

PROJECT SCAN USER GUIDE

Version 1.0.3



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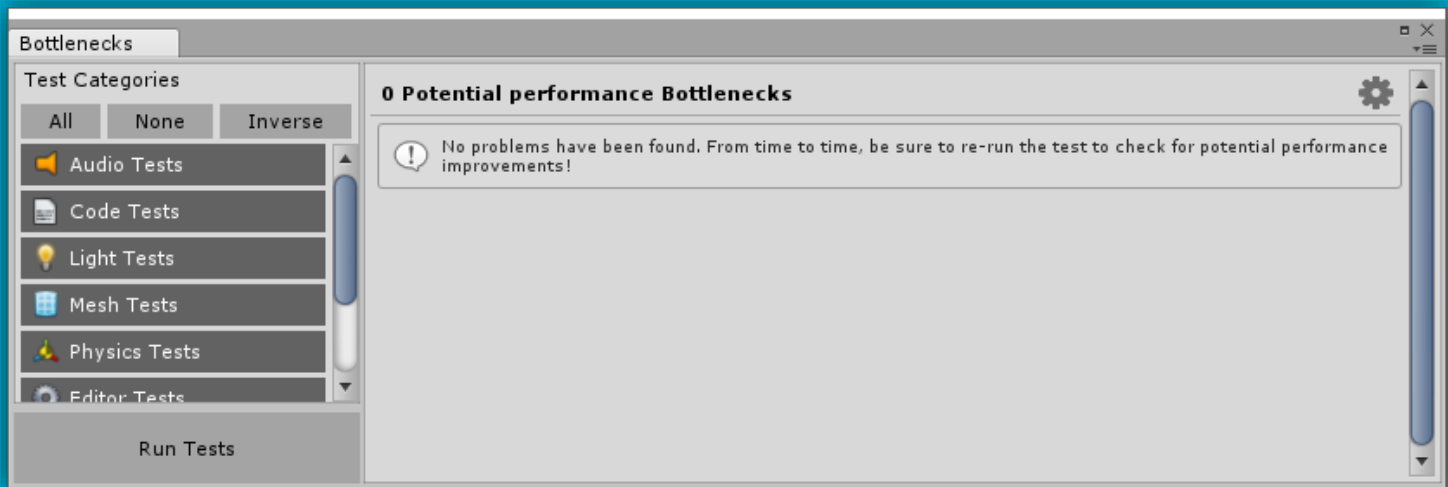
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Bottleneck Scan Window

Bottleneck Scan Window is where you'll be spending most of your time. It's where you'll be running tests and have reports listed.

Running Tests

To access Bottleneck Scan, go to *Window > Project Scan > Bottleneck Scanner*

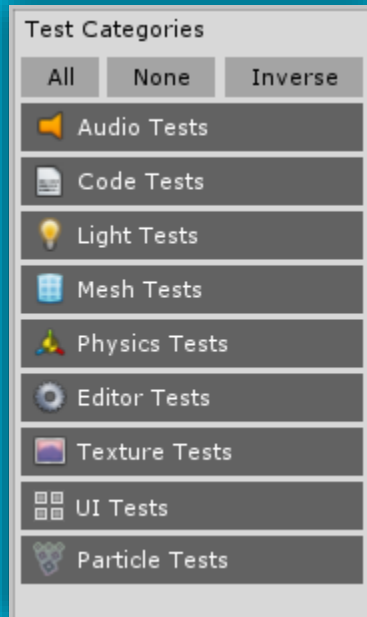


Now, if you're opening this Window for the first time, you'll have 0 "Potential performance Bottlenecks".

From there, press *Run Tests*. It should take several seconds for it to produce results. Scan time depends on your project size. The larger the project the more time it takes for scanning to finish. It's recommended to make use of Filters and run only specific tests.

Side Panel

Located on the left side of the window, the side panel lists all available test categories to you. You can enable or disable them if you prefer to run only specific tests.



All – selects all tests from Test Categories

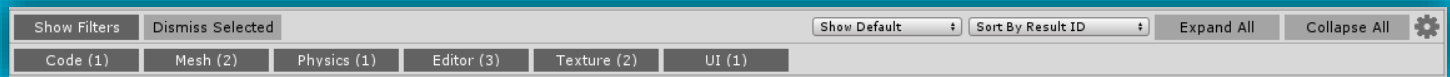
None – deselects all tests from Test Categories. Will produce zero results if run

Inverse – toggles all tests from Test Categories. Enabled tests will become disabled while disabled tests will be enabled.

Top Panel

Top panel, which is located at the top of the window, is responsible for manipulating how scan results are presented to you.

From there, you can sort, filter out, or dismiss results.



Show Filters – shows/hides all available filters. Filters of the specific category will be hidden if there are no results for given category.

Show Default/Show Dismissed – a drop-down that allows you to switch between Default (Normal) and Dismissed results.

Dismiss Selected – dismisses selected results. Displayed only when at least one result is selected.

Sort by Results ID – sorts all results by their identification number in ascending order.

