



# ews NUCLEUS

Quarterly Newsletter from Accelerated Technology

- Nucleus Most Utilized Royalty Free RTOS Worldwide
- ATI Adds SSL Security to RTOS
- **ATI and NComm Reduce Time-to-Market with TMS Networking Suite**
- First Database Manager for Nucleus Developers
- ATI's Second Design Win for Navionics
- Nucleus UDB Gets Updated

## Accelerated Technology's Nucleus Software is the Most Implemented RTOS in the World According to Recent ESP Subscriber Study

The most recent Subscriber Study issued by Embedded Systems Programming magazine has named Accelerated Technology's Nucleus software as the single most utilized source code, royalty free RTOS in the world. Accelerated Technology, Inc. is thrilled with these results and therefore assured that customers will maintain their endorsement of the Nucleus RTOS.

What this means is that embedded developers worldwide view the high performance Nucleus product line as full-featured, reliable and scalable for a broad base of embedded applications. These applications range from portable devices, telecommunications, and networking to medical instrumentation and industrial control.

Additional reasons why developers chose Nucleus software for all types of applications is the source code and no royalties license agreement that accompanies Nucleus software. Engineers designing applications with Nucleus have the opportunity to gain a better understanding and therefore achieve greater use of the Nucleus products because the source code is readily available. Accelerated Technology's excellent service team also helps developers every step of the way in order to get their application up and running quickly.

*"For years skeptics believed that it was not possible to have a successful RTOS and RTOS company without charging royalty fees. Well, we have proven otherwise and this study is just one more indication," said Neil Henderson, president of Accelerated Technology, Inc. "Furthermore, even customers cannot understand how ATI maintains a viable business while providing the source code. We have seen that customers like the source code because it helps them better understand the use of our products. They therefore spend less time with technical support and more time getting their products to market."*

Accelerated Technology provides desktop prototyping, embedded software components and development tools for the broadest base of real-time applications. The Nucleus MNT prototyping suite offers a version of all Nucleus embedded products running natively in the Windows environment. Nucleus EDE (Embedded Development Environment) is an add-on to Microsoft Visual Studio™ that integrates the ability to develop embedded applications into the Microsoft Visual Studio environment.

The flexible and scalable Nucleus PLUS kernel provides the foundation for the entire family of high performance Nucleus software, whereas ATI's extensive Nucleus networking suite is based on the Nucleus NET TCP/IP protocol stack. For Web connectivity, Accelerated Technology provides embedded Web-enabling software and for GUI development, Nucleus GRAFIX is available. To round out the product offering, ATI supplies a source-level, multitasking debugger and powerful application monitoring tools. With a strategic combination of source code, no royalty benefits and feature-rich embedded software, Accelerated Technology indeed provides all you need in an RTOS, royalty free.

No other RTOS company in the entire embedded industry provides the source code, no royalties business model with this complete product line. This combination is why Accelerated Technology is the embedded industry leader.

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## Accelerated Technology and Certicom Team to Enable Secure Online Transactions

Uncompromising security on the World Wide Web is a necessity for companies conducting business online. To ensure this security for embedded customers, Accelerated Technology has formed a strategic partnership with Certicom (Nasdaq: CERT and TSE: CIC), a leading provider of mobile e-commerce security. Certicom's SSL Plus™, combined with ATI's Nucleus RTOS, will allow developers to add industry standard SSL (Secure Sockets Layer) security to embedded Internet, Intranet, wireless and wired applications, enabling users to make secure online transactions.

Under terms of the agreement, Nucleus NET, Accelerated Technology's full-featured TCP/IP protocol stack, will be integrated with Certicom's SSL Plus. The integrated product will enable safe and reliable electronic business transactions across the Internet. In addition, Nucleus WebServ, ATI's portable embedded Web server, and Nucleus WebBrowse, a high performance embedded Web browser, will take advantage of Certicom's SSL technology via Nucleus NET.

