

# Polyspace<sup>®</sup> Bug Finder<sup>™</sup> Access<sup>™</sup> Release Notes



# MATLAB<sup>®</sup>

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*Polyspace® Bug Finder™ Access™ Release Notes*

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## R2019b

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# R2019b

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**Version: 2.1**

**New Features**

**Bug Fixes**

## **User Authentication: Use LDAP search filters to restrict number of users to authenticate**

In R2019b, if you use your organization's Lightweight Directory Access Protocol (LDAP) to authenticate users, you can filter for and load a subset of users from your LDAP database when you start Polyspace® Bug Finder™ Access™. Previously, you loaded all LDAP users listed under the **LDAP base** that you specified when you started Polyspace Bug Finder Access.

To filter the LDAP users, use the new **LDAP search filter** field in the Cluster Operator settings for the **User Manager** service. For more information, see “Use Your Organization LDAP”.

## **User Management: Update list of users from LDAP database or LDIF file**

In R2019b, if you remove users from your organization's Lightweight Directory Access Protocol (LDAP) database or from the Polyspace Access embedded LDAP LDIF file, you can update the list of users stored in the Polyspace Access database. Previously, users that were removed from the LDAP database or from the LDIF file were still visible in the list of users you selected when assigning findings or managing project permissions.

To update the list of users stored in the Polyspace Access database, append `/users/list/removed` to the URL that you use to “Open the Polyspace Access Web Interface”. Only an **Administrator** can perform this operation. For more information, see “Manage LDAP Users in Polyspace Access”.

# R2019a

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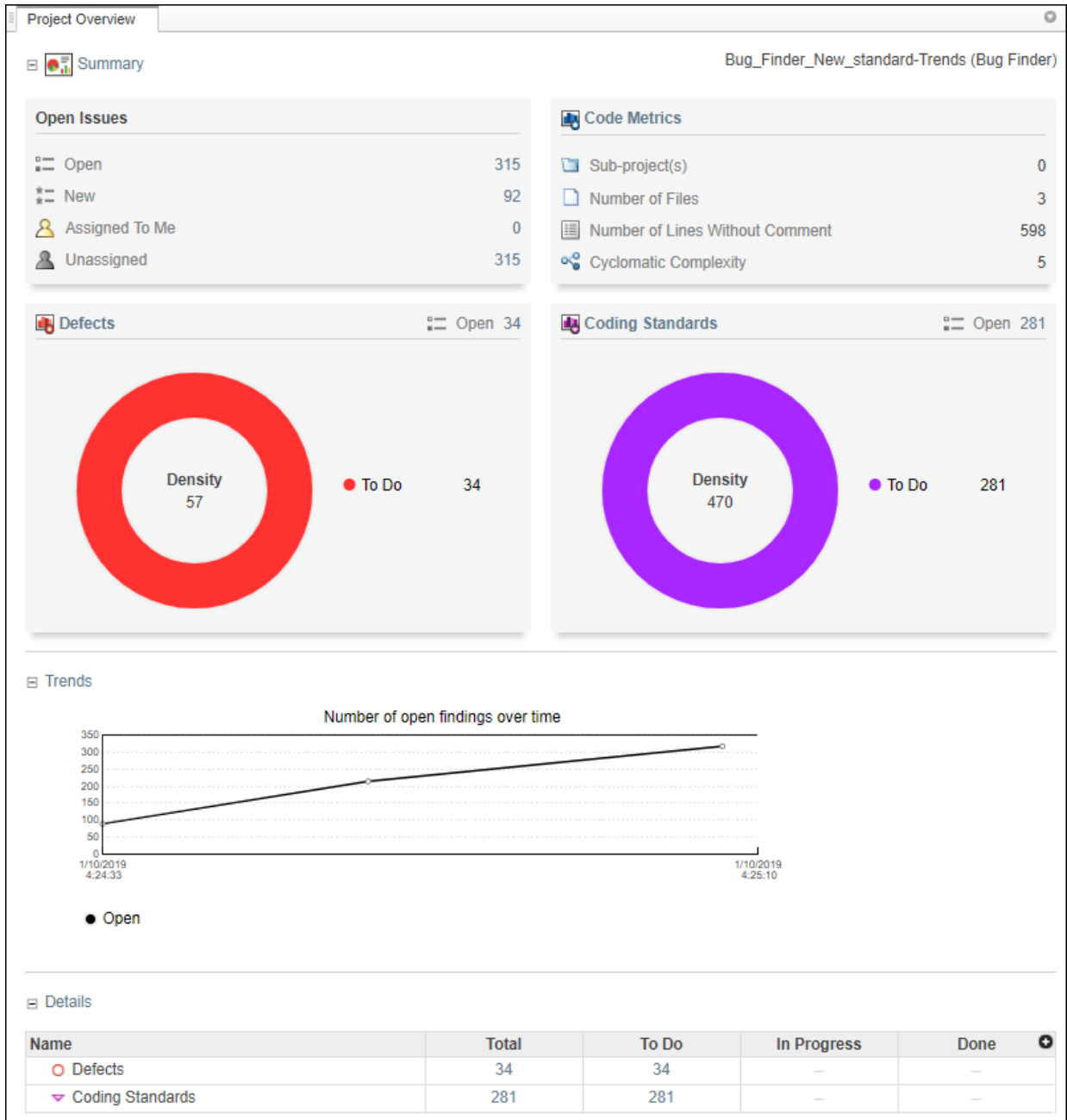
**Version: 2.0**

