Welcome to Release 7.0, the next major release of the DSpace platform. Any previous version of DSpace may be upgraded to DSpace 7 directly. For more information, please see Upgrading DSpace.

- 7.0 Beta 4 Release Notes
- 7.0 Beta 3 Release Notes
- 7.0 Beta 2 Release Notes
- 7.0 Beta 1 Release Notes
- 7.0 Acknowledgments
  - Major Contributing Institutions
  - Frontend / New User Interface Acknowledgments
  - Backend / REST API Acknowledgments
  - Additional Thanks

7.0 Beta 4 Release Notes

Do not install a Beta release in Production!

DSpace 7 is still under active development. As a Beta release, we do not recommend installing this in production. Rather, we ask that you consider installing it in a test environment, try it out, and report back any issues or bugs you notice via GitHub (UI issues, Backend/ API issues)

Get Started / Try it out!

To try out DSpace 7.0 Beta 4 immediately, see Try out DSpace 7

Full (manual) installation instructions are also available at Installing DSpace.

- DSpace 7.0 beta 4 UI: https://github.com/DSpace/dspace-angular/releases/tag/dspace-7.0-beta4
- DSpace 7.0 beta 4 Backend: https://github.com/DSpace/DSpace/releases/tag/dspace-7.0-beta4.1

For more information on the upcoming Beta and Final release schedule see DSpace 7 Release Goals.

Included in Beta 4

- Live Import framework (video) support has been added to the Submission Form (and REST API /api/integration/externalsources endpoint)
  - Search an external site for works to import. (From your MyDSpace page, click the "Import metadata from external source" button in upper right). Currently supports Library of Congress Names, ORCID, PubMed, Sherpa Journals or Sherpa Publishers.
  - Drag and drop a bibliographic file into Submission form or MyDSpace page to prepopulate metadata. Supported formats include ArXiv, CSV (or TSV), Endnote, PubMed, or RIS.
- Controlled Vocabulary support (video) in Submission Form. Depending on the field configuration, this can include autocomplete of known terms (see default "Subject Keywords" field), dropdown support (see default "Type" field) and hierarchical tree views
  - Includes support for Controlled Vocab, Authority Control and "Value-Pairs" (from submission configs)
- Curation Tasks are now supported via the Admin UI and the Processes UI. (Login as an Admin, select "Curation Tasks")
- Import / Export metadata from/to CSV (i.e. Batch Metadata Editing) is now available from the Admin UI. (Login as an Admin, select "Export" > "Metadata", select "Import" > "Metadata")
- Basic Usage Statistics (video) are available for the entire site (See "Statistics" menu at top of homepage), or specific Communities, Collections or Items (Click on that same "Statistics" menu after browsing to a specific object).
  - Support for exchanging usage data to IRUS was added. See new "irus-statistics.cfg" and DS-626
- Improved GDPR Alignment (video)
  - User Agreement required for all authenticated users to read and agree to. (Login for first time, and sample user agreement will display. After agreeing to it, it will not appear again.)
  - Cookie Preferences are now available for all users (anonymous or authenticated). A cookie preference popup appears when first accessing the site. Users are given information on what cookies added by DSpace, including a Privacy Statement which can be used to describe how their data is used.
  - User Accounts can be deleted even if they've submitted content in the past.
    - When a user is deleted, their past submissions are kept but the submitter field is set to empty (null).
    - Users cannot be deleted if they are the only member of a workflow approval group. Admins must either delete that group first, or assign another member to the group. This ensures Workflows are kept even if a user account needs to be deleted.
- Language preferences are now kept for all users (anonymous or logged in). By default, DSpace will try to use your browser's preferred language (if found in Accept-Language header and a translation in that language exists). Users can override it by either saving a preferred language in their user profile, or by manually selecting a different language from the globe icon (upper right).
- **IP-based authorization** lets you restrict (or provide access to) objects based on the user's IP address. This uses the same "authentication-ip.cffg" configuration as DSpace 6, allowing you to map IP ranges to specific DSpace Groups. Users within that IP range are added to the mapped DSpace Group for the remainder of their session.

