News Release

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Telelogic Introduces DOORS®/Analyst™ for Requirements-Driven Development with UML™ 2.0 and Enhances TAU® Development Tools

- DOORS/Analyst Enables Visual Modeling Inside a Requirements Management Tool – an Industry First -

MALMÖ, Sweden and IRVINE, California – October 6, 2003 – Telelogic (Stockholm Exchange: TLOG), the leading global provider of solutions for advanced systems and software development, today announced the availability of DOORS/Analyst, a new modeling tool that operates within Telelogic DOORS, the industry's leading requirements management tool. Telelogic also announced versions 2.2 of TAU/Architect™ and TAU/Developer™, the industry's first and most field-proven UML 2.0-based development tools.

Pressure has increased dramatically on systems engineering and software development organizations to produce higher quality projects faster with fewer resources. This has resulted in increasing interest in and adoption of approaches like Model Driven Architecture® (MDA®) and requirements-driven development. The unique capabilities of DOORS/Analyst, TAU/Architect and TAU/Developer support these initiatives, making it easier for systems and software development organizations to adopt them and leverage their benefits.

"Organizations today are aware that a requirements-driven development process is the only sustainable way to achieve project success," said Anders Lidbeck, president and CEO of Telelogic. "With DOORS/Analyst we are automating yet another step by introducing UML modeling in the requirements management process and within DOORS. This creates a unique foundation for requirements-driven development, and significantly increases the likelihood of successful project delivery."

DOORS/Analyst adds unique modeling capabilities to Telelogic DOORS, the requirements management market share leader. Using DOORS/Analyst, requirements engineers and system analysts can visualize requirements within the DOORS database using UML 2.0 graphical diagrams. The ability to use visual models inside a requirements management tool is an industry first, and compared to textual requirements, it improves understanding, simplifies communication and jump-starts the design process.

Versions 2.2 of TAU/Architect and TAU/Developer empower entire development teams with a MDA approach based on the UML 2.0 specification. In June 2003, the Analysis and Design Task Force at the Object Management Group™ (OMG™), the organization responsible for the development of UML and other computer industry specifications, voted to recommend adoption

of the UML 2.0 Superstructure specification, completing the definition of this major upgrade to the industry's main software modeling notation.

Using TAU/Architect, systems engineers can more effectively model the design of large and complex systems. With TAU/Developer, software developers have the unique ability to automatically generate production quality code for advanced or real-time applications based on verified models within TAU/Developer or imported from TAU/Architect.

Industry Analyst Comments
According to Jim Duggan, vice president and research director at Gartner Group, "Bridging well between requirements management and design helps tie requirements management practices into other parts of the development life cycle, substantially improving the chances that organizations will succeed with their projects."

"The need for increased productivity is forcing organizations towards agile, collaborative development methods," said Thomas Murphy, Program Director, META Group. "As average project time-lines are reduced, tools must respond through integration across the application lifecycle to enable productivity combined with improved software quality."

Customer Comments
"DOORS/Analyst looks great," said Johan Svahn, systems engineering consultant and process engineer at SaabTech, a leading supplier of avionics, electronic warfare equipment and decision superiority systems. "For requirements gathering and specification, we typically model use cases and write the textual descriptions and non-functional requirements in separate tools. To be able to do this within one integrated tool environment would be a great leap forward in reducing the non-productive requirements work. We look forward to evaluating DOORS/Analyst more formally as soon as the product becomes generally available."

"We have found TAU/Developer and UML 2.0 to be a perfect fit for our development of advanced real-time and embedded software," said Bernd Haase, line manager, software development at Siemens Information and Communication Mobile. "The visual modeling and simulation capabilities of the tool have helped us shift the teams' focus from the implementation phase to the vital analysis and verification stages, which in turn enables us to find design flaws and errors much earlier in the process, leading to improved quality of the final product. As for the new TAU 2.2, we are particularly interested in evaluating the 'AgileC' code generator."

"We are currently using TAU/Architect 2.1 for our strategic software development projects," said Linus Dalin, product manager at Ongame, a leading online game development company. "The tool's modeling capabilities allow us to create a complete picture of the system under development and the simulation has proved vital in ensuring that any gaps or flaws in the requirements or the system design are identified and remedied before the implementation starts."

DOORS/Analyst Overview
With DOORS/Analyst, users can visualize requirements using diagrams and symbols based on the standardized, visual specification language UML 2.0. Visual modeling is integrated with the existing capabilities of DOORS for capturing and managing requirements and provides a simple, yet powerful visual modeling environment within the DOORS environment. Capabilities of DOORS/Analyst include:

- **Automatic creation of diagrams from textual requirements** – When visual modeling is initiated, diagrams and symbols can be automatically populated based on textual requirements and descriptions. This includes use case descriptions, actor definitions and classes. Relations are preserved in the visual representation, jump-starting modeling and

ensuring consistency. Automatic synchronization with textual requirements further ensures consistency between different representations of the same requirements.

- **Models stored in the DOORS database** – The DOORS/Analyst visual models are stored within the DOORS requirements database, so users do not have to learn separate applications or keep track of files. Furthermore, visual models can be baselined in DOORS along with the textual representation of requirements, ensuring complete control as requirements evolve over time.

- **User defined graphical symbols and pictures (bitmaps)** –Customer-specific graphical symbols can be used in addition to the normal UML symbols when describing systems. This increases the flexibility of the tool and makes communication and collaboration with other team members, managers and end users simpler and richer.