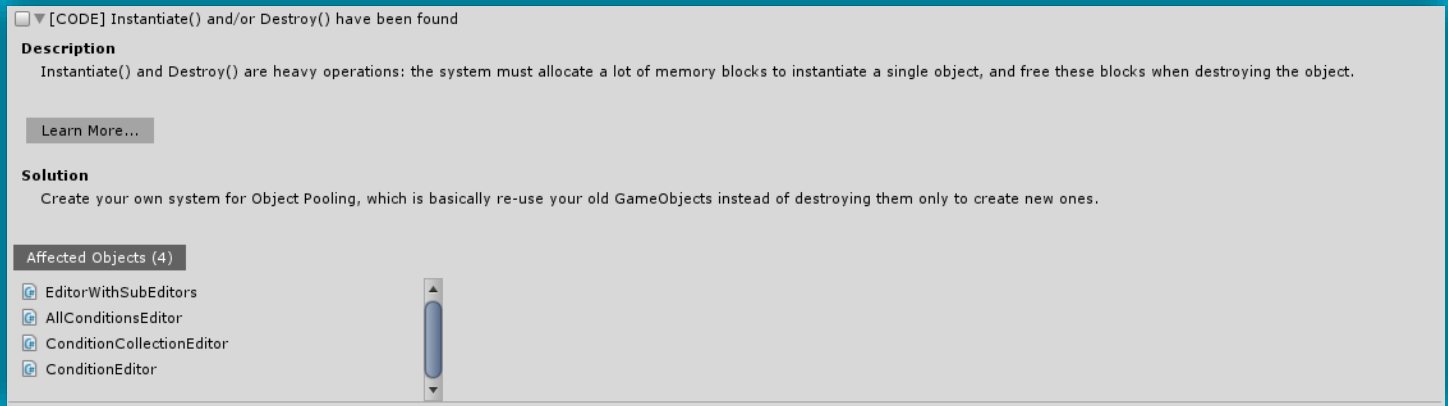
Sort by Category – sorts all results by their categories.

Sort by Affected Objects – sorts all results by the number of affected objects in descending order.

Gear Icon – located in the far-right corner of the panel, the gear icon opens Bottleneck Settings window

Result Cards

That's the heart of Bottleneck Scanner. It lists all Results in a card-like format, giving you an insight of a problem and how can it be solved.



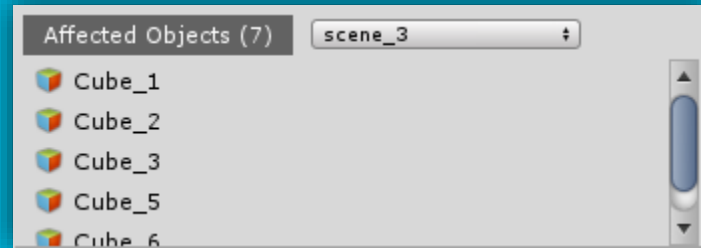
Header – Header gives you a brief description of the problem that it has found. If enabled, it tells you which category does this result belongs to (enclosed in brackets)

Learn More... –opens a relevant article in your default web browser

Description – gives you a more detailed overview of a problem and what are consequences of not fixing such problem.

Solution – provides an explanation on how the problem can be fixed.

Affected Objects



Affected Objects show which Assets/GameObjects/Folders are affected by a said problem. If many scenes are open, Affected Objects will be organized by their source scene.

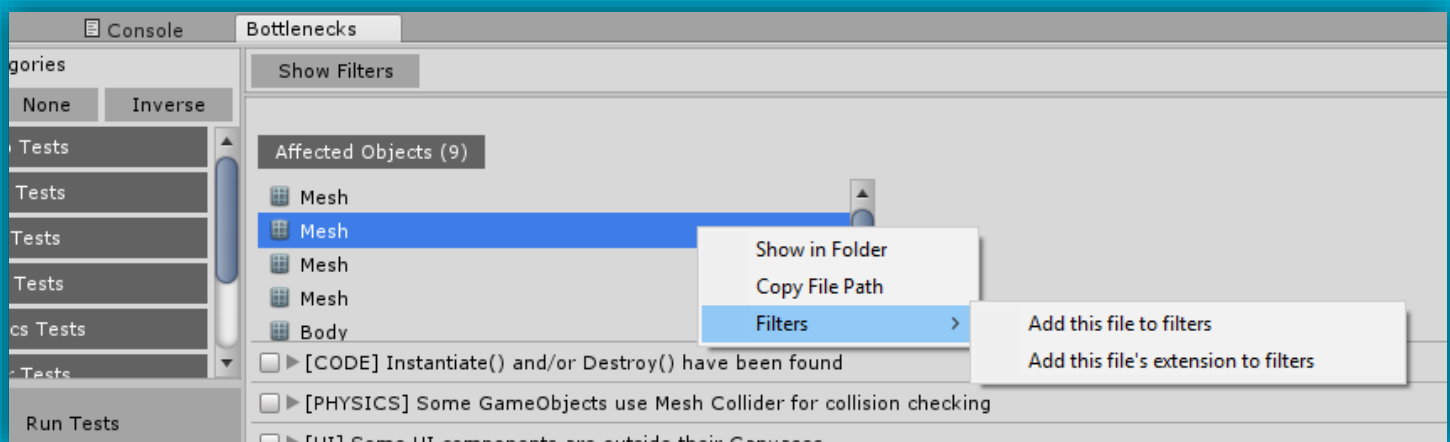
Clicking an item from Affected Objects will display its properties in Inspector Window. It will also “ping” an item in either Project Window or Scene Hierarchy.

You can also multi-select Affected Objects, allowing you to edit settings of multiple objects simultaneously. Multi-select behaves in the same fashion as if you’re selecting assets in a Project Window or Hierarchy Panel.

To multi-select, click an item while holding down CTRL (CMD on Mac).

To deselect an item, CTRL/CMD + Click it.

