

SYSMAC
CXONE-AL□□C-E

CX-One Ver. 1.1
FA Integrated Tool Package

SETUP MANUAL

OMRON

CXONE-AL□□C-E

CX-One Ver. 1.1

FA Integrated Tool Package

Setup Manual

Revised November 2005

Notice:

OMRON products are manufactured for use according to proper procedures by a qualified operator and only for the purposes described in this manual.

The following conventions are used to indicate and classify precautions in this manual. Always heed the information provided with them. Failure to heed precautions can result in injury to people or damage to property.

 **DANGER** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. Additionally, there may be severe property damage.

 **WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. Additionally, there may be severe property damage.

 **Caution** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury, or property damage.

OMRON Product References

All OMRON products are capitalized in this manual. The word “Unit” is also capitalized when it refers to an OMRON product, regardless of whether or not it appears in the proper name of the product.

The abbreviation “Ch,” which appears in some displays and on some OMRON products, often means “word” and is abbreviated “Wd” in documentation in this sense.

The abbreviation “PLC” means Programmable Controller. “PC” is used, however, in some Programming Device displays to mean Programmable Controller.

Visual Aids

The following headings appear in the left column of the manual to help you locate different types of information.

Note Indicates information of particular interest for efficient and convenient operation of the product.

1,2,3... 1. Indicates lists of one sort or another, such as procedures, checklists, etc.

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No patent liability is assumed with respect to the use of the information contained herein. Moreover, because OMRON is constantly striving to improve its high-quality products, the information contained in this manual is subject to change without notice. Every precaution has been taken in the preparation of this manual. Nevertheless, OMRON assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained in this publication.

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About this Manual:

This manual describes the installation and operation of the CX-One FA Integrated Tool Package and includes the sections described below.

Please read this manual carefully and be sure you understand the information provided before attempting to install or operate the CX-One. Be sure to read the precautions provided in the following section.

Precautions provides general precautions for using the CX-One.

Section 1 provides an overview of the CX-One FA Integrated Tool Package, its contents, and system requirements.

Section 2 describes how to install and uninstall the software provided in the CX-One.

 **WARNING** Failure to read and understand the information provided in this manual may result in personal injury or death, damage to the product, or product failure. Please read each section in its entirety and be sure you understand the information provided in the section and related sections before attempting any of the procedures or operations given.

Version Upgrade Information:

The following have been changed in upgrading the CX-One from version 1.0 to version 1.1.

Item		Ver. 1.0	Ver. 1.1
Hardware space required to install all of the CX-One software		Approx. 1.6 GB	Approx. 1.8 GB
Number of setup disks (CD-ROM)		2 disks	3 disks
Software installed for the CX-One	CX-Programmer	Ver. 6.0	Ver. 6.1
	CX-Integrator	Ver. 1.0	Ver. 1.1
	CX-Simulator	Ver. 1.5	Ver. 1.6
	NS-Designer	Ver. 6.2	CX-Designer Ver. 1.0
	CX-Motion	Ver. 2.2	Ver. 2.22
	CX-Motion-NCF	Ver. 1.2	Ver. 1.3
	CX-Position	Ver. 2.1	Ver. 2.2
	CX-Thermo	Ver. 2.0	Ver. 2.01
	CX-Protocol	Ver. 1.6	Ver. 1.61
	CX-Process Tool	Ver. 4.1	Ver. 5.0
	CX-Server	Ver. 2.3	Ver. 2.4
	SwitchBox Utility	Ver. 1.6	Ver. 1.61
New software added to the CX-One	CX-Motion-MCH	---	Ver. 1.0
	CX-Drive	---	Ver. 1.1
	CX-FLnet	---	Ver. 1.0
	CX-Profibus	---	Ver. 1.0

Refer to 1-3-1 Support Software in CX-One and Reference Manuals for details.

Read and Understand this Manual

Please read and understand this manual before using the product. Please consult your OMRON representative if you have any questions or comments.

Warranty and Limitations of Liability

WARRANTY

OMRON's exclusive warranty is that the products are free from defects in materials and workmanship for a period of one year (or other period if specified) from date of sale by OMRON.

OMRON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, REGARDING NON-INFRINGEMENT, MERCHANTABILITY, OR FITNESS FOR PARTICULAR PURPOSE OF THE PRODUCTS. ANY BUYER OR USER ACKNOWLEDGES THAT THE BUYER OR USER ALONE HAS DETERMINED THAT THE PRODUCTS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE. OMRON DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED.

LIMITATIONS OF LIABILITY

OMRON SHALL NOT BE RESPONSIBLE FOR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED ON CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY.

In no event shall the responsibility of OMRON for any act exceed the individual price of the product on which liability is asserted.

IN NO EVENT SHALL OMRON BE RESPONSIBLE FOR WARRANTY, REPAIR, OR OTHER CLAIMS REGARDING THE PRODUCTS UNLESS OMRON'S ANALYSIS CONFIRMS THAT THE PRODUCTS WERE PROPERLY HANDLED, STORED, INSTALLED, AND MAINTAINED AND NOT SUBJECT TO CONTAMINATION, ABUSE, MISUSE, OR INAPPROPRIATE MODIFICATION OR REPAIR.

Application Considerations

SUITABILITY FOR USE

OMRON shall not be responsible for conformity with any standards, codes, or regulations that apply to the combination of products in the customer's application or use of the products.

At the customer's request, OMRON will provide applicable third party certification documents identifying ratings and limitations of use that apply to the products. This information by itself is not sufficient for a complete determination of the suitability of the products in combination with the end product, machine, system, or other application or use.

The following are some examples of applications for which particular attention must be given. This is not intended to be an exhaustive list of all possible uses of the products, nor is it intended to imply that the uses listed may be suitable for the products:

- Outdoor use, uses involving potential chemical contamination or electrical interference, or conditions or uses not described in this manual.
- Nuclear energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
- Systems, machines, and equipment that could present a risk to life or property.

Please know and observe all prohibitions of use applicable to the products.

NEVER USE THE PRODUCTS FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCTS ARE PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

PROGRAMMABLE PRODUCTS

OMRON shall not be responsible for the user's programming of a programmable product, or any consequence thereof.

Disclaimers

CHANGE IN SPECIFICATIONS

Product specifications and accessories may be changed at any time based on improvements and other reasons.

It is our practice to change model numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the products may be changed without any notice. When in doubt, special model numbers may be assigned to fix or establish key specifications for your application on your request. Please consult with your OMRON representative at any time to confirm actual specifications of purchased products.

DIMENSIONS AND WEIGHTS

Dimensions and weights are nominal and are not to be used for manufacturing purposes, even when tolerances are shown.

PERFORMANCE DATA

Performance data given in this manual is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of OMRON's test conditions, and the users must correlate it to actual application requirements. Actual performance is subject to the OMRON Warranty and Limitations of Liability.

ERRORS AND OMISSIONS

The information in this manual has been carefully checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical, or proofreading errors, or omissions.

PRECAUTIONS

This section provides general precautions for using the CX-One FA Integrated Tool Package.

The information contained in this section is important for the safe and reliable application of the CX-One FA Integrated Tool Package. You must read this section and understand the information contained before attempting to set up or operate the CX-One FA Integrated Tool Package.

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1 Intended Audience

This manual is intended for the following personnel, who must also have knowledge of electrical systems (an electrical engineer or the equivalent).

- Personnel in charge of installing FA systems.
- Personnel in charge of designing FA systems.
- Personnel in charge of managing FA systems and facilities.

2 Safety Precautions

 **Caution** When performing any of the following operations, always check the network address and node address of the other node (PLC) and the node address and unit number of the mounted Unit (PLC CPU Bus Unit or Special I/O Unit) or the node address of the Component (DeviceNet Master/Slave or CompoWay/F Slave), and be sure that these operations can be performed safely for the current status of the node (Unit or Component):

- Transferring parameter or program data to the other node
- Changing the operating mode of the other node

Unexpected operation may result if parameter or program data is transferred to the wrong node (DeviceNet Master/Slave or CompoWay/F Slave), the operating mode of the wrong node is changed, or the other node is not in a suitable status to receive the program or parameter data or the operating mode change.

