# Controller & I/O Solutions

More choices for your applications



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# Power and Flexibility Offering You a Choice to Meet Your Automation Challenges

With technology ranging from compact and economical micro programmable logic controllers (PLCs) to cutting-edge programmable automation controllers (PACs) and the open flexibility of industrial PCs, GE Fanuc has a wide array of off-the-shelf solutions offering you a choice to meet your exact needs. And because we integrate these flexible automation products with a single powerful software suite providing the universal engineering development environment for all of our controllers, motion and operator interface/HMI, both your knowledge and your applications are portable as you move from platform to platform and expand from generation to generation.

#### **PACSystems**™

The new GE Fanuc PACSystems delivers the first Programmable Automation Control – one control engine and one development environment for multiple hardware platforms. PACSystems offers enhanced processing and communications speed and programming capacity over existing PLC technologies for high-speed processing, data acquisition and memory-intensive tasks like recipe storage and data-logging.

Both the VME-based RX7i and the PCI-based RX3i provide powerful CPUs and high-bandwidth backplanes, making complex programming easy to implement and faster to execute. The PACSystems also offers an industry leading migration platform for Series 90 PLCs with interchangeable I/O modules and easy software program conversion tools. PACSystems provide:

#### The Best of PLCs combined with the Best of PCs

- $\cdot$  Multi-discipline, deterministic control for every application
- · Application portability to multiple platforms

#### Performance and Productivity

- · Follow technology enhancements for continuous performance improvement
- · Single multi-discipline development platform

#### Flexibility and Openness

- Users' choice of appropriate platform, programming language and communication scheme
- · Connectivity to all levels of production operations

#### Obsolescence Avoidance

· Bring applications forward, protect your investments in intellectual property, equipment and installed costs

#### PACSystems RX7i



RX7i is the first member of the groundbreaking PACSystems family of programmable automation controllers (PACs). Designed to address mid- to high-end applications for OEMs, integrators, and end users, the RX7i is ideally suited for integrated solutions that require open architecture, large memory, distributed I/O, and high performance.

#### PACSystems RX3i



Using the same control engine as the RX7i, the RX3i offers a high level of automation functionality in a compact, cost-effective package. The PACSystems portable control engine provides high performance on several different platforms, allowing OEMs and end users with application variability to choose the exact control system hardware that best suits their needs.

GE Fanuc Controller and I/O Solutions www.gefanuc.com

#### Series 90 PLCs

#### Series 90™-70



Series 90-70 PLCs have become the industry standard for complex applications requiring safety systems with large numbers of I/O and large amounts of process memory. The open architecture backplane of the Series 90-70 unlocks the versatility of hundreds of unique VME-based cards for applications involving elements such as vision, highly specialized motion, or fiber-optic networks.

You can customize your system architecture even further with a variety of available I/O and specialty modules as well as motion controllers for a broad range of stand-alone or distributed system configurations.

#### Series 90-30



With its modular design, over 100 different I/O modules, and a range of CPU options, Series 90-30 offers you the versatility to configure a system based on your specific performance needs. Superior networking and communications capabilities enable you to network, transfer data, upload and download programs and perform diagnostics over one non-proprietary network.

Motion control integrated into the Series 90-30 facilitates high performance point-to-point applications, and supports a variety of motor types and system architectures.

#### VersaMax® PLC and Distributed I/O



Modular and scalable, VersaMax offers big PLC power in a small package. It is part of an innovative control family that combines a powerful CPU with a broad selection of discrete, analog, mixed and specialty I/O modules, terminations and power supplies, as well as communications modules to link to a variety of networks.

#### VersaMax Nano and Micro PLC



Palm-sized, powerful and economical, VersaMax® Nano and Micro PLCs give you all-in-one construction to save panel space. Its easy application provides you with a quick solution by snapping onto a DIN-rail or mounting in a panel.

