommended. SDL 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, SDL 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]
- Although not supported, when installing Client Tools 10.0.3 on a Server 10.0.0/10.0.1/10.0.2 you might run into a compatibility issue. The reason is that the `Trisoft.Utilities.ServiceReferences.dll` assembly has been extended with a new class to do WCF http compression in the .NET 3.5 world. The Client Tools MSIs are not always allowed to overwrite the server-side's older version of the assembly. This results in messages in the line of *Unable to establish a connection with the web services on or Could not load type 'Trisoft.Utilities.ServiceReferences.WebClients.CompressibleHttpRequestCreator'* [TS-7169]
- **Search > Advanced options;** searching on a version is always done on `AllVersions` [TS-4222]
- 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]
- In `ServiceReferences` there is no check about the ability of a user to enter the application. So the authentication works but Content Manager or Collaborative Review might still block authorization by a `ProfileMismatchException`. [TS-4292]
- Client Tools using SSL might crash when using a URL that doesn't match the certificate. [TS-571]
- Client Tools cannot handle Content Manager accounts that contain a slash (/) or backslash (\) because it confuses them while handling other authentication requests coming from Secure Token Services or Proxies that potentially require NTLM/Windows authentication. [TS-8312]
- When using a secured proxy, the client tools browser component could popup an extra authentication dialog. [TS-4680]
- 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 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!
- 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]

### Content Editor

- When using Chrome 56 in certain scenarios, an error is thrown stating that there is "No XSL output". Read more about this issue and a suggested workaround in this SDL community blog post: <https://community.sdl.com/developers-more/developers/xopus-developers/b/weblog1/posts/how-to-work-around-the-no-xsl-output-error-in-chrome-56>.
- When working with an IME, the composition of a character does not start on the first keystroke when typing over a text selection. To work around this issue, first press the `Backspace` or `Delete` key to remove the selection, and then start composing characters as normal.

### PTC Arbortext Editor

- With Arbortext 7.1, trying to change an `href` attribute from the **Document Map** fails to open the "Browse Repository" dialog. Workaround: right-click on the element and select **Modify attributes**, then select ... to open the 'Browse Repository' dialog [SCTCT-255].
- The **SDL Tridion Docs** menu and the **Insert Markup** action to insert elements works and will trigger the necessary Authoring Bridge dialogs. All other functionality such as the direct **Insert** menu items cannot properly be redirected to the RepositoryAdapter and pops-up with Arbortext Editor's file system integration.
- `Conrefend` attribute is not displaying in the **Modify attributes** window.  
The `conref` attribute was removed from the Modify Attributes dialog. Use the menu option, **SDL Tridion Docs > Conref > Insert Conref** in the editor to insert a `conref` or a `conref` range. [TS-5593]
- The `conref` attribute was removed from the **Modify Attributes** dialog when you have a Content Manager document opened in the Arbortext Editor. Users must use the menu item, **SDL Tridion Docs > Conref > Insert Conref**, to insert a `conref` or a `conref` range in their document.

### JustSystems XMetaL

- When using the **Find in Files** functionality in XMetaL 12, performing a replacement requires that you create a new version or branch for the **Released** (and checked in) objects. Then XMetaL produces an `Unable to make changes...` error when trying to perform the replacement in the new version or branch. You need to redo **Edit > Find in Files** to let XMetaL include the new version or branch.
- When using, from the SDL 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 like in SDL LiveContent Architect 2013 when installing the Authoring Bridge for XMetaL on Windows machines 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 `&quot;`, `&lt;`, `&gt;`, `&amp;`. 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&amp;D'` and `version &gt; 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 **SDL 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 **SDL 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]

### Content Editor

- Inline elements are not pasted into codeblocks, or other space-preserving elements. Only the text, and not the accompanying inline elements are pasted when you are pasting into a codeblock or other space-preserving elements. For example if you were copying a code sample that includes an inline `b` (bold) element and then tried to paste this, the result is only the text of the code sample will be pasted. We do not paste the bold or other inline elements.
- Selecting a range of contiguous `conref` targets is not supported in Content Editor. [LCDE-385 | LCD-2229]
- When copying content in the tags on view in Internet Explorer, the text of the tags is copied to the clipboard as well.
- Processing instructions for placeholders (`xm-replace_text`) inserted using the API after loading the document are not recognized as placeholders.

### 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]
- When you change the Review End Date of a publication output in Publication Manager or Web Client after the output was already published, the status is changed to Out

of date (working as designed). Note that when any metadata field is changed on the publication output, the status of the publication output is changed to Out of date. This happens because the metadata (in this example, the Review End Date) may have been used in the publication (e.g. on the front page), therefore the published result can now be out of date. [TS-3093]

- 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.
- Comments pane title in Publication Manager does not resize correctly. For screen resolution settings 1024x768 and lower, the Comments pane display in Publication Manager may have display issues. [SCTS-168]
- 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]

### Web Client

- The List Views in the Web Client cannot display taxonomy fields. As a consequence, a search or a report cannot 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** displays a link that partially covers the buttons. This makes using the buttons difficult [SCTW-818].
- List Of Values entries holding a single (') or double (") quote could cause unexpected behavior in some locations. In general we suggest to avoid these characters in values for readability. For example a single quote in a status will make the **Initial Statuses** page return `HTTP 500`. [TS-10462]
- 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]

- You can create a logical ID with spaces. However, when you try to use a template to create the initial document, this will return errors in the line 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. In a future version we will completely forbid usage of spaces in identifiers. [TS-2110]
- The sorting result on Inbox items is not correct. Uppercased letters come before lowercased ones, which is the typically ASCII sorting order based on their numerical (not alpha) representation. [TS-2933]
- Actions triggered through the web client don't allow to update baseline entries. A triggered web client will reuse any existing baseline and initiate an auto complete action when required. For example, creating a publication in the web client and trying to get it to status **Released** will not work because at no point in time the baseline received version entries. [TS-8633]

## 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. Web client 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 or the web client.

## Publishing

- Using PublishService with options **Keep DTD system ID** off and **Keep fixed attributes** off will not work because post processing is not resolving the DTD when loading the XML. This causes exceptions such as *loading and converting file: C:\...\PublishingService\Data\DataExports\GUID-...\...\en\workset\...=GUID-...=1=en.xml ERR ISHPubUtil::ResolveFileNames -> Unable to load file [C:\...\PublishingService\Data\DataExports\GUID-...\...\en\workset\...=GUID-...=1=en.xml] into a DOM document for converting the link statements. Following error occurred: -2146697210* [TS-10431]
- 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]
- The `Web Help` output format might contain too many XML or image files. For example images could still be present that are part of the super-publication but might no longer be accessible through content object navigation because of conditional filtering. [SRQ-3035 | 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 `<tdl: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 *Eclips 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

## 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 and Restrictions

The following issues are deprecated, obsolete or restricted in Content Manager.

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

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**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).

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### Since Content Manager 14.0.0 (14 release)

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 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 13.0.2 (13 SP2 release)

Due to the complete removal of legacy code from Content Manager 13.0.2, the earliest version from which you can upgrade directly to SDL Tridion Docs 13 SP2 is SDL LiveContent Architect 2013 (10.0.0). Upgrading from earlier versions requires that you first upgrade to SDL Knowledge Center 2016 (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)
- SDL WorldServer 10.4.4

### Since Content Manager 13.0.1 (13 SP1 release)

There are evolutions for software support in the 13 SP1 release triggered by the XML Editors. 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 (32-bit)

- <oXygen/> XMLAuthor/Editor 17 (32-bit)
- Arbortext Editor 7.0 (32-bit)

### Since Content Manager 13.0.0 (13 release)

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 RDBMs 11.2
- Microsoft SQLServer 2012 SP3
- JustSystems XMetaL 10.0
- JustSystems XMetaL 10.0 Japanese
- <oXygen/> XMLAuthor/Editor 16
- Microsoft Internet Explorer 10

