DevMtg 2019-05-15

Developers Meeting on Weds, May 15, 2019

Today's Meeting Times

- DSpace Developers Meeting / Backlog Hour: 15:00 UTC in #duraspace IRC or #dev-mtg Slack channel (these two channels sync all conversations)
- . Tim is unavailable for today's meeting (personal conflict). Will be back in the office on Thursday, May 16

This meeting did not occur. It was canceled.

Agenda

Quick Reminders

Friendly reminders of upcoming meetings, discussions etc

- DSpace 7 Working Group (2016-2023): Next meeting is Thurs, May 16 at 15:00 UTC. Agenda: 2019-05-16 DSpace 7 Working Group Meeting
- DSpace 7 Entities Working Group (2018-19): Next meeting is TBD
 - Last meeting notes at 2019-02-05 DSpace 7 Entities WG Meeting
- DSpace Developer Show and Tell Meetings: On hold until interesting topics arise.
- 2019 DSpace North American User Group Meeting (Sept 23-24) Call for proposals out!

Discussion Topics

If you have a topic you'd like to have added to the agenda, please just add it.

- 1. (Ongoing Topic) DSpace 7 Status Updates for this week (from DSpace 7 Working Group (2016-2023))
 - a. DSpace 7.0 Preview release will be out this week (likely Thursday, May 16)
- 2. (Ongoing Topic) DSpace 6.x Status Updates for this week
 - a. 6.4 will surely happen at some point, but no definitive plan or schedule at this time. Please continue to help move forward / merge PRs into the dspace-6.x branch—and we can continue to monitor when a 6.4 release makes some
- 3. Upgrading Solr Server for DSpace

 a. Auto-reindexing in Solr:

 i. Should this only the need to reindex?

 b. e authority core.

 Link configuration.

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- a. PK. nups.//gimub.com/DSpace/DSpace/pull/2265 (PR is finalized & ready for review)
 - b. A follow-up PR will rename the "dspace-spring-rest" module to "dspace-server", and update all URL configurations (e.g. "dspace.server. url" will replace "dspace.url", "dspace.restUrl", "dspace.baseUrl", etc)
- 5. DSpace Docker and Cloud Deployment Goals (old) (Terrence W Brady)
 - a. Update sequences on initialization
 - i. https://github.com/DSpace/DSpace/pull/2362 update sequences port
 - ii. https://github.com/DSpace/DSpace/pull/2361 update sequences port
 - b. DSpace Launcher Dashboard Deploy a PR on AWS for Testing
 - i. There is a 2 minute video that illustrates this proposal.
- 6. Tickets, Pull Requests or Email threads/discussions requiring more attention? (Please feel free to add any you wish to discuss under this topic)
 - a. Quick Win PRs: https://github.com/DSpace/DSpace/pulls?q=is%3Aopen+review%3Aapproved+label%3A%22quick+win%22

Tabled Topics

These topics are ones we've touched on in the past and likely need to revisit (with other interested parties). If a topic below is of interest to you, say something and we'll promote it to an agenda topic!

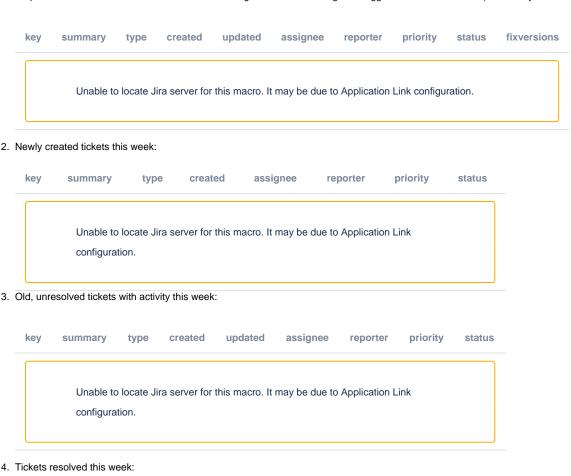
- 1. Brainstorms / ideas
 - a. (On Hold, pending Steering/Leadership approval) Follow-up on "DSpace Top GitHub Contributors" site (Tim Donohue): https://tdonohue.github.io/top-contributors/
 - b. Bulk Operations Support Enhancements (from Mark H. Wood)
 - c. Curation System Needs (from Terrence W Brady)
- Management of database connections for DSpace going forward (7.0 and beyond). What behavior is ideal? Also see notes at DSpace Database Access

- a. In DSpace 5, each "Context" established a new DB connection. Context then committed or aborted the connection after it was done (based on results of that request). Context could also be shared between methods if a single transaction needed to perform actions across multiple methods.
- b. In DSpace 6, Hibernate manages the DB connection pool. Each **thread** grabs a Connection from the pool. This means two Context objects could use the same Connection (if they are in the same thread). In other words, code can no longer assume each new Context() is treated as a new database transaction.
 - i. Should we be making use of SessionFactory.openSession() for READ-ONLY Contexts (or any change of Context state) to ensure we are creating a new Connection (and not simply modifying the state of an existing one)? Currently we always use SessionFactory.getCurrentSession() in HibernateDBConnection, which doesn't guarantee a new connection: https://github.com/DSpace/DSpace/blob/dspace-6_x/dspace-api/src/main/java/org/dspace/core/HibernateDBConnection.java
- c. Bulk operations, such as loading batches of items or doing mass updates, have another issue: transaction size and lifetime. Operating on 1 000 000 items in a single transaction can cause enormous cache bloat, or even exhaust the heap.
 - i. Bulk loading should be broken down by committing a modestly-sized batch and opening a new transaction at frequent intervals. (A consequence of this design is that the operation must leave enough information to restart it without re-adding work already committed, should the operation fail or be prematurely terminated by the user. The SAF importer is a good example.)
 - ii. Mass updates need two different transaction lifetimes: a query which generates the list of objects on which to operate, which lasts throughout the update; and the update queries, which should be committed frequently as above. This requires two transactions, so that the updates can be committed without ending the long-running query that tells us what to update.

Ticket Summaries

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5. Tickets requiring review. This is the JIRA Backlog of "Received" tickets:

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Meeting Notes

Meeting Transcript

Log from #dev-mtg Slack (All times are CDT)

This meeting did not occur. It was canceled.