If Affected Object is an Asset or a Folder you have access to context menu



Show in Folder – opens File Explorer (or Finder in Mac OS) and shows where said object is located

Copy File Path – copies object’s file path to clipboard

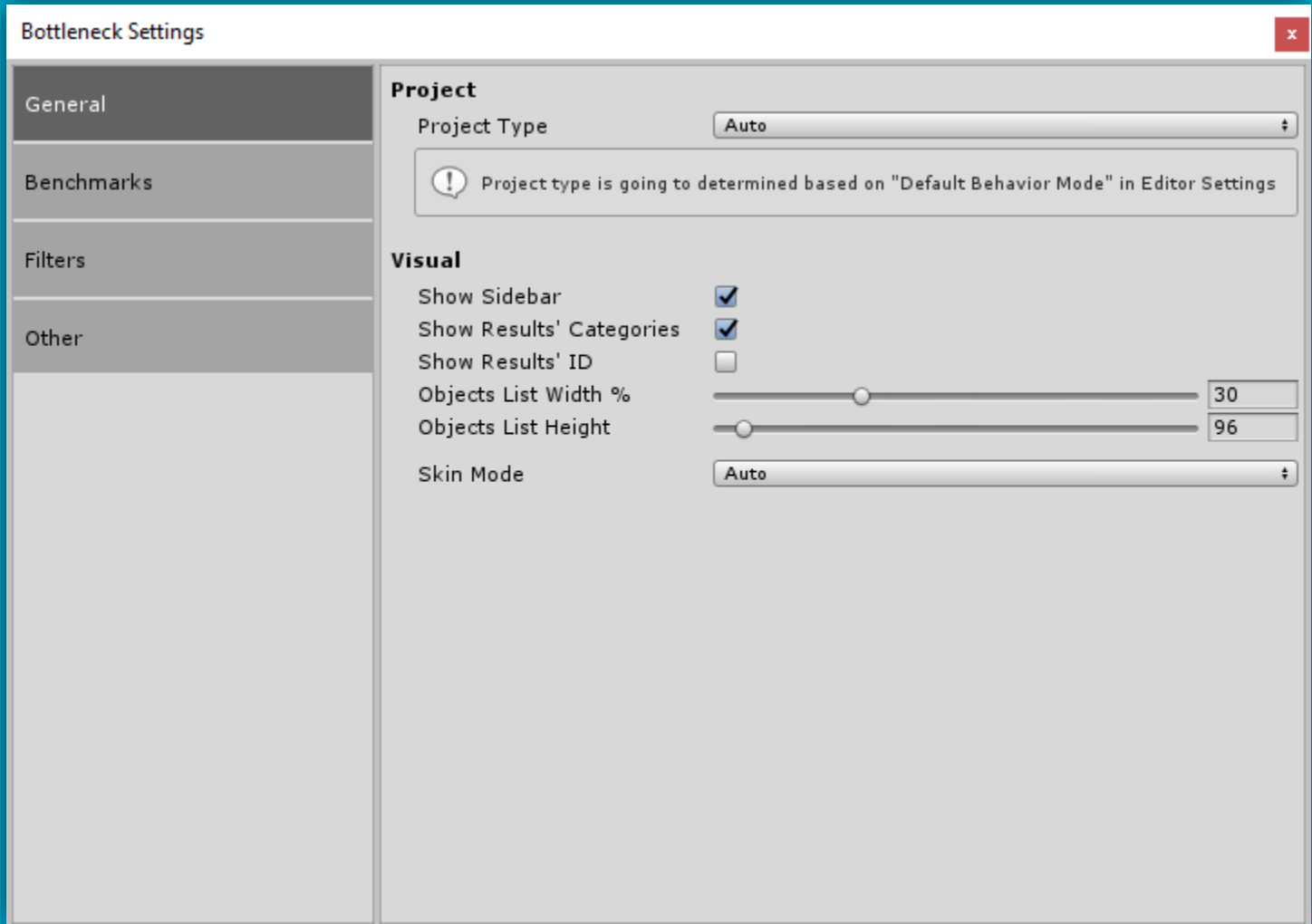
Filters – access options to quickly ignore either this file or its extension

Bottleneck Settings Window

Bottleneck Settings is where you can customize appearance, configure Filters and change Benchmarks.

To access Bottleneck Settings, go to *Window > Project Scan > Bottleneck Settings*

General



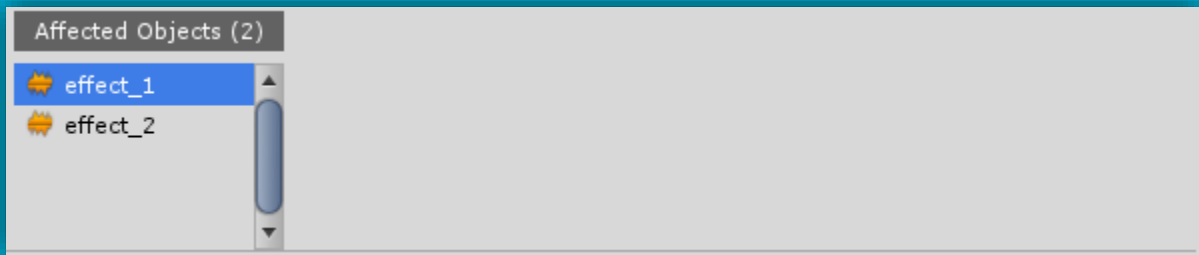
Project Type – Specify whether your game/application is 2D or 3D, this will be used for some of the tests

Show Sidebar – if false, the sidebar of Bottleneck Scanner will be hidden

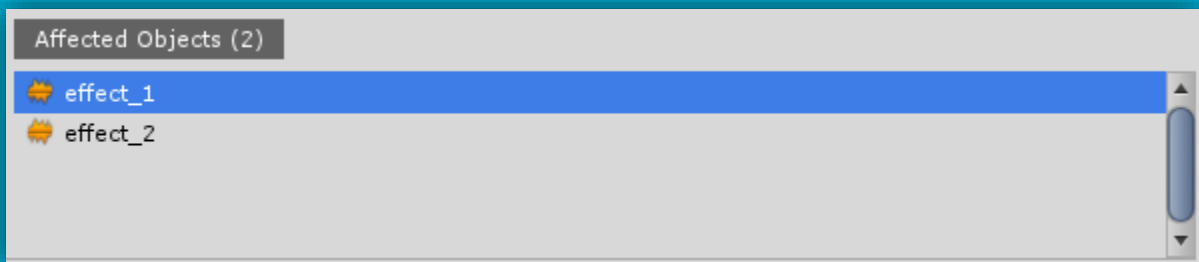
Show Results' Categories – if false, Result Categories will not be displayed

Show Results ID – if true, Result ID will be displayed. This is good if you want to refer to a result when talking on forums or when contacting a support.

