Green Indexes Used in CAST to Measure the Energy Consumption in Code

(Invited Talk)

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ABSTRACT

While hardware consistently evolves to become more energy efficient and support green IT strategies, the technology that companies currently use may be optimized to avoid excessive expenses as well as prevent further power consumption. Substandard software programming can consume more hardware resources than necessary. Excessive calls and code that causes the system to crash can quickly increase a company's carbon footprint. By focusing on the structural quality of software, companies can find and improve the efficiency of their applications' underlying code, as well as reduce defects that cause outages. CAST's Green IT Index is a composite of selected programming best practices that significantly impact the efficiency and robustness of your applications. Integrated as part of CAST's Application Analytics Dashboard, you can quickly drill down to analyze specific best practice violations for all your applications. The Green IT Index helps IT leaders: reduce costs associated with wasted hardware resources; improve overall software quality; promote an environmentally conscious culture within the development team.

BIOGRAPHY

Marco Bessi is a Solutions Delivery Consultant at CAST. He is member of the delivery organization in the implementation of the CAST technology with various commercial/government customers. With the re-engineering of their SDCL he introduces the source code quality assessment and the action plan phase to define the list of mitigation of the vulnerabilities in the source code. During his Phd, his research focused on the definition of new methodologies and implement tools to measure and improve the energy efficiency of software. In particular, the projectfocused on the intelligent use of memory to reduce energy consumption