 **Caution** Particularly when changing the target PLC to any PLC other than the relay PLC, check the node address and node number of the target PLC carefully before executing the change.) Unexpected operation and injury may result if the wrong PLC is set as the target PLC.

- Changing the operating mode
- Transferring or verifying user-set data link tables
- Transferring or verifying routing tables
- Performing I/O table operations (including transferring CPU Bus Unit or Special I/O Unit parameters)

Note Operations performed from the CX-Integrator are performed for the target PLC, which is not necessarily the same as the relay PLC.

 **Caution** When transferring parameters that have been created or edited on the computer to actual Units (PLC CPU Bus Units or PLC Special I/O Units) or to actual components (DeviceNet Masters/Slaves or CompoWay/F Slaves), or when resetting Units mounted on other PLC nodes or components (DeviceNet Masters/Slaves or CompoWay/F Slaves) connected via communications with other PLC nodes, always check the identifying numbers of the actual Units or Components (i.e., the unit numbers and unit addresses or node addresses) before executing the transfer or reset. Unexpected operation and injury may result if parameters are transferred to the wrong Unit or components, or the wrong Unit or component is reset.

Observe the following precautions when using the CX-One.

- When saving or opening a project file, always confirm the location of the folder and the file name before executing the save or open. The CX-One automatically switches the folder when saving and opening.
- Before changing the operating mode, always confirm that doing so will not adversely affect system operation.
- Always check the operation of programs and parameters sufficiently before using them for actual system operation.
- Confirm that resetting CPU Bus Units, Special I/O Units, and DeviceNet Master/Slave Units will not adversely affect system operation before resetting these Units.

SECTION 1

Overview

This section provides an overview of the CX-One FA Integrated Tool Package, its contents, and system requirements.

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1-1 Overview of CX-One

1-1-1 The CX-One FA Integrated Tool Package

The CX-One FA Integrated Tool Package integrates all of the Support Software for OMRON PLCs and Components. Although previously it was necessary to purchase, install, run, and connect online to the PLC separately for the Support Software for each Unit, the CX-One now provides an integrated development environment based on the CPS (Component and Network Profile Sheet) for each OMRON Unit or Component. If the CX-One is installed in a single computer, an integrated operating environment can be used all the way from setting OMRON PLC Units through system startup and monitoring to greatly increase system setup efficiency.

1-1-2 CX-One Features

Integrated Software Management for OMRON PLCs and Components

- One computer with the CX-One installed provides the Support Software required to handle any OMRON product.
- All of the Support Software can be installed with a single license.
- Files saved from the various Support Software can be centrally managed in one location.

Support Software for CPU Bus Units and Special I/O Units can be started from the I/O tables.

When Support Software is started from the I/O tables (i.e., the Unit Configuration Table registered in the PLC), PLC and Unit settings can be inherited so that they do not have to be re-entered every time Support Software is started.

Component and Network Profile Sheets (CPS)

- CPU Bus Units and Special I/O Units can be set without concern for memory addresses and without relying on operation manuals. Parameter names, selections, and setting ranges are automatically displayed.
- Online, settings for virtual Units on the computer can be compared to the settings in the actual Units, with any differences displayed in orange in the comparison results.
- The Unit configuration in I/O tables is displayed using Unit model numbers.
- Model and unit version checks can be performed when transferring data to actual Units.
- Device types on the network can be confirmed using Unit models.

Note Component and Network Profile Sheet (CPS) files contain CS/CJ-series Unit definitions or Component definitions within the CX-One. CPS files are provided in XML format. The CX-One uses CPS files to recognize CS/CJ-series Units. Settings for CPU Bus Units and Special I/O Units are also created based on CPS files.

1-2 Confirmation of CX-One Package Contents

1-2-1 Confirmation of CX-One Package Contents

CX-One Model Number and Contents

Name	Model	Installable Support Software		Other included data
CX-One FA Integrated Tool Package Ver. 1.1 (CX-One Ver. 1.1)	CXONE-AL□□C-E	CX-Programmer	Ver. 6.1	<ul style="list-style-type: none"> • OMRON Function Blocks (FB) • Smart Active Parts (Smart Active Parts) • CPS files • Manual (PDF)
		CX-Integrator	Ver. 1.1	
		CX-Simulator	Ver. 1.6	
		CX-Designer	Ver. 1.0	
		CX-Motion	Ver. 2.2	
		CX-Motion-NCF	Ver. 1.3	
		CX-Motion-MCH	Ver. 1.0	
		CX-Position	Ver. 2.2	
		CX-Drive	Ver. 1.1	
		CX-Protocol	Ver. 1.6	
		CX-Process Tool	Ver. 5.0	
		CX-Profibus	Ver. 1.0	
		Faceplate Auto-Builder for NS	Ver. 2.0	
		CX-Thermo	Ver. 2.0	
		CX-FLnet	Ver. 1.0	
		CX-Server	Ver. 2.4	
		SwitchBox Utility	Ver. 1.6	

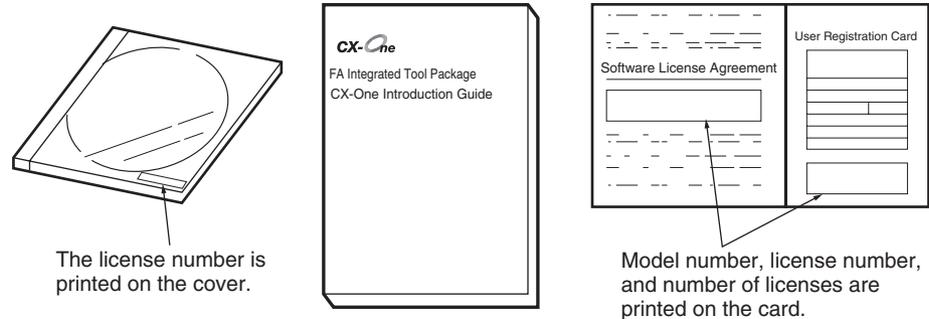
CX-One Contents

The contents of CX-One are listed in the following table. Please confirm that you have received everything.

CXONE-AL□□C-E CX-One FA Integrated Tool Package

Installation Disks (CD-ROM)	3 disks	
CX-One Introduction Guide (Cat. No. R135)	Printed manuals and PDF manuals in the CD-ROM	
CX-Programmer Introduction Guide (Cat. No. R132)		
CX-Designer Introduction Guide (Cat. No. V089)		
Function Block Introduction Guide (Cat. No. R133)		
CX-One Setup Manual (Cat. No. W444) (this manual)		
CX-Programmer Operation Manual (Cat. No. W446)	PDF manuals in the CD-ROM (Only the main manuals are listed.)	
CX-Programmer Operation Manual: Function Blocks (Cat. No. W447)		
CX-Integrator Operation Manual (Cat. No. W445)		
CX-Simulator Operation Manual (Cat. No. W366)		
CX-Designer User's Manual (Cat. No. V088)		
CX-Motion-NCF Operation Manual (Cat. No. W436)		
CX-Motion-MCH Operation Manual (Cat. No. W448)		
CX-Position Operation Manual (Cat. No. W433)		
CX-Drive Operation Manual (Cat. No. W453)		
CX-Protocol Operation Manual (Cat. No. W344)		
CX-Profibus Operation Manual (Cat. No. W05E-EN)		
CX-Process Tool Software Operation Manual (Cat. No. W372)		
Faceplate Auto-Builder for NS Operation Manual (Cat. No. W418)		
Smart Function Blocks Reference Manual (Cat. No. W442)		
Smart Active Parts Reference Manual (See note.)		
CX-Thermo Operation Manual		Online help only
Software License Agreement/User Registration Card		1

Note PDF manuals are provided for each Unit.



Note The license number required for installation is printed on the Software License Agreement/User Registration Card. Place this card in a safe place and be sure not to lose the license number.

1-2-2 User Registration

Always perform user registration before using the CX-One.

