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Analysis Tools for the VyPR Performance Analysis Framework for Python

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VyPR (http://cern.ch/vypr) is a framework being developed with the aim of automating as much as possible the performance analysis of Python programs. To achieve this, it uses an analysis-by-specification approach; developers specify the performance requirements of their programs (without any modifications of the source code) and such requirements are checked at runtime. VyPR then provides tools which allow developers to perform detailed analyses of the performance of their code. Such analyses can include determining the common paths taken to reach badly performing parts of code, deciding whether a single path through code led to variations in time taken by future observations, and more.

This paper describes the developments that have taken place in the past year on VyPR's analysis tools to yield a Python shell-based analysis library, and a web-based application. It concludes by demonstrating the use of the analysis tools on the CMS Experiment's Conditions Upload service.

Consider for promotion

No

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