

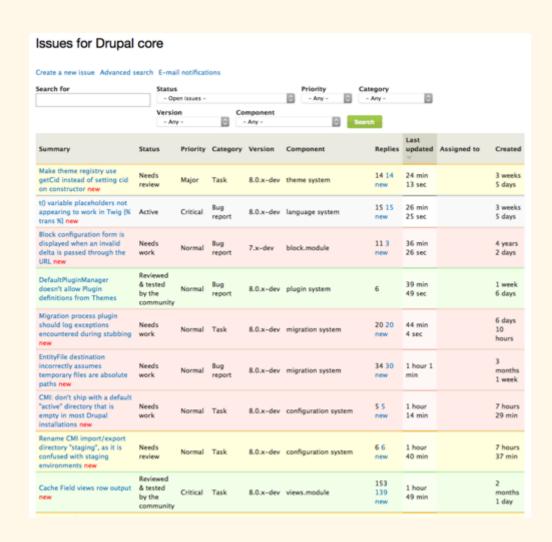


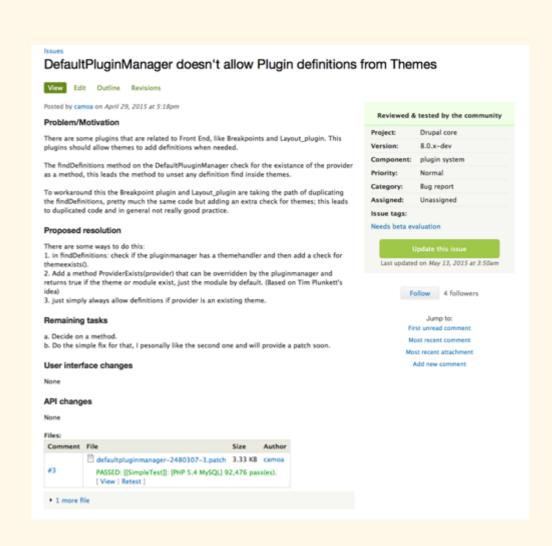
## Issue Workspaces: A better way to collaborate in Drupal.org issue queues

Ryan Aslett, Tatiana Ugriumova



#### Drupal.org issue queues





The state of the s



#### Limitations of the current issue queues

- ★ Complex workflow with many steps
- ★ Trivial changes require complex workflow
- ★ Difficult for Learners
- ★ No visibility between issues
- Patch Review can be challenging
- ★ Stale Patches



# What would better tools look like?



### A better issue queue

- ★ Uses git, instead of patches to submit, review, and accept work, i.e. "Pull requests" + "Forks"
- Detects code conflicts and provides immediate notification
- ★ Integrates code review functionality
- ★ Allows inline editing for smaller fixes



#### Our constraints:

- ★ Minimize disruption
- Preserve collaboration
- ★ Keep Drupal.org home of the community
- ★ Limited Resources



## What are the options?



- Do Nothing
- Externally Hosted Service
- Self Hosted Software
- Modernize Drupal.org's Issue queues

#### **Option 1: Do nothing**



Keep our tools as they are.

#### Option 2: Move to a hosted service

# Atlassian Bitbucket







#### GitHub's Data Model

Fragmented Social Coding

- Code changes on GitHub are pull requests.
- Both pull requests and issues have comments.
- If someone else wants to work on the same code, they fork a pull request.
- When you fork a pull request, you fork a conversation. It is now in multiple places.



#### Drupal.org's Data Model

Collaborative Social Coding

- Code changes on Drupal.org are patches.
- Patches live in comments on issues
- If someone else wants to work on the same code, they create a new patch.
- Conversation happens in one place.



# Hosted Service Wins and Fails

#### Option 3: Move to self-hosted service









# Self Hosted Software Wins and Fails

#### Option 4: Modernize The Issue Queue





#### Option 4: Modernize Drupal.org Issue Queues

- Similar to Phase 3 of the "Great Git Migration"
- Add new features to existing Issue Queues & git daemon
- Minimal disruption
- Preserves collaboration
- Keeps Drupal.org home of the community
- Achievable given the resources available