Online User Registration (Internet Connection Required)

Registering from the Online Registration Dialog Box

- 1,2,3... 1. The following Online Registration Dialog Box will be displayed after when computer is restarted upon completion of CX-One installation.



2. Click the **Register** Button. A wizard will connect you to the OMRON CX-One website. (See note.)

Note If the **Exit** Button is clicked to cancel online registration, the Online Registration Dialog Box will be displayed every time Support Software in CX-One is started.

3. Enter the information required for user registration according to the site windows. Use the product key and license number given on the Software License Agreement/User Registration Card provided with the CX-One.
4. After completion of registration, registration confirmation will be sent to the email address input during the registration procedure.

Note The Online Registration Dialog Box will be displayed even if online registration has already been completed. If this happens, select the *Do not display this dialog again* option and click the **Exit** Button. Also use this procedure in the following cases.

- The Windows login name is different from the registered name.
- User registration was performed using the User Registration Postcard.

Online Registration from the CX-Programmer or other Support Software in CX-One

OMRON's CX-One website will be displayed if **Help - Online Registration** is selected from the menu bar of CX-Programmer or other Support Software in CX-One. Enter the information required for user registration according to the site windows. Use the product key and license number given on the Software License Agreement/User Registration Card provided with the CX-One.

Note Do not register more than once. For example, if you're returned the card, do not register online.

Using the User Registration Postcard

Enter the required information on the User Registration Postcard provided with the CX-One and send the card.

Note Approximately two weeks will be required from the time the User Registration Postcard is posted until confirmation of registration is returned to you. Downloading OMRON Standard Libraries and other operations allowed only for registered users will not be possible during this period.

1-3 Support Software in CX-One

1-3-1 Support Software in CX-One and Reference Manuals

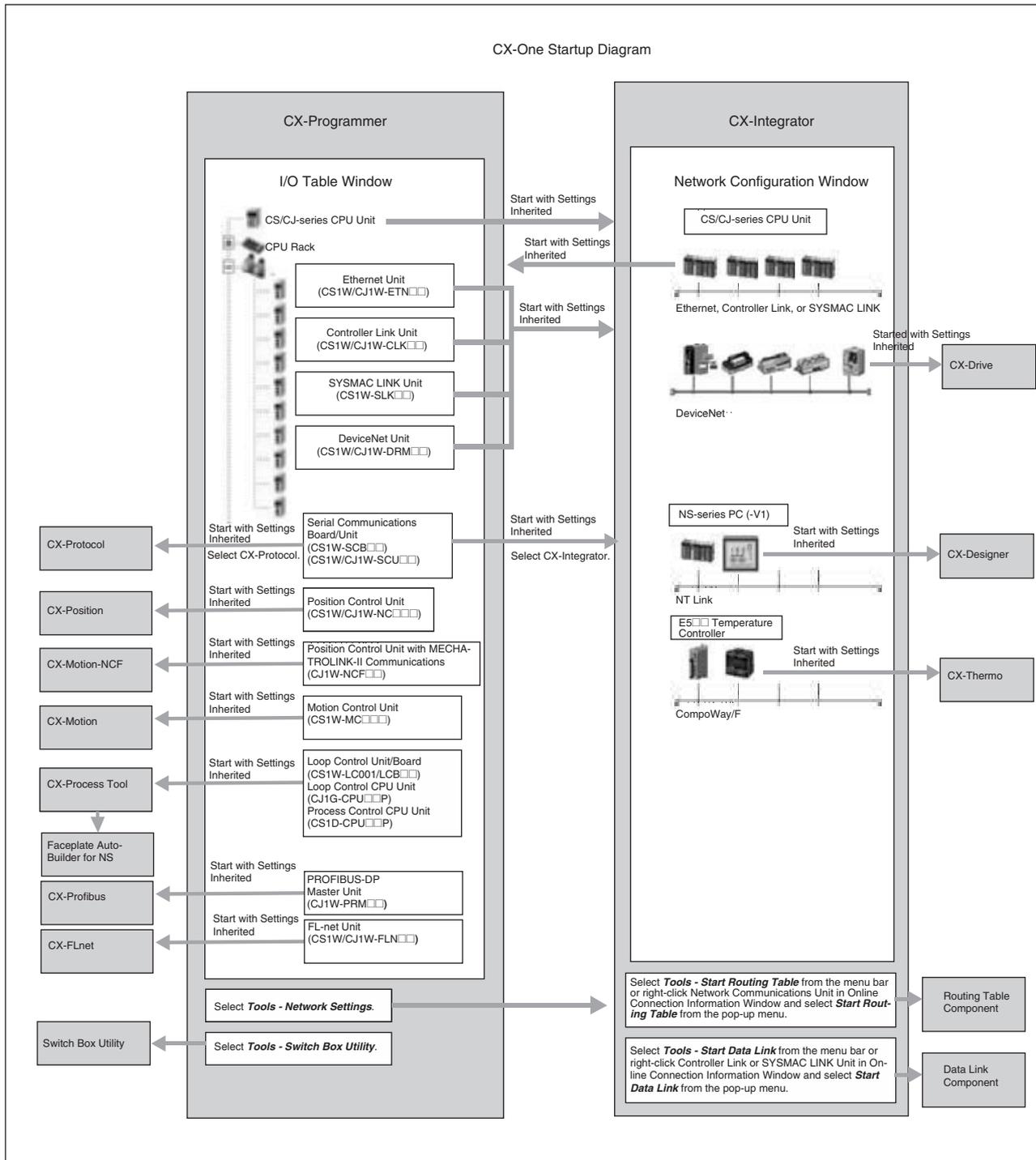
The following tables lists the Support Software that can be installed from CX-One along with the startup methods and the reference manuals for each.

Support Software in CX-One	Outline	Startup method within CX-One	Documentation (PDF manuals provided in CD-ROM)
CX-Programmer	Application software to create and debug programs for SYSMAC CS/CJ/CP-series, C-series, and CVM1/C-series CPU Units.	Started from a PLC in the CX-Integrator Network Configuration Window.	CX-Programmer Operation Manual (Cat. No. W446) CX-Programmer Operation Manual: Function Blocks (Cat. No. W447)
CX-Integrator	Application software to build and set up FA networks, such as Controller Link, DeviceNet, and CompoWay/F networks. The Routing Table Component and Data Link Component can be started from here. DeviceNet Configuration functionality is also included.	Started by selecting Tools - Network Settings from the CX-Programmer menu bar or from a CPU Unit in the CX-Programmer I/O tables.	CX-Integrator Operation Manual (Cat. No. W445)
Switch Box Utility	Utility software that helps you to debug PLCs. It helps you to monitor the I/O status and to monitor/change present values within the PLC you specify.	Started from the CX-Programmer Tools Menu.	Online Help
CX-Protocol	Application software to create protocols (communications sequences) between SYSMAC CS/CJ-series or C200HX/HG/HE Serial Communications Boards/Units and general-purpose external devices.	Started from a Serial Communications Board or Unit in the CX-Programmer I/O tables.	CX-Protocol Operation Manual (Cat. No. W344)
CX-Simulator	Application software to simulate SYSMAC CS/CJ/CP-series CPU Unit operation on the computer to debug PLC programs without a CPU Unit.	---	CX-Simulator Operation Manual (Cat. No. W366)
CX-Position	Application software to create and monitor data for SYSMAC CS/CJ-series Position Control Units.	Started from a Position Control Unit in the CX-Programmer I/O tables.	CX-Position Operation Manual (Cat. No. W433)
CX-Motion-NCF	Application software to monitor and set parameters for SYSMAC CJ-series Position Control Units and Servo Drivers that support MECHATROLINK-II communications.	Started from an NCF Position Control Unit in the CX-Programmer I/O tables.	CX-Motion-NCF Operation Manual (Cat. No. W436)

