

# Change Explorer

In this section:

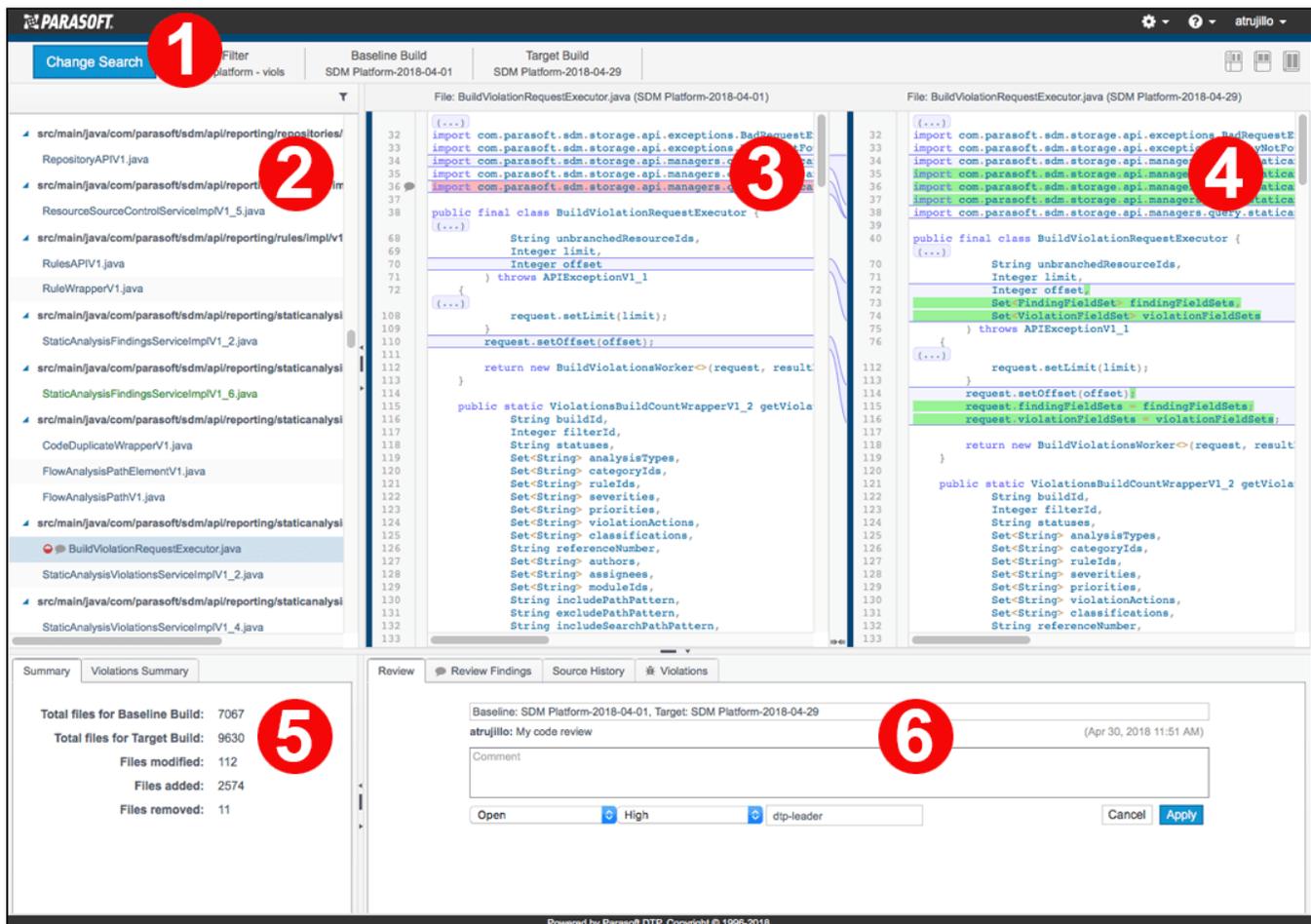
- [Overview](#)
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## Overview

The Change Explorer provides an interface for understanding the code changes and how they affect the application under development. You can access the Change Explorer by clicking on the **Files - Changed** widget or by clicking on a link in the [Reviews Report](#) or [Review Findings Report](#).