#### QuickPanel™ Control



QuickPanel Control combines flexible, integrated control with visualization on a single, rugged hardware platform for more functionality in a smaller space. It provides access to a broad range of I/O, communicates via a variety of networks, and enables remote monitoring of your systems.

#### Genius Distributed I/O



In a host of industries, from steel to food processing to automotive, more than half a million Genius blocks are helping companies meet the challenge of an increasingly competitive marketplace. The Genius family includes 20 different I/O blocks, a variety of PLC interface modules, and a growing number of third-party interfaces.

#### VersaPoint Distributed I/O



Fast installation, reduced wiring, and more efficient use of cabinet space all come together to make VersaPoint Distributed I/O an exceptional value. Its modular construction is easily adaptable to scores of applications, and the extensive built-in diagnostics make identifying faults a routine matter, maximizing uptime.

#### VersaMax IP I/O



VersaMax IP I/O is designed for IP65 and IP67 environments to offer the ruggedness and reliability of a standard I/O system installed in a NEMA 4 cabinet, without the cost and effort to build the cabinet. Once installed, VersaMax IP's diagnostics make troubleshooting a snap.

# Match Your Needs with the Right Controller Solution

	PACSystems RX7i	Series 90-70 PLC	PACSystems RX3i	Series 90-30 PLC	VersaMax PLC	QuickPanel Control	Nano and Micro PLCs
Pages	11-31	75-96	33-74	97-134	135-170	193-202	171-192
Specialized Control  Memory intensive Coordinated control Genius Modular Redundancy High-speed processing Typically 1,000 or more points of I/O Applications such as SIL 1 and 2, automotive paint shop, fire and gas detection, reactor shutdown systems, and critical control							
Complex Control  High availability High-speed data transfer Integration with industry-standard technologies Typically 200 to 5,000 points of I/O Motion components Applications such as printing, flying shear, and winding machines							
Moderate Control  ■ Expanded communication via Fieldbus (Genius®, DeviceNet™, Profibus-DP) and Ethernet interfaces  ■ Wide range of I/O requirements  ■ Typically between 100 and 512 points of I/O  ■ Applications such as food processing, semiconductor wafer fab, material handling, and plastic injection molding							
Simple Control  Minimal memory requirements Simple communications Typically fewer than 100 points of I/O Applications such as vending machines, low-end labeling and packaging, and dispensing							

# Match Your Needs with the Right Remote I/O Solution

	PACSystems RX3i	Series 90-30	VersaMax	Genius	VersaPoint	VersaMax IP and VersaMax IP Modula
Pages	33-74	97-134	135-170	203-216	217-230	231-236
Complex Rack I/O  • Hot swap  • Advanced analog  • Supports Ethernet EGD  • Dual LAN support  • Motion control  • High availability						
Simple Rack I/O  • High density  • Wide range of I/O options  • Supports Ethernet EGD Network  • Motion control  • Low cost per point						
Modular and Network Independent  • Supports Ethernet, Genius, Profibus and DeviceNet networks  • Hot swap  • Wide range of I/O options  • Low cost per point						
High Availability     Advanced Diagnostics     Hot Swap     Supports Genius LAN     Redundant LAN Support     TUV approved						
Low Density Distributed  • Single point I/O  • Supports Ethernet, Profibus and DeviceNet networks  • Granular discrete and analog I/O						
Harsh Environment     Block I/O     IP65 and IP67 compatible     Quick connect using M12 connectors     Support Profibus network						

Notes	

## **Proficy**<sup>™</sup> Overview

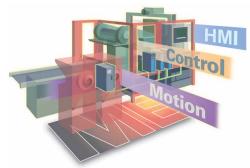
At GE Fanuc, we understand that real-time information is the enabler of the e-business world and the foundation for fast and effective supply-chain execution. In order to help companies realize the full benefits of e-business, we are helping them adapt to a new manufacturing model that utilizes Web-based integration to free the flow of real-time data throughout the enterprise. By combining the best selection of software productivity tools with the latest communication and networking technologies, GE Fanuc's Proficy software family provides solutions that make it easier for you to integrate your systems and empower your people.