Support Software in CX-One	Outline	Startup method within CX-One	Documentation (PDF manuals provided in CD-ROM)
CX-Motion-MCH	Application software to create data for SYSMAC CS/CJ-series MCH Units, create motion programs, and perform monitoring.	Started from a Motion Control (MCH) Unit in the CX-Programmer I/O tables.	CX-Motion-MCH Operation Manual (Cat. No. W448)
CX-Motion	Application software to create data for SYSMAC CS/CJ-series, C200HX/HG/HE, and CVM1/CV-series Motion Control Units, and to create and monitor motion control programs.	Started from a Motion Control Unit in the CX-Programmer I/O tables.	---
CX-Drive	Application software to set and control data for Inverters and Servos.	Started from an Inverter or Servo in the CX-Integrator Network Configuration Window.	CX-Drive Operation Manual (Cat. No. W453)
CX-Process Tool	Application software to create and debug function block programs for SYSMAC CS/CJ-series Loop Controllers (Loop Control Units/Boards, Process Control CPU Units, and Loop Control CPU Units).	Started from a Loop Controller in the CX-Programmer I/O tables.	CX-Process Tool Operation Manual (Cat. No. W372)
Faceplate Auto-Builder for NS	Application software that automatically outputs screen data as project files for NS-series PTs from tag information in function block programs created with the CX-Process Tool.	Started by selecting <i>Execute - Create Tag File - Start NSFP</i> from the CX-Process Tool menu bar (starts automatically after execution of the CSV tag compiler).	Faceplate Auto-Builder for NS Operation Manual (Cat. No. W418)
CX-Designer	Application software to create screen data for NS-series PTs.	Started from a NS-series PT in the CX-Integrator Network Configuration Window.	CX-Designer User's Manual (V088)
CX-Profibus	Application software for setting the PROFIBUS master.	Started from a PROFIBUS-DP Unit in the CX-Programmer I/O tables	CX-Profibus Operation Manual (Cat. No. W05E-EN)
CX-Thermo	Application software to set and control parameters in components such as Temperature Control Units.	Started from a E5□R, E5□N, or E5ZN Temperature Control Unit in the CX-Integrator Network Configuration Window.	Online Help
CX-FLnet	Application software for system setting and monitoring of SYSMAC CS/CJ-series FLnet Units	Started from a FLnet Unit in the CX-Programmer I/O tables.	---
CX-Server	Middleware necessary for CX-One applications to communicate with OMRON components, such as PLCs, Display Devices, and Temperature Control Units.	---	---
PLC Tools (Installed automatically.)	A group of components used with CX-One applications, such as the CX-Programmer and CX-Integrator. Includes the following: I/O tables, PLC memory, PLC Setup, Data Tracing/Time Chart Monitoring, PLC Error Logs, File Memory, PLC clock, Routing Tables, and Data Link Tables.	Components are started from the various Support Software.	Refer to documentation of individual Support Software.

1-3-2 Starting Support Software in CX-One

Support Software in CX-One can be started from the I/O tables in the CX-Programmer, from the Network Configuration Window in the CX-Integrator, or from the Tools Menus as shown in the following diagram. This is called the Specialized Support Tool startup function and it is enabled when the CX-Programmer and other Support Software is installed from the CX-One.



Starting while Inheriting Settings

- Setting the device type is not required every time different Support Software is started.
- The online connection is also inherited by the newly opened Support Software.
- New project files are automatically created for the newly opened Support Software.

Starting with or without Inheriting Settings

If **Open - Save As** is selected after starting Support Software, the save to folder will be the same as the one used with the CX-Programmer.

1-4 System Requirements

1-4-1 System Requirements

The system requirements for the CX-One are given in the following table.

Item	Requirement			
Operating system (OS) (See note 1.) Japanese or English system	Microsoft Windows 98SE	Microsoft Windows NT (Service Pack 6a)	Microsoft Windows 2000 (Service Pack 3 or higher) or Microsoft Windows Me	Microsoft Windows XP
Computer	IBM PC/AT or compatible with a Pentium II 333 MHz or faster processor (Pentium III 1 GHz or faster recommended.)			
Memory	256 MB minimum (See note 2.)			
Hard disk	Approx. 1.8 GB or more available space is required to install the complete CX-One package.			
Display	SVGA (800 × 600) or better high-resolution display with 256 colors min.			
Disk drive	CD-ROM drive			
Communications ports	One RS-232C port min. (See note 3.)			
Other	Internet access is required for online user registration, including a modem or other hardware connection method.			

Note**(1) CX-One Operating System Precaution**

The CX-One will not run on Microsoft Windows 95 or any other OS not listed above. If such an OS is being used on the client computer, the OS must be upgraded before installing the CX-One. System requirements and hard disk space may vary with the system environment.

(2) The amount of memory required varies with the Support Software used in CX-One. Refer to user documentation for individual Support Software for details.**(3) An RS-232C port is required to connect the Support Software in CX-One to a PLC. If the computer provides only a USB port, use a CS1W-CIF31 USB-to-RS-232C Conversion Cable. For connecting to the CP Series, however, an over-the-counter USB cable (type A-B) can be used.**

1-4-2 Hard Disk Space Requirements for Support Software in CX-One

Support Software in CX-One	Approx. hard disk space required.	Remarks
CX-Programmer	Approx. 250 MB	Options can be selected or cleared to install or not install individual Support Software.
CX-Integrator	Approx. 100 MB	
CX-Position	Approx. 15 MB	
CX-Motion	Approx. 40 MB	
CX-Motion-NCF	Approx. 100 MB	
CX-Motion-MCH	Approx. 100 MB	
CX-Drive	Approx. 100 MB	
CX-Designer	Approx. 500 MB	
CX-Process Tool	Approx. 65 MB	
Faceplate Auto-Builder for NS	Approx. 50 MB	
CX-Protocol	Approx. 20 MB	
CX-Profibus	Approx. 10 MB	
CX-Simulator	Approx. 40 MB	
CX-Thermo	Approx. 20 MB	
CX-FLnet	Approx. 1 MB	
Switch Box	Approx. 5 MB	
CX-Server and PLC Tools	Approx. 300 MB	

Note If the complete CX-One package is installed, approximately 1.8 GB of hard disk space will be required (including workspace required for installation). Check available space on your hard disk before installing software.

SECTION 2

Installation and Uninstallation

This section describes how to install and uninstall the software provided in the CX-One.

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2-1 Installing the CX-One

2-1-1 Confirmations before Installation

Time Requirements

The CX-One FA Integrated Tool Package integrates all of the Support Software for OMRON PLCs and Components. If the complete CX-One package is installed, between approximately 15 and 40 minutes will be required for installation depending on the performance of the computer.

Example: The complete CX-One package can be installed in approximately 10 minutes with an Intel Celeron 2.2-GHz processor, 512 MB or RAM, and a 48X CD-ROM drive.

Precautions for Installation

- Close all programs running on Windows before starting the installation procedure.
- The CX-One cannot be installed from a network drive, such as a CD drive or hard disk drive shared on a network. Always install the CX-One from a CD drive on the computer onto which the software is being installed.
- Do not install onto a compressing drive. Recovery will not be possible if file corruption occurs.
- Do not stop the setup process in the middle. Copied files may remain in the installation directory.
- Do not turn OFF or reset the computer in the middle of the installation process. Computer data may become corrupted.
- The CX-One cannot be installed on Windows 95.
- For Windows 98, always use Windows 98 Second Edition.
- For Windows 2000, Service Pack 3 or later must be installed. The service pack can be confirmed by selecting **Start - Settings - Control Panel - System**. The service pack will be displayed under *System* on the General Tab Page of the System Properties Dialog Box. If a service pack is not displayed, no service pack has been installed. Refer to Microsoft's website for service pack installation methods.
- On Windows NT 4.0, 2000, or XP, the administrator or a user with administrator rights must perform the installation. Other users will not have sufficient write permissions and access errors will occur.
- It may be necessary to restart Windows after finishing the installation. If required, restart Windows according to the messages displayed by the Installer.

Note Internet Explorer version 5.0 or higher must be installed in advance to use the CX-Server Installer. Install Internet Explorer version 5.0 in advance if it is not already installed.

2-1-2 Installing the CX-One

The following procedure is for installing the CX-One when none of the Support Software in the CX-One has been previously installed.

Note If the complete CX-One package is installed, approximately 1.8 GB of hard disk space will be required (including workspace required for installation). Check available space on your hard disk before installing software.