The Change Explorer is divided into six panels:

1. Search panel; see [Using the Search Panel](#).
2. Search results table; see [Viewing Search Results](#).
3. Baseline panel; see [Viewing Diffs](#).
4. Changed panel; see [Viewing Diffs](#).
5. Summary panel; see [Viewing Summary Information](#).
6. Reviews and Violations panel; see [Reviewing Findings](#).



## Using the Search Panel

The Change Explorer shows data according to the filter, baseline build, and target build specified in the widget you clicked to open the explorer. You can easily change the search scope to view specific information.

1. Click **Change Search** to open the Search Options overlay.

Search Options

Filter  
SDM Platform

Baseline Build  
SDM Platform-2016-11-22

Target Build  
SDM Platform-2016-11-23

Review ID  
15

Include File Pattern  
All

Exclude File Pattern  
None

Filter  
SDM Platform

Baseline Build  
SDM Platform-2016-11-22

Target Build  
SDM Platform-2016-11-23

Changing the filter will clear search criteria that depend on the filter.

Cancel Search

You can perform the following actions:

- **Change the filter:** Choose a new filter from the drop-down menu (see [Creating and Managing Filters](#) for additional information).
- **Specify the baseline build:** Choose a baseline build from the drop-down menu. A baseline build is a snapshot of the code at a previous state.
- **Specify the target build:** Choose a target build from the drop-down menu. The target build contains the updated files as compared to the baseline build.
- **Specify the review ID:** Choose a review ID from the drop-down menu to show information associated with a specific review. Reviews are tied to the specific comparison of baseline and target builds. For example, if you add a review when viewing changes from baseline build A and target build B, a review ID is generated. If you compare build A with target build C, the ID will not be available as a search criterion.
- **Specify the scope of files:** Click the **Include File Pattern** **Exclude File Pattern** option and specify file paths to refine the scope of the search. Ant-style patterns are supported.

Filter  
SDM Platform

Baseline Build  
SDM Platform-2016-11-22

Target Build  
SDM Platform-2016-11-23

Review ID  
15

Include File Pattern  
All

Exclude File Pattern  
None

Include File Pattern

Exclude File Pattern

Search for file paths that match the comma separated list of Ant fileset patterns.

Example: `**/test/*.java`  
Returns all file paths with the `.java` suffix under test directories from anywhere in the directory tree.

2. Click **Search** when your search parameters are set to load the results in the search results panel.

## Viewing Search Results

The search results panel returns the files within the scope of the search organized by module. Results are color-coded to indicate coverage. Green file names are files that were added since the baseline build. Red file names are files that have been removed since the baseline build.

Results are also flagged with icons to highlight important changes, such as new or fixed static analysis violations.

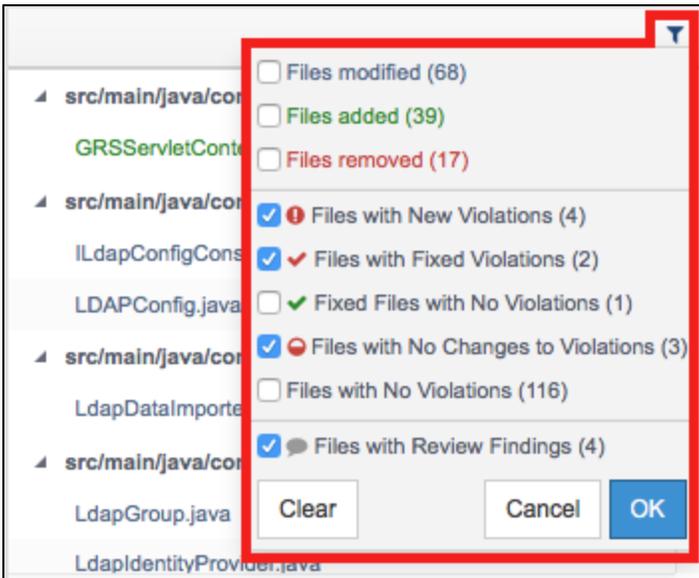
Click on a file to view the differences between the files in the baseline build and target build panels (see [Reviewing Changes](#)).

