



Data Sheet

Composer™

Highlights

Composer provides a comprehensive suite of engineering and maintenance tools for use with the Symphony™ Enterprise Management and Control System. Composer is designed to operate on a Windows® 2000 (Service Pack 2 or later) or Windows NT® 4.0 (Service Pack 6A or later) platform.

The working environment provided by Composer simplifies the configuration and maintenance of Symphony systems. The base product contains all the functionality necessary to create and maintain control system configurations. Applications provide users with the ability to graphically develop control system strategies, develop and maintain global configuration databases, and manage system libraries of reusable software components.

Composer is designed to be compatible with INFI 90® OPEN system configurations and is capable of importing existing WinTools configurations. Once imported, these configurations can be fully integrated into Composer and fully utilize the product features.

Composer Components

Server Software

- *Configuration Server* - provides base support for the Composer engineering environment. Includes a multiuser project database which is licensed by the number of simultaneously connected clients. Capable of supporting up to 10 simultaneously connected clients. One configuration server is required per project or system.
- *Communication Server* - provides base support for client applications to communicate with the Control Network (Cnet) via the Operations Network (Onet). Composer's communication server software comes bundled with Composer as part of the server license. Users may install as many copies of the communication server software as required by their architecture.
- *Object Exchange* - provides users with a shared library of reusable components that can accelerate the development of control configurations by using strategies that have been already developed and tested.

Base Client Software

Base client software includes Composer's explorer, data browser, automation architect and online maintenance tools.



- The project explorer provides the user with the ability to organize, navigate and manage Symphony system configuration documents. Once documents are located, Composer's explorer can be used to launch the editors which are used to develop Symphony configurations.
- The automation architect is the primary editor used to develop, manage and maintain control strategies for the Symphony system. The automation architect enables users to graphically develop their control strategies. Control strategies developed using the automation architect, can be used to troubleshoot and maintain the control system.
- The data browser provides users with the ability to navigate, edit, import and export tag information to and from Composer's configuration server. The data browser provides data-base management functions required to administer tag data servers in the Symphony system.
- Online maintenance tools provide users with the ability to troubleshoot, perform diagnostics and maintain the operating Symphony system.

Optional Client Software

In addition to the Composer base client software, users can elect to purchase optional client applications depending on their specific system needs.

HSI options. Conductor VMS™ displays can be configured with Composer's graphics display configuration (GDC) client application. Operate IT™ Process Portal A and B and Conductor NT displays can be configured with Composer's GrafX display configuration client application. GDC and GrafX are optionally licensed components of Composer that enable users to create and manage free graphics for ABB HSIs within the Composer environment.

OLE interface. All of the controller configuration and tag configuration information is available via the OLE interface client option of Composer. Using the OLE interface, users can access, extract and replace configuration information stored in the Composer configuration server. Any application that is capable of communicating via OLE/COM can access information from the Composer configuration server via the OLE interface. Examples include Visual Basic™, Visual Basic for Applications in Microsoft Office, or web pages using VBScript or JScript®.

Batch data manager. Batch data manager (BDM) is a family of engineering tools for creating, editing, managing, downloading and debugging batch, sequential and user defined function code configurations. BDM is comprised of three product options:

- Batch 90 for phase execution includes a full-featured text editor to create and compile Batch 90 programs that are downloaded to the phase execution (PHASEX) function code. In this batch execution model, recipes are created and run using the ABB batch manager and the Operate IT Process Portal A and B workstations.
- Batch tools for batch sequencing provide the capability to create and compile Batch 90 programs that are downloaded to the batch sequence (BSEQ) function code. Also included are the unit procedure editor and the master recipe editor which are used to create recipes in this batch execution model.
- User defined function (UDF) codes includes a full-featured text editor to create and compile UDF programs that are downloaded to UDF-specific function codes and incorporated into control strategies in the same manner as any other function code.

Power Tools. Power tools are a family of efficiency tools that were developed to reduce the engineering effort required when configuring a Symphony system and extend the capabilities of the base Composer product. There are three power tools options available:

- The *Revision Manager* option provides the ability to perform bulk revisioning operations on Control Logic Documents (CLD) and sort documents based upon revision related information. A *Border Swap* utility for exchanging borders, and *Pack and Go* utility for transporting Control Logic Documents are included as part of the Revision Manager. This application is available as a free download from the Tools website.
- The *CLD Editor* option allows users to edit and manipulate Control Logic Document data, without the use of third party applications, through the use of a browser interface similar to that of Composer. Also included is an *Advanced Trending* application that provides the ability to tune the configuration of a controller, while trending and recording block outputs.
- The *Automatic Drawing Generator* option provides the ability to automatically instantiate CLDs based upon user developed templates. Through the use of functionality options and template linking, a single standard can be used to instantiate CLDs with multiple logic variations. Customized data can be automatically set and updated in drawings from a job database, while the use of VB script procedures provides unlimited customization and automation opportunities.