### Since Content Manager 12.0.X (2016 release)

- New environments using the Oracle RDBMs should install Content Manager on Oracle RDBMs 12c. Oracle RDBMs 11g is currently in extended support and only allowed to be used to softly migrate existing environments. The documentation's Content Manager installation instructions no longer include Oracle 11g specific tasks.
- PreTranslation was promoted to a public interface as part of <infoShareExtensionConfig> called <targetxmlfilegeneration>. Our implementation of PreTranslation based on this new interface is marked as deprecated.
- BatchImport, visible in the Web Client's user interface **Tools** section, is marked as deprecated. More technically, background task implementation of handler ISHBATCHIMPORT implemented by ISHBatchImport\*. CBatchImport is deprecated.
- BatchPerformAction, visible in the Web Client's user interface **Inbox** section or **Reports**, is marked as deprecated. More technically, background task implementation of handlers BATCHPERFORMACTION and RELEASETRANSLATIONS implemented by ISAuthor\*. CInboxView are deprecated.
- Background task implementation of handler DELETETRANSLATIONS is obsolete.
- All programmer's interfaces are now fully natively .NET. In 11.0.0 we introduced IWrite\* plugins as replacement for IOnDocStore and ICustomerFunction. In 11.0.1 we introduce IBackgroundTaskHandler to replace IEventHandler. This marks the IEventHandler interface as deprecated; and IOnDocStore and ICustomerFunction

interfaces are obsolete as they are technically no longer available.

- The `FSDLLIVECONTENTSKIN` field has been made obsolete. It was the database field used for the OutputFormat 'Skin used' property, which has been removed from the OutputFormat properties screen.
- The *Analytics* feature, as well as the audit trail functionality and configuration options, are marked as deprecated in this release.

The support for the following software components is marked as deprecated in this release:

- Microsoft Windows 7
- Microsoft SQL Server 2012 (all service packs)
- Oracle RDBMs 11.2
- Microsoft Active Directory Federated Services 2.X (ADFS 2.0; part of Windows 2008R2/x64 and ADFS 2.1; part of Windows 2012/x64)
- JustSystems XMetaL 9.0
- <oxygen> XML Author/Editor 16 (32bit)

The support for the following software components is obsolete in this release:

- Microsoft Windows 2008R2/x64 (all service packs) as mainstream support ended January 2015
- Microsoft SQL Server 2008R2 (all service packs)
- Microsoft XML Parser 4.0 (all service packs) obsolete for Content Manager 12.0.3 and later
- Java 7 as support ended April 2015
- JustSystems XMetaL 8.0/8.0J (Still available in the MSI but no longer supported)
- <oxygen> XML Author/Editor 15 (32bit)
- Arbortext Editor 5.X/6.X as standard support ended April 2015
- Adobe FrameMaker (all versions)
- Reusable Objects. Please contact SDL Support to discuss your usage and legacy conversion through deprecated API call `DocumentObj20.GetDocObj`. [TS-4673].

### Since Architect 11.0.X (2014 release)

- All programmer's interfaces are now fully natively .NET. In 11.0.0 we introduced `IWrite*` plugins as replacement for `IONDocStore` and `ICustomerFunction`. In 11.0.1 we introduce `IBackgroundTaskHandler` to replace `IEventHandler`. This marks the `IEventHandler` interface as deprecated; and `IONDocStore` and `ICustomerFunction` interfaces are obsolete as they are technically no longer available.
- Client Tools *Offline* working mode is marked as deprecated. There are several technical challenges that don't allow us to offer the necessary experience and functionality in a mode when you are not connected to a repository. [TS-8796]
- The legacy option to have Translation Management correct the status of all previous versions if a later version was released has been removed. This option was already deprecated since the introduction of the `FISHSTATUSTYPE` field. The option **Default Settings > Enable out of date** has been removed.
- The usage of multiple contexts on either masters or publication versions through the

CTCONTEXT card type is deprecated. All endpoints in UI and web services are already removed.

- The support for the following software components is marked as deprecated in this release:
  - Microsoft Windows 2008R2/x64 (all service packs)
  - Microsoft SQL Server 2012
  - Oracle RDBMs 11
  - Adobe FrameMaker
  - Arbortext Editor 5.4
- The support for the following software components is obsolete in this release:
  - Microsoft SQLServer 2005 (all service packs)
  - Microsoft SQLServer 2008 (all service packs)
  - Oracle RDBMs 10.2.x (all versions) as Oracle Extended Support ends as of July 2013
  - Microsoft Windows XP (all service packs) as Microsoft Extended Support ends as of April 8, 2014
  - Microsoft Windows Vista (all service packs)
  - JustSystems XMetaL 6.0/6.0J
  - JustSystems XMetaL 7.0
  - <oxyen/> XML Author/Editor 14 (32bit)
  - Arbortext Editor 5.3
  - Microsoft Internet Explorer 8
  - Reusable Objects. Please contact SDL Support to discuss your usage and legacy conversion. [TS-4673].

#### 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, but we continue to support the ASMX API in this release. The ASMX API will not be supported in the next release and as a result, customers using the ASMX API should start 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.

### Version Overview

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 table — available for informational purposes only — indicates:

- 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, databases, 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 this table. 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.

	12.0.x / 2016	13.0.x / 13	14.0.x / 14
SDL Knowledge Center Publication Manager 12.0.x	S	-	-
SDL Tridion Docs Publication Manager 13.0.x	-	SStarting from 13.0.1 only Publication Manager (64-bit) is supported	-
SDL Tridion Docs Publication Manager 14.0.x	-	-	S
SDL Knowledge Center Authoring Bridge 12.0.x	S	-	-
SDL Tridion Docs Authoring Bridge 13.0.x	-	SStarting from 13.0.1 only Authoring Bridge (64-bit) is supported	-
SDL Tridion Docs Authoring Bridge 14.0.x	-	-	S
SDL Knowledge Center Condition Manager 12.0.x	S	-	-
SDL Tridion Docs Condition Manager 13.0.x	-	SStarting from 13.0.1 only Condition Manager (64bit) is supported	-
SDL Tridion Docs Condition Manager 14.0.x	-	-	S
SDL Knowledge Center Content Importer 12.0.x	S	-	-
SDL Tridion Docs Content Importer 13.0.x	-	SStarting from 13.0.1 only Content Importer (64-bit) is supported	-
SDL Tridion Docs Content Importer 14.0.x	-	-	S
SDL LiveContent Reach 7.3	D	-	-
SDL Knowledge Center Content Delivery 7.4	S	-	-
SDL Knowledge Center Content Delivery 7.5	S	D	DSupport removed in 14SP1/14.0.1 as publicly announced on 14/14.0.0.

	12.0.x / 2016	13.0.x / 13	14.0.x / 14
SDL Knowledge Center Collaborative Review 7.6	S	S	DSupport removed in 14SP1/14.0.1 as publicly announced on 14/14.0.0.
SDL Tridion Docs Collaborative Review 7.7	-	S	DSupport removed in 14SP1/14.0.1 as publicly announced on 14/14.0.0.
SDL Tridion Docs Content Delivery (UDP) 10.1.0	-	S DXA for Dynamic Documentation (DDWebApp) 1.1.0 (Java)supports DXD 10.1.0.	-
SDL Tridion Docs Content Delivery (UDP) 10.1.1	-	S Starting from 13.0.1 DXA for Dynamic Documentation (DDWebApp) 1.2.0 (Java) supports DXD 10.1.1.	D
SDL Tridion Docs Content Delivery (DXD/UDP) 11.0.0	-	- Starting from 13.0.2 DXA for Dynamic Documentation (DDWebApp) 1.2.1 (Java) and 2.1 (.NET) supports DXD 11.0.0.	S DXA for Dynamic Documentation (DDWebApp) 2.1 (Java) and 2.2 (Java/.NET) supports DXD 11.0.0.
SDL Tridion Docs Content Delivery (DXD/UDP) 11.1.0	-	-	S DXA for Dynamic Documentation (DDWebApp) 1.2.1 (Java) and 2.2 (Java/.NET) supports DXD 11.0.0.



