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CUBE 4.3 – Cube Heatmap Plugin User Guide

Generic Display for a CUBE Heatmap Plugin

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1 Heatmap User Guide

1.1 Introduction

HEATMAP plugin is a CUBE plugin that represents the value of the thread in each iteration, as colors. The User can apply different metrics and call paths on heatmap graph.

1.2 Basic Principles

As a start point, it should be mentioned that HEATMAP works only on file that has iterations. For those files which have not, user would face the warning on the terminal : `"No iterations for Heatmap"` and the plugin will not be shown.

By loading the plugin, on *system dimension*, the corresponding tab, *Heatmap*, will be added. Figure1.1 displays a view of it.

User can select different metrics such as *Visits* and *Time*, by clicking on them in *metric dimension*. In addition, it is possible to get a HEATMAP for different *call paths* of iterations, via clicking on them. However, for *call paths* that are not located in iterations, like *input_in* figure1.2, no heatmap graph is displayed and user face the message `"No data to display"` on a window.

Furthermore, the values on HEATMAP, can be evaluated in *Inclusive* and *Exclusive* manner. Therefore, user can easily collapse the tree on *call path* and click on the desired path to get the exclusive value of it.

Additionally, the exact calculated values can be seen by clicking left button of mouse on the desired position on the graph, a tooltip would display a value corresponding to the iteration.

In a situation that user needs to store the graph, it is just needed to do right click on a graph, and select `"Save as image"`, then the *Save dialog* will be opened to specifying the path and name of the PNG file.

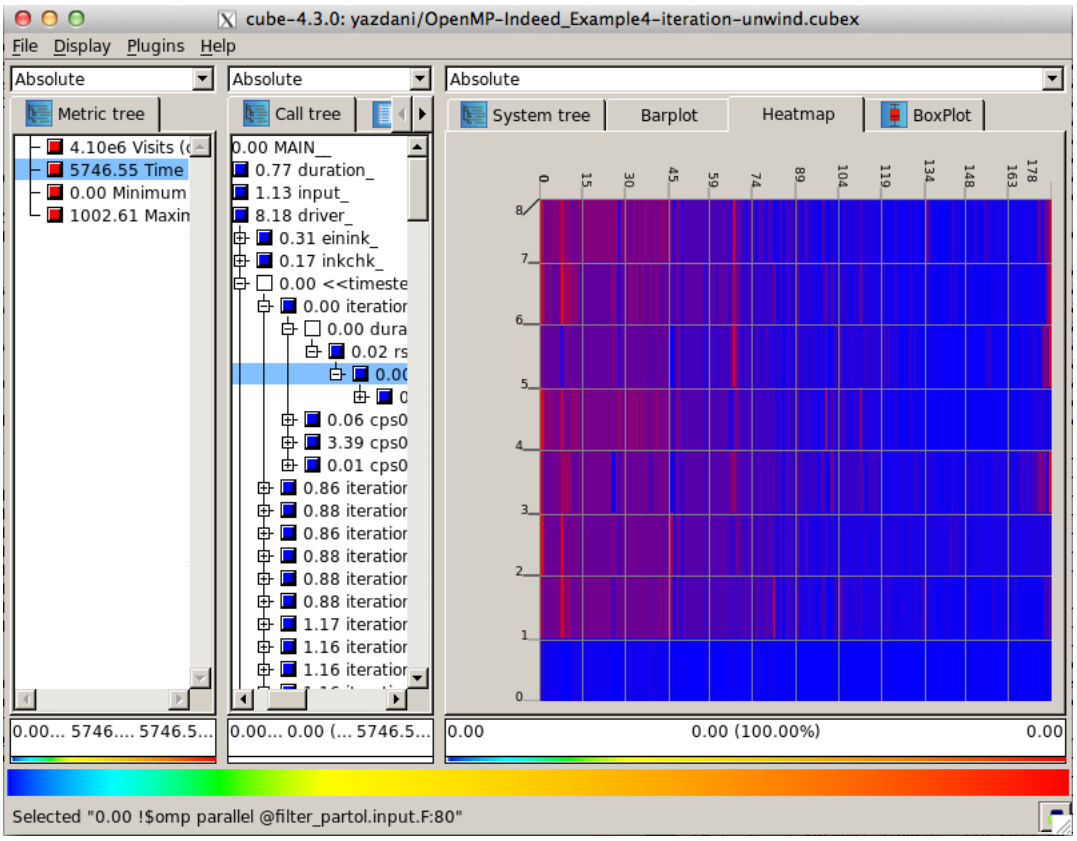

Figure 1.1: HEATMAP display window

1.3 menu

Plugin menu offers the general function to enable or disable a plugin, and specific functions for each plugin. *Heatmap plugin* provides the following functions in three areas, horizontal tick, vertical ticks and heatmap colors(Fiqure1.3).