The following image explains icons used in the Change Explorer. Static analysis violation icons associated with the comparison are defined in the Violations Summary tab in the Summary panel. Also see [Viewing Summary Information](#).

The image shows a file explorer with the following files and their status icons:

- JMSUtil.java**: Red circle with a white exclamation mark. **Indicates that the same violations reported in the baseline build are present in the target build.**
- DataCollectorMessage.java**: Blue speech bubble icon. **Indicates that the file has been reviewed and that a finding is attached.**
- OsgiService.java**: Red circle with a white exclamation mark. **Indicates that new violations have been reported in the target build that were not reported in the baseline build.**
- ViolationPrioritizationUtil.java**: Green checkmark icon. **Indicates that the violations reported in the baseline build are fixed in the target build.**
- FilterFormBean.java**: Green checkmark icon. **Indicates that violations reported in the baseline build are fixed, but the target build still contains violations.**

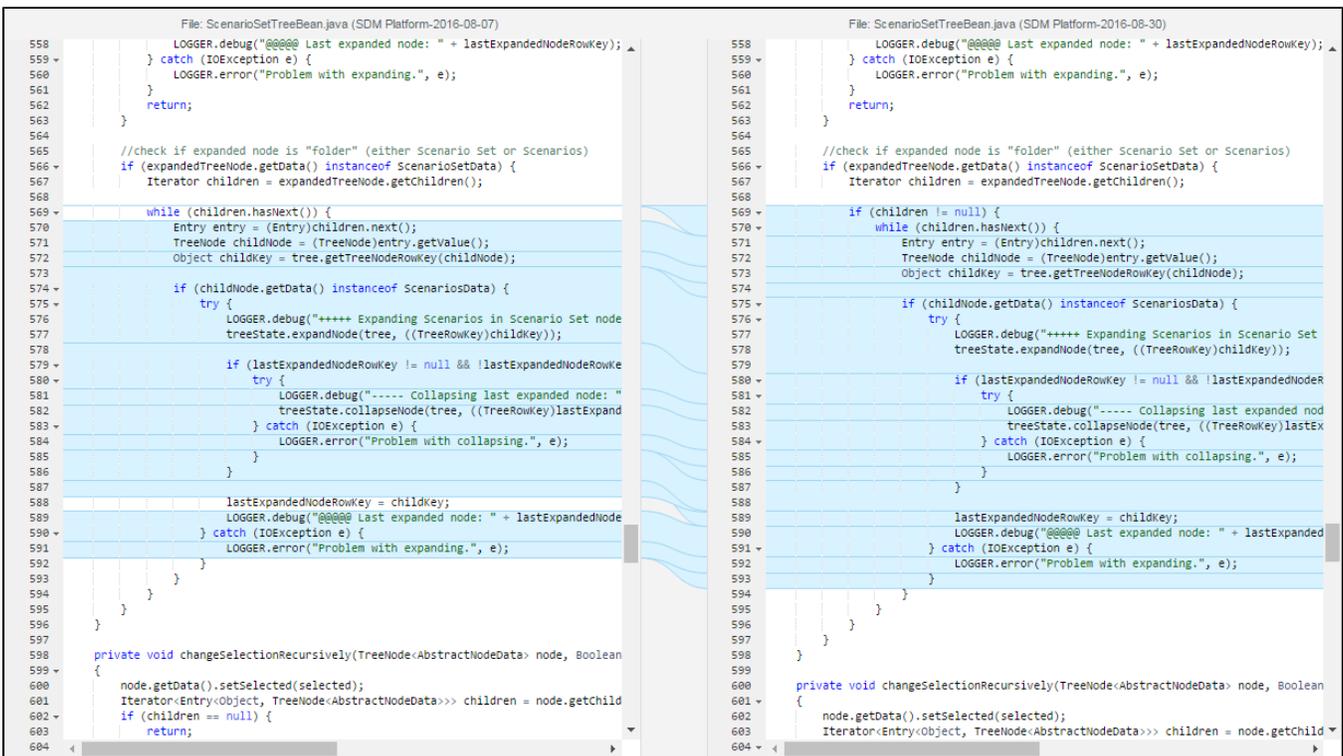
You can filter files in the explorer to make browsing the research results simpler. Click the filter icon to view the filtering options.



