Structure 5.4 Release Notes

5th of June, 2019

Structure 5.4 adds Memo items, Status category column, the ability to track time in status and additional improvements and fixes.

Download the latest version of Structure and its Extensions
Try It: Structure Sandbox Server (no installation required)

1. Version Highlights

- Introduces the new Memo item, which allows you to add text notes or flags as rows within a structure
- Introduces the Status category column and the ability to use Status category in formulas
- The ability to track the time issues spend in a particular status
- Additional performance improvements and bug fixes

2. Changes in Detail

2.1. Time in Status

The Time in Status column allows you to calculate how much time issues spend in specific statuses.

	Key	Summary	Progress	TP	Status	Time in status "Open"	Σ Time in status "Open"	Σ Time in status "In Progress"	
	DT-27	Story 1			IN PROGRESS	3h 45m	11h 15m	24m	⋯
✔	DT-30	Task 1.1			RESOLVED	3h 44m	3h 44m	5m	
	DT-31	Task 1.2			IN PROGRESS	3h 44m	3h 44m	6m	
	DT-33	Task 1.3			OPEN	2m	1m	0m	
	DT-28	Story 2			IN PROGRESS	3h 45m	7h 27m	12m	
✔	DT-32	Task 2.1			RESOLVED	3h 42m	3h 42m	5m	

Time in Status can be customized and aggregated, depending on your business needs.

Documentation: Time in Status Column

2.2. Memo Items

Memo items work similar to folders within a structure, except that memos can include a choice of icons, color and text.

Memos can serve a variety of purposes within a structure:

- Add notes or reminders that pertain to the structure or project as a whole, rather than just a single issue (for that, try a Notes column)
- Add high-level requirements directly to your structure
- Add a placeholder for other items
- Use them like folders, grouping issues within your hierarchy (with the added benefit of color and text)
- Just about anything else you can think of!

Documentation: Memo

2.3. Status Category Column

The Status category column allows you to see at a glance which Status category each issue is in. This can be extremely useful if different teams /projects use different workflows or custom statuses.

Status category values can be used to sort, filter or group issues. They can also be used in JQL queries and formulas.

Documentation: Status Category Column

2.4. Additional Updates

- Export to Structure has been removed from the Issue Navigator page
- Fixed: With Group by Status generators, unable to move issues within the same Status grouping
- Fixed: Summary value looks empty when editing another field
- Fixed: Values in aggregate columns (with Sum over sub-items option checked) cannot be edited after a sort
- Fixed: Summary is editable inline even if it has been removed from the edit screen
- Fixed: Power Scripts 4.6.0 breaks Structure transformations
- Fixed: Items sometime move incorrectly when Manual Adjustments are used with Automations

3. Supported Versions

Structure 5.4 and all extensions support Jira versions 7.6 or later. All editions of Jira (Jira Core, Jira Software, Jira Service Desk) are supported. Jira Data Center is supported.

With respect to other add-ons and custom integrations, this release is backwards-compatible with Structure 3.4–5.3. Structure.Testy extension, Colors, Structure.Pages, Structure.Gantt and integrations with third-party apps should continue working normally.

4. Installation and Upgrade

4.1. Installing Structure

If your Jira server does not have Structure yet, the installation is simple:

1. Download and install Structure app, either from the Atlassian Marketplace or our Download page.
2. When Add-on Manager reports the successful installation, click Get Started to visit a page with important guidance for the Jira administrator. You may want to also check out the user's Get Started page, available under the "Structure" top-level menu.
3. ⚠️ If you have Structure.Pages installed, make sure you've upgraded to version 1.3 or later, both on Jira and on the Confluence side. If your Confluence version is not compatible with Structure Helper 1.3, you should stay with version 1.2 for Structure.Pages and Structure Helper apps, but please note that there are limitations to its compatibility with Structure 4.2 and higher, so a Confluence upgrade to version 6.1 or later is recommended.
4. Monitor `catalina.out` or `jira-application.log` for log messages from Structure.

4.2. Upgrading Structure

If you're upgrading from version 2.11.2 or earlier, please read Structure 3.0.0 Release Notes.

The upgrade procedure from versions 3.x–5.3 is simple:

1. Consider backing up Jira data. Use **Administration | System | Backup System**. (If you have a large instance and a proper backup strategy in place, you may skip this step.)
2. Back up Structure data. Use **Administration | Structure | Backup Structure** menu item. If you have a lot of structures and a large Jira, consider turning off the "**Backup History**" option to avoid a long backup process.
3. Install the new version of the plugin.
4. Monitor `catalina.out` or `jira-application.log` for warnings or errors.

> We strongly recommend that you back up your data before upgrading. The introduction of manual adjustments required changes to our backup file format, which makes previous versions of Structure unable to restore data from backup files created by Structure 5.0 and later. For more information, see Backup Format Version Change.

5. Enterprise Deployment Notes

Structure 5.4 introduces two new features and a performance improvement important for large-scale Jira Server and Jira Data Center instances.

5.1. Periodical Cleaning of the JQL Query Literals Cache

Jira has quite a lot of request-level caches that keep expensive data easily accessible for the duration of a single user request. These caches get cleared once the request completes, and since the absolute majority of requests are quick, there is usually no problem.

However, we have seen a few support cases in which an unusually long-running background task would make a Structure thread accumulate too much data in request caches, consuming excessive amounts of memory.

We are actively working to solve this problem, and in Structure 5.4 we introduce periodical cleaning of the JQL query literals cache, which is one of the caches susceptible to the problem. Further improvements in this area are planned for future Structure releases.

If you have large structures that take significant time to generate, we advise that you check their performance in a staging environment before upgrading.

5.2. Time in Status Column

The new Time in Status column is based on issue history data, so the values can be quite expensive to calculate. Our performance tests have shown that in the aggregate mode, it can be visibly slower than simple field-based columns in structures of 10,000 issues or more. If you are planning to use this column with large, deeply-nested structures, we advise that you check its performance on a staging system.

5.3. Memo Item Type

The new Memo item type is based on generic items, introduced in Structure 4.4. The data will be stored in the `AO_8BAD1B_GENERIC_ITEM` table, which will contain one row for each memo item. Because the table has been introduced earlier, there are no schema updates in this release.

> Memos may be slower when accessing structure via Chrome with the built-in spell checker enabled.

5.4. Testing on a Staging Environment

Apart from the suggestions above, there are no special areas of interest for load testing and stress testing Structure 5.4. We advise running the same testing procedures as you've done for previous upgrades.

> Should you have any questions on Enterprise Deployment, let us know at support@almworks.com.