Objects List Width % - specifies the width of Affected Objects. 100% will stretch to the whole width of a window. It's recommended to keep it somewhere below 50%



Width = 0%

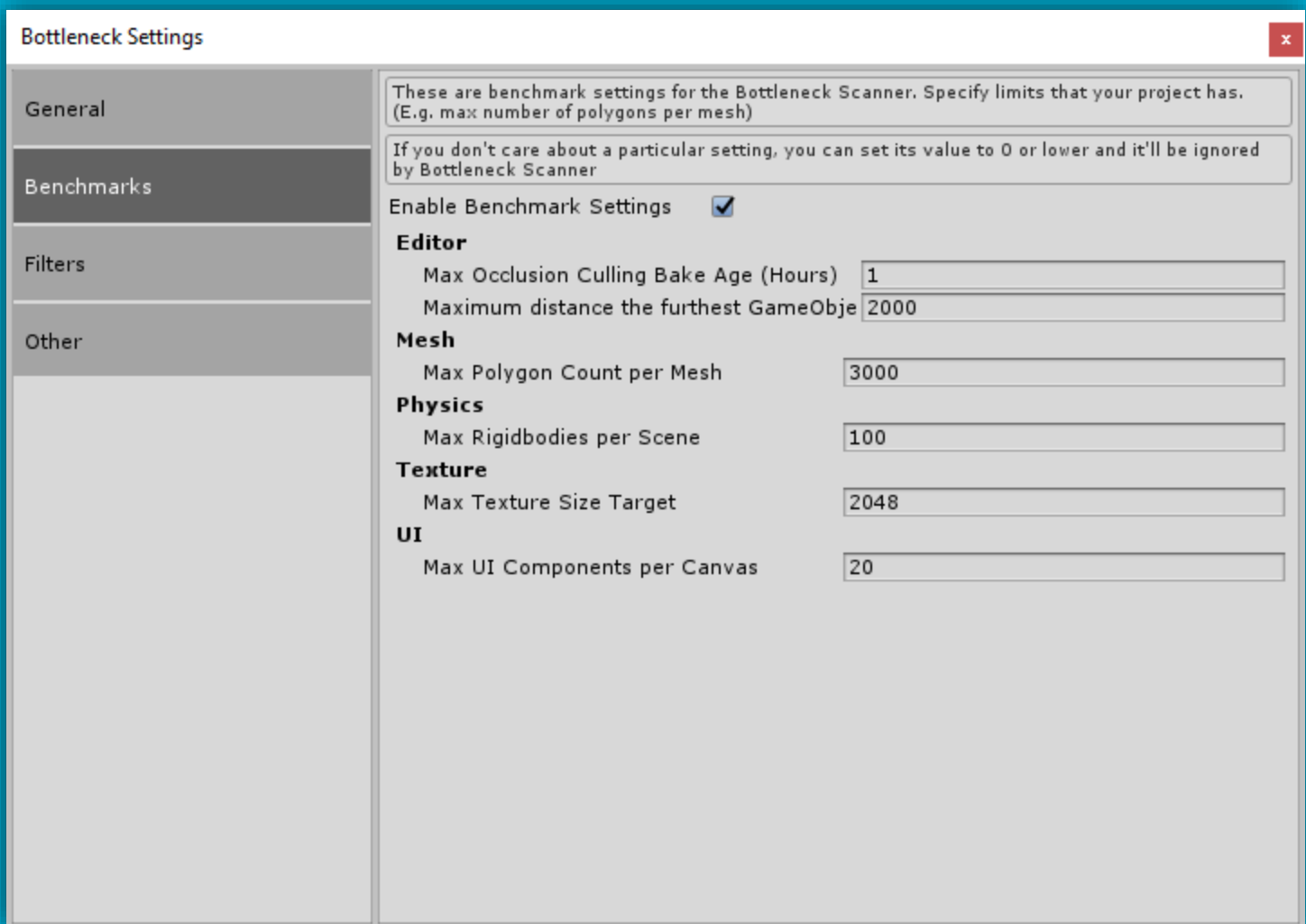


Width = 100%

Objects List Height - Specifies the height of the Affected Objects. Good to keep the height stable to avoid bloating Results Panel

Skin Mode – this option enables you to force a skin style: Pro or Light. However, it's highly recommended to leave this option as it is.

Benchmarks



Bottleneck Settings

These are benchmark settings for the Bottleneck Scanner. Specify limits that your project has. (E.g. max number of polygons per mesh)

If you don't care about a particular setting, you can set its value to 0 or lower and it'll be ignored by Bottleneck Scanner

Enable Benchmark Settings ☒

Editor

Max Occlusion Culling Bake Age (Hours)

Maximum distance the furthest GameObject

Mesh

Max Polygon Count per Mesh

Physics

Max Rigidbodies per Scene

Texture

Max Texture Size Target

UI

Max UI Components per Canvas

Enable Benchmark Settings – if set true, Benchmark Settings will be considered for the next test

Max Occlusion Culling Bake Age – Specifies, in hours, how old is occlusion culling is acceptable for your project

