DSpace Release 7.0 Status

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**DSpace 7.0 will be released on/by Monday, August 2, 2021!**

The full release announcement & overview can be found in the OR2021 talk "DSpace 7.0 : Coming to a DSpace near You!" (slides, video)

If you'd like to contribute to 7.0 or upcoming 7.x releases, we welcome developers to join our weekly DSpace 7 Working Group meetings.

If you want to give it a try now, see Try out DSpace 7 for links to our demo sites & Docker "quick install" instructions.

**DSpace v7 versus DSpace-CRIS v7**

DSpace v7 and DSpace-CRIS v7 are separate open source products with separate roadmaps and separate governance models. As you may know, DSpace is a community-maintained, open-source platform, including community-elected governance. DSpace-CRIS is an open-source product built/maintained/governed by 4Science, which extends that DSpace platform for research data & information management use cases. DSpace Governance has been in discussions with 4Science regarding convergence of the two products, but the products will continue to be separate in v7.x.

While we congratulate our colleagues/friends at 4Science for their recent release of DSpace-CRIS v7, the DSpace 7.0 release is scheduled for August 2, 2021, as the DSpace dev team is working to finish squashing high priority bugs & accessibility issues discovered during our Community Testathon (see our 7.0 work board for outstanding work).

**Milestones**

DSpace 7.0 will be the largest release in the history of DSpace. It is the culmination of strategic planning by DSpace Governance in response to community feedback, use cases and needs (for additional details see Strategic Planning)

<table>
<thead>
<tr>
<th>Achievement</th>
<th>More details</th>
</tr>
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<tbody>
<tr>
<td>(2014-15) Governance creates a Strategic Plan for modernizing &amp; refreshing DSpace for the future. A key goal of this plan is a &quot;single, out of the box user interface&quot; to replace the aging XMLUI and JSPUI.</td>
<td>DSpace 2015-18 Strategic Plan</td>
</tr>
<tr>
<td>(2015-16) Community competition for different UI prototypes. Nine were reviewed / analyzed for inclusion as the single, future DSpace UI.</td>
<td>DSpace UI Prototype Challenge</td>
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<tr>
<td>(2016) Formal selection of Angular as new UI framework, replacing both the XMLUI and JSPUI. New Angular UI that is modern, responsive, and built using a Bootstrap theme for easy customization.</td>
<td>&quot;Introducing the new DSpace User Interface&quot; talk at OR2016</td>
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<tr>
<td>(2017) Adoption of a standards based REST API to maximize exposure of all DSpace features for integration purposes: A completely redesigned REST API that is self-documenting and human browsable.</td>
<td>&quot;On the Road to DSpace 7 : Angular UI + REST&quot; at OR2017</td>
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<tr>
<td>(2017-19) Redesigned submissions and workflows featuring a one page submission process with a drag-and-drop interface &amp; a searchable MyDSpace.</td>
<td>Configuration changes in the submission process</td>
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</table>
(2017-19) Configurable entities, an optional new item type inspired by the DSpace-CRIS project that allows for complex linked relationships between items. For example, items can now represent a Person (Entity) to provide a way to support "researcher profiles", and link that person to the works they authored.

(May 2019) Preview release, including Entity demonstrator and associated data set

(2019-20) Docker installation and deployment procedures

(Jan 2020) Established a new Staged Beta Release Process for 7.0, spacing out major features over a series of smaller Beta releases & delaying some low priority features for later 7.x releases. Paid/funded development began.

(March 2020) Beta 1 released

(April 2020) Beta 2 released

(2020) Beta 3 released

(Oct 2020) Beta 4 released

(April 2021) Beta 5 released

Testathon

OR2021 Talks / Workshop

Final bug & accessibility fixes prior to 7.0 release


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7.0 release (see "What will be included in DSpace 7.0?")

Later 7.x releases (see "What features are coming in a later 7.x release?")

