

DSpace Release 5.0 Status

Version 5.0

Support for DSpace 5 ended on January 1, 2023. See [Support for DSpace 5 and 6 is ending in 2023](#)
DSpace 5.0 was officially released to the public on January 16, 2015.



DSpace 5.0 can be downloaded immediately from:

- <https://github.com/DSpace/DSpace/releases/tag/dspace-5.0>

See the [DSpace 5.x Release Notes](#) for more information.
Where are the Release Notes?





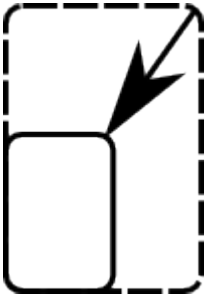



[DSpace 5.x Release Notes](#) have been incorporated into the DSpace 5.x documentation wiki. The content of that page, and this one, is similar, but it's not a perfect duplicate. This page is for coordinating and planning DSpace Release 5.0, and for communicating this status information to the community. This Release Status page is a historical document, with much of the same material.

Table of Contents:

- 1 [New features in DSpace 5.0](#)
- 2 [Release TODO list](#)
- 3 [Automatic Solr upgrade](#)
- 4 [Changes](#)
 - 4.1 [New Features in 5.0](#)
 - 4.2 [General Improvements in 5.0](#)
 - 4.3 [Bug Fixes in 5.0](#)
- 5 [Organizational Details](#)
 - 5.1 [Release Coordination](#)
 - 5.2 [Timeline and Processing](#)

New features in DSpace 5.0

DSpace 5.0 ships with a number of new features. Certain features are automatically enabled by default while others require deliberate activation. The following non-exhaustive list contains the major new features in 5.0	
blocked URL	Easier Upgrading to 5.x from ANY previous DSpace version (1.x.x, 3.x or 4.x). <ul style="list-style-type: none">• Your underlying DSpace database now upgrades itself automatically when you first run a newer version of DSpace (see DS-2167, by Tim Donohue with support/feedback from 5.0 Release Team).• Solr/Lucene indexes now upgrade automatically during the "ant update" step of the Upgrade process (see DS-2297 by Tim Donohue, with support/feedback from Ivan Masár and 5.0 Release Team).
blocked URL	Perform Batch Imports from the User Interface (in both XMLUI and JSPUI) <ul style="list-style-type: none">• XMLUI version (XMLUI Documentation, also see DS-1641) by Peter Dietz with the support of Ohio State University Libraries and Longsight• JSPUI version (JSPUI Documentation, also see DS-2177) by the Greek National Documentation Centre/EKT
blocked URL blocked URL blocked URL  	XMLUI new features <ul style="list-style-type: none">• Mirage 2 Responsive Theme, based on Bootstrap (<i>disabled by default</i>, see DS-2052 for screenshots) by @mire• ORCID Integration (<i>disabled by default</i>, see DS-2049) by @mire• Report Google Analytics statistics from Admin UI (<i>disabled by default</i>, see DS-2108) by Robin Taylor• Track file downloads in Google Analytics statistics (see DS-2008) by Robin Taylor• Autogenerate PDF citation "cover pages" for all PDFs (<i>disabled by default</i>, see DS-2175) by Peter Dietz with the support of Ohio State University Libraries and Longsight• Sherpa/Romeo lookup during item submission process, see DS-2053 by Kevin Van de Velde and Bert Vanderhallen with the support of @mire (previously available only in JSPUI)• Rendering MathML code in abstracts using MathJax, see DS-635 by Peter Dietz with the support of Ohio State University Libraries and Longsight• Ensure "page not found" error pages use configured theme, see DS-1596 by Tim Donohue with the support of DuraSpace• Performance improvements for "Select Collection" dropdown in submission process, see DS-682 by Peter Dietz with the support of Ohio State University Libraries and Longsight