*"Accelerated Technology is well respected for providing real-time OS software to customers worldwide for a wide range of platforms," said Prakash Panjwani, Certicom's Senior Director, Wireless Solutions. "As consumers reach the Internet over a variety of embedded devices, they need to be sure that their transactions are secure. Certicom is pleased to be working with ATI to further enable the deployment of cutting-edge devices and systems that rely on the use of their products."*

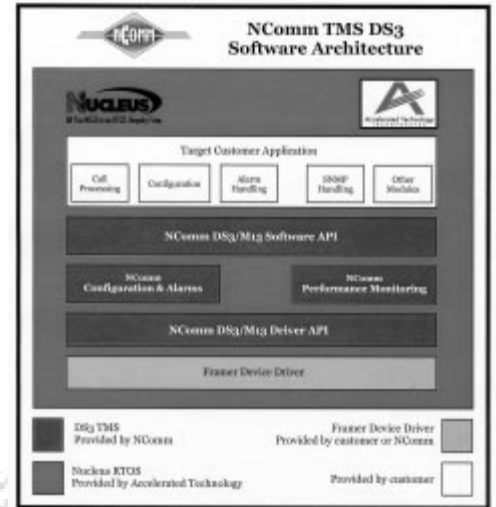
## Accelerated Technology and NComm Partner to Dramatically Reduce Time-to-Market for Telecommunications Developers

Companies are experiencing an extremely rapid growth in the interconnection of personal computers, terminals and telephones in the business environment. That's why Accelerated Technology has teamed up with NComm, Inc. to aid embedded developers in this rising telecommunications industry. ATI's high performance Nucleus RTOS has been integrated into NComm's Trunk Management Software (TMS) to provide these developers with an optimal solution that will dramatically reduce time-to-market for a variety of communications applications.

The TMS suite contains T1/E1/DS3 technology which is implemented as "on ramps" for Frame Relay, Asynchronous Transfer Mode (ATM), Voice Over IP (VOIP) and other frame- and cell-based communication protocols as well as traditional telephone services. By integrating the powerful Nucleus PLUS kernel and the Nucleus NET TCP/IP protocol stack with TMS software, developers can reduce their T1/E1/DS3 development schedule from the better part of a year to just a few days, thus gaining invaluable time-to-market.

For telecommunications developers, T1 technology is an indispensable dedicated link for the rapid transfer of various kinds of information. T1 is a fundamental building block in the North American telephone network for both voice and data. It is applied to switched networks for POTS (Plain Old Telephone Service) and ISDN (Integrated Services Digital Network). Dedicated T1 is also used for internet server uplinks as well as private network backbones often carrying inter-LAN (Local Area

Network) traffic. E1 is the European version of T1 and is deployed for similar applications. DS3, also a fundamental network technology, is higher speed and can carry multiple T1 and E1 traffic.



*"The objectives and philosophies of Accelerated Technology and NComm are very similar. We are both looking to reduce our clients time-to-market in an efficient and economical manner," says William Matern, president and founder of NComm. "The Nucleus PLUS/TMS combination yields an impressive yet practical path to adding T1, E1 and DS3 access to virtually any product set."*

## Accelerated Technology and Centura Software Present First-ever Commercially Available Database Manager to Nucleus Developers

Accelerated Technology, Inc. has formed a strategic relationship with Centura® Software Corporation (NASDAQ: CNTR), a leading global provider of solutions that mobilize the enterprise, to provide the embedded industry's first database manager for Nucleus developers. Centura's Nucleus-aware version of the RDM (Database Manager) provides developers with the software foundation

they need to build applications for a wide variety of markets including telephony and telecommunications, network/systems management, financial and document management. In the past, Nucleus developers were forced to write their own database routines because no commercially available database engines had been integrated. Centura filled this void by integrating its high-performance RDM engine with the Nucleus MNT prototyping suite. This integration will save Nucleus users that need a high performance database engine critical development time.

Nucleus products include a high performance, real-time multitasking kernel; low overhead and small footprint networking protocol stack; a graphics package for generating user interfaces; Web-enabling software and more. Centura's RDM, in conjunction with Nucleus MNT, offers developers an industry leading combination of technologies for creating the devices of the future.

*"We are pleased to join Accelerated Technology in the integration of our RDM database engine to provide this first-to-market solution to the Nucleus developer community," said Scott Broomfield, Chairman and CEO of Centura Software. "Together, we offer a powerful real-time data management tool to usher in the next generation of robust applications for embedded system developers."*

## Accelerated Technology Announces Design Win for Nucleus PLUS in Navionics Geonav 11 Flash Marine GPS Chart-Plotter

*Accelerated Technology Provides Nucleus kernel for a Second Advanced Marine Product from Navionics*

Accelerated Technology, Inc. has supplied the royalty-free Nucleus PLUS

kernel for the new Navionics Geonav 11 Flash GPS chart-plotter. This is the second design win for Nucleus PLUS in a Navionics product.