Major benefits of DSpace 7

This release finally brings together two user interfaces and their communities, who had previously been working in parallel. The ambition is to bring together the best of both JSPUI and XMLUI worlds, meaning that all features you love and use are re-imagined, and re-implemented on a single new user interface technology, Angular. This new UI is backed by a brand new REST API, which opens all data & features to the web, allowing DSpace to integrate or interact with external systems/services like never before.

The switch to Angular also allows for more rapid innovation. Angular has the potential to attract developers with prior expertise, given the popularity and global traction of Angular across industries.

Want to see what it looks like? Visit Try out DSpace 7
What will be included in DSpace 7.0?

The efforts contributed to DSpace 7 are the largest endeavour ever undertaken by the DSpace community. The DSpace 7.0 release will concentrate on the following major features:

1. A new User Interface based on Angular (to replace XMLUI and JSPUI). This work is going on in the "main" branch of https://github.com/DSpace/dspace-angular.
   a. The goal of the new UI is to implement all major features of both XMLUI and JSPUI in a single, modern UI.
   b. An exhaustive list of all major features already in 7.0 can be found in the 7.0 Release Notes (for each Beta).
   c. NOTE: Some, lower-priority, minor DSpace 6 XMLUI or JSPUI features have been delayed for a later 7.x release (see below). This decision was made to make 7.0 available as soon as possible.
2. A refactored/enhanced REST API (using modern REST best practices). This work is going on in the "main" branch of https://github.com/DSpace/dspace.
   a. Additionally, a new REST Contract (describing all API interactions) is being written at https://github.com/DSpace/RestContract.
3. Redesigned submissions and workflows featuring a one page submission process with a drag-and-drop interface and newly redesigned MyDSpace.
4. A new Configurable Entities object model, which allows for the creation of new "typed" Items, and storing relationships between Items. This feature will allow for tighter integration with external identifier systems (e.g. ORCID), current research information systems (CRIS), journal publishing systems, etc. This work was completed by the DSpace 7 Entities Working Group.
   a. Early technical documentation is available at https://docs.google.com/document/d/1wEmHirFzrY3ggGtRr2YBqwGOvH1iuTVGmxDIdnqwxM/edit

For much more information on the history behind these decisions, see DSpace 7 UI Project Plain Language Summary

What features are coming in a later 7.x release?

Because of the complexity of merging features of two UIs (XMLUI and JSPUI) into one, and the desire to make 7.0 available as soon as possible, we have chosen to release 7.0 as soon as the highest priority features (those deemed most widely used) are completed. Therefore, some features have been delayed for a later 7.x release. See DSpace 7 Release Goals for more information.

Ranking of outstanding features into "Tiers"

In April-May 2021, all DSpace Steering & Leadership members were surveyed on the features not yet implemented in 7.0. They were asked to rank those features on behalf of their institution(s) they represent. In June 2021, a subset of those members compiled the results into 5 " tiers", based on the results of that survey. These "tiers" provide the priority of every outstanding feature, and map to a rough plan for at least five 7.x releases. Features are also ranked within a "tier" based on their number (with #1 being the highest priority within that tier).

Creation of a Roadmap for all 7.x releases

The DSpace 7 Working Group will be formalizing these rough tiers into a Roadmap for each 7.x release. Keep in mind, some features may be moved around slightly in the final Roadmap (e.g. in some scenarios it may make sense to build related features together). Additionally, some 7.x releases may include bug fixes, code cleanup/refactors or features not yet listed below. However, we'll strive to get these features implemented in priority order.

The goal is to spread this work over several releases (likely at least 5, i.e. 7.1 - 7.5), in order to get higher priority features out as quickly as possible. The release timeline is TBD, but it may be similar to the "Staged Beta Release" process (see above), where we released 5 Betas in a little over a year (averaging a new release every few months).