Performance Characteristics

Feature	Characteristic/Value
Architecture	
Structure	Client/server
Simultaneously connected clients	Up to 10 clients per configuration server
Configuration servers	1 per project or system
Communications servers	1 per Cnet interface device
Onet connection	IEEE 802.3 Ethernet™, TCP/IP protocol
Cnet connection	INFI-NET® via ICI01 (rev. F.1 or later), ICI03 (rev. G.0 or later), or HNCC (rev A.0 or later), ICI12 (rev A.0 or later), IMCPM02 ¹
Plant Loop connection	INPCI02 (rev E.0 or later), IMCPM02 ¹ (rev A.2 or later)
Compatibility	
Controller function block configuration	AMM03, MFC, MFP, BRC, HAC, LMM02, COM03/04, CLC03/04, SLC01/02
Controller BDM configuration	
BSEQ batch, UDF	MFP (firmware revision E.1 or later) BRC (firmware revision A.0 or later) HAC (firmware revision A.0 or later)
PHASEX batch	BRC (firmware revision C.0 or later)
HSI configuration options	
Conductor VMS option	Conductor VMS, OIS4x, SIG4x, PCV4.x, PCV5.x, OIS2x, MCS, MCS Plus ²
Conductor NT and Operate IT options	Conductor NT, Operate IT Process Portal A and B

Notes:

1. The IMCPM02 provides communications within a single PCU.
2. Windows 98 computer required to transfer files to OIS2x, MCS, and MCS Plus consoles.

Platform Requirements

The recommended and minimum platform requirements to run client Composer software are shown in Table 1. The recommended and minimum platform requirements to run Composer configuration server software are shown in Table 2.

Table 1. Client Software Platform Requirements

Description	Recommended	Minimum Required
Processor	Pentium® based, 900 MHz	Pentium based, 500 MHz
Operating System	Windows 2000 Professional, Service Pack 2 and Q301625 Security Roll-up Patch	Windows NT 4.0, Workstation or Server, Service Pack 6A
Monitor	256 color, 1024 x 768 pixel resolution	256 color, 800 x 600 pixel resolution
Operator input devices	Keyboard and two-button cursor positioning device	
Available hard disk space		
To install Composer	1000 Mb	500 Mb
For temporary files	40 Mb	40 Mb
RAM memory	256 Mb	128 Mb
Software media loading device	CD-ROM disk drive or access to one	
Ports		
Ethernet card	Required for all platforms that communicate with each other. The card address can also be used as a machine I.D. for licensing.	
Parallel	Required for all platforms that use a dongle as a machine I.D. for licensing.	
Serial or SCSI	Required when connecting a server or BDM through an INFI-NET to computer interface: INICI01, IMCPM02 ¹ , INICI12 - serial; INICI03 - serial or SCSI	
Communication module groups	INICI03 (firmware revision G.0 or later) INICI01 (firmware revision F.1 or later) INICI12 (firmware revision A.0 or later) IMCPM02 (firmware revision A.2 or later) INPCI02 (firmware revision E.0 or later) HNCC (firmware revision A.0 or later)	

Note:

1. The IMCPM02 is not supported by BDM.

Table 2. Configuration Server Software Platform Requirements

Description	Recommended	Minimum Required
Processor	Pentium® based, 900 MHz	Pentium based, 500 MHz
Operating System	Windows 2000 Professional, Service Pack 2 and Q301625 Security Roll-up Patch	Windows NT 4.0, Workstation or Server, Service Pack 6A
Monitor	256 color, 1024 x 768 pixel resolution	256 color, 800 x 600 pixel resolution
Operator input devices	Keyboard and two-button cursor positioning device	
Available hard disk space		
To install Composer	2000 Mb	500 Mb
For temporary files	40 Mb	40 Mb
RAM memory	256 Mb	128 Mb
Software media loading device	CD-ROM disk drive or access to one	

Table 2. Configuration Server Software Platform Requirements *(continued)*

Description	Recommended	Minimum Required
Ports Ethernet card Parallel Serial or SCSI	Required for all platforms that communicate with each other. The card address can also be used as a machine I.D. for licensing. Required for all platforms that use a dongle as a machine I.D. for licensing. Required when connecting a communications server through an INFI-NET to computer interface: INICI01, IMCPM02 ¹ , INICI12 - serial; INICI03 - serial or SCSI	
Communication module groups	INICI03 (firmware revision G.0 or later) INICI01 (firmware revision F.1 or later) INICI12 (firmware revision A.0 or later) IMCPM02 (firmware revision A.2 or later) INPCI02 (firmware revision E.0 or later) HNCC (firmware revision A.0 or later)	

Note:

1. The IMCPM02 is not supported by BDM.

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