
Foreword

In a recent interview of James Gosling, the primary author of Java, James discusses the challenges of developing complex software-intensive systems, noting that “when you have very large pieces of software, most of the tools look at the individual lines of code as text. It is often extremely powerful to look not at individual pieces of code but at a system as a whole.” The interview goes on to explain that “instead of editing code in the form of text, as it is typically done, Gosling is working on a way to allow code to be edited as a visual model.”¹

The entire history of software engineering is marked by the rise in levels of abstraction, as is manifest in our programming languages, our platforms, and our methods. Abstraction is important, because this is the primary mechanism whereby humans grapple with complexity. The graphical modeling of software is simply another advance in abstraction, enabling developers to visualize, specify, construct, document, and reason about their systems.

The visual modeling of Web-centric systems is precisely the contribution that Jim Conallen has made to the industry. I first became exposed to Jim’s work in 1998 when he presented an early paper on the topic. By that time, the unification efforts that ultimately led to the Unified Modeling Language (UML) were well under way, and it was an explicit goal on our part to be able to model Web-centric systems. We had the essential elements necessary to model such systems, but Jim brought to the table an exact way to do so, building on the UML’s extensibility mechanisms.

It’s been a delight to watch Jim’s work grow and mature over the years. The combination of injecting his approach into a commercial modeling tool and Jim’s personal involvement with a variety of interesting Web-centric systems has led us all to discover

1. Berger, M., “JavaOne: Gosling Hits ‘Jackpot’ with Futuristic Tools.” *InfoWorld*, March 20, 2002.

things we did not know we did not know. That, plus the ascendance of platforms such as J2EE, have made Jim's modeling work even more relevant.

As such, I'm delighted to have the opportunity to introduce the second edition of Jim's book, *Building Web Applications with UML*. The world of Web development has changed in subtle ways since the first edition, primarily marked by our better understanding of what a sound Web-centric architecture looks like and the development process that leads us to that architecture. Both of these changes are reflected in this new edition: Jim addresses the most current developments in J2EE as well as work on the Rational Unified Process that is specifically targeted to the Web.

It has been a pleasure to work with Jim directly the past few years. He is a skilled modeler and architect, and has that rare combination of being an articulate geek, one who really groks the technology but can also communicate what he knows in an approachable fashion.

I think you'll really like this edition; I certainly did.

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