Aimed at the fast-growing European leisure and professional boating market, the Navionics Geonav 11 Flash includes such advanced navigation functions as marine cartography with port services, tides and currents, plus storage of routes, waypoints, tracks and markers including date, time, Latitude/Longitude, depth, temperature and wind data.



*"We chose Nucleus PLUS again for our newest chart plotter for several reasons. Nucleus PLUS is a trusted and reliable real-time kernel in the embedded market. Also, ATI's source code, no royalties business model perfectly suits our advanced marine product line," said Federico Sturlese, engineering manager of Navionics. "Accelerated Technology worked closely with us to make the advanced design of the Navionics Geonav 11 Flash a reality."*

The new Geonav 11 Flash chart-plotter takes advantage of the high performance Nucleus PLUS kernel. Nucleus PLUS provides efficient, high performance task management, inter-task communication, inter-task synchronization, memory management, and component query features. Optimizations in system clock, interrupt and compiler register usage are only part of the advanced features provided by Nucleus PLUS. The kernel handles difficult issues such as priority inversion while minimizing the interrupt latency to a few microseconds.

LinkUp Systems supplied the L7200 SoC for the Geonav 11.

## \*NEWSFLASH\*

### Nucleus UDB version 4.3 for ARM

Nucleus UDB has been updated recently to better meet the needs of developers who want a full-featured, source level debugger. Here's what's new in this version of Nucleus UDB:

- C++ support via an optional plug-in that offers:
  - Seamless mixed C/C++ debugging.
  - Develop C/C++ applications for many types of embedded processors using the same, familiar workstation-hosted front-end.
  - C/C++ source code browser for easier code navigation and understanding.
  - Adding a watch on C++ member variables also shows you where in a class hierarchy the variable is declared, helping you track down complex bugs.
  - No more name-mangled debugging using tools that aren't C++ aware!
- EPI JEENI Support – Available from EPI for \$2495 (list). The JEENI is a high-speed JTAG debug interface with serial and Ethernet ports. Customers can contact EPI at 408-957-0350 for more information or to purchase.
- Samsung 50100 eval board support with the Macraigor Wiggler and Raven support (14 pin).
- $\mu$ TRON Support –Nucleus UDB Version 4.3 adds the ability to debug Nucleus  $\mu$ PLUS applications and has kernel aware windows specifically for that purpose. The Nucleus  $\mu$ PLUS kernel awareness can detect  $\mu$ TRON applications dynamically and set up the kernel aware windows to view  $\mu$ TRON kernel objects and various elements of the objects.

*$\mu$ TRON support is not a separate plug-in. It is a standard part of Nucleus UDB 4.3.*

# T r a i n i n g   &   E v e n t s

Accelerated Technology will participate in the following events:

- |   |            |                                |                    |
|---|------------|--------------------------------|--------------------|
| 1 | Jan. 12    | <b>Real Time Computer Show</b> | Santa Clara, CA    |
| 1 | Feb. 14-16 | <b>Embedded Systems Show</b>   | Nürnberg, Germany  |
| 1 | March 13   | <b>Real Time Computer Show</b> | Denver, CO         |
| 1 | March 15   | <b>Real Time Computer Show</b> | Salt Lake City, UT |

Nucleus Training will be offered on the following dates:

- |   |            |  |                 |
|---|------------|--|-----------------|
| 1 | Jan. 16-17 | <b>Nucleus PLUS Training</b>                 | Mobile, AL      |
| 1 | Jan. 29-31 | <b>Nucleus PLUS and Nucleus NET Training</b> | Mobile, AL      |
| 1 | March 5-7  | <b>Nucleus PLUS Training</b>                 | Münich, Germany |

To enroll in Nucleus Training courses, please contact us:  
email: [service@atinucleus.com](mailto:service@atinucleus.com)  
phone: 800.468.6853 or 334.661.5770

**Accelerated Technology, Inc.**  
**720 Oak Circle Drive East**  
**Mobile, AL 36609 USA**

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