## Issue workspaces



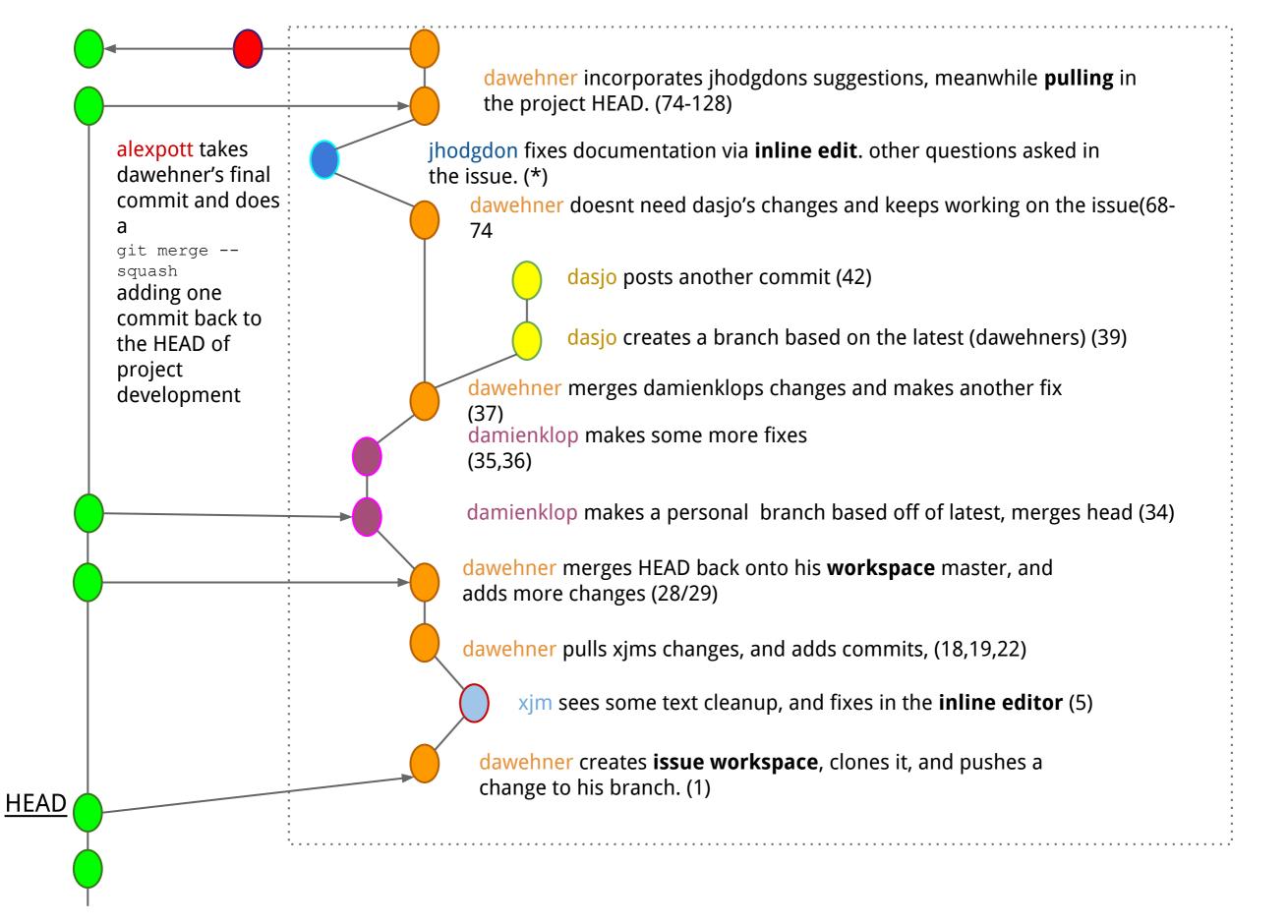
#### Issue Workspaces

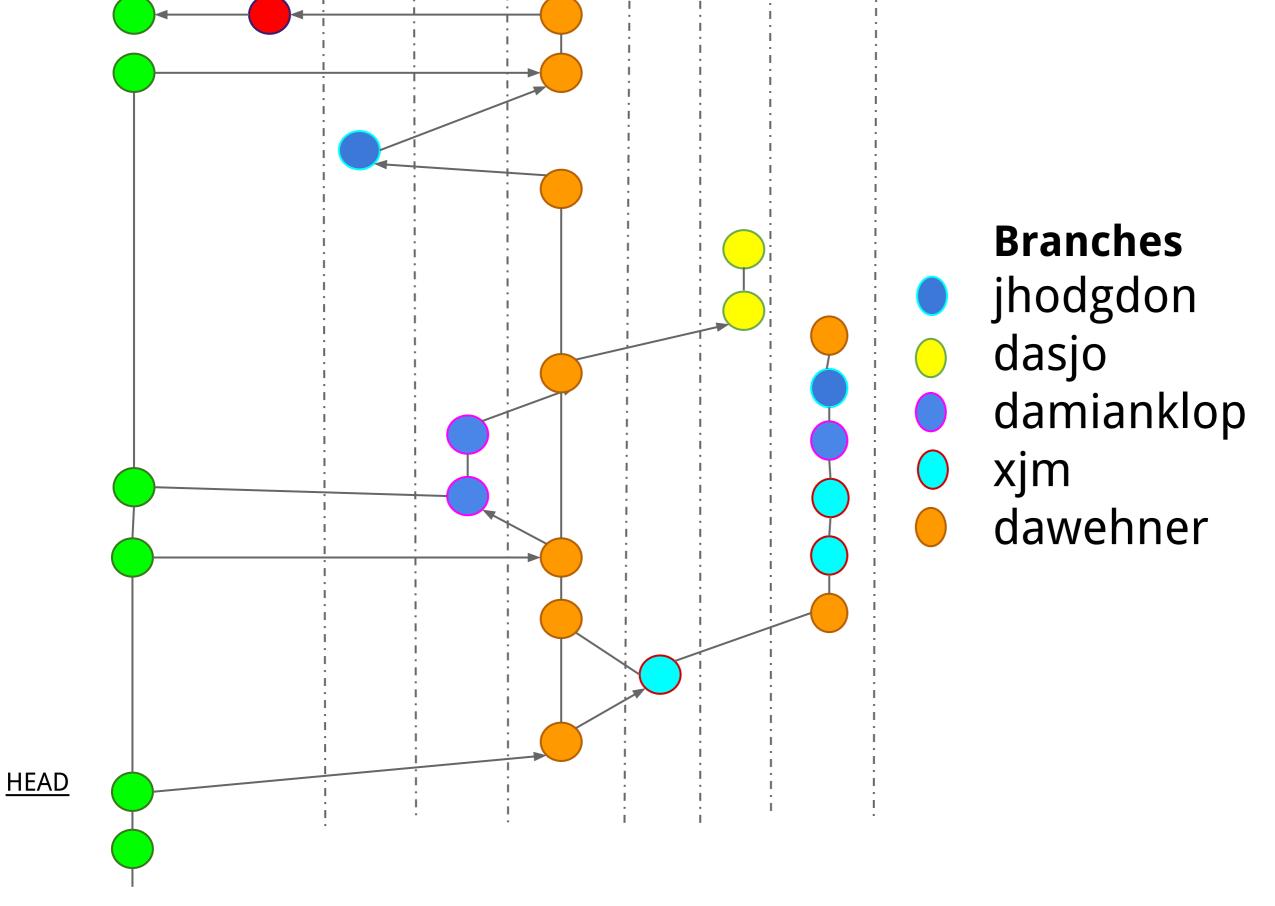
- One namespace per issue
- A per-user, per-issue protected branch in the namespace that only that user can push to.
- A branch pointer to the "Latest" so users can easily pull in the most recent change into their own branch.
- Any number of shared branches for those times when advanced users need to hash out several concepts.