Choose your options and click **OK** to apply the filter(s) or click **Cancel** to close the menu without filtering. Click **Clear** to remove all applied filters.

## Reviewing Changes

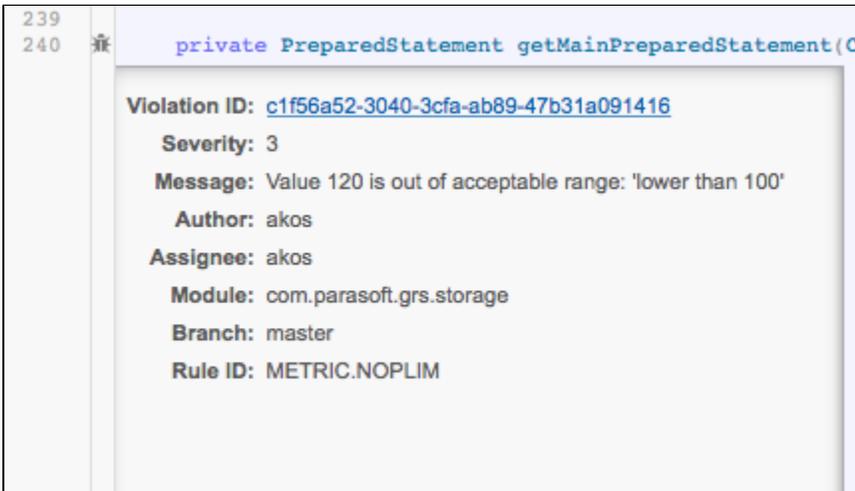
You can review and annotate code changes in the margins of the baseline and target build panels. Differences between the versions of the file are highlighted. See [Reviewing Findings](#) for additional information.



Click in the margin of the source code viewer to add findings, which are inline comments associated with the specific change from the specified baseline and target build. An icon will appear in the margin if a finding already exists. You can click on the icon to view the finding.

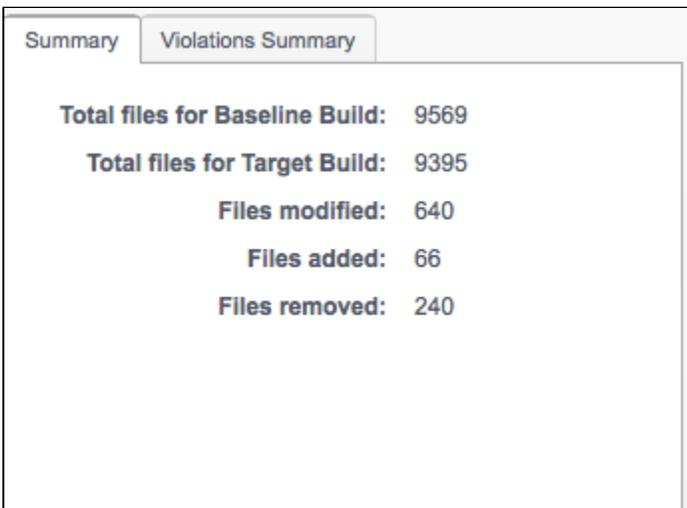


An icon will also appear in the margin if the file contains static analysis violations. You can click on this icon to view details about the violation. Click on the Violation ID link to view it in the [Violations Explorer](#).



## Viewing Summary Information

You can view information about file changes between the baseline build and the target build in the Summary panel.



Click on the **Violations Summary** tab for an overview of the static analysis violation changes from the baseline build to the target build.

Summary | **Violations Summary**

**New Violations: 658**  
**Fixed Violations: 45**  
**Existing Violations: 638**

 **Files with New Violations: 395**  
 **Files with Fixed Violations: 18**  
 **Fixed\_Files\_with\_No\_Violations: 11**  
 **Files with No Changes to Violations: 12**  
**Files with No Violations: 528**

## Reviewing Findings

The Reviews panel is an interface for reviewing code changes and adding findings. Reviews are associated with a specific combination of filter ID, baseline build, and target build (see [Using the Search Panel](#)). Findings are individual annotations associated with a review.

