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Embedded Development with UML 2

December Meeting: Embedded Development with UML 2

Date: December 5, 2006 at 7 p.m.
Location: Algonquin College (Woodroffe Campus), room T117

Volunteer needs

OCLUG is a volunteer organization, and we are going to spend 15 minutes talking about our volunteer needs.

Embedded Development with UML 2

Speaker: Ken Webb

Many embedded developers view the Unified Modeling Language (UML) with disdain as just a bunch of bubble diagrams. In fact, with the recent introduction of version 2, UML now incorporates the key concepts used by former local firm ObjecTime in their product for real-time and embedded software development. It is now possible to develop and maintain complete applications, with all the code, using UML 2.

I propose to do a presentation for the December meeting describing these concepts, and how I have implemented them in my open-source project Xholon. It will conclude with a demo of Xholon. This will start with a short session with a third-party UML 2 tool, will continue through code generation, to running the generated application using the Xholon runtime framework.

Outline

- Introduction
- Some concepts behind UML 2 and Xholon: Object-oriented (class, inheritance, etc.), Composite structure, Ports, State machines, Message passing, Code as an integral part of the UML 2 model, Forward engineering with code generation; no reverse engineering
- Xholon: Goals, Current status
- Worked Example (demonstrated on a Linux laptop)
- Wrapup
- Can be downloaded from: http://sourceforge.net/projects/xholon/ Project web site: http://www.primordion.com/Xholon

About the Speaker

Ken Webb has worked for over 25 years in the Ottawa high tech and consulting community. He was an employee of ObjecTime for several years where he became intimately familiar with the UML 2 concepts. He is the author of a published book, Oracle Distributed Systems: A C programmer's development guide. He has a BA in Cognitive Science from Carleton University, and an MSc from the Evolutionary and Adaptive Systems program (Informatics Department) at the Univerity of Sussex in England. He is currently the architect of the Xholon open-source project.