Horizontal ticks: For adjusting the major and minor horizontal ticks, user can set the drawing intervals or the number of ticks.

Vertical ticks: For adjusting the major and minor vertical ticks, user can set the drawing intervals or the number of ticks.

Heatmap colors: The user can modify the color of minimum and maximum values.

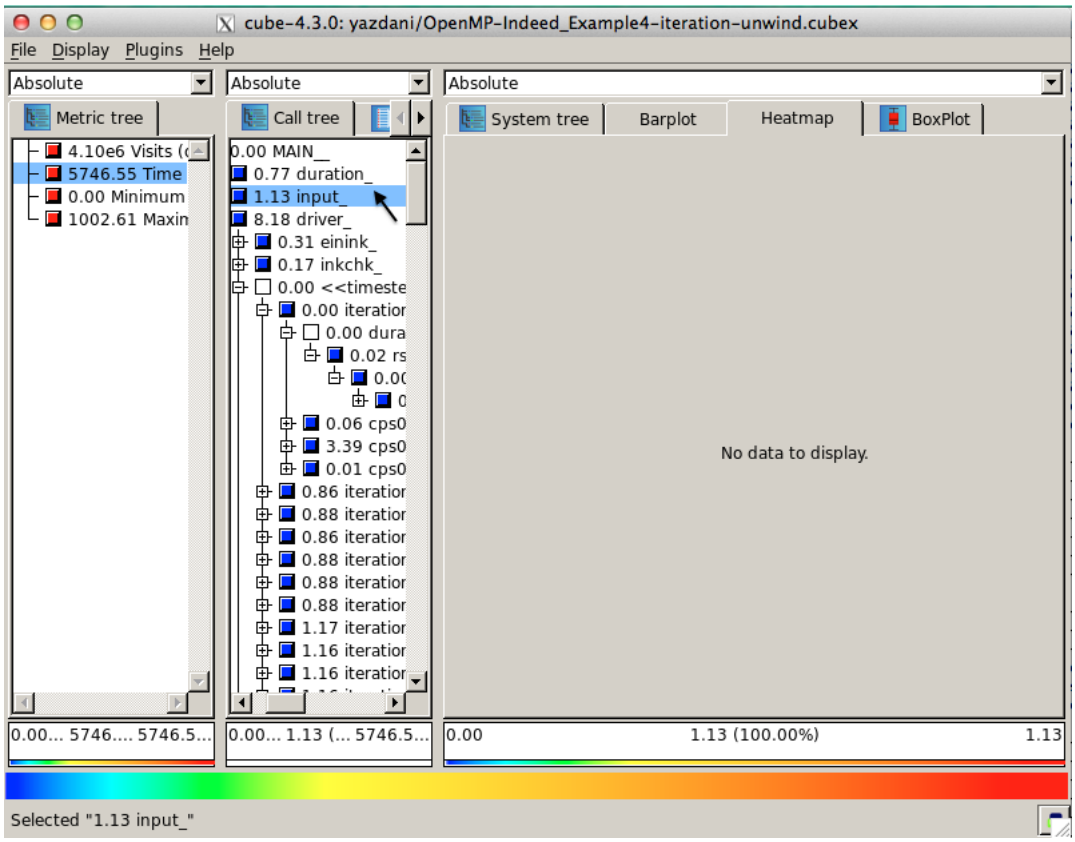

Figure 1.2: No data to display

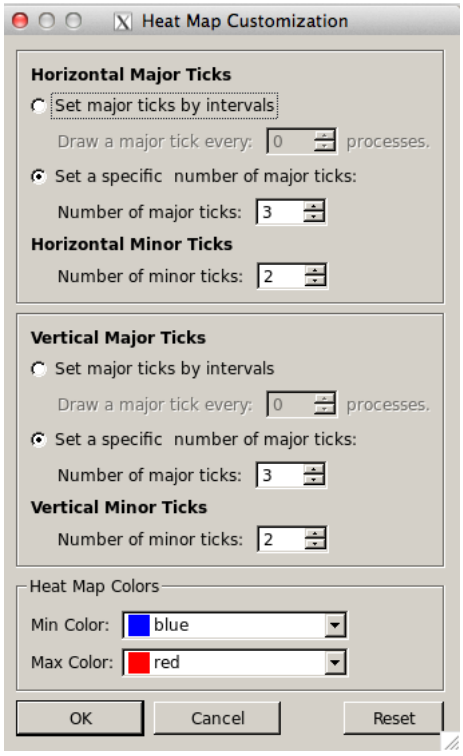

Figure 1.3: HEATMAP menu