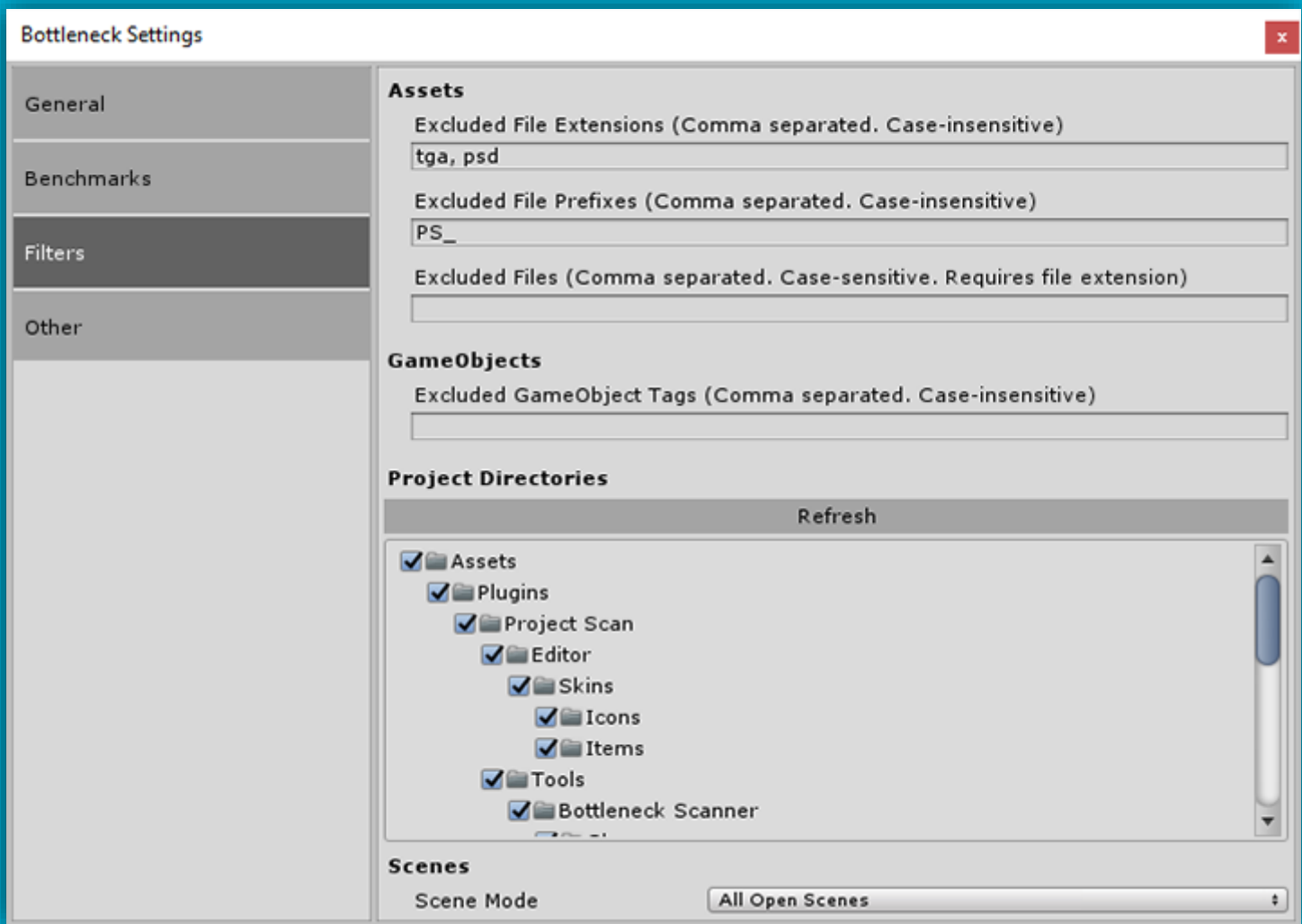
Maximum distance the furthest GameObject – specifies, in units, how far away GameObject can be to be considered “Lost”

Max Rigidbodies per Scene – specifies how many rigidbodies can you have per single scene

Max Texture Size Target – specifies acceptable “Max Size” a texture can be

Max UI Components per Canvas – maximum number of UI components that can be allowed per Canvas

Filters



Excluded File Extensions – File extensions which are going to be ignored during the next scan

Excluded File Prefixes – files with given prefixes are going to be ignored during the next scan. By default, all Project Scan scripts will be ignored (they all have a “PS_” prefix)

Excluded Files – specified file names will be ignored during the next scan. Be sure to include file extension as well. (E.g. “house.fbx”)

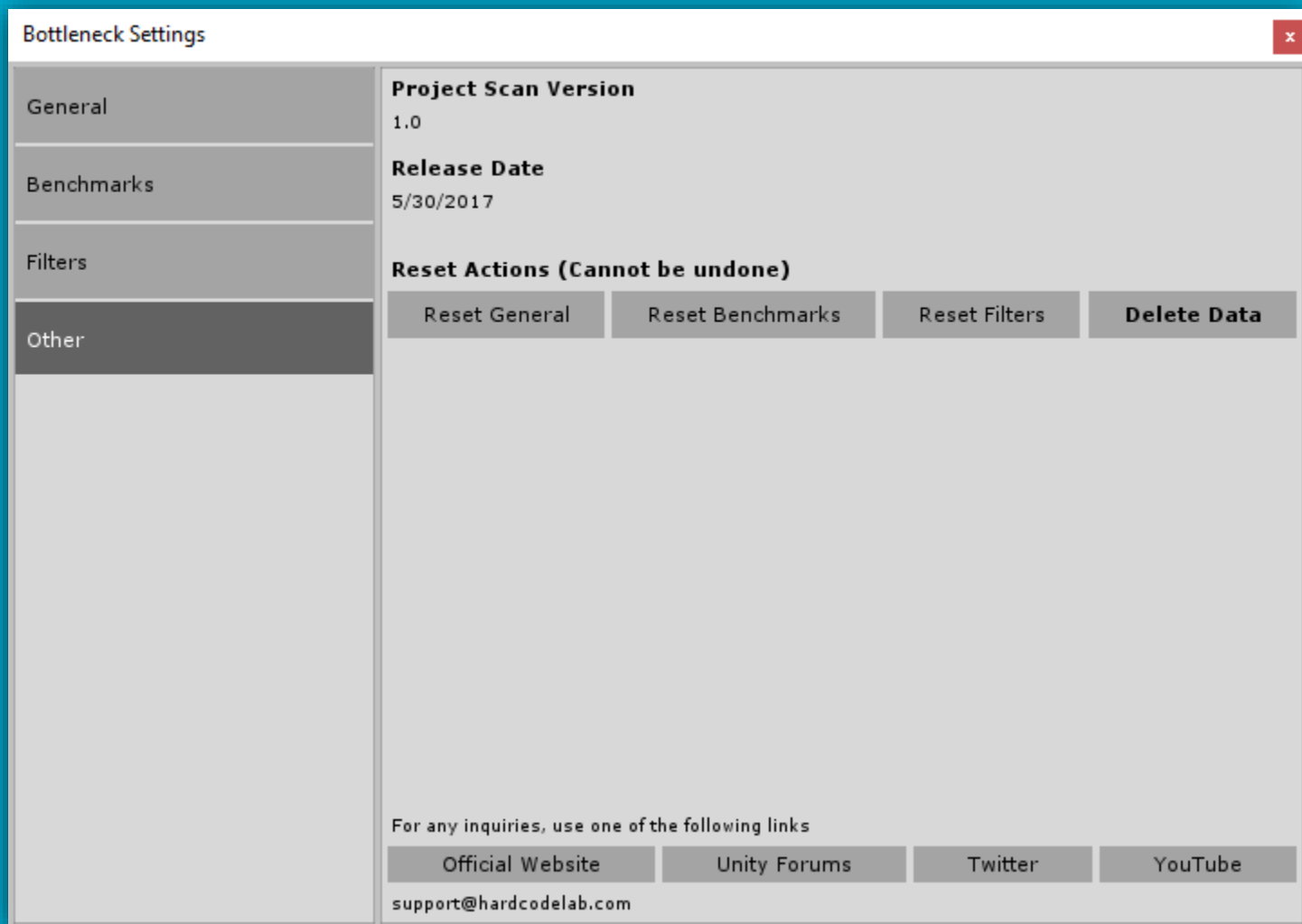
Excluded GameObject Tags – allows you to specify a tag to ignore all GameObjects that use it