- **Search Engine Optimization**: Addition of robots.txt, Sitemaps and Google Scholar "citation" tags. These optimizations are being tested by the Google Scholar team and may be improved further in the upcoming beta 5 release.
  - For improved SEO, Sitemaps are now enabled by default and automatically update once per day.
  - Security Fixes and Dependency upgrades
    - Enhancements to new /api/authz/features endpoint in REST API to provide additional feature-specific permission checks
    - Flyway database engine was upgraded to version 6.5.5
    - Indexing enhancements (some objects were being indexed twice, see PR#2960)
    - Fixes to Shibboleth login
    - Additional bug fixes to both UI and REST API

**Coming Soon**

- For the upcoming Beta release schedule see DSpace 7 Release Goals

**Additional Resources**

At this time, the DSpace 7 documentation is still in progress, but has begun at [https://wiki.lyrasis.org/display/DSDOC7x/](https://wiki.lyrasis.org/display/DSDOC7x/)

That said, we have a number of recorded presentations and workshops available which provide an overview of all the new 7.0 features.

- Presentations / Workshops from OR2019 (June 2019). Some video recordings exist [https://wiki.lyrasis.org/display/DSPACE/DSpace+7+at+OR2019](https://wiki.lyrasis.org/display/DSPACE/DSpace+7+at+OR2019)
- Additional DSpace 7 presentations/workshops/webinars are planned for 2020 as we get closer to the 7.0 final release.

**Changelog**

- All User Interface changes: [https://github.com/DSpace/dspace-angular/issues?q=is%3Aclosed+is%3Afeature+is%3Afixed%3Amilestone%3A7.0beta4](https://github.com/DSpace/dspace-angular/issues?q=is%3Aclosed+is%3Afeature+is%3Afixed%3Amilestone%3A7.0beta4)
- All Backend changes: [https://github.com/DSpace/DSpace/issues?q=is%3Aclosed+is%3Afixed+is%3Amilestone%3A7.0beta4](https://github.com/DSpace/DSpace/issues?q=is%3Aclosed+is%3Afixed+is%3Amilestone%3A7.0beta4)

