A Survey of UML Tools

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Abstract. Unified Modeling Language (UML) is a modeling language widely used in the field of software engineering. It is a standard to visualize the design of a system structurally and behaviorally. UML tools are software tools used to create UML diagrams, perform model and diagram interchange, model transformation, code generation, reverse engineering and round-trip engineering, There are many free UML tools available to be downloaded in the internet. This paper serves as a survey for ten UML tools and gives recommendation to users on which UML tools to be used in different situations. The result of the survey is tabulated so that users are easily able to compare the ten UML tools based on the criteria set by the author.

Keywords: UML; UML tools

1 Introduction

Unified Modeling Language (UML) is a modeling language that is used in the field of software engineering to offer a standard and unified way to visualize the design of a system. [1]. To date, UML has been adopted as a standard by the Object Management Group (OMG). Software engineers use UML as a modeling language to show the structural view and behavioral view of the design of a system. Many UML tools have been created to carry out different function such as diagramming, round-trip engineering, code generation, reverse engineering, model transformation and model and diagram interchange. As of August 2014, there are 19 registered OMG members for UML vendor, 43 nonmembers UML vendor and a lot more UML tools that are not registered under OMG [2]. There are a lot of different types of UML tools with different functionality of their own. This paper serves as a survey of ten UML tools and compares them in terms of several aspects. The ten UML tools are selected based on latest stable release of the tool.