Project Directories – allows you to exclude special folders from being scanned. Useful if you want to avoid scanning third-party plugins.

Scene Mode – If set to *All Open Scenes*, all GameObjects from both the active and open scenes will be included in the scanning process.

Other

This section doesn't contain any settings to play around with, but rather actions that affect settings from other sections. You can reset specific sections or reset *everything*.



Reset General – resets all settings located in *General* Section

Reset Benchmarks – resets all settings located in *Benchmarks* Section

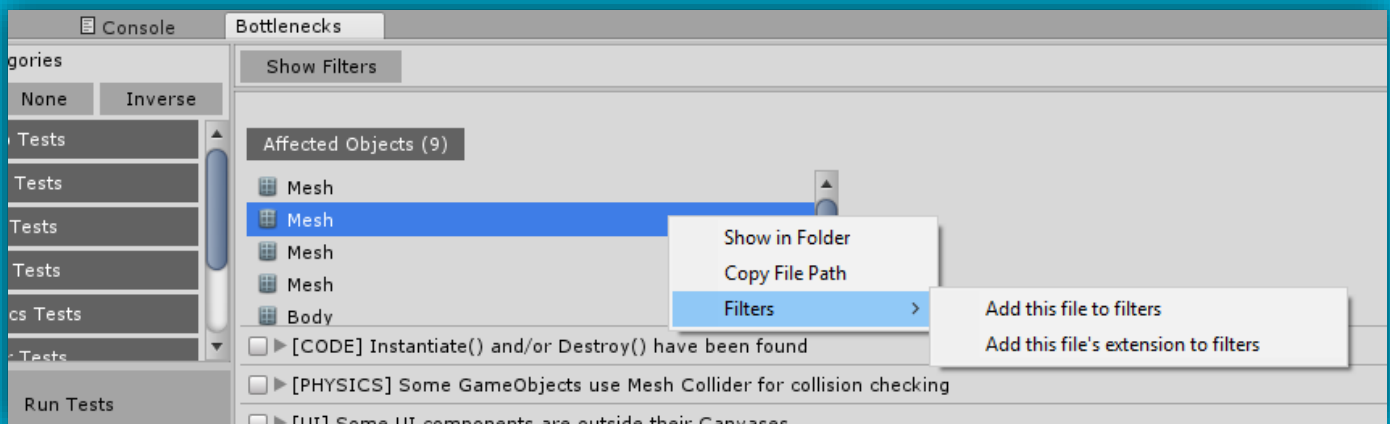
Reset Filters – resets all settings located in *Filters* Section

Delete Data – deletes ALL settings and deletes all collected results from Bottleneck Scanner