**New Features**

## **Project Dashboard: Track progress of code quality via Polyspace results**

**Summary:** In R2019a, you can track the progress of the code quality of your projects using the new intuitive Polyspace Bug Finder Access **DASHBOARD**. When an analysis run is uploaded to the Polyspace Access database, the dashboard updates to give a snapshot of the findings, including a progress trend for number of findings compared to previous runs.





**Additional Benefits:**

- *Prioritize reviews:* See new and open issues that have not been fixed or justified, then open a detailed results list for just those issues. You can drill down on a set of findings filtered by new, open, unassigned, by family of findings, or by file.
- *Aggregate results for multiple projects:* If your team works on multiple projects, move all the projects under an umbrella project and view a snapshot of the code quality for all your team's projects.
- *Authenticate client access:* The web interface is behind a login. Only users with a Polyspace Bug Finder Access license and the appropriate credentials can view the dashboard from their web browser.

**Collaborative Review Support: Review Polyspace Bug Finder results and source code in web browser**

**Summary:** In R2019a, review Polyspace analysis findings and view the findings in your source code using the new Polyspace Bug Finder Access **REVIEW** web interface. You do not need to install a Polyspace product on your machine to open and review analysis results.

The screenshot displays a static analysis tool interface with a top navigation bar and a main workspace. The workspace is divided into several sections:

- Top Bar:** Includes navigation icons (Dashboard, Run-time Checks, Defects, Coding Standards, Code Metrics, Global Variables) and filters (To Do, In Progress, Done). It also features search and filter options for 'Show only' and 'Filter out' (both set to 'Comment, filename, etc.').
- Project Explorer:** A vertical sidebar on the left with categories: PROJECT EXPLORER, PROJECT DETAILS, FILE EXPLORER, and SUPPORT REPORT.
- Results List:** A table showing a list of defects. The selected defect is ID 40482, 'Wrong type used in sizeof', located in 'programming.c'.
- Result Details:** A panel on the right showing the details of the selected defect. It includes:
  - Status:** To Fix
  - Severity:** Unset
  - Assigned to:** Type username or...
  - Track issue:** Create Ticket
  - Description:** 'Wrong type used in sizeof (Impact: High)'. The type 'char \*' used for the block of memory is not a pointer to the type 'char \*\*' used in sizeof.
  - Event Table:**

Event	File	Scope
1	Wrong type used in ... programming.c	bug_ptrsizeofmismatch()
  - Source Code:** A view of the code in 'programming.c' showing the function `bug_ptrsizeofmismatch()` and a corrected version `corrected_ptrsizeofmismatch()`. The corrected version uses `sizeof(char)` instead of `sizeof(char*)`.

### Additional Benefits:

- *Facilitate collaborative review:* The web interface streamlines the review efforts of your team. For instance:

- During a team meeting, findings can be assessed and assigned to developers.
- Developers can log into the web interface to review findings assigned to them, and determine whether to justify the findings or fix them.
- A project manager can track the progress of the review by filtering the list of results for findings that are still open.
- *Authenticate client access:* The web interface is behind a login. Only users with a Polyspace Bug Finder Access license and the appropriate credentials can view the results from their web browser.

## Collaborative Review Support: Share Polyspace Bug Finder results using web links

**Summary:** In R2019a, you can right-click an analysis result in the Polyspace Bug Finder Access interface to obtain a URL that you can share with other team members. The link that you provide opens the Polyspace Bug Finder Access interface and displays the finding along with the corresponding source code.