From the machine, to the cell, to the plant floor, and throughout the enterprise, Proficy's interactive set of software business tools provides real-time collaboration between customers, manufacturers, and suppliers.

GE Fanuc's Proficy Machine Edition is a universal development environment for all your operator interface, motion and control applications. Proficy Machine Edition provides a common user interface, drag-and-drop editing, and support for the many editing components required for a project.

Enabling fast, powerful, object-oriented programming, Proficy Machine Edition takes full advantage of industry-standard technologies like XML, COM/DCOM, OPC and ActiveX®. And Machine Edition also includes Webenabled functions like a built-in Web server that delivers real-time data and diagnostics to anyone in the enterprise.

All components and applications within Proficy Machine Edition share a single workspace and tool set. A standardized user interface results in a reduced learning curve, and the integration of new applications does not involve learning additional paradigms. This, coupled with an efficient, user-friendly design makes Proficy Machine Edition the perfect choice for HMI, motion, PLC, and PC-based control.



In addition to sharing common editing tools, all Proficy Machine Edition components share common objects across applications, including logic, scripts, graphical panels, and data structures. Once a variable with its properties is created, it can be reused in other components of the project.

By combining the best of traditional programming and graphics applications with powerful open industrystandard technologies, Proficy Machine Edition provides a smooth migration path to the latest development tools.

# Proficy Machine Edition Components:

#### **Proficy View**

An HMI specifically designed for the full range of machine-level operator interface/HMI applications. Includes support for the following Runtime options:

- QuickPanel™
- QuickPanel View (Windows CE-based)
- Windows 2000/XP/2003

#### **Proficy Logic Developer-PC**

PC Control software combines ease of use and functionality for fast application development. Includes support for the following Runtime options:

- QuickPanel Control (Windows CE-based)
- Windows 2000/XP/2003
- Embedded NT

#### Proficy Logic Developer-PLC

Programs and configures all GE Fanuc PLCs, PACSystems Controllers and Remote I/O

 Available in Professional, Standard, and Nano/Micro versions

#### **Proficy Motion Developer**

Programs and configures GE Fanuc S2K motion controllers

#### **Proficy Logic Developer-PLC:** A Superior Set of PLC Programming Tools

#### Fully Integrated Development System

Proficy Machine Edition's development system provides a clean, easy-to-learn interface for its components. Proficy Logic Developer-PLC automatically shares editing and configuration tools with other components when they are installed, creating an integrated, drag-and-drop workspace that makes developing applications simple. Just drag a PLC variable to an HMI animation panel to link them, or vice versa. Work on all parts of your automation system simultaneously, without switching between programs!

#### **Toolchest Offers Object Oriented** Reusability and Pre-defined Tools

Build applications rapidly with preconfigured objects from the Toolchest, a storage system for objects including their associated logic or HMI elements and data structures. Drag your own work to the Toolchest for easy reuse logic, scripting, graphical objects anything you want to save and reuse.

#### Configure

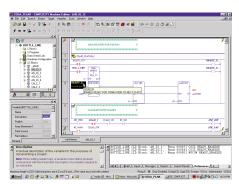
Proficy Logic Developer-PLC supports the full range of GE Fanuc PLCs, PACSystems controllers and Remote I/O products including the Series 90<sup>™</sup>-30, Series 90-70, PACSystems™ RX3i and RX7i, VersaMax®, and VersaMax Nano/Micro PLCs. and VersaMax Remote I/O. Configuration support is also provided for a wide range of field busses such as Ethernet Global Data (EGD), Genius®, DeviceNet™, ModBus TCP, and Profibus $^{\text{\tiny{M}}}$ .