	12.0.x / 2016	13.0.x / 13	14.0.x / 14
SDL Web 8.5	-	S Support added in 13.0.1 via Tridion Sites Taxonomy Connector	S
SDL Tridion Sites 9	-	S Support added in 13.0.1 via Tridion Sites Taxonomy Connector	S
SDL Tridion Sites 9.1	-	-	S
SDL TMS 2011 SP4 CU2	D	-	-
SDL TMS 2011 SP5 CU2	D	-	-
SDL TMS 2011 SP6 CU1	S	-	-
SDL TMS 11.0.x	S	S	D
SDL TMS 11.1.x	S	S	D
SDL TMS 11.2.x	S	S	D
SDL TMS 11.3.x	-	S The earliest TMS version that supports the translation reject flow.	D
SDL TMS 11.4.x	-	S Support added in 13.0.1	D
SDL TMS 12.0.x	-	S Support added in 13.0.1	D
SDL TMS 12.1.x	-	-	D
SDL TMS 12.2.x	-	-	D
SDL TMS 12.2.x	-	-	S
SDL TMS 12.3.x	-	-	-
SDL TMS 12.4.x	-	-	-
SDL WorldServer 10.4.4	S	-	-
SDL WorldServer 11.0.x	S	S	D

	12.0.x / 2016	13.0.x / 13	14.0.x / 14
SDL WorldServer 11.1.x	S	S	D
SDL WorldServer 11.2.x	-	S Both SOAP and REST API protocol can be used, default is REST. Use REST API protocol to support the new translation reject flow.	D Both SOAP and REST API protocol can be used, default is REST. Use REST API protocol to support the new translation reject flow.
SDL WorldServer 11.3.x	-	S Both SOAP and REST API protocol can be used, default is REST. Use REST API protocol to support the new translation reject flow.	D Both SOAP and REST API protocol can be used, default is REST. Use REST API protocol to support the new translation reject flow.
SDL WorldServer 11.4.x	-	-	S Both SOAP and REST API protocol can be used, default is REST. Use REST API protocol to support the new translation reject flow.
SDL WorldServer 11.5.x	-	-	S Support added in 14.0.1
SDL WorldServer 11.6.x	-	-	S Support added in 14.0.1
SDL Quality Assistant 2.2.0	S Verified for Content Editor integration.	S Verified for Content Editor integration.	-

	12.0.x / 2016	13.0.x / 13	14.0.x / 14
SDL XPP 9.1	S	S	D
Microsoft Windows 7	D	-	-
Microsoft Windows 8.1	S	DStarting from 13.0.1 only Microsoft Windows 8 / 8.1 (64-bit) is supported	D
Microsoft Windows 10	S	SStarting from 13.0.1 only Microsoft Windows 10 (64-bit) is supported	S
PTC Arbortext Editor 6.0 (32-bit) support files	D Note that 6.0 doesn't support various DITA 1.2 features like keyref or conref ranges.	-	-
PTC Arbortext Editor 7.0 (32-bit) support files	S	-Support removed in 13.0.1 for PTC Arbortext Editor 7.0 (32-bit)	-
PTC Arbortext Editor 7.1 (64-bit) support files	-	SSupport added in 13.0.1 for PTC Arbortext Editor 7.1 (64-bit) - verified on F000	S
JustSystems XMetaL 9.0 (32-bit) support files	D	-	-
JustSystems XMetaL 10.0 / 10.0 (Japanese) (32-bit) support files	S	-Support removed in 13.0.1 for JustSystems XMetaL 10.0 / 10.0 (Japanese) (32-bit)	-

	12.0.x / 2016	13.0.x / 13	14.0.x / 14
JustSystems XMetaL 11.0 (32-bit) support files	S Support added in 12.0.1 for JustSystems XMetaL 11.0 - verified on version 11.0.0.083	-Support removed in 13.0.1 for JustSystems XMetaL 11.0	-
JustSystems XMetaL 12.0 / 12.0 (Japanese) (64-bit) support files	-	SSupport added in 13.0.1 for JustSystems XMetaL 12.0 / 12.0 (Japanese) (64-bit) - verified on version 12.0.0.057 / 12.0.0.073 J	DJustSystems XMetaL indicated that a J(apanese) edition is not happening for 14 and up. Customers should migrate to the regular edition.
JustSystems XMetaL 13.0 (64-bit) support files	-	-	-
JustSystems XMetaL 14.0 (64-bit) support files	-	-	SSupport added in 14.0.1 for JustSystems XMetaL 14.0 (64-bit). JustSystems XMetaL indicated that a J(apanese) edition is not happening for 14 and up. Customers should migrate to the regular edition.
Syncro Soft <oXygen/> XML Author 16.0 (32-bit) support filesSupport on Windows platform only	D	-	-

	12.0.x / 2016	13.0.x / 13	14.0.x / 14
Syncro Soft <oXygen/> XML Author 17.1 (32-bit) support filesSupport on Windows platform only	S	-Support removed in 13.0.1 for Syncro Soft <oXygen/> XML Author 17.1 (32-bit)	-
Syncro Soft <oXygen/> XML Author 19.1 (64-bit) support filesSupport on Windows platform only	-	DSupport added in 13.0.1 for Syncro Soft <oXygen/> XML Author 20.0 (64-bit) - verified on XML Author 20.0, build 2018032903	-
Syncro Soft <oXygen/> XML Author 20.0 (64-bit) support filesSupport on Windows platform only	-	SSupport added in 13.0.1 for Syncro Soft <oXygen/> XML Author 20.0 (64-bit) - verified on XML Author 20.0, build 2018032903	D
Syncro Soft <oXygen/> XML Author 21.1 (64-bit) support filesSupport on Windows platform only	-	-	SSupport added in 14.0.1 for Syncro Soft <oXygen/> XML Author 21.1 (64-bit)
Microsoft Windows 2012 R2 (64-bit)	S	D	-
Microsoft Windows 2016 (64-bit) SP1	-	S	D
Microsoft Windows 2019 (64-bit)	-	-	S
Microsoft Windows PowerShell 4.0 (part of Windows Management Framework 4.0)	S	-	-
Microsoft Windows PowerShell 5.0 (part of Windows Management Framework 5.0)	S	D	-
Microsoft Windows PowerShell 5.1 (part of Windows Management Framework 5.1)	S	S	S
Microsoft .NET Framework 4.6.1	S	S	-

	12.0.x / 2016	13.0.x / 13	14.0.x / 14
Microsoft .NET Framework 4.7.2	-	-	D
Microsoft .NET Framework 4.8.0	-	-	S
Microsoft Active Directory Federated Services (ADFS) 2.0	D	-	-
Microsoft Active Directory Federated Services (ADFS) 2.1	D	D	D
Microsoft Active Directory Federated Services (ADFS) 3.0	S	S	S
Oracle Data Access Client 12.1.0.1.2	S	-	-
Oracle Data Access Client 12.2.0.1.0	-	S	-
Oracle Data Access Client 19.3.0.0.0	-	-	S Support added in 14.0.1
Oracle RDBMs 11.2.0.4	D	-	-
Oracle RDBMs 12.1.0.2	S	D	D
Oracle RDBMs 12.2.0.1	-	S Support added in 13.0.2	D
Oracle RDBMs 19.3.0.0	-	-	S Support added in 14.0.1
Microsoft SQL Server 2012 SP1	D	-	-
Microsoft SQL Server 2012 SP2	D	-	-
Microsoft SQL Server 2012 SP3	S	-	-
Microsoft SQL Server 2014 SP1	S	-	-
Microsoft SQL Server 2014 SP2	-	D	-
Microsoft SQL Server 2016 SP1	-	D	D
Microsoft SQL Server 2016 SP2	-	-	D
Microsoft SQL Server 2017	-	S Support added in 13.0.2	S
DITA-OT 1.8.5	S	-	-
DITA-OT 2.3	-	S	S
Java Runtime 1.7.0_21 (64-bit)	D	-	-
Java Runtime 1.8.0_60 (64-bit)	S	-	-
Java Runtime 1.8.0_91 (64-bit)	S	-	-
Java Runtime 1.8.0_112 (64-bit)	S	-	-

	12.0.x / 2016	13.0.x / 13	14.0.x / 14
Java Runtime 1.8.0_144 (64-bit)	-	D	-
Java Runtime 10.0.1 (64-bit)	-	D	-
Java Development Kit 1.7.0_21 (64-bit)	D	-	-
Java Development Kit 1.8.0_60 (64-bit)	S	-	-
Java Development Kit 1.8.0_91 (64-bit)	S	-	-
Java Development Kit 1.8.0_112 (64-bit)	S	-	-
Java Development Kit 1.8.0_144 (64-bit)	-	D	-
Java Development Kit 10.0.1 (64-bit)	-	D Not a Long Term Service release.	-
Java Development Kit 11.0.4 (64-bit) also known as 18.9 LTS	-	-	S
Eclipse Temurin OpenJDK 11 (formerly known as AdoptOpenJDK OpenJDK 11) with Hotspot 11.0.0+28 (64-bit)	-	S	D
Eclipse Temurin OpenJDK 11 (formerly known as AdoptOpenJDK OpenJDK 11) with Hotspot 11.0.3+7 (64-bit)	-	-	D
Eclipse Temurin OpenJDK 11 (formerly known as AdoptOpenJDK OpenJDK 11) with Hotspot 11.0.5+10 (64-bit)	-	-	S
IBM DITA 1.3.2 DTD/Catalog configurationWe 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.	DWe 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.	DWe 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.	DWe 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.