blocked URL	JSPUI new features <ul style="list-style-type: none"> • Drag and drop file upload (using HTML5), see DS-1994 by Pascal-Nicolas Becker with the support of TU Berlin • Item Visual Indicators in Browse/Search results, see DS-2162 by Greek National Documentation Centre/EKT • Track file downloads in Google Analytics statistics (see DS-2008) by Robin Taylor
blocked URL blocked URL	REST API new features <ul style="list-style-type: none"> • DSpace REST API now includes CRUD (Create/Read/Update/Delete) endpoints, see DS-2168 by the Czech Technical University in Prague
blocked URL	RDF Interface to support Linked (Open) Data (NEW) <ul style="list-style-type: none"> • DSpace can now provide its content as Linked (Open) Data via a new RDF interface (provided as an "rdf" webapp), see DS-2061 by Pascal-Nicolas Becker
blocked URL	OAI-PMH interface enhancements / bug fixes <ul style="list-style-type: none"> • OpenAIRE v3 compliance (operators over filters) • OAI respects item READ rights • /oai displays the list of available contexts; contexts have descriptions <p>See DS-1649 by João Melo</p>
	<p>Enhanced Thumbnail Quality (<i>disabled by default</i>)</p> <ul style="list-style-type: none"> • Enhanced image thumbnails can now be generated using ImageMagick • Enhanced PDF Thumbnails can now be generated using ImageMagick and Ghostscript <p>See DS-2105 by Terry Brady with the support of Georgetown University</p>
	<p>Bug fixes / improvements to Biblio-Transformation-Engine (BTE)</p> <ul style="list-style-type: none"> • BTE: batch import from various bibliographic formats was upgrade to the latest version (see DS-2183) <p>Kindly contributed by the Greek National Documentation Centre/EKT</p>
	<p>Enhancements to DOI Support (<i>disabled by default</i>)</p> <ul style="list-style-type: none"> • Enhanced EZID IdentifierProvider Metadata Mapping via XSLT, see DS-2119 by Mohamed Mohideen Abdul Rasheed
Powered by 	<p>Apache Solr libraries were upgraded for all interfaces (JSPUI, XMLUI, and OAI)</p> <p>See DS-2253 by Roeland Dillen with the support of @mire</p>
blocked URL	<p>Add a place for third-party JARs / plugins to be "found" by DSpace (<i>disabled by default</i>)</p> <ul style="list-style-type: none"> • DSpace will now look for JARs / plugins in the locations specified by "plugin.classpath" value specified in dspace.cfg. <p>See DS-2107 by Mark H. Wood with the support of IUPUI University Library</p>
blocked URL	<p>All objects now have metadata support</p> <ul style="list-style-type: none"> • All DSpace objects (Communities, Collections, Items, EPeople, Groups) now have metadata, and most now use the default "dc" (Dublin Core) metadata schema. <ul style="list-style-type: none"> ◦ NOTE: The only exception is EPeople metadata, which is stored in a new "eperson" metadata schema. • The User Interfaces don't yet take advantage of this enhancement in DSpace 5.0. Instead, this is an internal restructuring of data within DSpace. In the future, this provides the potential to create more enhanced metadata (or even more configurable metadata) on all objects <p>See DS-1582 by Mark H. Wood with the support of IUPUI University Library and Kevin Van de Velde with the support of @mire</p>

- Check docs:
 -
 -
 -
 -
- Current li

Unable to locate Jira server for this macro. It may be due to Application Link configuration.

key	summary	type	created	updated	due	assignee	reporter	priority	status	resolution
-----	---------	------	---------	---------	-----	----------	----------	----------	--------	------------

Unable to locate Jira server for this macro. It may be due to Application Link configuration.

- Unable to locate Jira server for this macro. It may be due to Application Link configuration.