#### **Program**

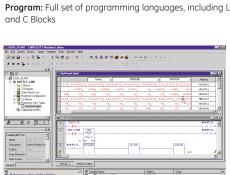
Proficy Logic Developer-PLC provides a full set of programming languages for you to develop your PLC applications. Ladder Diagram (LD), Function Block Diagram (FBD), Structured Text (ST), and C Block programming languages are all supported by Logic Developer-PLC.

#### Commission

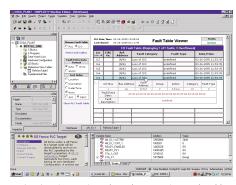
Proficy Logic Developer-PLC provides a complete set of on-line development tools to aid in commissioning your PLC application. Tools such as Run Mode Store (RMS) of Logic, Online Test Mode



Program: Full set of programming languages, including Ladder Diagram, Function Block Diagram, Structured Text,



Commission: Complete set of on-line development tools for monitoring and adjusting the application without stopping the process

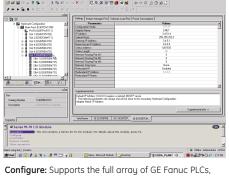


Maintain: Diagnostic tools such as On-Line Fault Tables for pinpointing and diagnosing issues with your system

and Word-for-Word Change of Logic allow you to tune the application in real-time without stopping the process. Data monitoring tools such as Data Watches and Reference View Tables allow you to create custom data monitor tables and provide a window into your PLC application execution.

#### Maintain

Logic Developer-PLC provides a complete set of development tools to aid in maintaining your PLC applications. Diagnostic tools such as On-line Fault Tables and Forced Variables Report provide you with the ability to diagnose issues and problems that may have occurred with your system.



PACSystems controllers and remote I/O

# **Product Selection Guide**

# CONTROL Platform Products

#### Notes on Part Numbers and GlobalCare

- BC Prefix part numbers include 15 months of GlobalCare support
- For the GlobalCare renewal part numbers, change the BC646 or BC647 prefix to GC646
- Licenses without GlobalCare (if available) change BC prefix to IC

PLC-Based Control	S	Supp	orte	d PL	C Pla	tforr	ns	Key								
Development licenses work on a hierarchical basis.	Remote I/O Config. Tools	VersaMax® Nano/Micro	VersaMax	Series 90"-30	Series 90"-70	PACSystems RX3i/RX7i		Software Authorization	Haraware Key	Single License	Single User License Plus Cable	5 Pack	10 Pack	50 Pack	50-Seat Site License	Unlimited Seat Site License
Logic Developer-PDA		•	•	•	•			•		BC646MPH001	BC646MPH101	-	BC646MPH010	-	-	See Prod Bulletin
Logic Developer-PLC Configuration	•							•	T	BC646MPC001	BC646MPC101	-	-	-	-	-
Logic Developer-PLC Nano/Micro	•	•		П				•	T	BC646MPM001	BC646MPM101	-	-	-	-	-
Logic Developer-PLC Standard	•	•	•	•			П	•	Т	BC646MPS001	BC646MPS101	BC646MPS005	BC646MPS010	BC646MPS050	BC646MPSS50	BC646MPSS99
Logic Developer-PLC Standard w/ hware key	•	•	•	•			П	١,	•	BC647MPS001	BC647MPS101	BC647MPS005	BC647MPS010	BC647MPS050	-	-
Logic Developer-PLC Professional	•	•	•	•	•	•	П	•	T	BC646MPP001	BC646MPP101	BC646MPP005	BC646MPP010	BC646MPP050	BC646MPPS50	BC646MPPS99
Logic Developer-PLC Professional w/ hware key	•	•	•	•	•	•		١,	•	BC647MPP001	BC647MPP101	BC647MPP005	BC647MPP010	BC647MPP050	-	-
Logic Developer-State Standard*	•	•	•	•			П	•	T	BC646MSS001	BC646MSS101	BC646MSS005	-		-	-
Logic Developer-State Professional*	•	•	•	•	•	•	П	•	T	BC646MSP001	BC646MSP101	BC646MSP005	-	-	-	-

<sup>\*</sup>State Logic licenses also provide basic configuration and programming capability for the indicated PLC platforms. Note that State Logic can only be mixed with other types of Logic (Ladder and C) for the Series 90-70 platform. Only the Series 90-30 and Series 90-70 platforms support State Logic programming.