	12.0.x / 2016	13.0.x / 13	14.0.x / 14
OASIS DITA 1.0 DTD/Catalog configuration	DThe 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.	DThe 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.	DThe 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.
OASIS DITA 1.1 DTD/Catalog configuration	DThe 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.	DThe 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.	DThe 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.
OASIS DITA 1.2 DTD/Catalog configuration	S	S	S



	12.0.x / 2016	13.0.x / 13	14.0.x / 14
OASIS DITA 1.3 DTD/Catalog configuration	-	S Support added in 13.0.2. Technically unreachable as public identifiers of OASIS DITA without version are redirected to the SDL provided OASIS DITA 1.2 for backward compatibility.	S Technically unreachable as public identifiers of OASIS DITA without version are redirected to the SDL provided OASIS DITA 1.2 for backward compatibility.
SDL DITA 1.3 DTD/Catalog configuration	-	S Support added in 13.0.2. Only reachable when using editor templates holding SDL DITA public identifiers.	S Only reachable when using editor templates holding SDL DITA public identifiers.
AntennaHouse XSL Formatter 6.2	S	-	-
AntennaHouse XSL Formatter 6.5	-	S	D
AntennaHouse XSL Formatter 6.5	-	-	D
AntennaHouse XSL Formatter 6.6	-	-	S
Microsoft Internet Explorer 10	D	-	-
Microsoft Internet Explorer 11	S	S	-Microsoft Internet Explorer (any version) is not supported with SDL Collective Spaces (Draft Space, Review Space).

	12.0.x / 2016	13.0.x / 13	14.0.x / 14
Microsoft Edge (Spartan)	-	S	D Referring to the pre-chromium based browser, the Edge browser engine has been marked deprecated by Microsoft.
Google Chrome (release update channel)	S Verified on version 45	S Verified on version 61	S Verified on version 67
Mozilla FireFox (release update channel)	S Verified on version 41	S Verified on version 56	S Verified on version 75
Acrolinx 5.0	-	-	S
Acrolinx Plug-in for Oxygen	S Verified for oXygen 17.1 using Acrolinx 3.4.0 build 4179	S Verified for oXygen 17.1 using Acrolinx classic plugin 3.5.1 for 13.0.0 Verified for oXygen 20.0 using Acrolinx sidebar plugin 1.0.0.378 for 13.0.1	S Verified for oXygen 20.0 using Acrolinx sidebar plugin 1.0.0.378 for 13.0.1
Acrolinx Plug-in for XMetaL	S Verified for XMetaL 10 using Acrolinx 4.2.0 build 1153 Verified for XMetaL 11 using Acrolinx 4.7.0 build 5	S Verified for XMetaL 11 using Acrolinx 4.7.2 for 13.0.0 Verified for XMetaL 12 using Acrolinx sidebar plugin 1.1 for 13.0.1	S Verified for XMetaL 12 using Acrolinx sidebar plugin 1.1 for 13.0.1
SmartLogic Semantic Enhancement Server 3.7.3	S Verified for IMetadataBinding integration.	S Verified for IMetadataBinding integration.	S Verified for IMetadataBinding integration.

## Content Manager API compatibility across releases

Overview about which web service methods are available, supported or deprecated on a specific Content Manager version.

### Version Overview

Terminology used:

- S: is short for Supported which means that the method is fully supported.
- D: is short for Deprecated which means that there is a newer version of this method and you are strongly advised to not use this combination anymore because the method can be removed in one of the next versions.
- I: is short for Internal which means that the method is not available on web services and can still change in the next versions.
- -: means that the method was not yet available or has been removed since.

**Note:** Starting from ISH 10.0.x we introduced web services via WCF making the ASMX web services deprecated!

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API25.Annotation.Create	-	-	-	-	S	
API25.Annotation.CreateReply	-	-	-	-	S	
API25.Annotation.Delete	-	-	-	-	S	
API25.Annotation.DeleteReply	-	-	-	-	S	
API25.Annotation.Find	-	-	-	-	S	
API25.Annotation.RetrieveMetadata	-	-	-	-	S	
API25.Annotation.Update	-	-	-	-	S	
API25.Annotation.UpdateReply	-	-	-	-	S	
API.Application.ChangePassword Only available in ASMX web services	-	-	-	-	-	API25.User.ChangePassword
API.Application.GetApplicationName Only available in ASMX web services	D	D	D	-	-	API25Application.GetApplicationName

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API.Application. GetCurrentUserName Only available in ASMX web services	D	D	D	-	-	API20.Application. GetCurrentUserName
API.Application. GetReleasedStates	D	D	D	-	-	API20.Application. GetReleasedStates
API.Application. GetVersion	S	S	S	S	S	API25.Application.GetVersion
API.Application.Login Only available in ASMX web services	D	D	D	-	-	API25.Application.Login
API20.Application. ChangePassword Only available in ASMX web services	-	-	-	-	-	API25.User.ChangePassword
API20.Application. GetApplicationName	D	D	D	-	-	API25.Application. GetApplicationName
API20.Application. GetCurrentUserName	D	D	D	-	-	API25.User.GetMyMetadata
API20.Application. GetReleasedStates	S	S	S	S	S	
API20.Application. GetResource	S	S	S	S	S	
API20.Application. GetVersion	S	S	S	S	S	API25.Application.GetVersion
API20.Application.Login Only available in ASMX web services	D	D	D	-	-	API25.Application.Login
API25.Application. Authenticate Only available in ASMX web services	D	D	D	D	D	
API25.Application. Authenticate2 Only available in WCF web services	I	I	I	I	I	
API25Application. GetApplicationName Only available in ASMX web services	S	S	S	S	S	
API25Application. GetUserRef	I	I	I	I	I	
API25.Application. GetVersion	S	S	S	S	S	

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API25.Application.Login Only available in ASMX web services	S	S	S	S	S	
API25.BackgroundTask. CreateBackgroundTask	-	-	-	S	S	
API25.BackgroundTask. CreateBackgroundTaskWith- StartAfter	-	-	-	S	S	
API25.BackgroundTask.Find	-	-	-	S	S	
API25.BackgroundTask. RetrieveDataObjectByIsh- DataRefs	-	-	-	S	S	
API25.Baseline. CanBeFrozen	S	S	S	S	S	
API25.Baseline.CleanUp	-	S	S	S	S	
API25.Baseline. CompleteBaselineByCan- didateAndMode	-	S	S	S	S	
API25.Baseline. CompleteBaselineByMode	S	D	D	D	D	API25.Baseline. CompleteBaselineByCandidateAndMode
API25.Baseline. CompleteReportByCandi- dateAndMode	-	S	S	S	S	
API25.Baseline. CompleteReportByMode	S	D	D	D	D	API25.Baseline. CompleteReportByCandidateAndMode
API25.Baseline. Containing	S	S	S	S	S	
API25.Baseline.Create	S	S	S	S	S	
API25.Baseline.Copy	I	S	S	S	S	
API25.Baseline.Delete	S	S	S	S	S	
API25.Baseline. ExpandBaseline	S	S	S	S	S	
API25.Baseline. ExpandReport	S	S	S	S	S	
API25.Baseline. ExtendReportByBaseline	S	S	S	S	S	
API25.Baseline. ExtendReportByCandidate	S	S	S	S	S	

