

A brief summary over Component based software development

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May 19,2016

Component based software development comes from the reuse of software entities called "Software component". It mainly evolved from the failure of object oriented software development.

A component is an executable entity which is made from executable objects. Interactions are taken place by component interface.

Component does not have to be compiled before getting used by other components. The services offered by a

component is available through the interface. A component model is a definition standards for component implementation, documentation and deployment. Component models are the basis for middleware that provides support for executing components.

Components developed for a specific application should be reusable. Components should not handle exception themselves because each application has its own ways of exception handling. The development cost of reusable components may be higher than the cost of specific equivalents. This extra reusability enhancement cost should be an organization rather than a project cost.

Component management involves classifying the components properly so that they can be discovered easily for further use.

CBSE with reuse process has to find and integrate reusable components. The component identification issues are Trust, requirement and validation.

Component validation involves developing a set of test cases for a component and developing a test harness to run component tests.

Component composition involves integrating components with each other and with component infrastructure.

When composing reusable components, we normally have to write adaptors to reconcile different component interfaces.