1.2 PACSystems Control System Overview

The PACSystems controller environment combines performance, productivity, openness and flexibility. The PACSystems control system integrates advanced technology with existing systems. The result is seamless migration that protects your investment in I/O and application development.

1.2.1 Programming and Configuration

Proficy* Machine Edition programming software provides a universal engineering development environment for all programming, configuration and diagnostics of PACSystems. A PACSystems CPU is programmed and configured using the programming software to perform process and discrete automation for various applications. The CPU communicates with I/O and smart option modules through a rack-mounted backplane. It communicates with the programmer and/or HMI devices via the Ethernet ports or via the serial ports COM1 and COM2 using Serial I/O, or Modbus RTU slave protocols.

1.2.2 Process Systems

PACSystems CPUs with firmware version 5.0 and later support Proficy Process Systems (PPS). PPS is a complete, tightly integrated, seamless process control system using PACSystems, Proficy HMI/SCADA, and Proficy Production Management Software to provide control, optimization, and performance management to manage and monitor batch or continuous manufacturing. It delivers the tools required to design, implement, document, and maintain an automated process. For information about purchasing PPS software, refer to the Support website.

1.2.3 *PACSystems CPU Model*

Family	Catalog Number	Description
RSTi-EP Standalone CPUs	EPSCPE100	1 GHz AM335x CPU, 1 MB user memory.
RX3i Standalone CPUs	IC695CPE400	1.2 GHz AMD G-Series Quad Core, 64 MB user memory with Field Agent
RX3i CPUs	IC695CPU310	300MHz Celeron CPU, 10 MB user memory
	IC695CPU315	1 GHz Celeron-M CPU, 20 MB user memory
	IC695CPU320	1 GHz Celeron-M CPU, 64 MB user memory
	IC695NIU001+ versions –AAAA & later	1.1 GHz Atom 510 NIU. For information, refer to the *PACSystems RX3i Ethernet Network Interface Unit User's Manual,* GFK-2439
	IC695NIU001	300MHz Celeron NIU. For information, refer to the *PACSystems RX3i Ethernet Network Interface Unit User's Manual,* GFK-2439
RX3i CPUs with embedded Ethernet Interface[1]	IC695CPE305	1.1GHz Atom CPU, 5 MB user memory
	IC695CPE310	1.1GHz Atom CPU, 10 MB user memory
	IC695CPE330	1 GHz AMD G-Series Dual Core, 64 MB user memory
RX3i Redundancy CPU	IC695CRU320	1 GHz Celeron-M CPU, 64 MB user memory
RX7i CPUs with embedded Ethernet Interface	IC698CPE010	300MHz, Celeron CPU, 10MB user memory
	IC698CPE020	700MHz, Pentium CPU, 10 MB user memory
	IC698CPE030	600MHz, Pentium-M CPU, 64MB user memory
	IC698CPE040	1800MHz, Pentium-M CPU, 64MB user memory
RX7i Redundancy CPUs with embedded Ethernet Interface	IC698CRE020	700MHz, Pentium CPU, 10 MB user memory
	IC698CRE030	600MHz, Pentium-M CPU, 64MB user memory
	IC698CRE040	1800MHz, Pentium-M CPU, 64MB user memory

[1] The RX3i CPE305/CPE310 embedded Ethernet interface provides a maximum of two programmer connections. It does not support the full set of Ethernet interface features described in this manual. For a summary of RX3i embedded Ethernet interface features, refer to *PACSystems RX7i & RX3i TCP/IP Ethernet Communications User Manual,* GFK-2224K or later.