Tier 1: Highest Priority after 7.0

1. (Admin) Ability to preview Batch Metadata changes during import of CSV, similar to 6.x. In 7.0, it is possible to import a CSV from the Admin Toolbar, but you are not shown a preview of pending changes.
2. (General) Request a Copy, similar to how it worked in 6.x.
3. (NEW) External lookup of metadata using a search or identifier (e.g. DOI) to enrich an in-progress submission. In 7.0, external searches/lookups can only be done from the MyDSpace page to start a new submission.
4. (Submission) Embargo entire item (including metadata) via an "Access" section, similar to 6.x. In 7.0, only individual Bitstreams/Files can be embargoed during a submission.
5. (Admin) Collection harvested from an OAI-PMH endpoint (like in 6.x XMLUI), and kick off a new harvest from the UI.
6. (Submission) Create a new Item Version, similar to 6.x (as either an administrator or a submitter). In 7.0, viewing Item Versions is supported, but new versions cannot be created.
7. (Workflow) Preview an item during workflow approval (via a button/pop up), to allow for easier accepting/rejecting, similar to 6.x
8. (General) Feedback form, similar to 6.x

Tier 2: Medium-High Priority

1. (General) Support for hierarchical controlled vocabularies in Search interfaces, similar to 6.x. In 7.0, hierarchical controlled vocabularies are supported in the Submission form but not in Search.
2. (General) List of Recently Added Items (Recent Submissions) on homepage, similar to 6.x. In 7.0, this is only available on Collection homepages.
3. (Submission) SHERPA/RoMEO integration, similar to 6.x
4. (NEW) Export all personal data for your user account (compliance for privacy)
5. (NEW) Extracting metadata from a bibliographic file (e.g. BibTex, PDF) to enrich an in-progress submission. In 7.0, metadata extraction only will occur when uploading a file from the MyDSpace page to start a new submission.
6. (Submission) Supervision Orders (similar to 6.x JSPUI)
7. (General) Support "Browse By" configurations for custom browse options. In 7.0, "Browse By" options shown in the UI are hardcoded when they should be read from configuration. (May move to "Medium priority")
8. (Admin) Administrative Control Panel (similar to 6.x XMLUI) (May move to "Medium priority")
9. (Submission) Support for type-based submission forms (<type-bind> configuration), similar to 6.x. (May move to "Medium priority")
10. (Submission) Make an item "private" during submission, similar to 6.x.
11. (NEW) Signposting support, aligning with recommendations from the COAR Next Generation Repositories Report (May move to "Medium priority")
12. (Integrations) OpenSearch API support, similar to 6.x (May move to "Medium priority")

Tier 3: Medium Priority

1. (Admin) Batch Import from a Zip file in Admin UI, similar to 6.x. In 7.0, it is still possible to batch import from command line, but not yet possible from the Admin UI.
2. (Admin) Batch Export an Item, a Collection or a Community to Zip file in Admin UI, similar to 6.x. In 7.0, it is still possible to batch export from command line, but not possible from the Admin UI.
3. (Workflow) Full support for custom configurable workflow steps, similar to 6.x. In 7.0, some workflow steps are hardcoded, so custom named steps may not be recognized automatically.
4. (NEW) AIP Backup and Restore should support export/import of Entities & their relationships
5. (General) RSS / ATOM feeds for Site, Community or Collection, similar to 6.x
6. (General) Ability to subscribe to email updates for a Collection (Manage Subscriptions), similar to 6.x
7. (NEW) Ability to edit an Archived Item via a submission-like form (i.e. easier to use Edit Item form)
8. (NEW) ResourceSync support, aligning with recommendations from the COAR Next Generation Repositories Report
9. (Statistics) Administrative (potentially log-based) statistical reports, similar to 6.x

Tier 4: Medium-Low Priority

1. (NEW) Simple Archive Format (SAF) Import should support Entity/relationship creation
2. (General) Bulk access control management (previously called "Advanced Policy Manager" in 6.x) - The ability to modify policies on several items at once.
3. (General) Additional contextual help (e.g. hover-overs which provide hints/tips on using the user interface), similar to 6.x JSPUI
4. (Workflow) Ability to batch claim workflow tasks. In 7.0, you can only claim one task at a time.
5. (Submission) Support for kicking off a Curation Task during Submission process, similar to 6.x
7. (NEW) OpenAIRE integration with the notification broker and the claim service
8. (NEW) SWORD should support Entity/relationship creation

Tier 5: Low Priority

These features were deemed lowest priority of all on our list. While most will still be implemented in 7.x, some may also be reviewed for possible removal (or replacement) if the feature is no longer useful.