QuickPanel Control	Su	pport	ed Pl	atfor	ms/f	Featu	ires	Ke	ey		
Development software for QuickPanel Control, QuickPanel View, ControlStation CE, and ViewStation CE panels. Runtime licenses are included in the hardware purchase.	QuickPanel"	QuickPanel View (Basic/Intermediate)	QuickPanel View (Loaded)/Control	ViewStation/ControlStation CE				Software Authorization	Hardware Key	Single License	Unlimited Seat Site License
QuickPanel Control (CE) Development Software	•	•	•	•				•		BC646CSCEMK	BC646MOSS99
QuickPanel Control (CE) Development Software /w hardware key	•	•	•	•					•	BC647CSCEMK	-

Motion Developer	Ke	ey			
Programming/ Configuration software for GE Fanuc S2K motion controllers.	Software Authorization	Hardware Key	Single License	5 Pack	10 Pack
Motion Developer	•		BC646MODEV	BC646MODEV05PK	BC646MODEV10Ph
Motion Developer with hardware key		•	BC647MODEV	-	-

PC-Based Control	Sup	pport	ted P	Platfo	rms/	Feat	ures	Ke	y						
Available as development only, runtime only, and development with runtime - with or without a View component.	QuickPanel	QuickPanel View/Control	ControlStation"/ViewStation"CE	0/ XP/ 2003	Development	Runtime	With View	Software Authorization	Hardware Key	75 Point	150 Point	300 Point	700 Point	1500 Point	8000 Point
Logic Developer-PC & View Development	•	•	•	•	•		•	•		-	-	-	-	-	BC646MOP001
Logic Developer-PC & View Development with hardware key	•	•	•	•	•		•		•	-	-	-	-	-	BC647MOP001
Logic PC Runtime				•		•		•		BC646MRB075	BC646MRB150	BC646MRB300	BC646MRB700	BC646MRB159	BC646MRB000
Logic PC & View Runtime				•		•	•	•		BC646MRC075	BC646MRC150	BC646MRC300	BC646MRC700	BC646MRC159	BC646MRC000
Logic Developer-PC with Runtime	•	•	•	•	•	•		•		BC646MDB075	BC646MDB150	BC646MDB300	BC646MDB700	BC646MDB159	BC646MDB000
Logic Developer-PC & View with Runtime	•	•	•	•	•	•	•	•		BC646MDC075	BC646MDC150	BC646MDC300	BC646MDC700	BC646MDC159	BC646MDC000

Control Upgrades	Ke	y	
Low-cost mechanism to transition to the Machine Edition platform. Upgrades require existing software serial number at time of order.	Software Authorization	Hardware Key	Single License Upgrade P/N
Logic Developer-PLC Nano/Micro - Upgrade from VersaPro™ Nano/Micro Edition	•	Ш	BC646MPMU01
Logic Developer-PLC Standard - Upgrade from LM90-30, CC90-30, VersaPro Standard Edition	•	Ш	BC646MPSU01
Logic Developer-PLC Standard - Upgrade from LM90-30, CC90-30, VersaPro Standard Edition with hardware key		•	BC647MPSU01
Logic Developer-PLC Professional - Upgrade from LM90-70, CC90-70, VersaPro Professional Edition	•	I	BC646MPPU01
Logic Developer-PLC Professional - Upgrade from LM90-70, CC90-70, VersaPro Professional Edition with hardware key		•	BC647MPPU01
Logic Developer-PLC Professional - Upgrade from Logic Developer-PLC Standard	•	П	IC646MPPU03