**7.0 Beta 3 Release Notes**

*Included in Beta 3*

- **Processes Admin UI** ([video](https://github.com/DSpace/DSpace-angular/issues?q=is%3Aclosed+is%3Afeature+is%3Afixed%3Amilestone%3A7.0beta4)) allows Administrators to run backend scripts/processes while monitoring their progress & completion. (Login as an Admin, select "Processes" in sidebar)
  - Currently supported processes include "index-discovery" (reindex site), "metadata-export" (batch metadata editing CSV export), and "metadata-import" (batch metadata editing CSV import).
- **Manage Account Profile** allows logged in users to update their name, language or password. (Login, click on the account icon, and select "Profile")
- **New User Registration** ([video](https://github.com/DSpace/DSpace-angular/issues?q=is%3Aclosed+is%3Afeature+is%3Afixed%3Amilestone%3A7.0beta4)) and password reset on the Login Screen
- **Login As (Impersonate)** another account allows Administrators to debug issues that a specific user is seeing, or do some work on behalf of that user. (Login as an Admin, Click "Access Control" in sidebar, Click "People". Search for the user account & edit it. Click the "Impersonate EPerson" button. You will be authenticated as that user until you click "Stop Impersonating EPerson" in the upper right.)
  - Requires "webui.user.assumeLogin=true" to be set in your local.cfg on backend. Also be aware that you can only "impersonate" a user who is not a member of the Administrator group.
- **Manage Authorization Policies** of an Item allows Administrators to directly change/update the access policies of an Item, its Bundles or Bitstreams. (Login as an Admin, Click "Edit" "Item" in sidebar, and search for the Item. Click the "Authorization.." button on its "Status" tab.
- **Manage Item Templates** of a Collection allows Administrators to create/manage template metadata that all new Items will start with when submitted to that Collection. (Login as an Admin, Click "Edit" "Collection" in sidebar and search for the Collection. Click the "Add" button under "Template Item" to get started.)
  - NOTE: unfortunately there's a known bug that while you can create these templates, the submission process is not yet using them. See [https://github.com/DSpace/dspace-angular/issues/748](https://github.com/DSpace/dspace-angular/issues/748)
- **Administer Active Workflows** ([video](https://github.com/DSpace/DSpace-angular/issues?q=is%3Aclosed+is%3Afeature+is%3Afixed%3Amilestone%3A7.0beta4)) allows Administrators to see every submission that is currently in the workflow approval process. From there, they have the option to delete Items (if they are no longer needed), or send them back to the workflow pool (to allow another user to review them). (Login as an Admin, Click "Administer Workflow" in sidebar)
- **CC License** step allows your users to select a Creative Commons License as part of their submission. Once enabled in the "item-submission.xml" (on the backend) it appears as part of the submission form.
- **Angular CLI** compatibility was added to the User Interface. This allows developers to easily update the User Interface using standard Angular commandline tools. More information (including tutorials) is available at [https://cli.angular.io/](https://cli.angular.io/)
- **English, Latvian, Dutch, German, French, Portuguese, Spanish and Finnish language catalogs**
- Numerous bugs were fixed based on early user testing. (Thanks to all who've tested Beta 1 or Beta 2 and reported your feedback!) Some bugs fixed include:
  - Login/Logout session fixes (including compatibility with Firefox and Safari browsers)
  - Improved Community/Collection tree browsing performance
  - Fixes to editing Communities, Collections and Items. This includes improved drag & drop reordering of bitstreams in an Item.
  - Improved performance of Collection dropdown in submission form.
  - Ability to download restricted bitstreams (previously these would error out)
  - Authorization & security improvements in both REST API and UI
- Upgraded all REST API dependencies (Spring, Spring Boot, HAL Browser) and enhanced our automated testing via additional Integration Tests.
- All features previous mentioned in 7.0 Beta 2 Release Notes and 7.0 Beta 1 Release Notes below
Learn More: New videos are available highlighting features of the MyDSpace area:

- Manage Submissions in MyDSpace (video)
- Manage Tasks in MyDSpace (video)

Coming Soon

- For the upcoming Beta release schedule see DSpace 7 Release Goals

Additional Resources

At this time, the DSpace 7 documentation is still in progress, but has begun at https://wiki.lyrasis.org/display/DSDOC7x/

That said, we have a number of recorded presentations and workshops available which provide an overview of all the new 7.0 features.

- Presentations / Workshops from OR2019 (June 2019). Some video recordings exist https://wiki.lyrasis.org/display/DSPACE/DSpace+7+at+OR2019
- Additional DSpace 7 presentations/workshops/webinars are planned for 2020 as we get closer to the 7.0 final release.

Changelog

- All User Interface changes: https://github.com/DSpace/dspace-angular/issues?q=is%3Aclosed+milestone%3A7.0beta3
- All Backend changes: https://github.com/DSpace/DSpace/issues?q=is%3Aclosed+milestone%3A7.0beta3

7.0 Beta 2 Release Notes

Included in Beta 2

- Administrative Search (video) combines retrieval of withdrawn items and private items, together with a series of quick action buttons.
- EPeople, Groups and Roles can now be viewed, created and updated.
  - Manage Groups (Login as an Admin Access Control Groups)
  - Manage EPeople (Login as an Admin Access Control EPeople)
  - Manage Community/Collection Roles (Login as an Admin Edit Community/Collection Assign Roles). Note: this feature is Admin-only in beta 2, but will be extended to Community/Collection Admins in beta 3.
- Bitstream Editing (video) has a drag-and-drop interface for re-ordering bitstreams and makes adding and editing bitstreams more intuitive.
- Metadata Editing (video) introduces suggest-as-you-type for field name selection of new metadata.
- Update Profile / Change Password (Login Select user menu in upper right Profile)
- Shibboleth Authentication
- Viewing Item Version History (requires upgrading from a 6.x site that includes Item Versioning)
- Collection and Community (video) creation and edit pages.
- English, Latvian, Dutch, German, French, Portuguese and Spanish language catalogs
- Security and authorization improvements, including REST API support hiding specific metadata fields (metadata.hide property) and upgrades of different software packages on which DSpace 7 depends.
- All features previous mentioned in 7.0 Beta 1 Release Notes below