Seems like we have 2 options:

2. just document this format 7-specific warning

On DevMtg 2014-11-05 we decided to document for RC1 and decide before RC2

- Update the list of contributors on the [Release Notes](#) in Documentation (see "TBA" in text)
- Draft up announcement for mailing lists
- Update DSpace.org

Automatic Solr up

This has now been done in
kept for archival purposes o

Unable to locate Jira server for this macro. It may be due to Application Link configuration.

. This section is

Findings

~~Solr is distributed on Maven Central as a -war file, which includes the Lucene -jars. No Lucene version relevant to DSpace is available from Maven Central.~~

Solr is a wrapper for Lucene providing concurrency. Lucene can work with index files directly if we don't need concurrent access (i.e. before we start up Solr).

DSpace 1.6 was the first version to use Solr for statistics. In order to upgrade to DSpace 5, we need to upgrade the Solr index format in two steps. The **second step** is easy, upgrading from DSpace 3 (Solr 3.5) to DSpace 5 means just running the Solr 4.10.2 optimize command, which can be run even concurrently when the UIs are running. However, Solr 4.4 doesn't understand the legacy index formats used in Solr before 3.5. Therefore, in the **first step**, we need to use Solr 3.5 or Lucene 3.5 to upgrade from the older index versions to 3.5.

Suggested upgrade

We need to avoid the conflict of having both Solr 3.5 and 4.10.2 in the DSpace classpath. Therefore I suggest to run the first step before the Solr 4.10.2 webapp is started as part of DSpace 5.

To do that, we need to:

1. Detect the **oldest** segment version using [SegmentInfo.getVersion\(\)](#) of Lucene 4.10
 - a. General logic is in this area of the CheckIndex script: https://github.com/apache/lucene-solr/blob/lucene_solr_4_10/lucene/core/src/java/org/apache/lucene/index/CheckIndex.java#L426
2. If that oldest segment version is < 3.5 go to 3. Otherwise go to 5.
3. get lucene-core-3.5.0.jar from Maven Central
4. run the [IndexUpgrader](#) class of Lucene 3.5 (or [optimize\(\)](#))
5. start up DSpace in order to start up Solr 4
6. run the [IndexUpgrader](#) class of Lucene 4.10.2

The manual steps would be:

```
wget "http://search.maven.org/remotecontent?filepath=org/apache/lucene/lucene-core/3.5.0/lucene-core-3.5.0.jar" -O lucene-core-3.5.0.jar
# check index version, see table below:
java -cp lucene-core-3.5.0.jar org.apache.lucene.index.CheckIndex /dspace/solr/statistics/data/index/
java -cp lucene-core-3.5.0.jar org.apache.lucene.index.CheckIndex /dspace/solr/search/data/index/
# upgrade index version:
java -cp lucene-core-3.5.0.jar org.apache.lucene.index.IndexUpgrader /dspace/solr/statistics/data/index/
java -cp lucene-core-3.5.0.jar org.apache.lucene.index.IndexUpgrader /dspace/solr/search/data/index/
# check index version again, should be "version=3.5 format=FORMAT_3_1 [Lucene 3.1+]"
```

DSpace/Solr/Lucene versions and compatibility

DSPACE	Solr	Lucene	Used Lucene index version	version reported by CheckIndex	Supported Lucene index versions
5.0	4.1.0.1	4.10.2	4.10	(before optimize) versions=[4.4.0 .. 4.10.2] format=	
4.0	4.4.0	4.4	4.4	version=4.4.0 format=	
3.0	3.5.0	3.5	LUCENE_35	version=3.5 format=FORMAT_3_1 [Lucene 3.1+]	LUCENE_20, LUCENE_21, LUCENE_22, LUCENE_23, LUCENE_24, LUCENE_29, LUCENE_30, LUCENE_31, LUCENE_32, LUCENE_33, LUCENE_34, LUCENE_35
1.8	3.3.0	3.3	???	version=3.3 format=FORMAT_3_1 [Lucene 3.1+]	
1.7	1.4.1	2.9.3 (2.9.3 951790 - 2010-06-06 01:30:55)	???	version=FORMAT_DIAGNOSTICS [Lucene 2.9]	
1.6	1.3.0	2.4-dev (2.4-dev 691741 - 2008-09-03 15:25:16)	???		

