Agent Building Software

One sure sign of the development and advancement of technology is the ease with which average people are now able to do tasks that were once reserved for only the most highly educated or technically skilled. A perfect example of this trend is found in AgentBuilder® a software component developed under **Small Business Innovation Research (SBIR)** contracts between Reticular Systems, Inc., and Goddard Space Flight Center.

Reticular Systems, of San Diego, California, created AgentBuilder to allow software developers with no experience in intelligent agent technologies to easily build software applications using intelligent agents. Agents are components of software that will perform tasks automatically, without any intervention or command by a user. Software agents act as a personal assistant by making use of pre-programmed knowledge to evaluate incoming information and handle it accordingly, or it will realize it needs more information from the user and will request further input in order to continue.

NASA's interests stemmed from a desire to incorporate intelligent agents into ongoing research of agent applications in both ground- and space-based systems. The success of the SBIR research led NASA to expand the agent research into intelligent information management. NASA hopes to use agents soon to support web-based information access and management, according to Walt Truszkowski, NASA Technical Officer on the SBIR contracts with Reticular Systems.

Reticular Systems' AgentBuilder makes intelligent software agents more readily available to the average programmer. Programmers with no background in intelligent systems can quickly and easily build intelligent agent applications using AgentBuilder. Using the Java™ programming language, AgentBuilder can work on any machine or operating system that supports Java. The software package comes with a toolkit and run-time system. The toolkit allows a user to build an agent system tailored to the needs of the individual. It also has a test feature that allows the user to check for any bugs in the agent program before initiating it. The run-time system serves as a high performance agent engine to execute the agent programs.

AgentBuilder reduces the time and costs of developing agent systems and provides a simple mechanism for implementing high-performance, robust agent systems. The use of Java programming language, a development resulting from the Phase II SBIR work, will make AgentBuilder useful to a wide array of software application developers.

Initially introduced in 1998 as AgentBuilder Lite, Reticular Systems continued to develop the product and in 1999 released AgentBuilder Pro, which features an advanced suite of tools for building and testing multi-agent systems.

AgentBuilder has achieved worldwide sales, from Sweden to Japan to South Africa. As interest in intelligent agents grows globally, Reticular Systems expects demand for products such as AgentBuilder to be on the rise.

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Intelligent software agents are poised to be used more extensively thanks to Reticular Systems' easy-to-use software.