- 1,2,3...**
1. Insert disk 1 of the CX-One installation disks (CD-ROM) into the CD-ROM drive.

- The setup program will start automatically and the Choose Setup Language Dialog Box will be displayed.



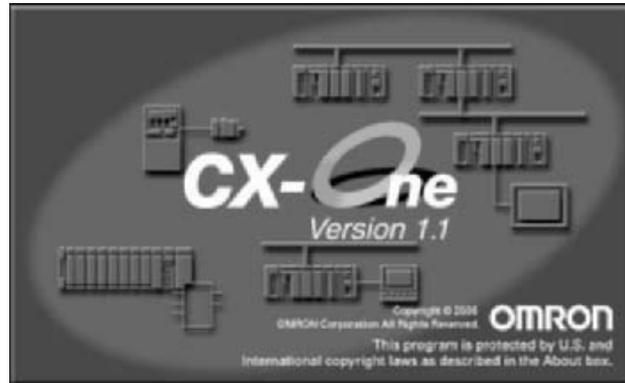
The language of the operating system running on the computer will be selected automatically.

If the above dialog box is not displayed, double-click the CD-ROM driver from the Explorer to display it.

Select the language to be installed and then click the **OK** Button.

Note Only the CX-Programmer supports languages other than English and Japanese (including Italian, Spanish, German, French, and Chinese). If any language other than English or Japanese is selected, the CX-Programmer will be installed in the selected language and all other software will be installed in English (United States).

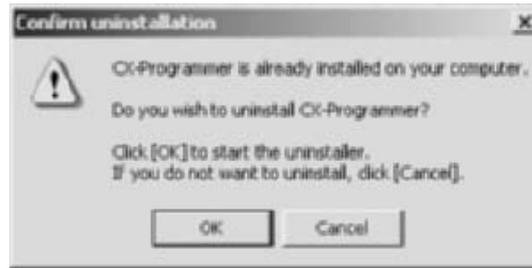
When the **OK** Button is clicked, a splash window for the CX-One will be displayed, followed by the Setup Wizard.



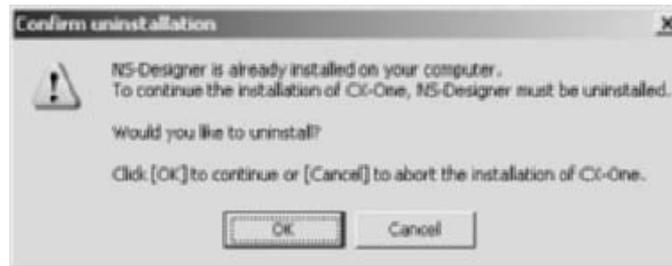
- If the CX-Server is already installed on the computer, the following dialog box will be displayed as a prompt to delete the older version of the CX-Server.

Click the **OK** Button and uninstall the CX-Server. If the **Cancel** Button is clicked, CX-One installation will be exited.

If an earlier version of any of the Support Software is already installed in the computer, one of the following dialog boxes will be displayed.

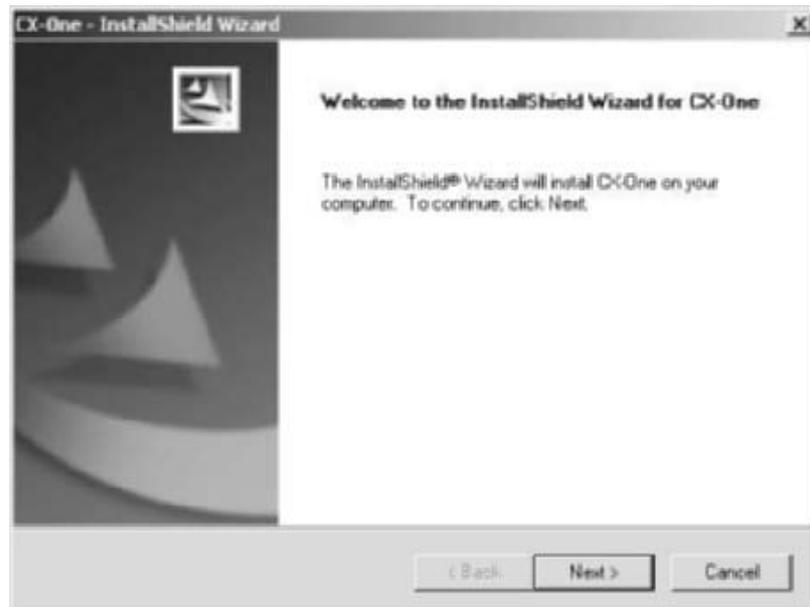
Dialog Box When an Earlier Version of the CX-Programmer Is Installed

Click the **OK** Button and uninstall the earlier version of the CX-Programmer. If the **Cancel** Button is clicked, CX-One installation will continue without uninstalling the earlier version of the CX-Programmer. This would result in there being two versions of the CX-Programmer installed at the same time, so we recommend always clicking the **OK** Button.

Dialog Box When an Earlier Version of Other Support Software Is Installed

Click the **OK** Button and uninstall the earlier version of the Support Software. If the **Cancel** Button is clicked, CX-One installation will be canceled.

4. The CX-One Setup Wizard will be started. Click the **Next** Button.



- 5. The License Agreement Dialog Box will be displayed.



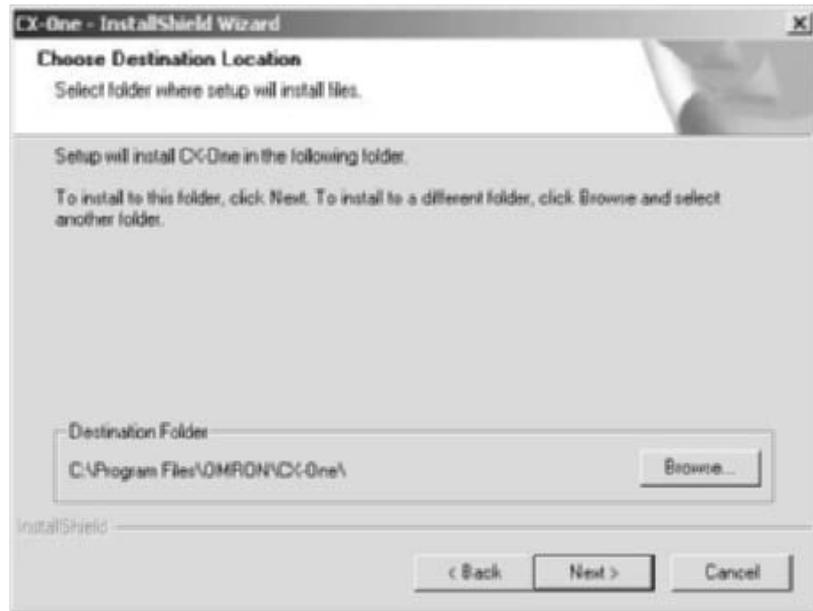
Read the license agreement completely and if you accept all of the terms, select the *I accept the terms of the license agreement* Option and click the **Next** Button.

- 6. The User Information Dialog Box will be displayed.



The default names registered in the computer will be entered for the user name and company name. Enter the license number and click the **Next** Button. The license number is given on the Software License/Registration Card provided with the product.

- The Choose Destination Location Dialog Box will be displayed.



Select the destination location and click the **Next** Button. By default, the CX-One will be installed in C:\Program Files\OMRON\CX-One\.

- The Setup Type Dialog Box will be displayed.



Select the *Complete* or *Custom* Option and click the **Next** Button.

- Note**
- (1) CX-One installation will require approximately the same amount of time (approximately 15 to 40 minutes) regardless of whether *Complete* or *Custom* is selected. As a rule, select *Complete* and install the entire package at the same time provided that there is sufficient disk space available.

- (2) CX-Profibus will normally not be installed. Select *Custom* and then select *CX-Profibus* to install it.

The Select Features Dialog Box will be displayed if *Custom* was selected.



Note The above dialog box will not be displayed if *Complete* is selected. Proceed to step 9.

Select the features to be installed and click the **Next** Button.