Review | **Review Findings** | Source History | Violations

Baseline: SDM Platform-2017-08-07, Target: SDM Platform-2017-08-20

Comment

Open | Critical | Assigned To | Cancel | Apply

If a review exists, click the **Review Findings** tab in the Reviews panel to see a list of findings. The Review Findings tab shows the following information:

<b>Finding ID</b>	Unique identifier for the finding.
<b>Status</b>	Open, Closed, or In Progress
<b>Author</b>	User that wrote the code.
<b>Assignee</b>	User assigned to the finding.
<b>Priority</b>	Severity of the finding: Critical, High, Medium, Low, Do not show, Undefined.
<b>File Name</b>	Source file associated with the finding.
<b>Line</b>	Line of code in the source file associated with the finding.

Click on an entry in the table to view the finding in either the baseline or target build source code panel.

Review | **Review Findings** | Source History | Violations

Finding	Status	Author	Assignee
326	Open	admin	tkim

Click the **Source History** tab to view the following source control information for selected file:

<b>Revision</b>	Unique identifier for the revision.
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<b>Date</b>	Date of the revision.
<b>Author</b>	User that wrote the code.
<b>Message</b>	Description of the changes added by the person that checked in the revision of the file.

Revisions are grouped by build and marked as Target or Baseline.

Review	Review Findings	Source History	Violations	
File: ProjectAdminManager.java				
Build	Revision	Date	Author	Message
Target	b53c84052fa53a1a89dace8a2403249f51813af8	2017-08-14 8:36:21 AM	Ted Kim	DTP-4462 - Implementation of the file SCM history API
Baseline	7800901e7a020b0ecd0e6dab7740182570af3c6e	2015-05-04 10:27:33 AM	Brian Merdian	@task 79615 - projects/{id} endpoint.
	32eb830de0f55a524e5f7e198067356dc938e677	2015-05-01 11:10:54 AM	Brian Merdian	@task 79246 - Browser actions trigger Project JMS events.
	ff2ac998976a2fb8e4cbd974883ac7d2747991f2	2015-05-01 11:10:52 AM	Brian Merdian	@task 79246 - Project JMS: Generate CREATED event for SOAP.
	959861850968440711bad43a5c3f0c6a32e65382	2015-04-27 6:41:39 PM	Brian Merdian	@task 79246 - Framework for JMS events for projects.
	18d5acb7d7b4713c655141567019c5546eb9cac6	2014-01-13 4:33:22 AM	jchang	@task 58395 - allow save when parasoft test settings for projects are saved

Click the **Violations** tab to view static analysis violation details.

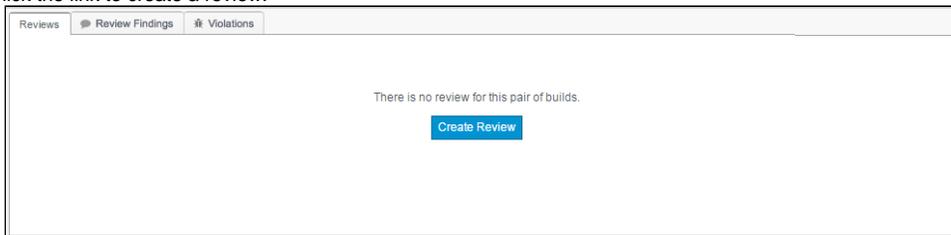
Review	Review Findings	Source History	Violations				
File: ProjectAdminManager.java, <b>New: 1</b> , <b>Fixed: 1</b> , <b>Existing: 5</b>							
Violation ID	Status	Line (Baseline)	Line (Target)	Message	Severity	Assignee	Priority
a63afc2f-be51-3018-ad17-a91152840b5c	New	N/A	222	Value 52 is out of acceptable range: 'lower than 30'	3	jchang	Not Defined
b8f4cf83-aaa9-3933-937c-18b9bdf68e0c	Existing	262	263	Thrown exception is not chained	3	jchang	Not Defined
782aafce-5f11-3d86-9672-6cb23a0919fb	Existing	538	548	Thrown exception is not chained	3	jchang	Not Defined
52b911cd-47d1-34fc-87ab-4ebf01a87b81	Existing	541	551	Thrown exception is not chained	3	jchang	Not Defined
af0fa419-ee1a-3a6e-8e1a-a4933fa24d30	Existing	682	692	Thrown exception is not chained	3	QATest2	Low