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API25.Baseline.Find	-	-	-	-	S	
API25.Baseline Freeze	S	S	S	S	S	
API25.Baseline. GetBaseline	S	S	S	S	S	
API25.Baseline. GetBaselineId	S	S	S	S	S	
API25.Baseline. GetBaselineName	S	S	S	S	S	
API25.Baseline.GetList	S	S	S	S	D	API25.Baseline.Find
API25.Baseline. GetMetadata	S	S	S	S	S	
API25.Baseline. GetReport	S	S	S	S	S	
API25.Baseline.Rename	D	D	D	-	-	API25.Baseline.Update
API25.Baseline. RetrieveMetadata	-	S	S	S	D	API25.Baseline. RetrieveMetadata2
API25.Baseline. RetrieveMetadata2	-	-	-	-	S	
API25.Baseline. SetMetadata	S	S	S	S	S	
API25.Baseline.Update	S	S	S	S	S	
API.ConditionManagement CompareConditionCategories	S	S	S	S	S	
API.ConditionManagement CompareConditionLists	S	S	S	S	S	
API.ConditionManagement GetConditionCategories	S	S	S	S	S	
API.ConditionManagement GetConditionMasterSet	S	S	S	S	S	
API.ConditionManagement GetConditionSynchronisation	S	S	S	S	S	
API.ConditionManagement SearchInDocuments	D	D	D	-	-	API25.DocumentObj. ContainingCondition
API.ConditionManagement UpdateConditionCategories	S	S	S	S	S	

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API.ConditionManagement. UpdateConditionMasterSet	S	S	S	S	S	
API20.DocumentObj. AddShortCut	S	D	D	D	-	API25.Folder.AddShortCuts
API20.DocumentObj. CheckIn	S	D	D	D	-	API25.DocumentObj.CheckIn
API20.DocumentObj. CheckOut	S	D	D	D	-	API25.DocumentObj.CheckOut
API20.DocumentObj. Create	S	D	D	D	-	API25.DocumentObj.Create
API20.DocumentObj. CreateOrUpdate	S	D	D	D	-	API25.DocumentObj. TryGetMetadata followed by create or update
API20.DocumentObj. Delete	S	D	D	D	-	API25.DocumentObj.Delete
API20.DocumentObj. EvaluateDocument	S	D	D	D	-	
API20.DocumentObj.Find	S	D	D	-	-	API25.DocumentObj.Find
API20.DocumentObj. GetDocObj	S	D	D	D	-	
API20.DocumentObj. GetInitialStates	S	D	D	D	-	API25.Settings. GetPossibleTargetStatuses
API20.DocumentObj. GetMetaData	D	D	D	-	-	API25.DocumentObj. GetMetadata
API20.DocumentObj. GetPos- sibleTransitionStates	S	D	D	D	-	API25.DocumentObj. GetPossibleTargetStatuses
API20.DocumentObj.Move	S	D	D	D	-	API25.Folder.MoveObjects
API20.DocumentObj. RemoveShortCut	S	D	D	D	-	API25.Folder.RemoveShortCuts
API20.DocumentObj. RetrieveLatestVersionsInfo	D	D	D	-	-	API25.DocumentObj. RetrieveLanguageMetadata
API20.DocumentObj. RetrieveMetaData	D	D	D	-	-	API25.DocumentObj. RetrieveMetadata
API20.DocumentObj. RetrieveObjects	S	D	D	D	-	API25.DocumentObj. RetrieveObjects
API20.DocumentObj. RetrievebyIshLngRef	S	D	D	D	-	API25.DocumentObj. RetrieveObjectsByIshLngRefs

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API20.DocumentObj. SetMetaData	S	D	D	D	-	API25.DocumentObj. SetMetadata
API20.DocumentObj. StartReuse	S	-	-	-	-	
API20.DocumentObj. StartTranslationMgmt	S	D	-	-	-	API25.TranslationManagement. CreateTranslationFromVersion
API20.DocumentObj. TerminologyUpdate	I	-	-	-	-	
API20.DocumentObj. UndoCheckOut	S	D	D	D	-	API25.DocumentObj. UndoCheckOut
API20.DocumentObj. Update	S	D	D	D	-	API25.DocumentObj.Update
API25.DocumentObj. CheckIn	-	S	S	S	S	
API25.DocumentObj. CheckInByIshLngRef	-	S	S	S	S	
API25.DocumentObj. CheckOut	-	S	S	S	S	
API25.DocumentObj. CheckOutByIshLngRef	-	S	S	S	S	
API25.DocumentObj. ContainingCondition	S	S	S	S	S	
API25.DocumentObj. ContainingLogicalId	S	S	S	S	S	
API25.DocumentObj. ContainingVariable	S	S	S	S	S	
API25.DocumentObj. Create	-	S	S	S	S	
API25.DocumentObj. Delete	-	S	S	S	S	
API25.DocumentObj. DeleteByIshLngRef	-	S	S	S	S	
API25.DocumentObj.Find	S	S	S	S	S	
API25.DocumentObj. FolderLocation	S	S	S	S	S	
API25.DocumentObj. FolderLocations	S	S	S	S	S	
API25.DocumentObj. GetChildren	S	S	S	S	S	



Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API25.DocumentObj. GetDataObjectInfoByIshLngRef	S	S	S	S	S	
API25.DocumentObj. GetMetadata	S	S	S	S	S	
API25.DocumentObj. GetMetadataByIshLngRef	S	S	S	S	S	
API25.DocumentObj. GetObject	-	S	S	S	S	
API25.DocumentObj. GetParents	D	D	D	-	-	API25.DocumentObj. ContainingLogicalId
API25.DocumentObj. GetParentsByIshLngRef	D	D	D	-	-	
API25.DocumentObj. GetPos- sibleTargetStatuses	S	S	S	S	S	
API25.DocumentObj. GetPos- sibleTargetStatusesByIshLngRef	S	S	S	S	S	
API25.DocumentObj. RaisePublishEvent	-	-	-	I	I	
API25.DocumentObj. RetrieveDataObjectInfoBy- IshLngRefs	S	S	S	S	S	
API25.DocumentObj. RetrieveLanguageMetadata	S	S	S	S	S	
API25.DocumentObj. RetrieveMetadata	S	S	S	S	S	
API25.DocumentObj. RetrieveMetadataByIshLngRefs	S	S	S	S	S	
API25.DocumentObj. RetrieveMetadataByIshLngRefs2	-	-	-	S	S	
API25.DocumentObj. RetrieveMetadataByIshVer- sionRefs	-	I	I	I	I	
API25.DocumentObj. RetrieveObjects	S	S	S	S	S	

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API25.DocumentObj. RetrieveObjectsByIshLngRefs	S	S	S	S	S	
API25.DocumentObj. RetrieveObjectsByRevisionIds	S	S	S	S	S	
API25.DocumentObj. RetrieveRevisionInfoByIshLngRefs	S	I	I	I	I	
API25.DocumentObj. RetrieveVersionMetadata	S	S	S	S	S	
API25.DocumentObj. SetMetadata	-	S	S	S	S	
API25.DocumentObj. SetMetadataByIshLngRef	-	S	S	S	S	
API25.DocumentObj. SetMetadataByIshLngRefs	-	S	S	S	S	
API25.DocumentObj. TryGetMetadata	-	S	S	S	S	
API25.DocumentObj. UndoCheckOut	-	S	S	S	S	
API25.DocumentObj. UndoCheckOutByIshLngRef	-	S	S	S	S	
API25.DocumentObj. Update	-	S	S	S	S	
API25.DocumentObj. UpdateByIshLngRef	-	S	S	S	S	
API25.EDT.Create	-	-	S	S	S	
API25.EDT.Delete	-	-	S	S	S	
API25.EDT.Find	-	-	S	S	S	
API25.EDT.GetList	S	S	D	D	D	API25.EDT.Find
API25.EDT.GetMetadata	-	-	S	S	S	
API25.EDT. RetrieveMetadata	-	-	S	S	S	
API25.EDT.Update	-	-	S	S	S	
API25.EventMonitor. AddEventDetail	S	S	S	S	S	