Options

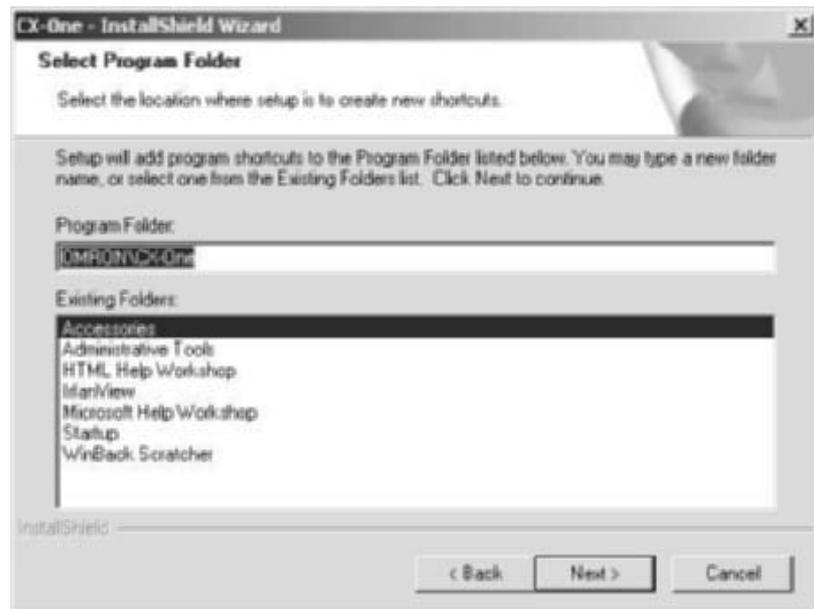
- CX-Programmer
- CX-Integrator
- CX-Designer
- CX-Position
- CX-Motion
- CX-Motion-NCF
- CX-Drive
- CX-Motion-MCH
- CX-Process
- Face Plate Auto-Builder for NS
- CX-Protocol
- CX-Thermo
- CX-Simulator
- SwitchBox
- CX-Profibus
- CX-FLnet
- CX-Server (Selected and grayed out.)
- PLC Tools (Selected and grayed out.)

9. If *Complete* was selected or if *Custom* was selected and the Smart FB Library feature was selected, the *Choose Destination Location of the OMRON FB Library* Dialog Box will be displayed.



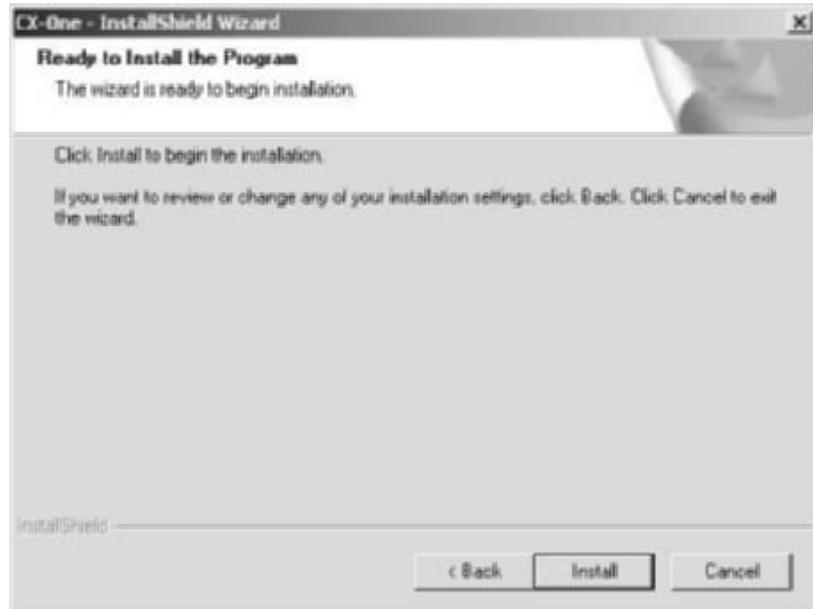
Check the destination location and click the **Next** Button. By default, the Smart FB Library will be installed in C:\Program Files\OMRON\CX-One\FBL.

10. The Select Program Folder Dialog Box will be displayed.



Specify the location to add a shortcut in the program folder of the Windows Start Menu and click the **Next** Button.

11. The Ready to Install the Program Dialog Box will be displayed.



Click the **Install** Button. The Installer will start the installation.

To check the installation settings, click the **Back** Button. To cancel installation, click the **Cancel** Button.

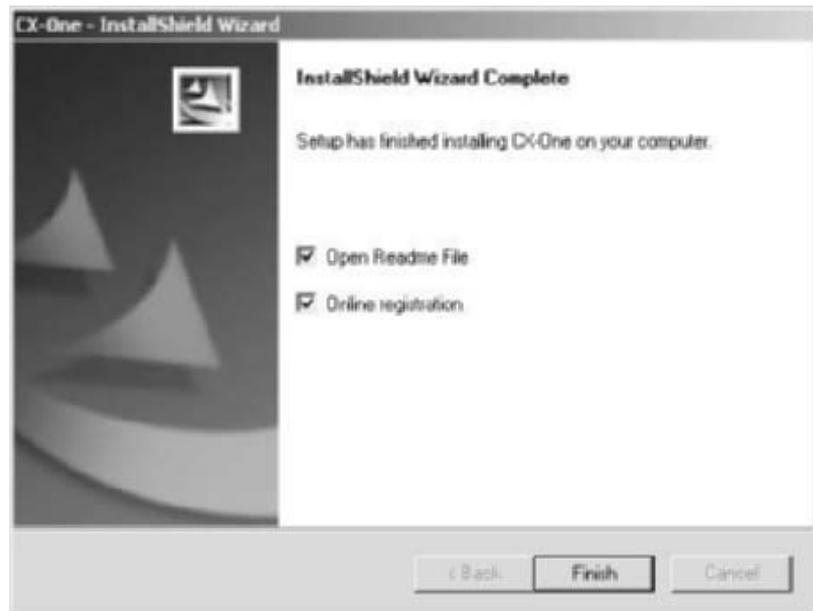
12. The following dialog box will be displayed. Replace the installation disk (CD-ROM) as instructed by the message and click the **OK** Button.



Alternatively:

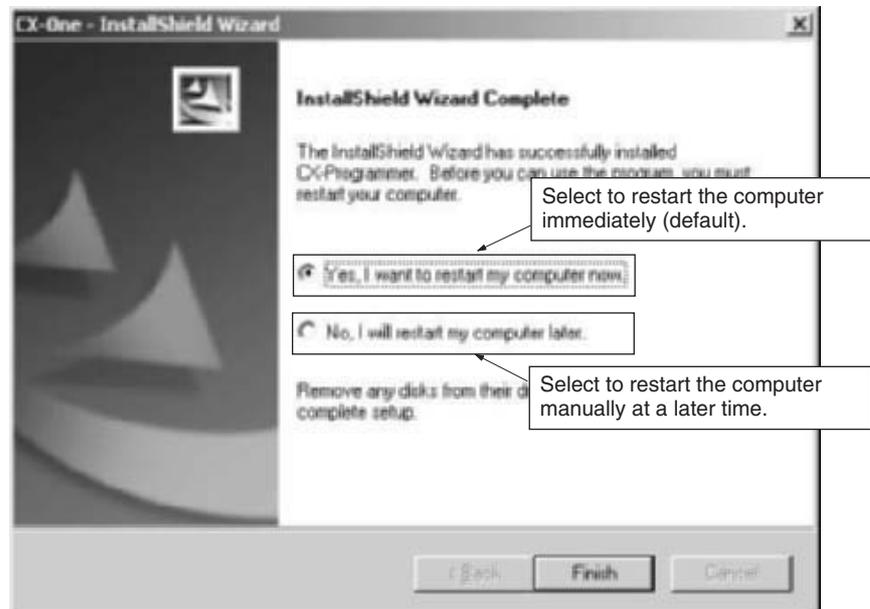


13. The following dialog box will be displayed when the Installer completes the installation.



Click the **Finish** Button. The Readme file will be displayed.