- **Model awareness and syntactic and semantic checks** – DOORS/Analyst is more than just a drawing tool. The easy-to-learn and intuitive user interface hides a powerful modeling engine that makes diagrams and symbols consistent, as well as syntactically and semantically correct. This ensures that the visual representation of requirements is as formal and correct as the textual representation.

- **Intuitive user interface** – The DOORS/Analyst module is designed to help users get started quickly with drawing diagrams. The interface follows all the latest Windows GUI and user paradigms, while the modeling environment is based on Telelogic's successful, field-proven TAU Generation2 family.

- **UML 2.0 support** – DOORS/Analyst supports the use of UML 2.0 for visual modeling. By adhering to this state-of-the-art, standardized visual systems and software specification language, DOORS/Analyst protects investments in tools and knowledge as well as enhances communication and coordination between different user groups. Furthermore, for development projects, it allows one common language to be adopted across the entire application development lifecycle.

TAU/Developer 2.2 and TAU/Architect 2.2 Overview

The first release of TAU/Developer and TAU/Architect enabled many companies to get a head start on developing systems and applications using some of the features that have now become part of the UML 2.0 specification. While other vendors are only just beginning to develop and release UML 2.0-based products, Telelogic is continuing to enhance and refine its field-proven tools that have been available since October 2002. New features included in versions 2.2 of TAU/Developer and TAU/Architect include:

- **User-definable graphical symbols (bitmaps) –** Supports use of customer-specific graphical symbols instead of UML symbols and makes communication and collaboration with end users simpler and richer. This feature brings system specifications to life and provides support for the C4ISR/DoD AF architecture framework, commonly used for military/aerospace systems and applications.

- **Graphical compare and merge –** A significant feature enhancement supports the creation of variants and enables multiple users to work in an intuitive, graphical fashion. This is particularly advantageous to organizations that practice iterative development or that work on multiple releases in parallel. Systems engineers can try out variants and can partition/merge systems/subsystems to achieve a complete and correct system specification more quickly.

- **Active Modeler –** At the push of a button, this capability produces correct models based on information entered into use case, sequence and architecture diagrams. This ensures

consistency between models and diagrams and, compared to other tools, enables users to start model creation more quickly and easily.

- **Extended sequence diagram support –** Supports advanced UML 2.0 sequence diagram specification concepts. Time specification enables advanced modeling of non-functional system timing and ordering requirements. Inline frames enable use of sequence diagrams, where UML 1.x sequence diagrams typically struggled. A remark column facilitates the transition from textual use case steps to formal sequence diagrams.

- **Abstract UML –** Makes it possible to use inexact UML without following specific semantic rules. This feature can also support using UML at different levels of precision, e.g. initial high-level UML system models not used for simulation are checked less than system models used for simulation.

- **Telelogic DocExpress™ Integration –** Supports generation of documentation containing any information from UML 2.0 models, including all model elements, all diagrams, all pre-defined or user-defined stereotypes and tagged values, notes and constraints. Includes updated pre-defined templates supporting out-of-the-box generation of documentation from UML 2.0 models.

- **UML 1.x import –** Enables UML legacy intellectual property to be reused. This makes it possible to import information from other tools that export XMI, making upgrades to UML 2.0 a simple process from UML 1.x tools including the Telelogic TAU UML Suite and Rational Rose.

- **AgileC code generator (TAU/Developer only)** – C code generator dedicated to small footprint and high performance applications typically for embedded or real-time systems. Intelligent features within the TAU/Developer modeling environment ensure that the UML constructs used are optimized for small target applications. With AgileC, embedded high-performance applications are generated from a push of a button, saving time and improving quality.

Future Integrations

A tight integration between DOORS/Analyst and TAU/Architect and TAU/Developer will be available during first quarter 2004. For the first time in the industry, teams will be able to work with a common visual language (UML 2.0) and share models all the way from requirements capture through system design and to development, ensuring consistency with requirements in all phases. This integration will also provide full traceability from textual requirements in DOORS, to the visualization of those requirements in DOORS/Analyst, to the creation of system architectural models in TAU/Architect and, for software projects, to the detailed specification and behavior of models in TAU/Developer.

Because the UML models produced in DOORS/Analyst can be reused, refined and expanded in TAU/Architect and in TAU/Developer, communication between requirements analysts, systems engineers and software developers will be drastically simplified. This will help organizations increase productivity and quality while lowering development costs.

Availability and Platform Support

DOORS/Analyst is available from October 30 on the following platforms: Microsoft Windows NT 4, Windows 2000 and Windows XP. Telelogic TAU/Architect and TAU/Developer are available now on the following platforms: Microsoft Windows NT 4, Windows 2000, Windows XP, Sun SPARC running Solaris 8 and Linux Redhat 8.0.

About Telelogic
Founded in 1983, Telelogic® is the leading global provider of solutions for advanced systems and software development. The company's integrated best-in-class software tools, supported by professional services, enable companies to automate their entire development lifecycle, resulting in improved quality and predictability with reduced time-to-market and overall costs. To ensure interoperability with third-party tools, Telelogic's products are built on an open architecture and standardized languages. As an industry leader and technology visionary, Telelogic is actively involved in shaping the future of advanced systems and software development by participating in industry organizations like ETSI, INCOSE, ITU-T, MOST, OMG and others.

Headquartered in Malmö, Sweden with U.S. headquarters in Irvine, California, Telelogic has operations in 17 countries worldwide. Customers include Alcatel, BAE SYSTEMS, BMW, Boeing, DaimlerChrysler, Deutsche Bank, Ericsson, General Motors, Lockheed Martin, Motorola, NEC, Nokia, Philips, Siemens and Thales. For more information, please visit www.telelogic.com.

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