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API25.EventMonitor. AddEventDetailWithProgress	S	S	S	S	S	
API25.EventMonitor. DeleteByProgressId	S	S	S	S	S	
API25.EventMonitor. EndEvent	S	S	S	S	S	
API25.EventMonitor. GetEventDetail	S	S	S	S	S	
API25.EventMonitor. GetNextEventDetailDataChunk	S	S	S	S	S	
API25.EventMonitor. GetProgressId	S	S	S	S	S	
API25.EventMonitor. RetrieveEventOverview	S	S	S	S	S	
API25.EventMonitor. RetrieveEventOverviewBy- ProgressIds	-	-	I	I	I	
API25.EventMonitor. RetrieveEventsByParentPro- gressIds	S	S	S	S	S	
API25.EventMonitor. RetrieveEventsByProgressIds	S	S	S	S	S	
API25.EventMonitor. StartEvent	S	S	S	S	S	
API25.Folder. AddShortCuts	-	S	S	S	S	
API25.Folder.Create	S	S	S	S	S	
API25.Folder. CreateQueryFolder	S	S	S	S	S	
API25.Folder. CreateReferenceFolder	S	S	S	S	S	
API25.Folder.Delete	S	S	S	S	S	
API25.Folder. Exists	I	I	I	I	I	
API25.Folder. FolderLocation	S	S	S	S	S	
API25.Folder. GetContents	S	S	S	S	S	

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API25.Folder. GetMetadata	S	S	S	S	S	
API25.Folder. GetMetadataByIshFolderRef	S	S	S	S	S	
API25.Folder. GetSubFolders	S	S	S	S	S	
API25.Folder. GetSubFoldersByIshFolderRef	S	S	S	S	S	
API25.Folder.Move	S	S	S	S	S	
API25.Folder. MoveObjects	-	S	S	S	S	
API25.Folder. RemoveShortCuts	-	S	S	S	S	
API25.Folder.Rename	S	S	S	S	S	
API25.Folder. RetrieveMetadataByIshFolderRefs	S	S	S	S	S	
API25.Folder.Update	S	S	S	S	S	
API25.Folder. UpdateQueryFolder	S	S	S	S	S	
API25.Folder. UpdateReferenceFolder	S	S	S	S	S	
API25.ListOfValues. CreateValue	S	D	D	D	D	API25.ListOfValues. CreateValue2
API25.ListOfValues. CreateValue2	-	S	S	S	S	
API25.ListOfValues. DeleteValue	S	S	S	S	S	
API25.ListOfValues. RetrieveLists	S	S	S	S	S	
API25.ListOfValues. RetrieveValues	S	S	S	S	S	
API25.ListOfValues. UpdateValue	S	S	S	S	S	
API20.MetaDataAssist. GetLOV	D	D	D	-	-	API25.ListOfValues. RetrieveLists
API20.MetaDataAssist. GetLOVValues	D	D	D	-	-	API25.ListOfValues. RetrieveValues

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API20.MetadataAssist. GetUserGroups	D	D	D	-	-	API25.UserGroup.Find
API20.MetadataAssist. GetUsers	D	D	D	-	-	API25.User.Find
API25.MetadataBinding. ResolveIds	-	-	S	S	S	
API25.MetadataBinding. RetrieveTags	-	-	S	S	S	
API25.MetadataBinding. RetrieveTagStructure	-	-	S	S	S	
API25.MetadataBinding. Validate	-	-	I	I	I	
API20.OutputFormat. GetList	D	D	D	-	-	API25.OutputFormat.Find
API20.OutputFormat. GetMetaData	D	D	D	-	-	API25.OutputFormat. GetMetadata
API25.OutputFormat. Create	S	S	S	S	S	
API25.OutputFormat. Delete	S	S	S	S	S	
API25.OutputFormat.Find	S	S	S	S	S	
API25.OutputFormat. GetList	D	D	D	-	-	
API25.OutputFormat. GetMetadata	S	S	S	S	S	
API25.OutputFormat. GetOutputFormatId	S	S	S	S	S	
API25.OutputFormat. GetOutputFormatName	S	S	S	S	S	
API25.OutputFormat. Rename	-	-	-	-	-	API25.OutputFormat.Update
API25.OutputFormat. RetrieveMetadata	S	S	S	S	S	
API25.OutputFormat. Update	S	S	S	S	S	
API.PublicationContext. DeleteContext	D	-	-	-	-	
API.PublicationContext. EnrichPublContexts	D	-	-	-	-	

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API.PublicationContext. GetConditionListForMaster	D	-	-	-	-	
API.PublicationContext. GetConditionListForPublication	D	-	-	-	-	
API.PublicationContext. GetContextListForPublication	D	-	-	-	-	
API.PublicationContext. GetPubContext	D	-	-	-	-	
API.PublicationContext. GetPubContextList	D	-	-	-	-	
API.PublicationContext. SaveForPublication	D	-	-	-	-	
API20.Publication.Create	S	D	D	D	-	API25.PublicationOutput. Create
API20.Publication.Copy	S	D	D	D	-	API25.Baseline.Copy followed by API25.PublicationOutput. Create with the newly created baseline.
API20.Publication.Delete	S	D	D	D	-	API25.PublicationOutput. Delete
API20.Publication.Find	D	D	D	-	-	API25.PublicationOutput.Find
API20.Publication. GetMetadata	D	D	D	-	-	API25.PublicationOutput. GetMetadata
API20.Publication. RetrieveMetadata	D	D	D	-	-	API25.PublicationOutput. RetrieveMetadata
API20.Publication. SetMetaData	S	D	D	D	-	API25.PublicationOutput. SetMetadata
API20.PublicationOutput. CancelPublish	S	D	D	D	-	API25.PublicationOutput. SetMetadata with VPUBSTATUSPUBLISHINGCANCELLED
API20.PublicationOutput. CancelPublishByIshLngRef	S	D	D	D	-	API25.PublicationOutput. SetMetadataByIshLngRef with VPUBSTATUSPUBLISHINGCANCELLED
API20.PublicationOutput. Create	S	D	D	D	-	API25.PublicationOutput. Create
API20.PublicationOutput. Delete	S	D	D	D	-	API25.PublicationOutput. Delete

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API20.PublicationOutput.DeleteByIshLngRef	S	D	D	D	-	API25.PublicationOutput.DeleteByIshLngRef
API20.PublicationOutput.Find	D	D	D	-	-	API25.PublicationOutput.Find
API20.PublicationOutput.GetDataObjectInfoByIshLngRef	D	D	D	-	-	API25.PublicationOutput.GetDataObjectInfoByIshLngRef
API20.PublicationOutput.GetMetadata	D	D	D	-	-	API25.PublicationOutput.GetMetadata
API20.PublicationOutput.GetNextDataObjectChunkByIshLngRef	D	D	D	-	-	API25.PublicationOutput.GetNextDataObjectChunkByIshLngRef
API20.PublicationOutput.GetReport	S	S	S	D	D	API25.PublicationOutput.GetMetaData followed by API25.PublicationOutput.PublishReportInfoByIshLngRef and API25.PublicationOutput.GetNextPublishReportChunkByIshLngRef.
API20.PublicationOutput.GetReportByIshLngRef	S	S	S	D	D	API25.PublicationOutput.PublishReportInfoByIshLngRef followed by API25.PublicationOutput.GetNextPublishReportChunkByIshLngRef.
API20.PublicationOutput.Publish	S	D	D	D	-	API25.PublicationOutput.SetMetadata with VPUBSTATUSPUBLISHPENDING
API20.PublicationOutput.PublishByIshLngRef	S	D	D	D	-	API25.PublicationOutput.SetMetadataByIshLngRef with VPUBSTATUSPUBLISHPENDING
API20.PublicationOutput.Release	D	D	D	-	-	API25.PublicationOutput.Release
API20.PublicationOutput.ReleaseByIshLngRef	D	D	D	-	-	API25.PublicationOutput.ReleaseByIshLngRef
API20.PublicationOutput.RetrieveMetadata	D	D	D	-	-	API25.PublicationOutput.RetrieveMetadata
API20.PublicationOutput.RetrieveMetadataByIshLngRef	D	D	D	-	-	API25.PublicationOutput.RetrieveMetadataByIshLngRefs
API20.PublicationOutput.SetMetadata	S	D	D	D	-	API25.PublicationOutput.SetMetadata
API20.PublicationOutput.SetMetaDataByIshLngRef	S	D	D	D	-	API25.PublicationOutput.SetMetadataByIshLngRef

