



RNI Product Description

Dynamic Data Service (DDS) gives your applications RS3 dynamic data information in a variety of ways. DDS reads dynamic process data on a periodic basis for use by applications such as plant historian or process optimization. The three subscription options for host applications to acquire dynamic data are:

1. Exception: Data is sent only when data has changed relative to a deadband. This is the most efficient data collection method because data is constantly monitored, but sent only when a change has occurred.
2. Periodic: Data is sent at specified intervals. This method is less efficient because all requested data is sent at predetermined intervals regardless of data status.
3. Polled: Data is sent only when a request is made. This is the least efficient method of data collection because each data request must be made individually.

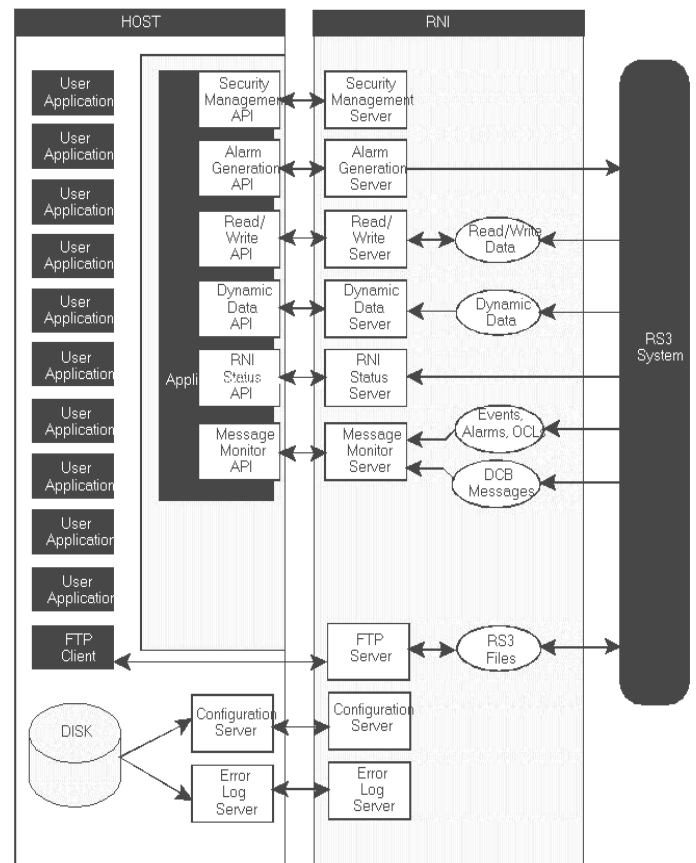
Message Monitor Service allows your applications to read RS3 system information. Host applications can receive RS3 process management system alarm messages, data compression events, and process event messages.

Read/Write Service allows your applications to read and write RS3 system information. Using this service, host applications are able to read or write RS3 Dynamic process data or static data such as engineering units, alarm limits, tag names, and mode.

Security System ensures the integrity of the process. Security features allow remote access while protecting the process control environment.

Alarm Service enables alarms and messages to be manipulated from your application. Host applications can generate, acknowledge, and clear RS3 alarms or send messages to RS3 event lists.

Status Server enables applications to access status of RS3 system files. The Status Server provides application access to plant status, ControlFile status, RNI status, RS3 system time, and RS3 block directories.



RNI™ Software Overview

File Transfer Protocol (FTP) Server enables easy file exchange between applications. With the appropriate user privileges, FTP clients on the TCP/IP network have open access to:

- Report Files—giving managers quick access to critical operations data.
- Configuration Files—enabling engineers to utilize powerful off-line implementation tools.
- Array Files—facilitating collection of batch data analysis.



MTCC Folders available using RNI V3.0 and FTP

ABC Data	Reports
ABC Log	SRU Data
ASCII Files	Console Config
Plant Config	

Application Programming Interface (API) Toolkit enables you to tailor RNI software to your needs.

The API Toolkit software includes:

- API Library
- Configuration Server
- Error Log Server
- C source code examples

Multiple RNIs can access Configuration Server and Error Log Server., with software installed on a single host system. Purchase one API Toolkit per site, per system type for Configuration Server and Error Server installations and for application linking.

Functional Specifications for RNI Version V3.0 for DEC VAX, DEC ALPHA, and Windows NT 4.0 Operating Systems

Network Requirements	
Network Protocol	TCP/IP 802.3 Ethernet.
Number of RNI's per Peerway	3 Maximum One RNI per Peerway is recommended for installations with multiple Peerways.
Ethernet connector	10BaseT or 10Base2
Maintenance port	9600 baud, RS-232

Dynamic Data Server Specifications	
Client Sessions	0-20
Controllers	1-75
ControlBlocks	1-4,000
Points	1-7,500
Subscriptions	1-15,000
Number of update rates	4
Table update rate	0.5s to 100,000s
Throughput for DDS monitoring from Peerway	~1,500 values/s
Transfer to client application	~250 values/s

Read/Write Server	
Clients	Unlimited
Points/request	Unlimited
Points/s (read)	50 values/s maximum
Points/s (write)	5 values/s maximum

Message Monitor	
Client Sessions	0-20
Message Types	Alarms, Events, Data Compression Events, Batch Alarms, and Operator Changes

Alarm Services	
Client Sessions	0-10
Supported Operation Types	Generate, Acknowledge, and Clear

Status Server	
Client Sessions	Unlimited
Request Types	RS3 time, ControlFile Status, RNI Status, Plant Status, Block Directory

File Transfer Protocol (FTP) Server	
Sessions	0-10

Security Services	
Simultaneous user clients	2-20
Number of users in registrator file	Unlimited
Security Types	Username, Password, Host name, and Attributes
Security Levels	View, Operator, Supervisor, Configurer, Manager, and Recipe Manager

Configuration Server	
RNI's Served	Unlimited
Configuration files	Unlimited



Error Logger	
Log destination	Host file, RNI serial port, or both

Note: Configuration options are provided for flexibility. It is not feasible for all configuration parameters be set to maximums. All configuration parameters are preset to defaults.

Environmental Specifications	
Temperature Range	0-50°C (32-122°F)
Average Heat Dissipation	85 Btu/hr (configuration dependent)
Relative Humidity	0-95% non-condensing
Environmental Rating	G1
Installation Category	I
Pollution Degree	2
Altitude	2,000m (6,562 ft)

Physical Specifications	
Mounting	19 inch rack
Weight	~5 kg (11 lbs)
Input Voltage	18-36 Vdc
Average power consumption	20W
Dimensions	430 x 89 x 412mm (17.2 x 3.5 x 16.2in)

Ordinary Locations Approvals	
Canadian Standards Association	
CE marking affixed	
Nationally Recognized Testing Laboratory (NRTL)	

Ordering Information

RNI Hardware Interface Hardware

Model No.	Version	Zero Fill	Ethernet Cable (Note 2)	DC Power Cable (Note 1)	Other Options	Typical Model No.
6600RNS Note 1	1	0	1 10Base T (Default) 2 10Base2	2 14AWG 4 10 AWG	0 None	6600RNS10120

Note 1 Included within the 6600RNS model are two Peerway drop cables and one power cable.

Note 2 The Ethernet cable option is configurable using a jumper on the RNI motherboard.

RNI Run-Time License

Model No.	Typical Model No.
6600HT Note 1	6220HT0EAAAA00

Note 1 One run-time host license is requires for each host computer communicating with an RNI through any software application.



RNI Boot Software (RNI V3.0 Only)

Item	Code, Description
Model Number	6220RB
Zero Fill	0
License Type (Note 1)	E 1 CPU Management F 1 CPU Right to Copy
Purchase Classification	A License Purchase D Software Media & Release Documentation only G Product Revision with current Foundation Support H Product Upgrade with current Foundation Support J Product Revision without current Foundation Support N Product Upgrade without current Foundation Support
Software Media and Release Documentation only	A None C Windows NT 4.0 (CD ROM) F DEC VAX/VMS (4mm DAT Tape) H DEC Alpha/Open VMS (4mm DAT Tape)
Application Toolkit Manual (Note 2)	A None B English size A C English- European size A4
Zero Fill	00
Version ID, Latest Revision	00
Typical Model Number	6220RB0EAC0000

Note 1 One CPU RNI boot license is required for each RNI. The first RNI on each Peerway will require a Management license. Subsequent RNIs on the same Peerway will requires one CPU Right to Copy License per RNI.



RNI API Toolkit Software RNI V3.0

Item	Code, Description
Model Number For DEC VAX or DEC Alpha Operating System For Windows NT Operating System	6220RA 6220RW
Zero Fill	0
License Type	E 1 CPU Management License F 1 CPU Right to Copy License
Purchase Classification A or D for 6220RA All options for 6220RW	A License Purchase D Extra Manual Kit or Software Media Only G Product Revision with current Foundation Support H Product Upgrade with current Foundation Support J Product Revision without current Foundation Support N Product Upgrade without current Foundation Support
Software Media and Release Documentation A, F, H for 6220RA A, C for 6220RW	A None C Windows NT (CD ROM) F DEC VAX/VMS (4mm DAT Tape) H DEC Alpha/Open VMS (4mm DAT Tape)
Manual Kit (Note 4)	A None B Include Manual US size A C Include Manual European size A4
Manual Kit Language	A Not Applicable (Use with Manual Kit option "A=None") E English
Version ID, Latest Revision	00
Typical Model Number	6220RA0EAFBE00 6220RW0EACBE00

Note 1 One CPU Management License is required per RNI when using a third-party software application (like Matrikon OPC Server). If you are connecting the RNI to an Emerson Process Management software application (ROS) you do not need this software license.

Note 2 If development is being done on more than one host computer, not connected to the same RNI, the appropriate number of Management Licenses must also be purchased. If a second development PC is connected to the same RNI, the existing Management License can be used for the second development PC.

Note 3 Requires V18R2 or greater base system software.

Note 4 Manuals are in English only.



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Europe, Middle East:	41.41.768.6111
North America, Latin America:	+1 800.833.8314 or +1 512.832.3774

For large power, water, and wastewater applications contact Power and Water Solutions at:
www.emersonprocess-powerwater.com

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