Coming Soon

- For the upcoming Beta release schedule see DSpace 7 Release Goals

Additional Resources

At this time, the DSpace 7 documentation is still in progress, but has begun at https://wiki.lyrasis.org/display/DSDOC7x/

That said, we have a number of recorded presentations and workshops available which provide an overview of all the new 7.0 features.

- Presentations / Workshops from OR2019 (June 2019). Some video recordings exist https://wiki.lyrasis.org/display/DSPACE/DSpace+7+at+OR2019
- Additional DSpace 7 presentations/workshops/webinars are planned for 2020 as we get closer to the 7.0 final release.

A full list of all changes / bug fixes in 7.x is available in the Changes in 7.x section.

7.0 Beta 1 Release Notes

New features to look for

- A completely new User Interface (demo site). This is the new Javascript-based frontend, built on Angular.io (with support for SEO provided by Angular Universal). This new interface is also via HTML and CSS (SCSS). For early theme building training, see the “Getting Started with DSpace 7 Workshop” from the North American User Group meeting: slides or video recording.
- A completely new, fully featured REST API (demo site), provided via a single "server" webapp backend. This new backend is not only a REST API, but also still supports OAI-PMH, SWORD (v1 or v2) and RDF. See the REST API's documentation / contract at https://github.com/DSpace/Rest7Contract/blob/master/README.md
• **A newly designed search box.** Search from the header of any page (click the magnifying glass). The search results page now features automatic search highlight, expandable & searchable filters, and optional thumbnail-based results (click on the “grid” view).

• **A new MyDSpace area,** including a new, one-page, drag & drop submission form, a new workflow approval process, and searchable past submissions. (Login, click on your user profile icon, click “MyDSpace”). Find workflow tasks to claim by selecting “All tasks” in the “Show” dropdown.

• **Dynamic user interface translations** (Click the globe, and select a language). Anyone interested in adding more translations? See DSpace 7 Translation - Internationalization (i18n) - Localization (l10n).

• **A new Admin sidebar.** Login as an Administrator, and an administrative sidebar appears. Use this to create a new Community/Collection/Item, edit existing ones, and manage registries. *(NOTE: A number of Administrative tools are still missing or greyed out. They will be coming in future Beta releases.)*

• **Optional, new Configurable Entities feature.** DSpace now supports “entities”, which are DSpace Items of a specific ‘type’ which may have relationships to other entities. These entity types and relationships are configurable, with two examples coming out-of-the-box: a set of Journal hierarchy entries (Journal, Volume, Issue, Publication) and a set of Research entities (Publication, Project, Person, OrgUnit). For more information see “The Power of Configurable Entities” from OR2019: slides or video recording. Additionally, a test data set featuring both out-of-the-box examples can be used when trying out DSpace 7 via Docker. Early documentation is available at Configurable Entities.

• **Support for OpenAIREv4 Guidelines for Literature Repositories in OAI-PMH** (See the new “openaire4” context in OAI-PMH).

Additional major changes to be aware of in the 7.x platform (not an exhaustive list):

• **XMLUI and JSPUI are no longer supported or distributed with DSpace.** All users should immediately migrate to and utilize the new Angular User Interface. There is no migration path from either the XMLUI or JSPUI to the new User interface. However, the new user interface can be themed via HTML and CSS (SCSS).

• The old REST API ("rest" webapp from DSpace v4.x-6.x) is deprecated and will be removed in v8.x. The new REST API (provided in the "server" webapp) replaces all functionality available in the older REST API. If you have tools that rely on the old REST API, you can still (optionally) build & deploy it alongside the "server" webapp via the “-Pdspace-rest” Maven flag.