#### Git Based Workflow

- Contributor clones workspace
- Make changes, commit, and push
- Drupal.org issue queue creates comments and notifies issue followers
- User updates issue with additional info (optional)







#### Patch Based Workflow

Minimize Disruption

- Upload/download/apply patchs
- Git changes create patches
- Patch submission creates commits behind the scenes



#### Inline Editing

Simplifying the complex

- Edit in progress work
- Creates a commit in the workspace after submission
- Not for editing everything (yet)



#### Code Review

Seeing Change

- Use existing tools
- Intra-change diffs
- Reviews are more granular



#### Merging Changes Upstream

Moving the Drop

- From the Issue queues for maintainers
- From git with a push



#### **Velocity Acceleration**

Adding insight

- Reveals issues conflicts using git
- Reduces need for "disruptive patch windows"
- Commits that break other changes notify immediately
- Needs Review is meaningful.



#### **Next Steps**

Making it happen

- Collect Feedback
  - https://www.drupal.org/node/2488266
- Implement Backend Changes
- Design and Implement UI elements for Drupal.org
- Beta Test
- Launch



### Thank you



Melissa Anderson eliza411



Sam Boyer sdboyer



Marco Villegas marvil07



Michael Halstead halstead



Howard Tyson tizzo



Derek Wright dww



Herman van Rink helmo



Christophe Van Gysel cvangysel



Jakob Petsovits jpetso



#### Ryan Aslett

Drupal.org: Mixologic

IRC: Mixologic

Twitter: @ryanaslett

Email: ryan@asociation.drupal.org

#### Tatiana Ugriumova

Drupal.org: tvn

IRC: tvn

Twitter: @tvnweb



### WHAT DID YOU THINK?

EVAULATE THIS SESSION - LOSANGELES2015.DRUPAL.ORG/SCHEDULE

**THANK YOU!** 



### Backup notes

How it works: deeper backend



This is what the .git/refs directory would look like. The namespaces make it so that if you check out drupal core, the only branches and tags that you see are the default ones - the namespace branches are not visible.



#### Access to the issue namespaces would be simple to the end user:

git clone Mixologic@git.drupal.org: project/drupal/issues/123456.git

#### Becomes, serverside:

git --namespace=issue\_123456 clone Mixologic@git.drupal.org: project/drupal.git



#### Access to the issue namespaces would be simple to the end user:

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If a contributor (and especially a maintainer) wants to have multiple issues associated with one checkout of a project (e.g. drupal core) They can add the workspace as a remote instead of cloning the whole workspace. e.g.

git remote add issue\_123456 Mixologic@git.drupal.org: project/drupal/issues/123456.git

There will be copy to clipboard buttons for both "add as remote" and "clone" on the issue nodes.

This will allow cross issue cherry picking/merging as well as minimal disk space on their local installations.



#### Sprint: Friday

## Get involved with Sprints to contribute to the project and the community

First-Time Sprinter Workshop 9:00am-12:00pm | 406AB

Mentored Core Sprint 9:00am-6:00pm | 403AB

General Sprints 9:00am-6:00pm | 408AB

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