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CPM Toolkit

CPM Toolkit

Continuous Performance Management for the Development Lifecycle

"DSI shares our own commitment to helping enterprises deploy and manage high performance Java applications. By leveraging Quest's PerformaSure and JProbe software with their own advanced performance tuning techniques, DSI guarantees the scalability, robustness and performance of Java applications. This philosophy is what drives DSI's application development—and what separates them from typical development environments."

- Christian Ledwidge, Manager, Solutions Architecture EMEA

QUEST SOFTWARE

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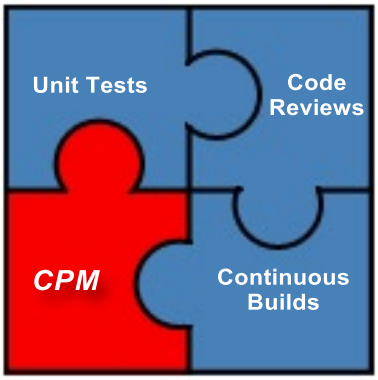
Continuous Performance Management (CPM) is the practice of managing the performance profile of an application under development; measuring the impact of code changes against deviations in the application's behaviour.

CPM Toolkit brings Continuous Performance Management to Quest Software's enterprise-class Java profiling tool, JProbe®. Using JProbe as a platform, it automates the collection of performance data from JProbes' powerful Analysis Engines and generates benchmarks on which to base an application's performance.

- Combine the power of JProbe with a **Continuous Integration (CI)** environment to incorporate cost effective performance management early in the development lifecycle.
- Establish **performance benchmarks** and easily track performance deviations from build to build.
- Prioritise performance monitoring across the entire development **team** by extending the results of JProbes' Analysis Engines to the project team.
- Analyse performance behaviour **throughout the development phase** to establish normal patterns of behaviour and build a performance profile of your application.
- Implement a "**find early, fix early**" practice to prevent expensive and time consuming performance tuning in production.
- Provide a greater level of **confidence** prior to moving code into system test, and subsequently user acceptance testing by removing performance issues at the development stage.
- Gain **project management level visibility** across all projects under development using the CPM-at-a-glance dashboard.



CPM Toolkit adds a performance dimension to Continuous Integration

Why *CPM Toolkit?*

The execution profile of an application under development naturally changes during the development life cycle. The root causes of performance issues, which manifest themselves in pre-production or production environments, will have been introduced at some point in the application's development. We refer to these as 'origin points'. The challenge is to identify these 'origin points' before their introduction to a post-development environment. *CPM Toolkit* identifies these 'origin points' early in the development phase.

Quest's JProbe provides development teams with detailed code performance, heap usage and code coverage metrics of an application under test. Grouped together these can be referred to run time characteristics of the code. These characteristics represent an application's behaviour at a single point in time. *CPM Toolkit* recognises a pattern of behaviour over time. The discovery of these patterns of behaviour enables the determination of normal and abnormal behaviour.

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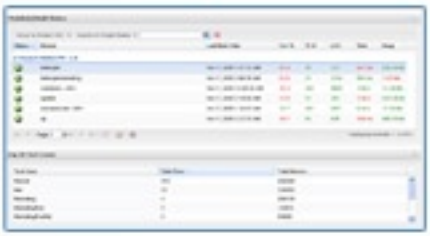
CPM Toolkit – an integral part of your development process



CPM-at-a-glance Dashboarding

How does *CPM Toolkit* work?

CPM Toolkit, applies JProbes' Analysis Engines (Performance Analysis, Heap Analysis and Coverage Analysis) to the code base under development. The resultant data, when persisted to the *CPM Toolkit* database, allows tracking of behavioural patterns over time and, with the application of statistical analysis, identifies deviations from the established benchmark.

CPM Toolkit integrates with existing ANT or Maven build scripts, inspecting the target source code and determining testable and non-testable code. On identifying testable code, *CPM Toolkit* generates batch unit test tasks, executing each unit test through the various JProbe Analysis engines. This data is then collected, merged and analysed for deviations before being committed to the *CPM Toolkit* database. If a deviationis observed by the system, notifications are sent out to the registered team members for further action.

Typical users of *CPM Toolkit* include software developers, architects and Project Managers.

Statistics displayed in graphical format

Features

Generation of Application Performance Profiles over the Development Lifecycle – Measuring Code Coverage, Performance and Memory usage is a valuable addition to your Continuous Integration process, enabling a timely response to any deviation in the quality of your build

Alert Notification – *CPM Toolkit* has an inbuilt notification facility that alerts development team members to potential performance problems. Developers and architects can now deal with performance problems early in the development phase of the project rather than during production.

CPM-at-a-glance Dashboarding – The *CPM Toolkit* dashboard displays summarised project performance metrics in a single easy to read user interface. The ability to easily interpret performance issues provides busy Project Managers with a valuable aid to decision making.

Role-based Functionality – *CPM Toolkit* comes with a development team role-base user access model and is capable of managing multiple concurrent development projects. The product has a rich AJAX user interface, where each user has access to the relevant project statistics displayed in graphical and table format.

Application of Statistical Analysis Methods – *CPM Toolkit* allows a project manager to establish a performance base line, against which subsequent builds can be measured. By establishing standard deviations of that base line, *CPM Toolkit* allows a Project Manager to identify significant changes to the performance profile.

Search Functionality – *CPM Toolkit* has a search facility to retrieve historical build data. This allows the user to search between projects, modules and timeframes to capture different data views.

How can we help you?

To discuss how we can help your organisation, call us on +353 21 4925 110 or send an e-mail to apm@decaresystems.ie.

About DSI

DSI is an enterprise software development company specialising in developing and integrating custom .Net and Java applications. Our customers, who include Amazon, Avon, Expedia and a number of large US healthcare insurance carriers, chose DSI because of our strong attention to technical excellence and our proven project delivery skills.

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