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Ecma International Moves to Standardize C++ Binding for CLI

Organization Adds C++ Support for Common Language Infrastructure

Geneva — October 6, 2003 — Ecma International today announced the creation of a new task group (TG5) in the organization's programming language technical committee (TC39) to oversee development of a standard set of language extensions to create a binding between the ISO standard C++ programming language and Common Language Infrastructure (CLI). C++ is the world's most widely used cross-platform, vendor-neutral programming language. CLI is a ISO-standardized language-neutral runtime environment that supports garbage collection, security, and other modern features. By standardizing the syntax and semantics of a general purpose binding for C++ and the CLI, Ecma TG5 will provide the huge C++ developer community with a tool that enables them to easily write applications that make full use of the CLI platform, and will provide the developer community targeting the CLI with full support for the powerful C++ language.

Jan van den Beld, Secretary General of Ecma International, commented: "This is timely fulfillment of an urgent market requirement, which demonstrates the vital role of Ecma International in the innovation cycle of programming languages, providing a platform for companies to collaborate and deliver standards which allow both competition and innovation to thrive."

 "Widely available C++ tools in conformance with standards help to minimize development costs such as training, skills transfer, testing, third-party libraries and components, source analysis tools, and application development," said **Thomas Plum**, of Plum Hall, Inc. who will serve as convener of the TG5.

Microsoft, working together with Edison Design Group and Dinkumware, has developed and will submit full draft specifications of a binding of the ISO/IEC 14882 Programming Language C++ to ISO/IEC 23271 (Common Language Infrastructure) in November 2003. In the following months, TG5 participants will review the specifications and act as a liaison with appropriate

Ecma and external standards bodies to prepare for final submission of the C++/CLI specification to the Ecma General Assembly in 2004.

"C++ is strategically important to Microsoft. C++ continues to be the world's dominant vendor-neutral programming language, and its use is still growing globally. We are committed to investing heavily in C++, and to ensuring that the thriving C++ developer community is well represented on .NET and has access to the opportunities standards afford," said **Herb Sutter**, program manager for Microsoft and convener of the ISO C++ standards committee. "Conformance to open standards is vital to the success of C++ and of .NET."

"C++/CLI will give C++ programmers first-class access to the CLI platform. Standardizing C++/CLI through Ecma will help ensure that the code written by C++ programmers will be portable across the tools offered by multiple vendors," said **Steve Adamczyk**, president of Edison Design Group. "We're pleased to be working with Ecma, Microsoft, and other vendors on this standard."

"We are gratified that Ecma recognizes the need for full and standardized support for the C++ language on modern platforms and environments, and look forward to helping move towards standardization of C++/CLI," said **P.J. Plauger**, president of Dinkumware.

About Ecma International

Since its inception in 1961, Ecma International (Ecma) has developed standards for information and communication technology (ICT) and consumer electronics (CE). Ecma is a not-for-profit industry association of technology developers, vendors and users. Industry and other experts work together in Ecma to complete standards. Ecma submits the approved work for approval as ISO, ISO/IEC and ETSI standards.

Ecma is the inventor and main practitioner of "fast tracking" of specifications through the standardization process in Global Standards Bodies like the ISO. In ISO/IEC JTC 1, Ecma has the status of an A-liaison, equivalent to a national body without voting rights. Since its start in 1987, over 196 (more than 80%) of the 232 submissions for fast-track processing in JTC-1 have come from Ecma International.

Main areas of standardization include: Scripting and programming languages; Optical and Magnetic storage; High speed interconnects; Safety, Environmental, Acoustical and Electromagnetic product attributes; Enterprise and Proximity Communication and Networking; and File and Volume structures. Publications can be downloaded free of charge from http://www.ecma-international.org.