The following dialog box will be displayed if restarting the computer is required.



Select the desired option and click the **Finish** Button. If the *Yes, I want to restart my computer now* Option is selected, the computer will be restarted and then the Readme file will be displayed.

Note (a) It may be necessary to restart Windows after finishing the installation. If required, restart Windows according to the messages displayed by the Installer.

(b) Always read the Readme.txt file before using the CX-One.

- The Online Registration Dialog Box will be displayed when the Readme file is closed.



A wizard will be started and will connect to the OMRON CX-One website if the **Register** Button is clicked. (See notes a and b.)

Note (a) If the **Exit** Button is clicked to cancel registration, the Online Registration Dialog Box will be displayed every time CX-One Support Software is started.

(b) Online installation will not be possible if the computer is not connected to the Internet. Enter the required information on the registration card and mail it in.

This completes installation of the CX-One.

- Note**
- Even if the previous versions for Support Software in the CX-One are uninstalled, the folders for the previous versions will remain in C:\Program Files\OMRON. By default, the project files and other files that were created by the Support Software (e.g., .cpx project files for CX-Programmer) will be in this directory. If this data is to be used by the CX-One, we recommended moving the files to suitable folders after installing CX-One.
 - Any OMRON Support Software or Communications Middleware that is not included in CX-One will remain installed on the hard disk even after the CX-One is installed. This will not create any particular problems.

Examples:

- DeviceNet Configurator (Support Software)
- FinsGateway (Communications Middleware)

2-2 CX-One Maintenance

The following maintenance can be performed once the CX-One has been installed.

- 1,2,3...**
- Modifying the installed Support Software in the CX-One
 - Re-installing the Support Software in the CX-One that was previously installed
 - Removing all the Support Software in the CX-One

2-2-1 Modifying the Installed Support Software in the CX-One

The CX-One Support Software that is installed can be modified using the following procedure.

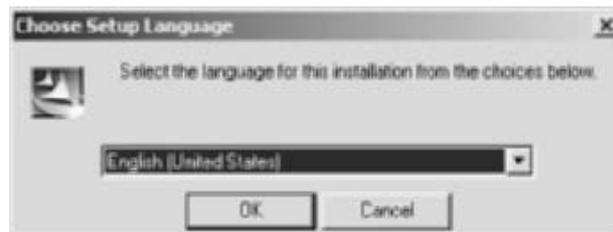
- Note** Whenever installing from an individual Support Software CD-ROM any Support Software that has previously been installed from the CX-One Package, always uninstall the previous Support Software first. Use the following procedure and clear the selection for only the individual Support Software to be reinstalled. When the installation procedure has been completed, then install the Support Software from the individual Support Software CD-ROM. The

Support Software will not operate properly if it is installed without first uninstalling it.

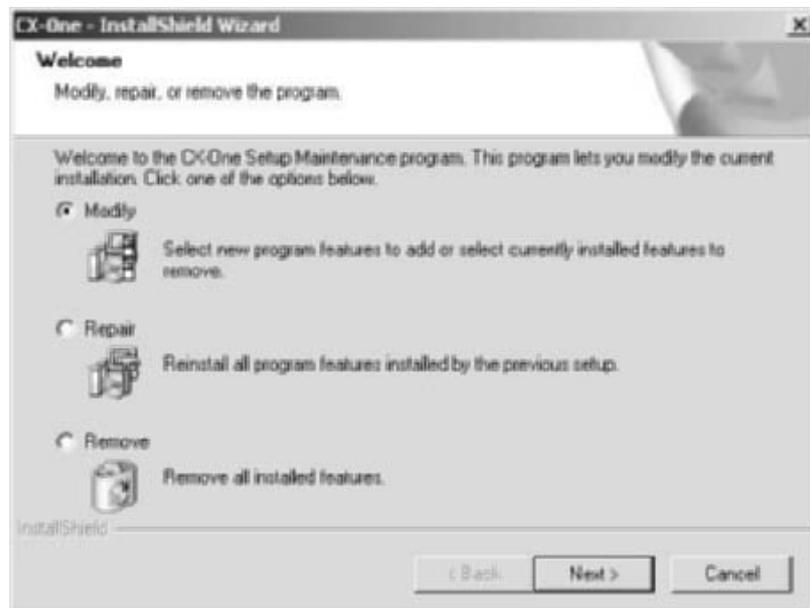
If the version of the CX-Server on the individual Support Software CD-ROM is lower than the version of the CX-Server bundled with the CX-One, install only the CX-Position and NOT the CX-Server. (A message will be displayed if the version is lower.) If a version of CX-Server that is lower than the version with the CX-One is installed, the CX-One will not operate properly.

1,2,3...

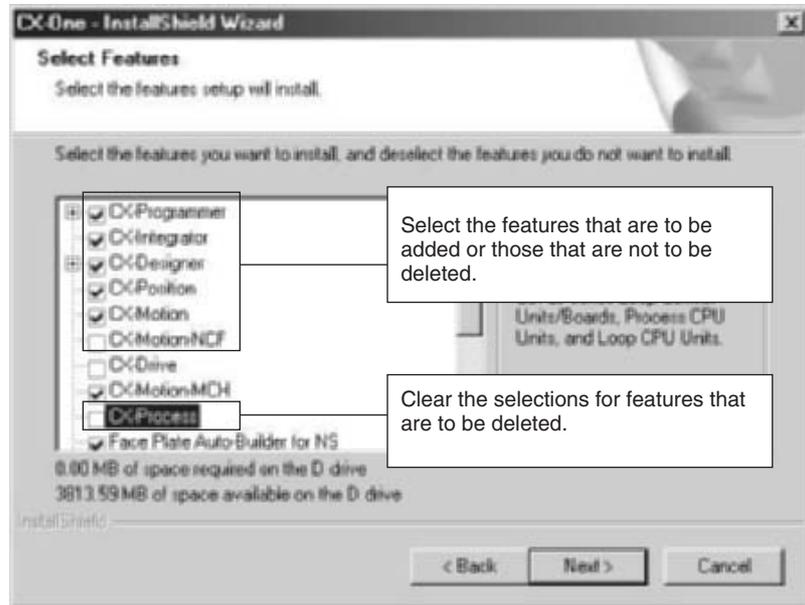
1. Insert disk 1 of the CX-One installation disks (CD-ROM) into the CD-ROM drive.
2. The Choose Setup Language Dialog Box will be displayed and the language of the operating system running on the computer will be selected automatically.
(If the following dialog box is not displayed, double-click the CD-ROM driver from the Explorer to display it.)
Select the language to be installed and then click the **OK** Button.



3. A splash window for the CX-One will be displayed, and the installation modification process will start.
4. The CX-One Maintenance Wizard will be displayed. Select the *Modify* Option and click the **Next** Button.



- The Select Features Dialog Box will be displayed. The features that are selected will change depending on the CX-One Support Software already installed in the computer. The CX-One installation will be modified according to the features selected here.



- Select the features to be added.
- Be sure that all features that are not to be deleted are selected.
- Clear the selections for features to be removed.

Note Any Support Software feature that is not selected here will be deleted from the compute. Check the selections carefully.

Click the **Next** Button.

The CX-One installation will be modified according to the feature selections. Continue with the installation procedure according to the messages displayed by the Installation Wizard.