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API20.PublicationOutput. SetReport	I	I	I	-	-	
API20.PublicationOutput. SetReportByIshLngRef	I	I	I	-	-	
API25.PublicationOutput. Containing	S	S	S	S	S	
API25.PublicationOutput. Create	-	S	S	S	S	
API25.PublicationOutput. Delete	-	S	S	S	S	
API25.PublicationOutput. DeleteByIshLngRef	-	S	S	S	S	
API25.PublicationOutput. Find	-	S	S	S	S	
API25.PublicationOutput. FolderLocation	S	S	S	S	S	
API25.PublicationOutput. FolderLocations	S	S	S	S	S	
API25.PublicationOutput. GetDataObjectInfoByIshLngRef	I	I	I	I	I	
API25.PublicationOutput. GetMetadata	S	S	S	S	S	
API25.PublicationOutput. GetMetadataByIshLngRef	S	S	S	S	S	
API25.PublicationOutput. GetNextDataObjectChunk- ByIshLngRef	S	S	S	S	S	
API25.PublicationOutput. GetNextPublishLogObjectC- hunkByIshLngRef	-	-	-	S	S	
API25.PublicationOutput. GetNextPublishReportChunk- ByIshLngRef	-	-	-	S	S	
API25.PublicationOutput. GetPos- sibleTargetStatuses	I	I	I	I	I	
API25.PublicationOutput. GetPos- sibleTargetStatusesByIshLngRef	I	I	I	I	I	



Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API25.PublicationOutput. GetPublishLogObjectInfoByIshLngRef	-	-	-	S	S	
API25.PublicationOutput. GetPublishReportInfoByIshLngRef	-	-	-	S	S	
API25.PublicationOutput. Release	S	D	D	D	-	API25.Baseline.Freeze followed by a API25.PublicationOutput. SetMetadata VPUBSTATUSRELEASED
API25.PublicationOutput. ReleaseByIshLngRef	S	D	D	D	-	API25.Baseline.Freeze followed by a API25.PublicationOutput. SetMetadata VPUBSTATUSRELEASED
API25.PublicationOutput. RetrieveMetadata	S	S	S	S	S	
API25.PublicationOutput. RetrieveMetadataByIshLngRefs	S	S	S	S	S	
API25.PublicationOutput. RetrieveMetadataByIshVersionRefs	-	S	S	S	S	
API25.PublicationOutput. RetrieveVersionMetadata	S	S	S	S	S	
API25.PublicationOutput. SetMetadata	-	S	S	S	S	
API25.PublicationOutput. SetMetadataByIshLngRef	-	S	S	S	S	
API25.PublicationOutput. SetMetadataByIshLngRefs	-	S	S	S	S	
API25.PublicationOutput. SetDataObjectByIshLngRef	I	I	I	I	I	
API25.PublicationOutput. SetPublishReportByIshLngRef	-	-	-	I	I	
API25.PublicationOutput. TryGetMetadata	-	S	S	S	S	
API25.PublicationOutput. UsingBaseline	S	S	S	S	S	
API20.Reports. GetReferencedByDocObj	D	D	D	-	-	API25.DocumentObj. ContainingLogicalId

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API20.Reports. GetReferencedDocObj	S	S	S	D	D	
API20.Reports. GetReferencesByIshLngRef	S	S	S	D	D	API25.DocumentObj. GetChildren (using multiple calls per LinkType)
API25.Search. PerformSearch	S	S	S	S	S	
API25.Search. PerformSearchInPublication	-	S	S	S	S	
API20.Settings. GetSystemLanguage	D	D	D	-	-	API25.Settings.GetMetadata using the field FMASTERLNG
API20.Settings. GetSystemResolution	D	D	D	-	-	API25.Settings.GetMetadata using the field FISHSYSTEMRESOLUTION
API25.Settings. GetMetadata	S	S	S	S	S	
API25.Settings. GetTimeZone	S	S	S	S	S	
API25.Settings. GetPos- sibleTargetStatuses	S	S	S	S	S	
API25.Settings. GetTranslationStatuses	-	-	-	S	S	
API25.Settings. RetrieveFieldSetupByIshType	-	-	-	S	S	
API25.Settings. SetMetaData3	S	S	S	S	S	
API25.TranslationJob. CreateExternalTranslationJobs	S	S	S	S	S	
API25.TranslationJob. CreateTranslationJob	S	S	S	S	S	
API25.TranslationJob. CreateTranslationJobItems	S	S	S	S	S	
API25.TranslationJob. Delete	S	S	S	S	S	
API25.TranslationJob. DeleteExternalTranslationJobs	S	S	S	S	S	

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API25.TranslationJob.DeleteTranslationJobItems	S	S	S	S	S	
API25.TranslationJob.Find	S	S	S	S	S	
API25.TranslationJob.GetMetadata	S	S	S	S	S	
API25.TranslationJob.GetPossibleTargetStatuses	S	S	S	S	S	
API25.TranslationJob.GetTranslationJob	S	S	S	S	S	
API25.TranslationJob.RetrieveExternalTranslationJobs	S	S	S	S	S	
API25.TranslationJob.RetrieveMetadata	S	S	S	S	S	
API25.TranslationJob.RetrieveTranslationJobItems	S	S	S	S	S	
API25.TranslationJob.SetMetadata3	S	S	S	S	S	
API25.TranslationJob.UpdateTranslationJob3	S	S	S	S	S	
API25.TranslationJob.UpdateTranslationJobItems	S	S	S	S	S	
API25.TranslationManagement.CreateTranslationFromVersion	-		I	I	I	
API25.TranslationTemplate.Create	S	S	S	S	S	
API25.TranslationTemplate.Delete	S	S	S	S	S	
API25.TranslationTemplate.DeleteByTypeAndAlias		S	S	S	S	
API25.TranslationTemplate.Retrieve	S	S	S	S	S	
API25.User.ChangePassword	S	S	S	S	S	
API25.User.Create	S	S	S	S	S	
API25.User.Delete	S	S	S	S	S	

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API25.User.Find	S	S	S	S	S	
API25.User.GetMetadata	S	S	S	S	S	
API25.User. GetMetadataByIshUserRef	S	S	S	S	S	
API25.User. GetMyMetadata	S	S	S	S	S	
API25.User.IsInRole	I	I	I	I	I	
API25.User. RetrieveMetadata	S	S	S	S	S	
API25.User. RetrieveMetadataByIshUserRefs	S	S	S	S	S	
API25.User.Update	S	S	S	S	S	
API25.User. DeletePreference	-	-	-	S	S	
API25.User. FindPreferences	-	-	-	S	S	
API25.User. RetrievePreferences	-	-	-	S	S	
API25.User. SetPreferences	-	-	-	S	S	
API25.UserGroup.Create	S	S	S	S	S	
API25.UserGroup.Delete	S	S	S	S	S	
API25.UserGroup.Find	S	S	S	S	S	
API25.UserGroup. GetMetadata	S	S	S	S	S	
API25.UserGroup. RetrieveMetadata	S	S	S	S	S	
API25.UserGroup. Update	S	S	S	S	S	
API25.UserRole.Create	S	S	S	S	S	
API25.UserRole.Delete	S	S	S	S	S	
API25.UserRole.Find	S	S	S	S	S	
API25.UserRole. GetMetadata	S	S	S	S	S	
API25.UserRole. RetrieveMetadata	S	S	S	S	S	

Method	10.0.x / 2013	11.0.x / 2014	12.0.x / 2016	13.0.x / 13	14.0.x / 14	Replaced by...
API25.UserRole.Update	S	S	S	S	S	
API20.WorkFlow. GetInboxContent	S	S	S	S	S	
API20.WorkFlow. GetInboxes	S	S	S	S	S	
API20.WorkFlow. PerformAction	S	D	D	D	-	

## 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 SDL Tridion Docs solution. If you are upgrading from SDL Knowledge Center 13, this release introduces minor changes to Content Delivery, as well as a number of fixed issues.

