



PACSystems™  
the enabling technology



Solutions for  
equipment manufacturers



# At the Heart of the PACkage

PACSystems RX3i contains all the elements needed to achieve more powerful, flexible, and cost-effective control than you've ever thought possible.

The heart of the RX3i is a fast 300 MHz Intel micro-processor that eliminates the need for multiple controllers.

External 24VDC terminal for I/O Modules reduces wiring

To ensure a wide range of functionality, the RX3i comes with 10 Mb of user memory. You can store all your ladder logic documentation as well as machine documentation (including Word, Adobe Acrobat, Excel, and CAD files\*), aiding troubleshooting and sharply reducing downtime.

Grounding bar reduces wiring and increases noise immunity

Supports multiple power supplies for more power or redundancy

Extensive status LEDs speed up troubleshooting

Ethernet with built-in switch reduces hardware costs

Recessed ports protect wires

The RX3i supports GENIUS®, Profibus™, DeviceNet™, serial communications—and of course Ethernet with multiple protocols.\*

The RX3i provides the best of both worlds—a high-speed PCI bus running at 27 MHz for fast data throughput for complex I/O and a serial bus for simple I/O.

Hot swap modules reduce downtime

Cost competitive expansion modules

Tie wraps to secure wires

The PACSystems Motion Digital Servo Modules (DSMs) support up to four axes of FANUC digital servo motion per module.

You can select from more than 40 I/O and network modules, making the RX3i the ideal for a variety of simple to complex applications. Local and distributed I/O are both supported.

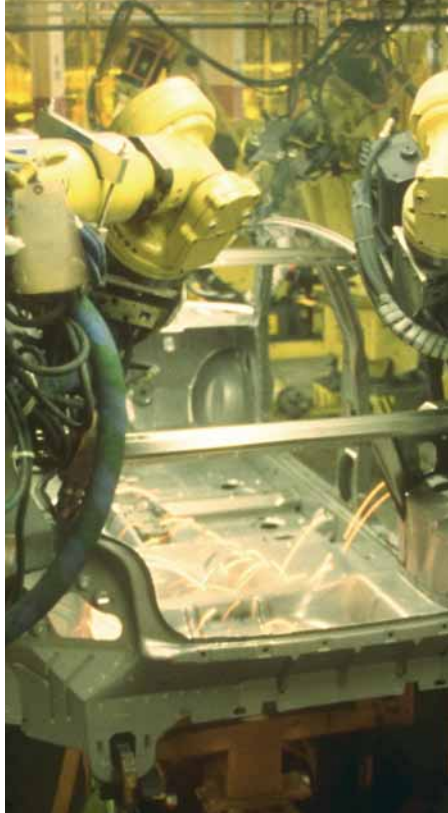


\*Planned for 2005 release.

# The Complete PACkage: Control, View, Motion and One Software Tool

It's not simply that PACSystems RX3i contains all the elements needed to achieve more powerful, flexible, and cost-effective control. It's the way they have been integrated into a single, unified package that makes the difference.

## PACSystems RX3i—Everything You Need in a Single, Compact, Highly Integrated PACKAGE



PACSystems RX3i breaks through the barriers that can keep you from developing the best possible solution for your application. The RX3i is based on open standards, with architecture that has been optimized for advanced performance. It supports a wide variety of communications buses and I/Os.

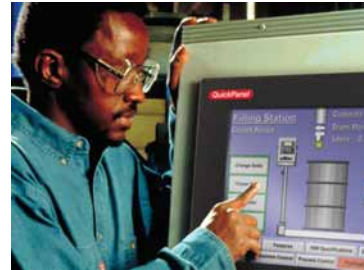
And thanks to its integration with Proficy™ Machine Edition, a universal programming environment for control, view, and motion, the RX3i provides the kind of dramatic leap in performance that can create new opportunities for your business, while minimizing the pain of migration and conversion.

These gains in performance and productivity are dramatic. With the RX3i, you need just a single engine to serve process, discrete, and motion domains. You use a single programming tool for all your applications, reducing training time



and maximizing efficiencies. You can take advantage of expanded bandwidth inside and outside the controller for fast I/O updates and sub-microsecond memory sharing. And you can ensure high availability and hot back-up with multiple power supplies and synchronized systems for bumpless transfer.

With the RX3i, you can build better applications than you thought possible—even as you use I/O and programs from older systems. And since the RX3i has been designed from the start for migration, you'll be perfectly positioned to take advantage of new functionality as technologies evolve.



Available in a variety of display sizes, the QuickPanel™ View bundled visualization solution provides the tools required for today's application needs.

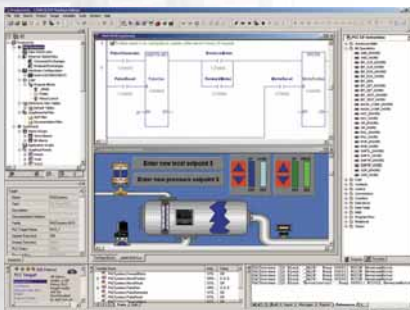
- Broad range of display sizes from 6" to 12"
- Choice of Monochrome, Color-STN or Color TFT
- Expandable memory
- Communication options include serial, Ethernet, GENIUS, DeviceNet or Profibus
- Multi-language support selectable by the operator when system is online
- Minimum of 2 year warranty on all models

The PACSystems Motion Digital and Analog Servo Modules (DSMs) can improve machine productivity and increase flexibility in a broad range of applications. The RX3i can support more than 48 axes of control. Advanced application features such as electronic gearing, camming, and high-speed registration are supported. DSM configuration, programming, graphical cam editing, monitoring, and diagnostics are all conducted using Proficy Machine Edition.

