

Press Information

For immediate release



AspectC++ Add-In: Aspect-oriented programming with Microsoft® Visual Studio®

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pure-systems launches first aspect-oriented development tool for C++

With AspectC++ Add-In pure-systems launched the first aspect-oriented development tool. Thus, for the first time ever an aspect-oriented product has been brought to market. AspectC++ Add-In facilitates the modular implementation of software aspects as crosscutting concerns. It has been especially created for Microsoft® Visual Studio® as the most widely used Integrated Development Environment (IDE).

AspectC++ Add-In is an aspect weaver for the C++ programming language. It weaves aspect code fragments to component code when programming in Microsoft® Visual Studio®. Aspects can be used to implement crosscutting concerns like error checking and handling, synchronization, caching, and many others. Often these crosscutting concerns cause a good deal of programming efforts. As the code, which stems from a single design decision, is widely scattered the program code is not at all clear.

AspectC++ Add-In facilitates a completely separated development of program code and aspect code. Program code remains unaffected by crosscutting concerns and is only merged with aspect code when being compiled. By aspect-orientation program code gains clearness. That leads to an improved maintainability. Moreover classes and objects can be reused as they have not been modified. An example: A programmer has to call methods with permuted parameters. With AspectC++ Add-in he does not have to change the original code because an aspect performs the needed adaption.

Aspect-oriented programming (AOP) is no completely new paradigm in computer science. Research tradition dates from the late 1990s. There are numerous commercially used AOP tools for Java, but AspectC++ is the first commer-





cial product for C++. Thus, pure-systems thinks that this technology will meet wide acceptance. Additionally, the Add-In's integration into Visual Studio®, which is already used by 2.5 millions of C++ programmers, works seamlessly. Application takes place in a common environment and fast uptaking is ensured. "There is a tremendous demand for an AspectJ™ like language for C++ -- I am happy to see AspectC++ target that demand" says Gregor Kiczales (University of British Columbia), who lead the team that developed aspect-oriented programming and AspectJ™ (the aspect-oriented extension to the Java programming language).

As aspect-oriented programming has a high potential in efficiency enhancement pure-systems campaigns for spreading this technology. „We should work on standards in aspect-orientated programming. This would lead to a better applicability, and finally to more trust in aspect-orientation. I could think of a certification of compatible software products by an independent organisation“, says Danilo Beuche, one of the founders and managing directors of pure-systems.

An AspectC++ Add-In evaluation version is available for download from www.pure-systems.com.

pure-systems is a private enterprise company set up in 2001 as a spin-off from Otto-von-Guericke University, Magdeburg and Fraunhofer Institut FIRST, Berlin. pure-systems develops innovative software technologies and services mainly focused on embedded systems. pure-systems' business portfolio is comprising the development of software components, software development tools, trainings, and consulting services. pure-systems has developed products like AspectC++ Add-In and pure::consul. pure-systems also delivers custom-made solutions.

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