# Product Selection Guide

### **OI/HMI Platform Products and Product Suites**

#### Notes on Part Numbers and GlobalCare

- BC Prefix part numbers include 15 months of GlobalCare support
- For the GlobalCare renewal part numbers, change the BC646 or BC647
- Licenses without GlobalCare (if available) change BC prefix to IC

Proficy View Platforms - non PC-Based	Su	pport	ed Plo	tform	s/Feat	ures	Ke	ey		<ul> <li>Licenses with</li> </ul>	out GlobalCare (if available) chang	e BC prefix to IC
Development software for non-PC bundled solutions. Runtime licenses included in hardware purchase of non PC-based solutions.	QuickPanel	View (E		ViewStation CE	Development	Runtime	Software Authorization	Hardware Key	Single License	10 pack	Unlimited Seat Site License	
Proficy View (CE) Standard Edition	•	•		•	•		•		BC646VSCEMK	-	BC646MVSS99	
Proficy View (CE) Standard Edition with hardware key	•	•	•	•	•			•	BC647VSCEMK	-	-	
Proficy View for QuickPanel (includes cable)	•	•		$\top$	•		•		BC646MQP001	BC646MQP010	BC646MQPS99	
Proficu View for QuickPanel (includes cable) with hardware key									BC647MOP001	BC647MOP010	_	

<sup>\*</sup>Item not available in Europe

Proficy View Platform - PC Based	Su	pport	ed Pl	atfori	ms/Fe	ature	s	Key							
Available as development only, runtime only, and development with runtime.	QuickPanel	QuickPanel View (Basic/Intermediate)	QuickPanel View (Loaded)	出	Windows 2000/ XP/2003	Development	Kunume Sets see Authorization	Software Authorization Hardware Keil	nai aware neg	75 Point	150 Point	300 Point	700 Point	1500 Point	8000 Point
Proficy View Runtime					•	•		•	T	BC646MRA075	BC646MRA150	BC646MRA300	BC646MRA700	BC646MRA159	BC646MRA000
Proficy View Development w/ Runtime	•	•	•	•	•	• •		•		BC646MDA075	BC646MDA150	BC646MDA300	BC646MDA700	BC646MDA159	BC646MDA000
Proficy View Development only includes LD-PC (no runtime)	•	•	•	•	•	•	•	•	T	-	-	-	-	-	BC646MOP001
Proficy View Development only (no runtime) with hardware key	•	•	•	•	•	•		•		-	-	-	-	-	BC647MOP001

Proficy View Upgrades	К	ey	<u> </u>
Low cost mechanism to transition to the Machine Edition platform. Upgrades require existing software serial number at time of order.	Software Authorization	Hardware Key	Single License Upgrade P/N
Proficy View for QuickPanel-Upgrade from QuickDesigner™ (Single License)	•		BC646MQPU01
Proficy View for QuickPanel-Upgrade from QuickDesigner™ (Single License) with hardware key		•	BC647MQPU01
Proficy View Standard Edition - Upgrade from QuickDesigner (Single License)	•		BC646MVSU01
Proficy View Standard Edition - Upgrade from Proficy View for QuickPanel (Single License)	•		BC646MVSU02

