

# Top5 Functions Web Help

## Index

[What does the Top5 Functions tab do?](#)

[Understanding the Top5 Functions tab](#)

[The Top5 Functions table](#)

[Top5 Functions Table Color Coding](#)

[Analysis of Data from the Top5 Functions Tab](#)

[What is wall time \(exclusive and inclusive\)?](#)

## What does the Top5 Functions tab do?

The Top5 functions tab helps you identify, compare, and analyze the five functions that took the longest time to execute in terms of exclusive wall time.

The top five functions displayed on the tab also help you check the function distribution across multiple timeslots. This data helps you analyze functions and code in multiple pages across all games.

Data displayed on this tab helps you quickly identify:

- The function distribution across multiple timeslots
- Change in the pattern of function distribution
- Functions that occur once or twice arbitrarily

In a stable game or deployment, the function distribution must be constant across different timeslots; any variation in the distribution must be analyzed. Most of the time there will be no change in function distribution. Any function that appears once or twice indicates an outage such as a system outage, unresponsive database, data collection issue, or bad code.

## Understanding the Top5 Functions tab

The pages for which profiles were collected in the last 48 hours are listed on the left side of the tab.

**All pages** is an aggregated profile of top five functions in all the pages. The table on the tab displays the top five functions based on half-hourly timestamps, date wise.

The **prev** and **next** buttons located at the bottom of the table allows you to view the top five functions in the next and the previous timeslots.

## The Top5 Functions table

In the table, timeslots are displayed along with the date. Top5 functions are calculated for every half hour.

The Top-1 function is the function that took the longest time to execute end-to-end in terms of exclusive wall time. The Top-2 function is the function that took second highest time to execute, and similarly the Top-3, Top-4, and Top-5 functions.

## Top5 Functions Table Color Coding

Each function is colored uniquely. The colors assigned to functions are generated randomly by zPerfmon every time you refresh the data or load a new page. In every instance, a function is displayed in the same color throughout the table. A new function that appears in the table is assigned a different color. This helps in identifying functions easily.

## How do I analyze data from the Top5 Functions Tab?

To optimize the page, associate data in the Top5 functions tab with the profile view in the Profile Dashboard tab or check the code.

The function distribution across multiple timeslots should be uniform – with similar patterns appearing in multiple timeslots. A pattern that is not repeated or a completely new function appearing in the table is given high priority for analysis and code optimization. You must look for the cells with functions that occur rarely. These functions are low performers.

For an overall analysis, first view the top functions for **All pages**. Identify the low performing functions. Analyze these functions by selecting individual

pages. This will help identify the pages that called these functions. After identifying a function, note the page that called the function, date, and timeslot. Go to the Profile Dashboard to analyze the function further.

### **What is wall time (exclusive and inclusive)?**

Wall time is the real running time of a program. It is measured in micro seconds.

Inclusive wall time is the total execution time taken by a page, from the first byte of code to the last, inclusive of all parent and child functions.

Exclusive wall time does is the time taken by a function to execute, not taking into account the execution time of any child functions.