Luke

<https://code.google.com/p/luke/wiki/Compatibility>

Java version

Minimum version of JVM required to run Luke 1.0.1 and earlier is 1.5.

Minimum version of JVM required to run Luke 3.x and 4.x is 1.6.

Lucene Java indexes

Luke 1.0.1 should be able to open indexes built using the following versions of Lucene-Java:

- 3.0.x
- 2.x (any version)

Starting with version 4.x Luke cannot open indexes created with Lucene 3.0.0 or earlier.

Starting with version 3.1.0 Luke releases will use the same numbering as Lucene releases, to avoid confusion.

Changes

The following changes have already been made to the codebase and will be released in 5.0. Please note that the below listing is dynamically generated, so it will be changing as we continue to add new features, improvements and bug fixes to the 5.0 release.

New Features in 5.0

key	summary	type	created	updated	due	assignee	reporter	priority	status	resolution
-----	---------	------	---------	---------	-----	----------	----------	----------	--------	------------

Unable to locate Jira server for this macro. It may be due to Application Link configuration.

General Improvements in 5.0

key summary type created updated due assignee reporter priority status resolution

Unable to locate Jira server for this macro. It may be due to Application Link configuration.

Bug Fixes in 5.0

key summary type created updated due assignee reporter priority status resolution

Unable to locate Jira server for this macro. It may be due to Application Link configuration.

Organizational Details

Release Coordination

Instead of a single "Release Coordinator", the DSpace 5.0 release will be managed by a "Release Team".

Release Team Leader

- Peter Dietz (Longsight)

Release Team Members

- Peter Dietz (Longsight)
- Hardy Pottinger (U of Missouri)
- Ivan Masár
- Mark H. Wood (Indiana University)
- Robin Taylor (University of Edinburgh)
- Pascal-Nicolas Becker (Technische Universität Berlin)
- Andrea Schweer (Library Consortium of New Zealand)

All Release Team membership information is as of November 4, 2014. *Please volunteer (by emailing [Tim Donohue](#)), if you are interested in joining the team!*

Timeline and Processing

Your contributions are welcome now! Code and documentation need not be finished, so long as it is working and we can all see what it is for. Time is set aside for fixing, polishing, and integration. We have some general [Code Contribution Guidelines](#) available, but you are also welcome to ask questions on the [dspace-devel mailing list](#).

Date	Milestone	What it means
October 06	Deadline for feature pull requests	If you wish to contribute features to DSpace 5.0, you must submit a pull request by this date.
October 08	Weekly developers' meeting devoted to review of feature pull requests for 5.0	The entire hour's meeting will be used to discuss proposed features submitted by the deadline.
October 15	Weekly developers' meeting devoted to review of feature pull requests for 5.0	The entire hour's meeting will be used to discuss proposed features submitted by the deadline.
October 31	Feature freeze	DSpace 5.0 is considered feature-complete on this date. Only bugfixes will be pulled between this date and final release.
November 6	Release Candidate 1 tagged	A DSpace 5.0 Release Candidate will be available for wider testing.
November 10	Release Candidate 2 tagged	5.0-rc2 was released to address missing optional artifacts from 5.0-rc1 (Mirage2 and LNI)
November 10-21	Testathon	Intensive public testing of the 5.0 Release Candidate is invited. The Release Team will focus on getting problems resolved.
December 19	Release Candidate 3 tagged	An updated DSpace 5.0 Release Candidate will be available for wider testing.
January 15	DSpace 5.0 is publicly released	DSpace 5.0 is released for download and general use.

Release Process needs to proceed according to the following Maven release process: [Release Procedure](#)