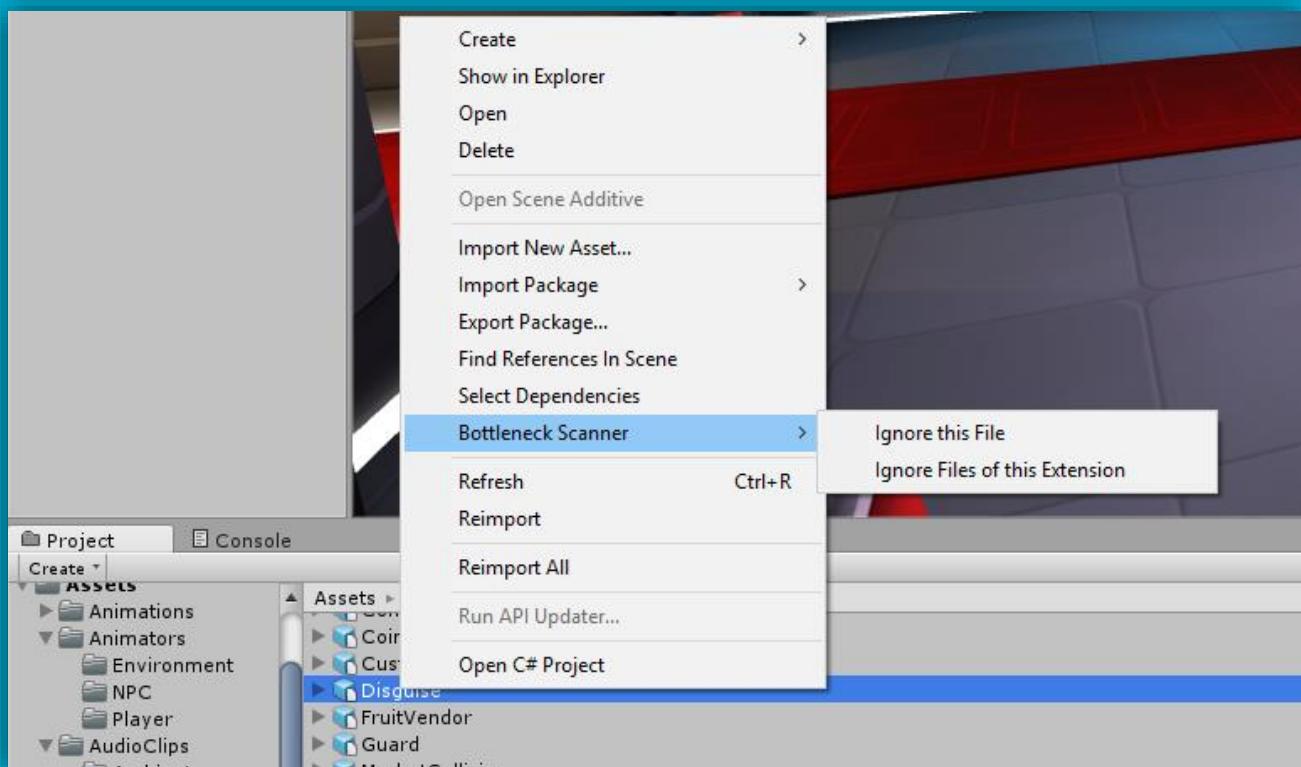
HOW-TOs

Quickly Ignore Files and Extensions

Instead of always going to Bottleneck Settings to filter out a specific file extension, you can exclude files from the context menu in Affected Objects list.

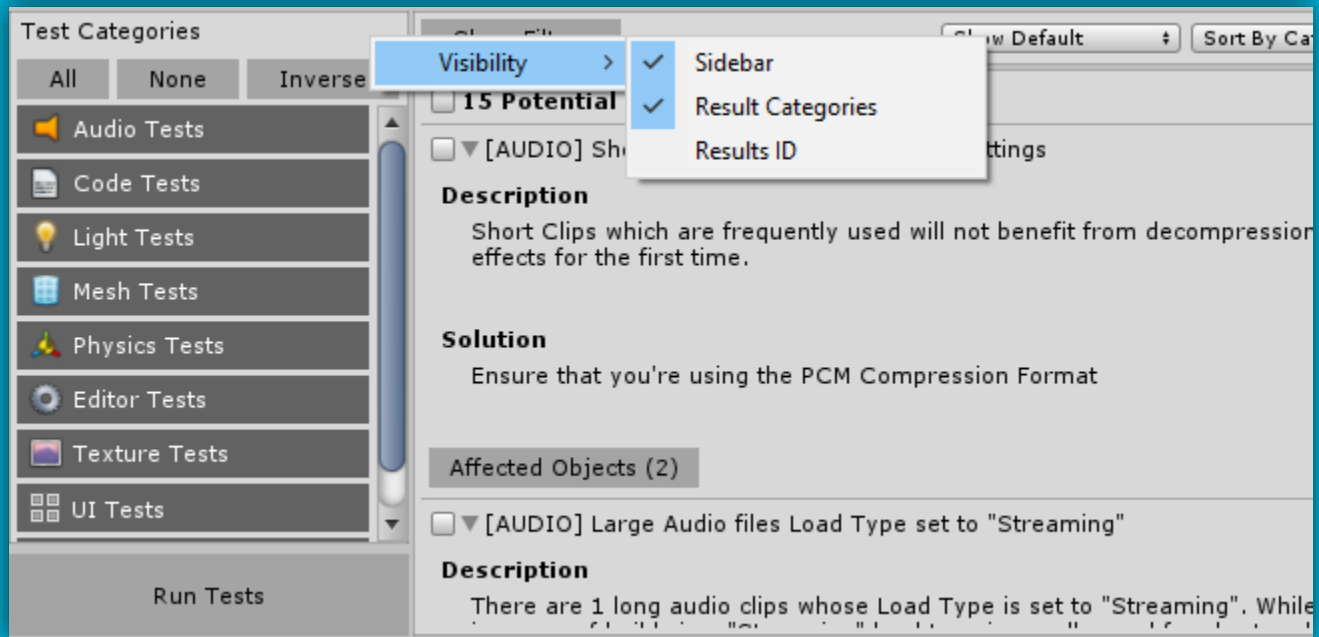


Alternatively, you can access the exact same menu in the Project Window.



