Quality Assurance for Component based software systems

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Abstract:

In Component Based Development, applications are built from existing components, primarily by assembling and replacing interoperable parts. Thus, a single component can be reused in many applications. Utilization of component based improvement brings numerous focal points: speedier advancement, lower expenses of the improvement, better ease of use, and so on. Quality assurance for component based software is important. We discuss a Quality Assurance Model of Component Based Software Engineering that covers Component Requirement Analysis, Component Development, Component Certification, Component Customization, and System Architecture Design, System integration, System Testing, and System Maintenance. We will learn various quality aspects of software components: Component Quality Requirements, Component Quality Metrics.

The term metrics is basically a quantitative measure of extent to which given attributes influenced by a system, component or a process. Metrics are required to measure software quality, improve software quality and to predict software quality. The main function of component based metrics is to provide reusability and decrease cost and development time. These metrics are used for evaluating quality and managing risk.

We will also through light on the Component Quality Characteristics Model.

References:


