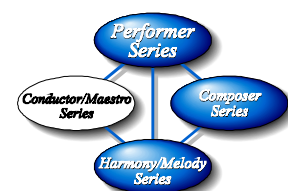


Highlights

Conductor NT Version 2.1 is the third enhancement release of the Windows NT[®] Human System Interface (HSI). Version 2.1 is designed for use with the INFI 90 OPEN and the Symphony (Harmony) Enterprise Management and Control Systems. Version 2.1 complements the inherent functionality of the Symphony system with a suite of operator-directed features and functions. These are ergonomically designed to facilitate process: monitoring, control, fault mitigation, and optimization. Conductor NT Version 2.1 provides Symphony system users with more features and functionality than were available in previous generations. It now supports the Symphony Harmony (block and rack designs) system, and Allen Bradley[®] and Modicon[®] PLCs using the emerging OPC standard for interfacing process control equipment and one millisecond resolution Sequence of Events monitoring system. Like the previous Version 2.0, this version is scalable from 500 to 60,000 tags per group with a capacity of up to 50 groups per system making it a logical choice for all requirements from small starter systems up to the largest of installations.

Performance Characteristics

Feature	Characteristic/Value
Display System	
Fixed hierarchy	3 levels; summary, group, and point
Summary displays	1,000 ¹ pages of 24 group symbols
Group displays	24,000 ¹ displays of 4, 6, or 8 faceplates
Server Tag names	Up to 30,000 per server
Point (tuning) displays	60,000/Onet group; 30,000/server
Custom configured displays	10,000 ¹ /Onet group
Trend displays	Up to 10,000/group
Groups	Up to 50/system
Process windows	Up to 4/Display; 120/Onet group
Maximum windows/display	Approximately 20 (application dependent)
Trend displays	10,000 ¹ /Onet group; 8 traces/display
Mini-alarm window	Permanent: 4 lines: 2 process alarms, 1 system alarm, and 1 operator message
Alarm review display	1 group-wide
Event review display	1 group-wide
System status display	1 fixed and multi custom configured



Feature	Characteristic/Value
Performance	
Display callup	Less than 2 secs typical (varies with complexity)
Tuning display updates	1 sec
DDE server data transmission rate	Up to 500 values/second
Capacities	
Tags/points per server	500 (2,500; 5,000; 10,000 and 30,000 optional)
Alarms	All active and unacknowledged alarms
Events	All active and unacknowledged events
Trends	8,000/Onet group (2,000/server)
Event historian	10,000 events (circular file)
Sequence of events	Up to 5000 events (distributed SOE) Up to 256 events (RIS recorder) 1 millisecond resolution
Report writer (logs)	Excel spreadsheets, Std logs, limited by memory only
Historian	Up to 8,000 points using historical blocks
Process areas	Up to 256
Alarm priorities	Up to 16
CRT context keys	16/operator (1 for logon)
QuickKeys	Up to 64/operator
ADP (hardware support/software)	Up to four 32-key panels/station; 256 alarm groups assignable
Security	Password login: 9 levels, hierarchical; 60 permits
Architecture	
Structure	Client/server
Onet group (servers, client extenders)	8 nodes (max 4 servers), client extenders
Server/Client Extender client support	Up to 10 clients (max 30 clients/group)
Open data server	DDE, up to 10 simultaneous clients
Third-party controller connectivity	OPC standard client interface (optional)
OPC scanner capacity	500; 1,500; 3,000 tag names
Onet connection	IEEE 802.3 Ethernet™, TCP/IP protocol
Cnet connection	Elsag Bailey INFI-NET, Plant Loop and Cnet
Nonisolated group support	Up to 50 nonisolated groups
Graphics system	S-L Graphics engine/EBPA Editor

Notes:

1. Approximate: 9,999 custom graphics; 9,999 summary displays; 23,976 group displays.

Recommended Hardware Configuration

Characteristics	Base Server/Stand-Alone Units/ Redundant Server	Client/Client Extender Units
Memory required	96 Mb EDO or faster RAM ^{1,2}	80 Mb EDO or faster RAM
Processor	Intel® Pentium II® PC, registered compatible with Windows NT 4.0	Intel Pentium II PC, registered compatible with Windows NT 4.0
Speed	266 MHz or faster processor clock speed	266 MHz or faster processor clock speed
Hard disk space	2.1 Gb (min)	1.2 Gb (min)
Network connector	Ethernet (IEEE 802.3) compliant (TCP/IP); thin-wire 10Base2 preferred, 10BaseT acceptable	Ethernet (IEEE 802.3) compliant (TCP/IP); thin-wire 10Base2 preferred, 10BaseT acceptable

Characteristics	Base Server/Stand-Alone Units/ Redundant Server	Client/Client Extender Units
CD-ROM reader	6X (min)	6X (min)
Video adapter	2 Mb (min) Resolution: 1280x1024 preferred, 1024x768 (min)	2 Mb (min) Resolution: 1280x1024 preferred, 1024x768 (min)
Ports	2 serial, 1 parallel	2 serial, 1 parallel
Mouse	2-button bus mouse; 3-button preferred	2-button bus mouse; 3-button preferred
Floppy disk drive	3.5 in., 1.44 Mb	3.5 in., 1.44 Mb

Notes:

1. An additional 16 Mb of RAM is required for Report Writer option, and/or tag counts above 5,000.
2. Tag counts above 10,000 require 128 Mb RAM minimum.

Accessories and Options

Accessory/Option	Requirement
Adaptec SCSI adapter model 2940/AU.	One required for each of: DAT archiving unit SCSI INIC103 interface
Colorgraphic® Pro Lightning® PCI video card and software	Required for dual monitor support
L700972A2 serial hardware key for ICI03	Required for each ICI03 used
16 Mb EDO RAM memory ¹	Required for tag counts above 5,000 and/or report generation
48 Mb EDO RAM memory ² (includes 16 Mb from above)	Required for tag counts above 10,000
Desktop DAT archiving unit (SCSI) (Sony® Model 5200, HP Model C1529)	Required for removable archive support

Notes:

1. An additional 16 Mb of RAM is required for Report Writer option, and/or tag counts above 5,000.
2. Tag counts above 10,000 require 128 Mb RAM minimum.

Server/Redundant Server - Base Software License

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
S	-	I	B	-	C	O	N	-	S	-	-	-	-	-	-	-	-	-	-	-	Base License ^{1,2,11}	
									R	-	-	-	-	-	-	-	-	-	-	-	Redundant Base License ^{1,2,11,13}	
																						No. of Direct Clients Supported ^{2,3,4,11}
											1	-	-	-	-	-	-	-	-	-	-	Stand-alone (included in base license) ^{8,15}
											2	-	-	-	-	-	-	-	-	-	-	Two
											3	-	-	-	-	-	-	-	-	-	-	Three
											4	-	-	-	-	-	-	-	-	-	-	Four
											5	-	-	-	-	-	-	-	-	-	-	Five
											6	-	-	-	-	-	-	-	-	-	-	Six
											7	-	-	-	-	-	-	-	-	-	-	Seven
											8	-	-	-	-	-	-	-	-	-	-	Eight
											9	-	-	-	-	-	-	-	-	-	-	Nine
											A	-	-	-	-	-	-	-	-	-	-	Ten
																						Archive to Removable Storage Media ^{5,6}
												0	-	-	-	-	-	-	-	-	-	No
												1	-	-	-	-	-	-	-	-	-	Yes
																						Excel Interface (for Report Writing) ⁷
													0	-	-	-	-	-	-	-	-	No
													1	-	-	-	-	-	-	-	-	Yes

Client Extender Base Software License

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21											
S - I B - C O N - E -											Base Client Extender License ^{1,3,6,9}																				
											No. of Clients Supported ^{3,4}																				
											1	-	-	-	-	-	-	-	-	-	-	Stand-alone (included in base license)									
											2	-	-	-	-	-	-	-	-	-	-	Two									
											3	-	-	-	-	-	-	-	-	-	-	Three									
											4	-	-	-	-	-	-	-	-	-	-	Four									
											5	-	-	-	-	-	-	-	-	-	-	Five									
											6	-	-	-	-	-	-	-	-	-	-	Six									
											7	-	-	-	-	-	-	-	-	-	-	Seven									
											8	-	-	-	-	-	-	-	-	-	-	Eight									
											9	-	-	-	-	-	-	-	-	-	-	Nine									
											T	-	-	-	-	-	-	-	-	-	-	Ten									
											Reserved for Future																				
											0	-	-	-	-	-	-	-	-	-	-	Must be a 0									
											Excel Interface (for Report Writing) ⁵																				
											0	-	-	-	-	-	-	-	-	-	-	No									
											1	-	-	-	-	-	-	-	-	-	-	Yes									
											Reserved for Future																				
											0	0	0	-	-	-	-	-	-	-	-	Must be a 0									
											Language ⁷																				
											0	-	-	-	-	-	-	-	-	-	-	English									
											Dual Monitor Support ⁸																				
											0	-	-	-	-	-	-	-	-	-	-	Not required									
											M	-	-	-	-	-	-	-	-	-	-	Dual monitor support									
											Version																				
											2	1	-	-	-	-	-	-	-	-	-	Version 2.1									

Notes:

1. Base license includes one client which resides on same platform and cannot be separated by a network.
2. Microsoft Windows NT 4.0 (service pack 3) is required but not included with base license.
3. Each client must be supported by a valid server license where a maximum number of clients is specified.
4. A maximum of ten clients per server/client extender is allowed.
5. An additional 16 Mb RAM is recommended for the Spreadsheet Report Writer option.
6. All clients, extenders, and servers require an Ethernet (IEEE 802.3) compliant adapter (TCP/IP); Thinwire connector 10Base2 preferred but 10BaseT acceptable.
7. Supports most international languages supported by Windows NT with English as the standard language; consult your local EBPA office for local (non-English) language support.
8. Dual monitor support requires Colorgraphic Pro Lightning board and software installed (not included).
9. Tag names are included in the main servers, redundant servers.

Client Extender - Expansion Software License

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21											
S - I E - C O N - E -											Client Extender Base License ^{1,2,4}																				
											No. of Clients Supported ^{2,7}																				
											0	-	-	-	-	-	-	-	-	-	-	No change									
											1	-	-	-	-	-	-	-	-	-	-	Add one client									
											2	-	-	-	-	-	-	-	-	-	-	Add two clients									
											3	-	-	-	-	-	-	-	-	-	-	Add three clients									
											4	-	-	-	-	-	-	-	-	-	-	Add four clients									
											5	-	-	-	-	-	-	-	-	-	-	Add five clients									
											6	-	-	-	-	-	-	-	-	-	-	Add six clients									
											7	-	-	-	-	-	-	-	-	-	-	Add seven clients									
											8	-	-	-	-	-	-	-	-	-	-	Add eight clients									
											9	-	-	-	-	-	-	-	-	-	-	Add nine clients									