- The DSM324i servo system supports up to four axes of FANUC digital servo motion on a module.
- The DSM324i uses fiber optic communications to the amplifiers. The fiber optic network combines high performance communications with high noise immunity, for reduced wiring complexity and lower installation costs. Motors and amplifiers can be up to 400 meters from the controller (100 meters between amplifiers).
- The DSM314 motion module supports both digital (2 axes) or analog (4 axes) of high speed motion control
- DSMs have 15K of program memory available and 11 programs supported
- Wide range of motors and amplifiers are available

## Proficy Machine Edition: A Single Integrated Programming Environment

Proficy Machine Edition provides one tool for control, view, and motion and gives you one universal engineering development environment for all programming, configuration, and diagnostics, resulting in faster time to solution, reduced training, and more compact, efficient design.



- All Proficy Machine Edition components—view, logic, and motion—share a common database and common objects across applications, including logic, scripts, and animation. Once a variable is created, it can easily be used in all other domains of the application.
- At the same time, Proficy Machine Edition components share common development tools. Proficy Machine Edition features a common user interface, drag-and-drop editing, and takes full advantage of industry-standard technologies like XML, COM/DCOM, OPC and ActiveX.
- Proficy Logic Developer - Machine Edition supports IEC languages such as Relay Ladder, Instruction List, Structured Text, Function Block, and SFC programming. In addition, C programming and Open Process\* are available.

This tight integration of Proficy Machine Edition components in a single, shared workspace means control engineers spend less time on the learning curve. And that translates into higher operating efficiency and lower development costs.

\*Future release



### View

Proficy View - the graphical interface component of Proficy Machine Edition, is an intuitive, machine-level HMI for machine control and small process control applications. It supports GE Fanuc's full line of operator interface products, including QuickPanel and QuickPanel View, providing complete scalability from the smallest operator interfaces to full-size HMI applications—all from a single graphics editor.

- A Complete Set of Functions: From data collection and trending to system security and alarming, View delivers a complete set of features that enables you to configure and view any application with ease.
- Data publishing via the Internet. Use any standard web browser to access production data, financial information, and even graphical displays.
- A toolchest with over 2,000 preconfigured objects. Simply click the objects you want and drag them to your graphical panel for editing. You can store objects you create yourself, including panels, scripts, and alarm groups, for reuse on other applications.
- Complete Runtime Tools: Choose from three types of alarms, create as many alarm windows as you like, view trending in real-time or historical contexts, and monitor customized data variable tables.



### Motion

With Proficy Machine Edition - Logic Developer, you can develop motion control programs for GE Fanuc embedded motion controllers quickly and efficiently. Proficy Machine Edition - Logic Developer features include:

- Shared tag database for motion, machine logic and view applications.
- Easy to use motion program editor can create up to 10 programs and 40 subroutines per DSM314/324i module.
- Powerful cam profiles can be developed with the graphical cam editor using first, second or third order spline interpolation.
- Powerful local logic program editor for logical decisions that are synchronized at the servo position update rate.
- All programs and configurations are stored as a part of the CPU configuration.

## Measure Your PACQuotient

Take this simple quiz and measure your PACQuotient

1. Do you need a single programming tool for control, view, and motion or do you use multiple tools for developing applications?  yes  no
2. Do you want to reuse objects as application building blocks?  yes  no
3. Do you require multiple power supplies in a rack or hot swapping of modules to ensure high availability and maximum uptime?  yes  no
4. Is it beneficial for your system to provide a single point of connect for control, motion and view?  yes  no
5. Have you been burdened with high costs of migration?  yes  no
6. Would you save time if your system enabled you to share process tags seamlessly with your control, view, motion and SCADA?  yes  no
7. Is it important to you to have a supplier that can provide you the latest technology to improve your productivity, reduce your cost and enhance your machine performance?  yes  no

If you answered "Yes" to any of these questions, you would benefit from PACSystems RX3i. To find out more, call your GE Fanuc distributor or representative today!

# Enabling Advantages with PACSystems RX3i

- **One Development Environment for All Applications**

Proficy Machine Edition provides one development tool for control, motion and view, enabling reduced training costs and easy machine integration.

- **Application Mobility and Architecture Freedom**

The PAC Engine can be easily migrated to multiple platforms to meet your application needs.

- **Optimized Software Design with Object Oriented Technology Programming**

Enables improved system throughput, maximized memory utilization and reduced development time.

- **Integrated Motion Control**

Powerful motion solution that is tightly integrated with control and view to solve the most complex applications.

- **Investment Protection to Increase your ROI**

PACSystems provides the tools needed to continuously improve your process and investment.

- **Advanced Technology All the Time**

The PACSystems platform embraces off-the-shelf processor technology that enables the architecture to quickly take advantage of the latest Intel processors. The RX3i 27Mhz PCI-based backplane provides high speed data throughput that outperforms conventional PLC architectures.

- **Improved Quality and Production Efficiency**

GE Fanuc offers a wide variety of tools to collect data, analyze and correct deficiencies in your process.

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## GE Fanuc delivers a total solution.

GE Fanuc Automation, a joint venture between GE and FANUC LTD of Japan, delivers industrial automation hardware and software designed to help users reduce costs, increase efficiency and enhance profitability. With solutions and services catering to virtually every industrial segment, GE Fanuc Automation provides a diverse array of capabilities—from industrial controllers to

computer numeric controllers, from embedded computers to advanced software solutions. Headquartered in Charlottesville, VA, GE Fanuc Automation is a part of GE Infrastructure and combines the diverse global strengths of the GE family with the local presence customers need to design, develop and maintain their automation investments.



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Asia Pacific:  
86-21-3222-4555

### Additional Resources

For more information, please visit the GE Fanuc web site at:

[www.gefanuc.com](http://www.gefanuc.com)