Toggle Visibility in Bottleneck Scanner Window

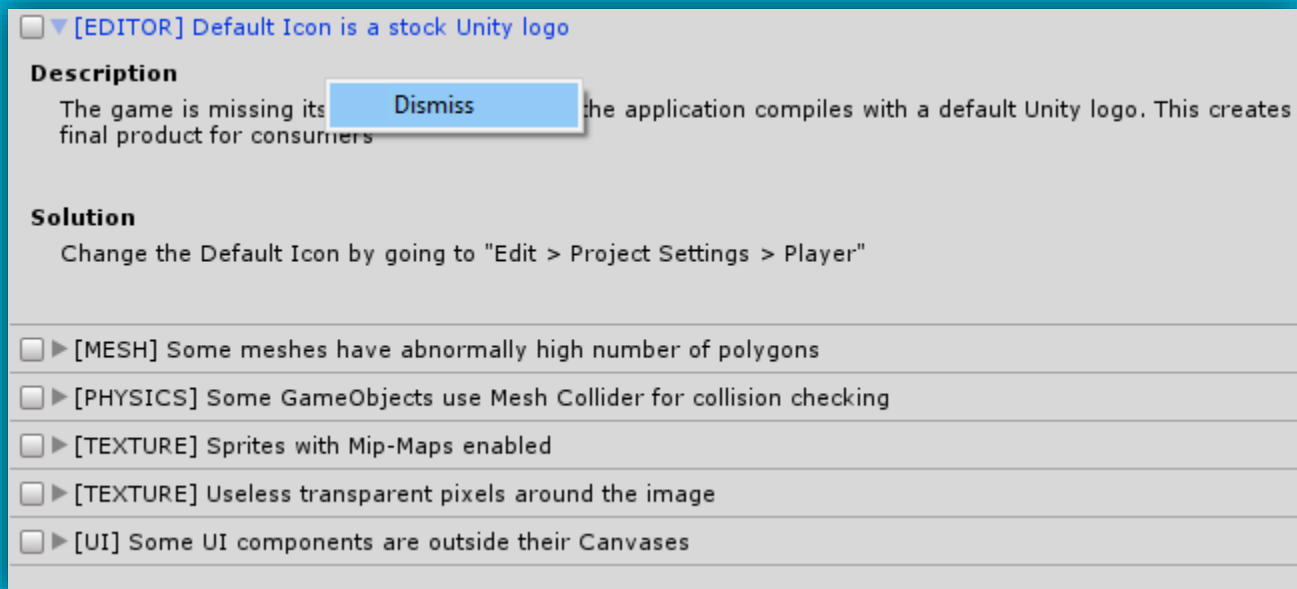
You can also quickly toggle the visibility of some components such as sidebar through a context menu accessible in the top panel of Bottleneck Scanner Window.



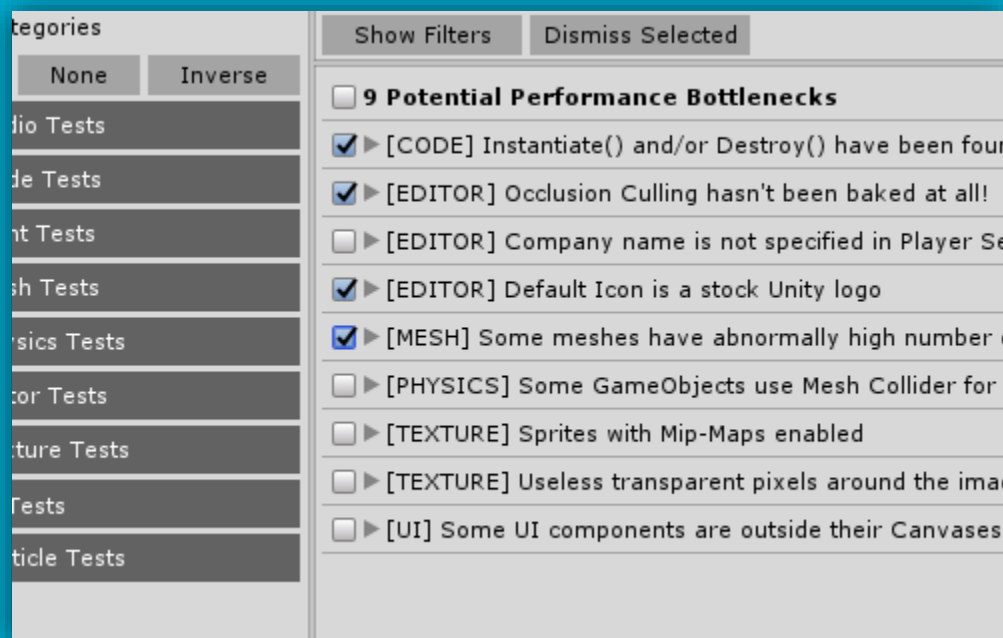
Dismissing/Restoring Result Cards

You can easily dismiss a result if you feel it doesn't apply in your case or, by any chance, it produces false positives.

Hover over the result you want to dismiss, right click and select *Dismiss*.

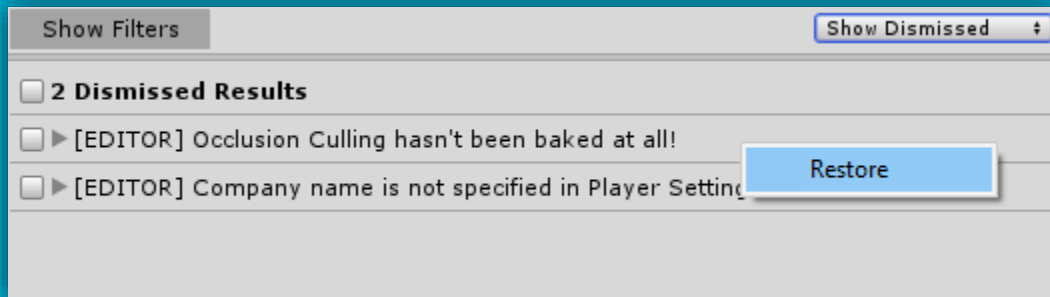


Alternatively, if you want to dismiss multiple results, simply tick checkboxes next to results and press *Dismiss Selected* on the top panel.



Results can then be accessible through the drop-down *Show Dismissed*, also located on the top panel.

You can also restore a result to default list if you happen to change your mind. Doing so can be done in the same manner as dismissing results.



Dismissed results will not appear in the default view unless restored.

In any case if you believe you've encountered irregular results or false-positives, please contact support@hardcodelab.com (include a Result ID).

Contact

Email:

support@hardcodelab.com

Website:

hardcodelab.com

Twitter:

[@HardCodeLab](https://twitter.com/HardCodeLab)

YouTube:

youtube.com/c/HardCodeLab