Machine Edition Product Suites			Supp	orted	l Platfo	rms/F	eatur	es		Ke	.y			
Bundles of commonly used ME components. Advantages include lower cost, easier to authorize, and easier to maintain as one serial number covers the whole suite.	VersaMax Nano/Micro	VersaMax and Series 90-30	Series 90-70/PACSystems RX3i/RX7i	QuickPanel	QuickPanel View (Basic/Intermediate)*	ViewStation/ControlStation CF	View Development 2000/XP/2003	8000 Point R/T for View 2000/XP/2003	Motion Developer	Software Authorization	Hardware Key	Single License	Unlimited Seat Site License	
Machine Edition Lite Development Suite	•			•	•					•		BC646MBL001	BC646MBLS99	
Machine Edition Lite Development Suite with hardware key	•			•	•						•	BC647MBL001	-	
Machine Edition Traditional Development Suite	•	•		•	•					•		BC646MBT001	BC646MBTS99	
Machine Edition Traditional Development Suite with hardware key	•	•		•	•						•	BC647MBT001	-	
Machine Edition Standard Development Suite	•	•		•			•		•	•		BC646MBS001	BC646MBSS99	
Machine Edition Standard Development Suite with hardware key	•	•		•			•		•		•	BC647MBS001	-	
Machine Edition Professional Development Suite	•	•	•	•	•				•	•		BC646MBP001	BC646MBPS99	
Machine Edition Professional Development Suite with hardware key	•	•	•	•					•		•	BC647MBP001	=	
Machine Edition Professional Development Suite with Runtimes	•	•	•	•	•			•	•	•		BC646MBW001	-	
Machine Edition Professional Development Suite with Runtimes and hardware key	•	•	•	•				•	•	•	•	BC647MBW001	-	

<sup>\*</sup>Item not available in Europe

<b>Proficy</b>	Machine	Edition	Demo	Disks		

10-Pack IC646MED010 Demo Disks

# **PACSystems RX7i Controllers**

Built on a standard embedded open architecture, the PACSystems RX7i is the first member of the groundbreaking PACSystems family of programmable controllers (PACs). The RX7i features a single control engine and universal programming environment to provide application portability across multiple hardware platforms. Designed to address mid- to high-end applications for OEMs, integrators, and end users, the RX7i is ideally suited for integrated solutions that require open architecture, large memory, distributed I/O and high performance.

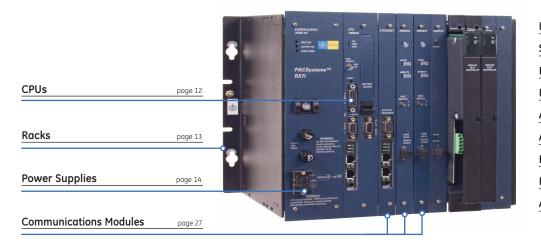
#### The RX7i Features

- Celeron 300mHz and Pentium III 700 mHz CPUs (Pentium M CPUs in 4th Qtr 2005)
- A VME64 Backplane providing up to four times the bandwidth of existing Series 90-70 systems
- 10/100 Ethernet built into the CPU, with easy cabling RJ-45 dual ports connected through an auto-sensing switch, so there is no need for additional switches or hubs rack to rack
- 10MB (64 MB in new Pentium M CPUs) memory for fast execution, storage of the complete program with all documentation—all in one CPU

 Supports existing Series 90-70 modules and expansion racks, VME modules and GENIUS networks protecting your hardware investment

#### **Proficy Machine Edition**

Proficy Machine Edition is an advanced software environment for the development and maintenance of machine level automation. Visualization, motion control, and execution logic are developed with a single programmer.



I/O Interface Modules	page 26
Specialty Modules	page 28
Discrete I/O Modules (input)	pgs 15-17
Discrete I/O Modules (output)	pgs 21-23
Analog I/O Modules (input)	pgs 18-20
Analog I/O Modules (output)	pgs 24-25
Expansion Power Supplies	page 29
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Accessories	page 31

#### **Publication Reference Chart**

GFK-2222	PACSystems CPU Reference Manual
GFK-2223	PACSystems RX7i Installation Manual
GFK-2224	TCP/IP Ethernet Communications for PACSystems
GFK-2225	PACSystems Station Manager User's Manual
GFK-2235	PACSystems RX7i User's Guide to Integration of VME Modules
GFK-2259	C Programmer's Toolkit for PACSystems User's Manual
GFK-2300	PACSystems RX7i Memory Xchange Modules User's Manual
GFK-2308	PACSystems Hot Standby CPU Redundancy User's Guide



#### **CPUs**

PACSystems RX7i CPUs feature Intel Celeron and Pentium III processors and offer fast execution, larger memory capacity and upgradability to track future technology growth. RX7i CPUs are available with various memory sizes, performance capabilities and advanced functionalities, such as software configuration of data and program memory. PACSystems CPUs also provide 10K of user RAM along with 10K of non-volatile user flash memory for added protection of your data and programs.

