Most software companies have increased their inclination towards Component Based Software Development (CBSD) due to the benefits it provides, like reduced development cost and less time-to-market. Moreover, quality of the product also increases. A component is primarily selected based on the functionality it provides, along with other important factors such as the value of quality attributes like functionality, security, maintainability, cost etc. There are many potential candidate components that provide the same functionality as desired by the target application for which the software is to be developed. The most crucial task for the developers/integrators is to select the best matching component from COTS-library which satisfies all the functional requirements, without compromising on the quality of the overall product and at minimum cost. The current work aims to highlight the research gap in the component selection process, after conducting a detailed survey of the literature of the current component selection techniques available and provide recommendation(s) for a new component selection framework.

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Index Terms

- Computer Science
- Security

Keywords

- Component Based Software Development (cbsd)
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- Optimization
- Commercial-off-the-shelf (cots)
- Cost