1. (Admin) Ability to export metadata (to CSV) from search results, similar to 6.x. In 7.0, it’s possible to export metadata to CSV from a Community/Collection/Item, but not from a set of search results.
2. (Admin) Edit homepage news from Admin UI, similar to 6.x JSPUI.
3. (NEW) Easily embargo an Archived Item using a date-picker or form. In 7.0, you can embargo an Item by modifying its Policies/Permissions directly (e.g. creating an Anonymous policy that starts on a future date will embargo that item until that date).
4. (General) Display "More like this" (similar items) on an Item page, similar to 6.x XMLUI.
5. (General) View your groups in your user profile page. (Removed, as this ended up being included in 7.0)
6. (Integrations) Migrate SWORDv1 client (ability to send content from DSpace to an external SWORDv1 server) from 6.x
7. (NEW) Support drag & drop of multiple files at once from MyDSpace page. In 7.0, only one file can be drag & dropped at a time from MyDSpace. However, you can drag & drop additional files during submission.
8. (Admin) Edit default deposit license from Admin UI, similar to 6.x JSPUI.
9. (Integrations) OpenURL Support
10. (Statistics) Search reports, similar to 6.x. Statistics on searches performed in DSpace.
11. (General) Tag cloud visualization, similar to 6.x JSPUI.
12. (Statistics) Workflow reports, similar to 6.x. Statistics on items currently in workflow approval in DSpace.

Try out DSpace 7

Try out DSpace 7 has instructions for installing DSpace 7 locally, or via Docker. Keep in mind, DSpace 7 is not yet "production ready" until 7.0 is released.

If you want to quickly test out the latest DSpace 7 code, you may do so using our demo site.

- **DSpace 7 User Interface Demo:** [https://demo7.dspace.org/](https://demo7.dspace.org/) (Login: dspace7demo+admin@gmail.com , Password: dspace)
- **DSpace 7 REST API Demo:** [https://api7.dspace.org/server/](https://api7.dspace.org/server/) (Login: dspace7demo+admin@gmail.com , Password: dspace)
  - REST Contract / Documentation is available at: https://github.com/DSpace/RestContract/blob/master/README.md

Keep in mind, our User Interface Demo uses the REST API Demo as the backend. So, any content created (by anyone) will immediately appear in both locations.

Where is this work happening? How can I track it?
Active development work takes part in the DSpace 7 Working Group. This development team meets on a weekly basis (every Thursday). All meetings are open (anyone can attend) and meeting notes are publicly available off the group’s wiki page.

We also use Slack to communicate between meetings. Anyone can request a Slack invite (see link) to listen in or join discussions.

We are tracking the current status of all active DSpace 7 development in our DSpace 7 Project Boards.

Presentations / Workshops

Here are the latest DSpace 7 presentations

<table>
<thead>
<tr>
<th>Introducing DSpace 7</th>
<th>DSpace 7: Open for Integration</th>
<th>DSpace 7 REST API (OR2019)</th>
<th>DSpace 7: Configurable Ent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tim Donohue, DuraSpace</td>
<td>Andrea Bellini, Luigi Andrea Pancarrelli</td>
<td></td>
<td></td>
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</tbody>
</table>
The Angular UI from a user perspective (OR2019)

Enhanced Submission & Workflow

Additional presentations/workshops may be found at:

- September 2019 - DSpace North American User Group Meeting
- June 2019 - Open Repositories 2019 Hamburg
- Older presentations can be found on DSpace 7 Media and Presentations