### New and changed

An overview of the functional changes and enhancements to Content Delivery that you will get if you upgrade to this release.

#### New and changed in version 11.1.0

SDL 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.

Now, the URL to which you append `/info` or `/health` is the full microservice URL, say, `http://HOST:PORT/content.svc`.

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.

##### 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 SDL 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, SDL 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 SDL Tridion Docs Deployer plugin pipeline
- Added support for SDL Tridion Docs CIL extension APIs
- Added search indexing and query support to the Content Delivery

## Fixed issues

SDL Tridion Docs 14 SP1 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.



ID	Description
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>&lt;area&gt;</code> DITA element, representing an area inside an image map, rendered as an HTML <code>&lt;a&gt;</code> element when it should be an HTML <code>&lt;area&gt;</code> element. This is now resolved.
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-5729	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-5820	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>&lt;tccl:Link&gt;</code> tag with an <code>html:elementname</code> attribute set to <code>area</code> was converted to the HTML <code>&lt;a href="..."&gt;</code> instead of the correct HTML, <code>&lt;area href="..."&gt;</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.

### All Content Delivery microservices contain Add-on service client even when they don't use the Add-on service

Currently, all microservices contain an Add-on service client, while only Content Deployer and the (Session-enabled) Content Service can have Extensions. This has the following consequences:

- If the `addonserviceurl` environment variable is set on its machine, a microservice will send heartbeats to the Add-on service, even when it doesn't use the Add-on service.
- A microservice fails to start if the `addonserviceurl` environment variable is set on its machine, while at the same time, the Add-on service is not up and running --regardless of whether the microservice actually uses the Add-on service.

### 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.

### Requests for non-published items still require a database roundtrip, possibly impacting performance

In certain scenarios, a query for an item that was never published (for example, as part of trying to resolve a hyperlink) results in a request to the database. The item being requested is what is called a "null value." Previously, such a query for a null value would be resolved by the cache. But now, such a query always results in a (fruitless) database roundtrip, which has the potential of impacting performance.

### 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
  }
}
```

```
http://myhost:84/example.jpg
```

```
http://122.3.4.5/example.jpg
```

### Specifying multiple targets for UGC in Topology Manager does not work

All UGC Capabilities need to reference one single target. It is not possible to configure multiple UGC targets, especially if you use multiple UGC databases.

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: "conditionset.generated.
    value={\\"\\\\\\\\\\\\\\\\\\\\\\1\\": [\\"\\\\\\\\\\\\\\\\\\\\\\ 3\\"], \\"\\\\\\\\\\\\\\\\\\\\\\2\\\\\\\\\\\\\\\\\\\\\\"\\": "\\"\\\\\\\\\\\\\\\\\\\\\\"}, valueType:
    STRING, queryType: CUSTOM_META}) {
    edges {
      cursor
      node {
        publicationId
        itemType
      }
    }
  }
}
```

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.

**.NET method `Uri.EscapeDataString(urlString)` has changed behavior**

Version 4.0 or older of the Microsoft .NET Framework is not supported. This may have an effect on how your URLs are parsed if they contain brackets:

- In .NET 4.0 and older, characters that are reserved in RFC 2396 are escaped. RFC 2396 allows brackets.
- In .NET 4.5 and newer, characters that are restricted in RFC 3986 are escaped. RFC 3986 restricts brackets.

This change is related to the enabling of IRIs (Internationalized Resource Identifiers). For more information, refer to this page on the MSDN Web site:

<https://msdn.microsoft.com/en-us/library/system.uri%28v=vs.110%29.aspx>

To quickly see the difference in behavior, run the following code, targeting first .NET 4.0 and then .NET 4.6.2:

```
string url= @"http://some.url/page (bracketed).html";
Console.WriteLine(url);
Console.WriteLine(Uri.EscapeDataString(url));
```

The complete list of characters that are restricted (that is, that will be encoded) as per RFC 3986 are:

```
: / ? # [ ] @ ! $ & ' ( ) * + , ; =
```

**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 SDL Customer

Support to obtain the latest hotfixes for SDL Tridion Docs 14 SP1, 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.

#### **Staged upgrades do not support OAuth in Web sites for which Preview is enabled**

The Preview Service does not work with an Experience Manager fast track publishing service if OAuth is enabled. To work around this problem, disable OAuth on the servers until they can complete the upgrade by upgrading Content Manager as well.

#### **-auto-register switch does not automatically register the Web Capability**

If you start the Discovery Service using the `-auto-register` switch, the Web Capability (used for mapping Publications to Web applications) is not registered automatically. To work around this problem, use the Discovery Service registration tool to register this Capability by hand.

#### **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).

#### **No Context Engine Server Controls in the Content Interaction Library**

We do not provide Context Engine Server Controls that will run using the Content Interaction Library. To use expression evaluation, use REL tags instead.

#### **Personalization and Profiling API not available in Content Interaction Library**

The API is not available.

#### **UGC .NET Web site extension required forwarding of Claims to be configured in an inconsistent location**

The Java/JSP version of the UGC Web site extension expects its configuration of the forwarding of Claims to be in `cd_ugc_conf.xml`. But the .NET version of the same software component expects it in `cd_ambient_conf.xml`. This is inconsistent.

#### **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.

#### **Some older versions of CIL require a hotfix to talk to the CIS included with SDL Tridion Docs 14 SP1**

If you are using Content Interaction Libraries from before SDL Tridion Sites 9 to talk to the SDL Tridion Docs 14 SP1 Content Interaction Services (microservices), contact SDL Customer Support to obtain a hotfix.

#### **Context Engine Cartridge: Expression cannot refer to property defined by another expression**

If you define a property in your custom vocabulary (which means the property is defined by an expression), then you cannot refer to this property from another expression that defines another property in your custom vocabulary.

### Aspect properties in Context Engine Cartridge Claims are of a different type than before

The following incorrect type changes for aspect properties have been detected:

Property	Old type	New type
<code>taf:claim:context:browser:cssVersion</code>	<code>com.sdl.context.api.types.GenericVersion</code>	<code>com.google.gson.internal.LinkedTreeMap</code>
<code>taf:claim:context:browser:displayColorDepth</code>	<code>java.lang.Integer</code>	<code>java.lang.Double</code>
<code>taf:request:cookies</code>	<code>java.util.collections\$UnmodifiableMap</code>	<code>com.google.gson.internal.LinkedTreeMap</code>

### 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.

### Names of Context Engine Cartridge aspects and aspect properties cannot be equal to CEL reserved words

The name of an aspect or aspect property cannot be equal to a reserved word in CEL. To work around this problem, give your aspect or aspect property a different name.

Specifically, your aspect or aspect property cannot be one of the following:

- `or`
- `and`
- `eq`
- `ne`
- `lt`
- `gt`
- `le`
- `ge`
- `div`
- `mod`
- `not`
- `null`
- `true`
- `false`
- `new`
- `var`
- `return`

# What's new in Dynamic Documentation

This section describes new or changed functionality in the presentation environment for SDL Tridion Docs, known as Dynamic Documentation web application, or Dynamic Documentation for short.

## New and changed

New or changed features and functionality in Dynamic Documentation.

## New and changed in version 1.2.0 of Dynamic Documentation

An overview of major changes with this release.

### 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 of Dynamic Documentation

An overview of major changes with this release.

### A new presentation environment: Dynamic Documentation web application

The SDL 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 SDL 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.
- SDL 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 SDL 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%20>.

## 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 14 SP1 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 be rendered in a monospace font, but was not.
  - The `filepath` element should be rendered in monospace bold, but was rendered in plain monospace.
  - The `option` element should be rendered 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

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 SDL 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.