	IC698CPE010	IC698CPE020	IC698CRE020		
Product Name	Central Processing Unit, 300 MHz, Floating Point	Central Processing Unit, 700 MHz, Floating Point	Redundancy Central Processing Unit, 700 MHz, Floating Point		
PACSystems Processor Speed	300 MHz	700 MHz	700 MHz		
PACSystems CPU Memory 10 Mbytes of User Logic RAM		10 Mbytes of User Logic RAM	10 Mbytes of User Logic RAM		
PACSystems User Flash Memory	Yes (10 Mbytes)	Yes (10 Mbytes)	Yes (10 Mbytes)		
Floating Point Math	Yes	Yes	Yes		
PACSystems I/O Discrete Points Available	32 Kbits	32 Kbits	32 Kbits		
Other Memory Allocations	%W: Configurable up to 4 Mbytes, Symbolic: Configurable up to 10 Mbytes	%W: Configurable up to 4 Mbytes, Symbolic: Configurable up to 10 Mbytes	%W: Configurable up to the maximum available user RAM, Symbolic: Configurable up to 10 Mbytes		
Embedded Communications	Serial, Ethernet	Serial, Ethernet	Serial, Ethernet		
Protocols Supported	Modbus RTU Slave	Modbus RTU Slave	Modbus RTU Slave		
Built-in Serial Ports	3 (RS-232, RS-485, Ethernet)	3 (RS-232, RS-485, Ethernet)	3 (RS-232, RS-485, Ethernet)		
Current Required from 5V Bus	3.6 Amps	4.0 Amps	4.0 Amps		



#### **Racks**

PACSystems RX7i Racks set the pace for the latest PLC technology. They are built to support the high-power PACSystems power supplies along with the latest technology in the PACSystems CPUs. The VME64 backplane provides up to four times the bandwidth of existing VME based systems for faster I/O throughput. The VME64 base supports all standard VME modules including Series 90-70 I/O and VMIC modules.

	IC698CHS009	IC698CHS017	IC698CHS109	IC698CHS117	IC698CHS217
Product Name	Standard PACSystems 9-slot Wall (Rear) Mount	Standard PACSystems 18-slot Wall (Rear) Mount	Standard PACSystems 9-slot Wall (Panel) Mount	Standard PACSystems 18-slot Wall (Panel) Mount	PACSystems 17-slot Wall (Rear) Mount, Rear I/O Access
Number of Slots	9 Single Width, 5 Double Width	15 Single Width, 8 Double Width	9 Single Width, 5 Double Width	15 Single Width, 8 Double Width	17 Single Width, 8 Double Width
	(plus one for power supply)	(plus one for power supply)	(plus one for power supply)	(plus one for power supply)	(plus one for power supply)
Mounting Location	Rear (Panel)	Rear (Panel)	Front (Rack)	Front (Rack)	Rear (Panel)
Rack Configurations	RX7i CPU and I/O, Series 90-70 I/O, VME modules	RX7i CPU and I/O, Series 90-70 I/O, VME modules (with or without rear			
Rack Slot Size	0.8 inch	0.8 inch	0.8 inch	0.8 inch	access connections)  0.8 inch
Compatible Power Supplies	RX7i Power Supply (IC698)				
Dimensions	11.15"H x 12.6"W x 7.25"D (283 x 320 x 184mm)	11.15" × 19.00" × 7.5"	11.15"H × 12.6"W × 7.25"D (283 × 320 × 184mm)	11.15" × 19.00" × 7.5"	11.15"H x 19"W x 8.875"D (8.97"D with rear I/O cover) (283 x 483 x 225mm) (228mm D with rear I/O cover)