The left screenshot shows the 'REVIEW' tab in the Polyspace Bug Finder interface. The 'Results List' table is displayed with the following data:

Family	ID	Type	Group
	61576	Defect	Programming
	61581	Defect	Programming
	61582	Defect	Programming
	61594	Defect	Programming
	61597	Defect	Programming
	61598	Defect	Programming
	61599	Defect	Dynamic memory

A context menu is open over the row with ID 61582, showing options: 'Show only: "Defect"', 'Filter out: "Defect"', and 'Copy finding URL to clipboard'.

A blue arrow points from this screenshot to the right screenshot, which shows the same interface with the 'Result Details' panel open for finding 61582. The 'Result Details' panel shows the status as 'Unreviewed', severity as 'Unset', and assigned to 'bug\_operatorprece'. Below the details, a yellow warning message states: 'Possibly unintended evaluation of expression because of operator precedence rules (Impact High)'. The 'Contextual Help' section shows the following code snippet:

```

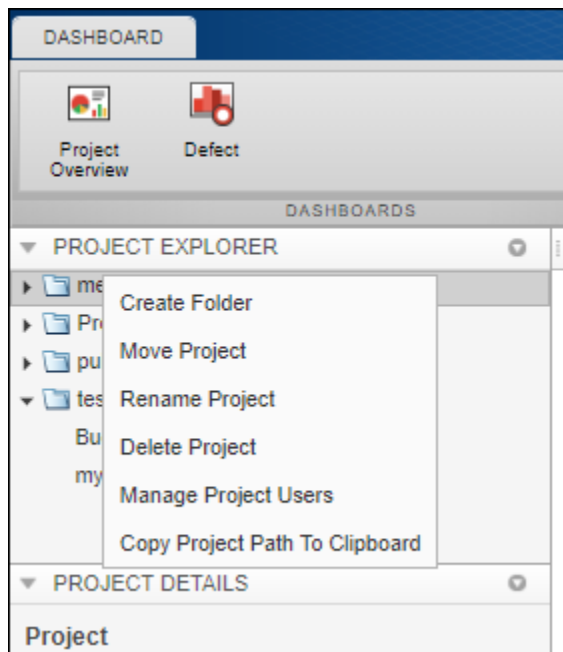
593 * OPERATOR PRECEDENCE
594 *
595 int bug_operatorprecedence(int
596     int res = a-b;
597     if (a < b & c)
598         res = c;
599

```

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## Project Authorization Management: Create and enforce authorization policies for access to project

**Summary:**In R2019a, you can manage project users in Polyspace Bug Finder Access by right-clicking a project in the **PROJECT EXPLORER** and assigning roles to member of your team. The roles authorize or forbid users from viewing projects.

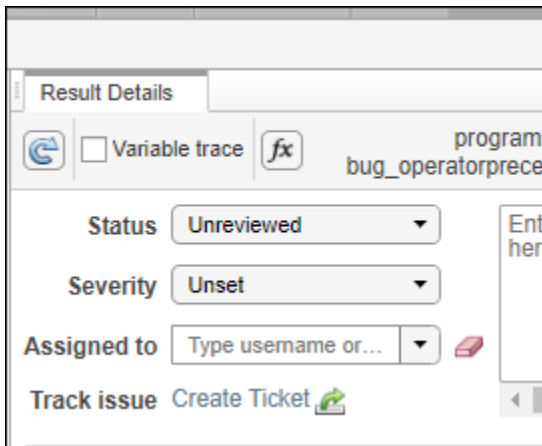


### Additional Benefits:

- *Restrict access to your source code:* Use the authorization policy to restrict who can view the source code you upload with your analysis results.
- *Display relevant projects only:* When they log in to Polyspace Access, users can only see projects for which they are administrators, owners, or contributors. Use the authorization policy so that team members only see projects that they are working on.

## Bug Tracking Tool Support: Create JIRA issues for Polyspace Bug Finder results

**Summary:** In R2019a, Polyspace Bug Finder Access supports integration with the JIRA software. If you have an instance of the JIRA software, after you configure Polyspace Bug Finder Access, you can create a JIRA ticket to track Polyspace findings. The ticket is populated with details of the finding and a link to open that finding in Polyspace Access. You can add the ticket to any existing JIRA project.



Once you create a ticket, the **Result Details** pane in the Polyspace Bug Finder Access web interface displays a link to the corresponding JIRA issue.