Click on the Violation ID to view it in the [Violations Explorer](#).

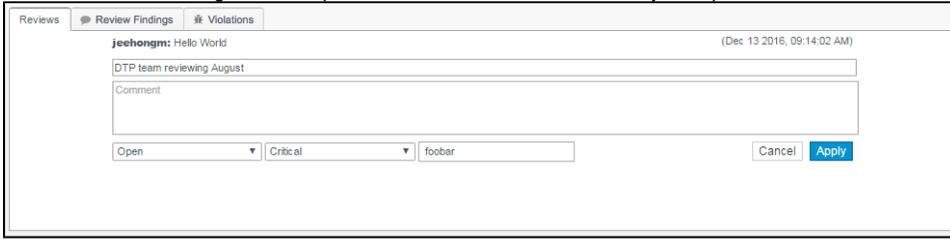
## Adding Reviews

If there are no reviews associated with the search parameters, you must create one before annotating the code with findings.

1. Click the link to create a review:



2. A review name and assignee are required. Comments, status, and severity are optional.

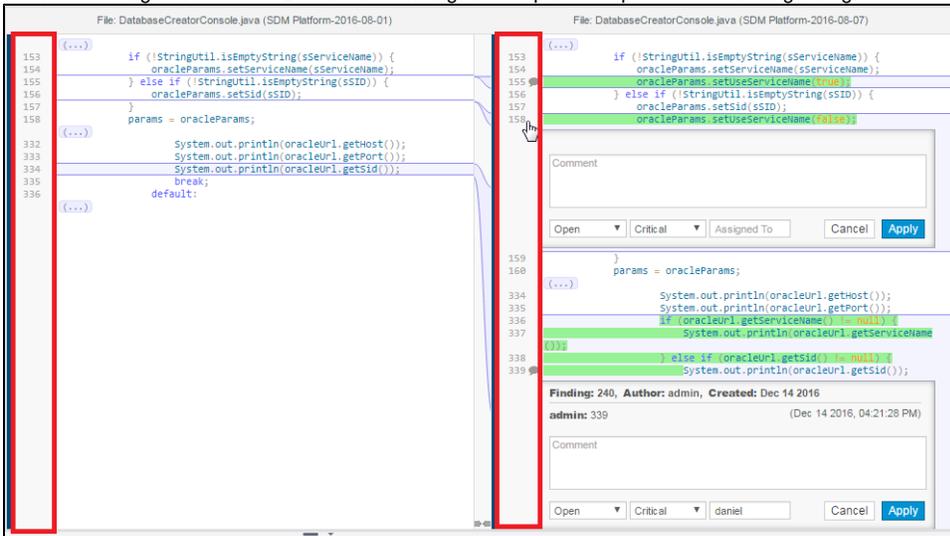


3. Click **Apply** to save the review.

## Adding Review Findings

You can attach findings to the code within the context of reviewing changes.

1. Click in the margin of either the Baseline or Changed code panel to open the new finding dialog.



2. Enter your comment and an assignee. Status and priority are optional.
3. Click **Apply** to save the finding or **Cancel** to close the dialog without saving.

Existing findings are marked with a chat bubble icon. You can click on an existing finding to add additional comments or change the status, priority, or assignee in the Prioritization tab.



Click the Metadata tab to attach additional information to the finding. You can set the severity, assign an action, and add other information to help you address the finding.

Finding: 284 Author: admin Created: Mar 20, 2017

Severity: 1

Action:

Risk/Impact: Extreme

Due Date:

Reference #:

Prioritization Metadata Cancel Apply