• **The Submission Form configuration has changed.** The "item-submission.xml" file has changed its structure, and the "input-forms.xml" has been replaced by a “submission-forms.xml”. For early documentation see Configuration changes in the submission process (FULL DOCUMENTATION COMING SOON)

• **ElasticSearch Usage Statistics have been removed.** Please use SOLR Statistics or DSpace Google Analytics Statistics.

• **The traditional, 3-step Workflow system has been removed in favor of the Configurable Workflow System.** For most users, you should see no effect or difference. The default setup for this Configurable Workflow System is identical to the traditional, 3-step workflow (“Approve/Reject”, “Approve/Reject/Edit Metadata”, “Edit Metadata”)

• **Apache Solr is no longer embedded within the DSpace installer (and has been upgraded to Solr v7).** Solr now MUST be installed as a separate dependency alongside the DSpace backend. See Installing DSpace.

• **Some command-line tools/scripts are enabled in the new REST API (e.g. index-discovery):** See new Scripts endpoint: https://github.com /DSpace/Rest7Contract/blob/2625/master/scripts-endpoint.md

• **DSpace now has a single, backend "server" webapp to deploy in Tomcat (or similar).** In DSpace 6.x and below, different machine interfaces (OAI-PMH, Sword v1 or v2, RDF, REST API) were provided via separate deployable webapps. Now, all those interfaces along with the new REST API are in a single, "server" webapp built on Spring Boot. You can now control which interfaces are enabled, and what path they appear on via configuration (e.g. "oai.enabled=true" and "oai.path=oai"). See https://jira.lyrasis.org/browse/DS-4257 (FULL DOCUMENTATION COMING SOON)

• **Configuration has been upgraded to Apache Commons Configuration version 2.** For most users, you should see no effect or difference. No DSpace configuration files were modified during this upgrade and no configurations or settings were renamed or changed. However, if you locally modified or customized the [dspace]/config/config-definition.xml DSpace's Apache Commons Configuration settings, you will need to ensure those modifications are compatible with Apache Commons Configuration version 2. See the Apache Commons Configuration's configuration definition file reference for more details.

• **Handle Server has been upgraded to version 9.x:** https://jira.lyrasis.org/browse/DS-4205

• **DSpace now has sample Docker images (configurations)** which can be used to try out DSpace quickly. See Try out DSpace 7 (“Install via Docker” section)

Additional Resources

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• **Presentations / Workshops from OR2019 (June 2019).** Some video recordings exist https://wiki.lyrasis.org/display/DSPACE /DSpace+7+at+OR2019


• **Additional DSpace 7 presentations/workshops/webinars are planned for 2020**

A full list of all changes / bug fixes in 7.x is available in the Changes in 7.x section.

### 7.0 Acknowledgments

**Major Contributing Institutions**

The following institutions have been major code contributors to the DSpace 7 release (in general)

- Atmire - also hosts/maintains DSpace 7 UI demo at https://demo7.dspace.org
- 4Science - also hosts/maintains DSpace 7 REST demo at https://api7.dspace.org/server/
- FCT / RCAAP

**Frontend / New User Interface Acknowledgements**
The following 29 individuals have contributed directly to the new DSpace (Angular) User Interface in this release (ordered by number of GitHub commits): Lotte Hofstede (LotteHofstede), Giuseppe Digilio (atarix83), Kristof De Langhe (Atmire-Kristof), Art Lowel (artlowel), William Welling (wwelling and wellingWilliam), Michael Spalti (mspalti), Laura Henze (lhenze), Jonas Van Goolen (jonas-atmire), Marie Verdonck (MarieVerdonck), Terry Brady (terrywbrady), Andrea Chiapparelli (andreachiapparelli), Ben Bosman (benbosman), Antoine Snyers (antoine-atmire), Matteo Perelli (sourcedump), Bram Luyten (bram-atmire), Courtney Pattison (courtneypattison), Alex Magaz Graça (rivaldi8), Tim Donohue (tdonohue), Chris Wilper (cwilper), Christian Scheible (christian-scheible), Alexander Sulfrian (AlexanderS), Paulo Graça (paulo-graca), Mohamed Mohideen Abdul Rasheed (mohideen), Philip Vissenaekens (PhilipVIs), Pascal-Nicolas Becker (pnbecker), Hardy Pottinger (hardyoyo), Mateus Meroer (MatMeroer), Martin Walk (MW3000), Julius Gruber (Flusspferd123)

The following 5 individuals have contributed a translation of the new interface: Marina Mulijwijk (Dutch), Claudia Jürgen (German), Maria Fernanda Ruiz (Spanish), Vitor Silvério Rodrigues (Brazilian Portuguese), Ivan Masar (Czech)

The above contributor lists were determined based on historical contributions to the "dspace-angular" project in GitHub: https://github.com/DSpace/dspace-angular/graphs/contributors

Backend / REST API Acknowledgments

The following 45 individuals have contributed directly to the DSpace backend (REST API, Java API, OAI-PMH, etc) in this release (ordered by number of GitHub commits): Raf Ponsaerts (Raf-atmire), Andrea Bollini (abollini), Mark Wood (mwoodiapui), Luigi Andrea Pascarelli (lap82), Terry Brady (terrywbrady), Tom Desair (tomdesair), Ben Bosman (benbosman), Tim Donohue (tdonohue), Marie Verdonck (MarieVerdonck), Chris Wilper (cwilper), Michele Boychuk (micheleboychuk), Jelle Pelgrims (jpelgrims-atmire), Kevin Van de Velde (kevinvdv), Andrew Wood (Andrew2Wood), Peter Nijs (peter-atmire), Michael Spalti (mspalti), Patrick Trottier (PTrottier), Pablo Prieto (pmpdo), Alexander Sulfrian (AlexanderS), Hardy Pottinger (hardyoyo), Kim Shepherd (kshepherd), William Tantzen (tantz001), Jonas Van Goolen (jonas-atmire), Pascal-Nicolas Becker (pnbecker), Ivan Masar (helix84), Kristof De Langhe (Atmire-Kristof), Paulo Graça (paulo-graca), James Creel (jcreel), Ian Little (little-cnr), Alan Orth (alanorth), Claudia Jürgen (cjürgen), Milka Numminen (minummin), Colin Delacroix (codelacroix), Giuseppe Digilio (atarix83), Hrafn Malmquist (J4bbi), Bram Luyten (bram-atmire), Christian Scheible (christian-scheible), Sven Soliman (ssolim), Santiago Tettamanti (santit96), Julius Gruber (Flusspferd123), Saiful Amin (saiful-semantic), Mohamed Mohideen Abdul Rasheed (mohideen), József Marton (jmarton), Marsa Haoua (marsaoua), Alex Magaz Graça (rivaldi8)

The above contributor list was determined based on contributions to the "DSpace" project in GitHub since 6.0 (after Oct 24, 2016): https://github.com/DSpace/DSpace/graphs/contributors?from=2016-10-24&to=2020-03-03&type=core Therefore this list may include individuals who contributed to later 6.x releases, but only if their bug fix was also applied to 7.0.

Additional Thanks

Additional thanks to our DSpace Leadership Group and DSpace Steering Group for their ongoing DSpace support and advice. Thanks also to LYRASIS for your leadership, collaboration & support in helping to speed up the development process of DSpace 7.

Thanks also to the various developer & community Working Groups who have worked diligently to help make DSpace 7 a reality. These include:

- DSpace 7 Working Group
- DSpace 7 Entities Working Group
- DSpace 7 Marketing Working Group
- DSpace Community Advisory Team (DCAT)

We apologize to any contributor accidentally left off this list. DSpace has such a large, active development community that we sometimes lose track of all our contributors. Our ongoing list of all known people/institutions that have contributed to DSpace software can be found on our DSpace Contributors page. Acknowledgments to those left off will be made in future releases.