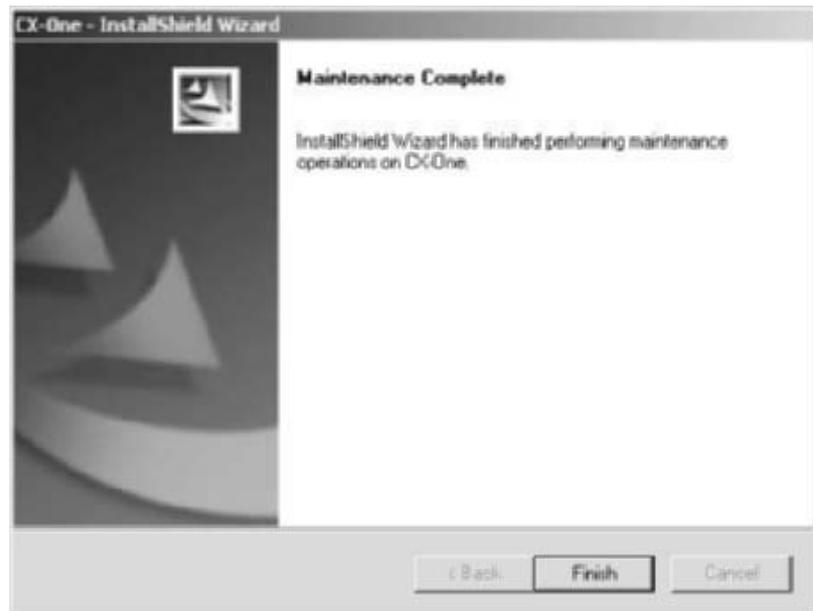
- If either of the following dialog boxes is displayed, replace the installation disk (CD-ROM) as instructed by the message and click the **OK** Button.



Alternatively:



7. The following dialog box will be displayed when the Installer completes modifying the installation. Click the **Finish** Button.



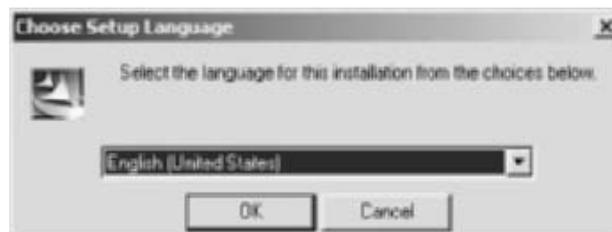
2-2-2 Re-installing the Support Software in the CX-One

The previously installed Support Software can be re-installed using the following procedure. This procedure should be used to restore a previous installation, e.g., if previously installed CX-One Support Software has been deleted by accident.

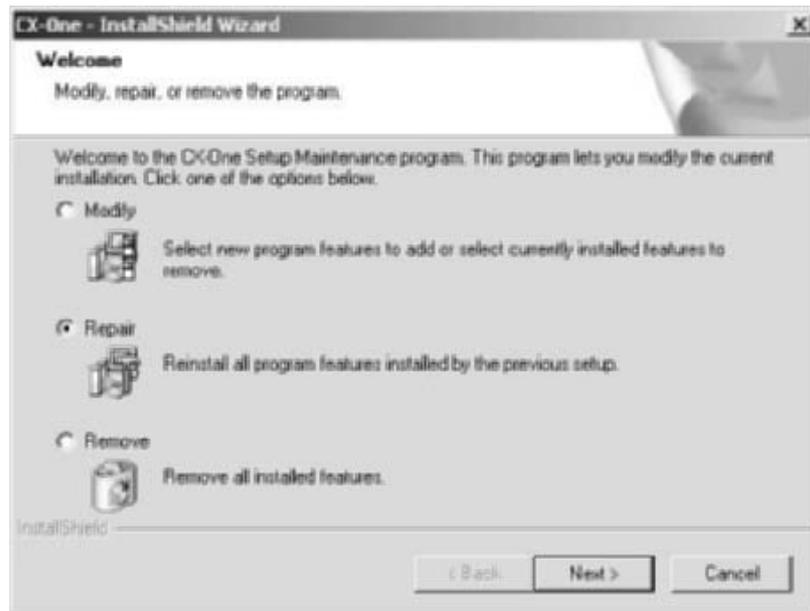
- 1,2,3... 1. Insert disk 1 of the CX-One installation disks (CD-ROM) into the CD-ROM drive.
2. The Choose Setup Language Dialog Box will be displayed and the language of the operating system running on the computer will be selected automatically.

(If the following dialog box is not displayed, double-click the CD-ROM driver from the Explorer to display it.)

Select the language to be installed and then click the **OK** Button.



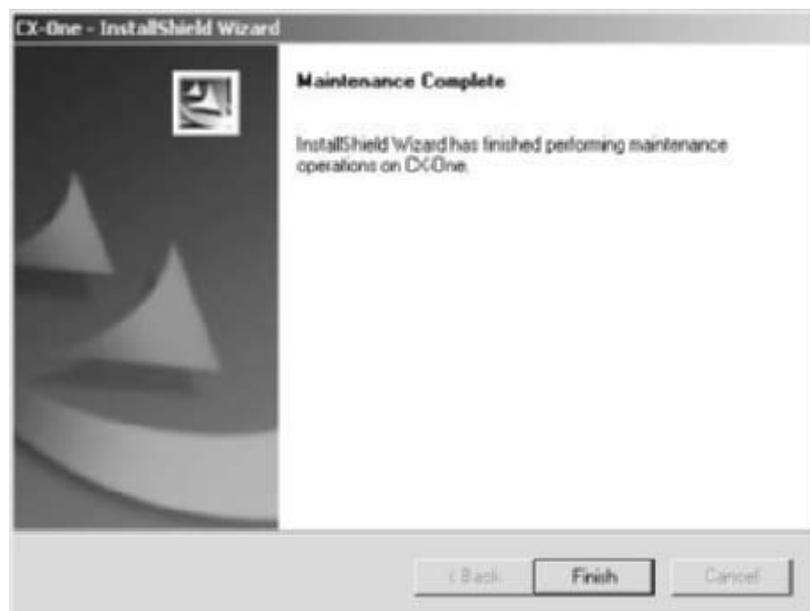
3. A splash window for the CX-One will be displayed, and the re-installation process will start. The CX-One Installation Wizard will be displayed.



Select the *Repair* Option and click the **Next** Button.

The previously installed CX-One Support Software will be re-installed. Continue with the installation procedure according to the messages displayed by the Installation Wizard.

4. The following dialog box will be displayed when the Installer completes re-installing the software. Click the **Finish** Button.

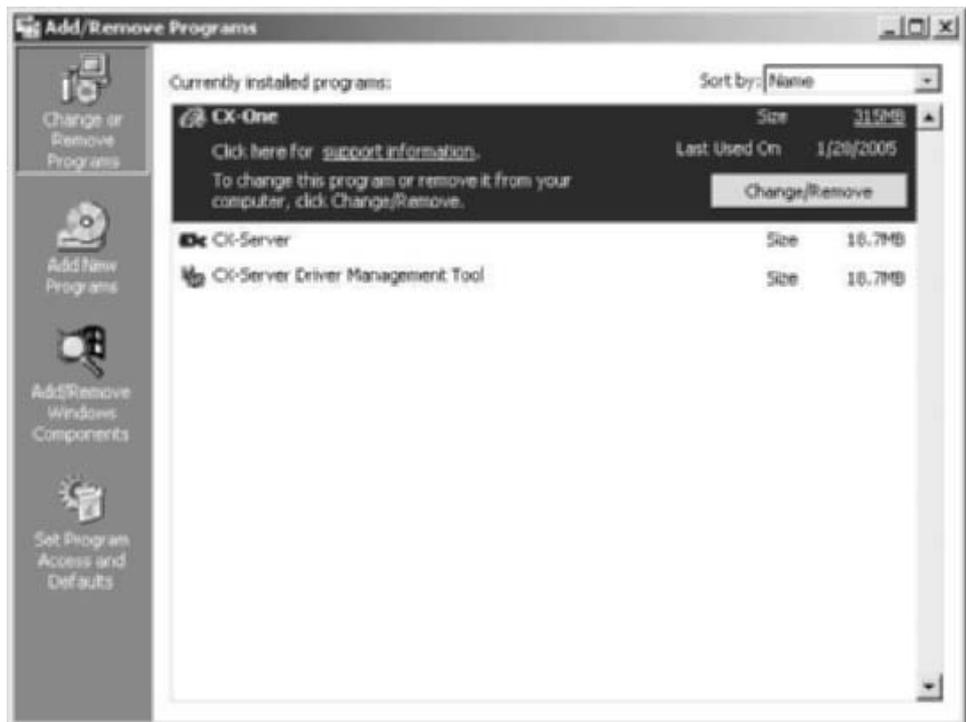


2-2-3 Removing all the Support Software in the CX-One

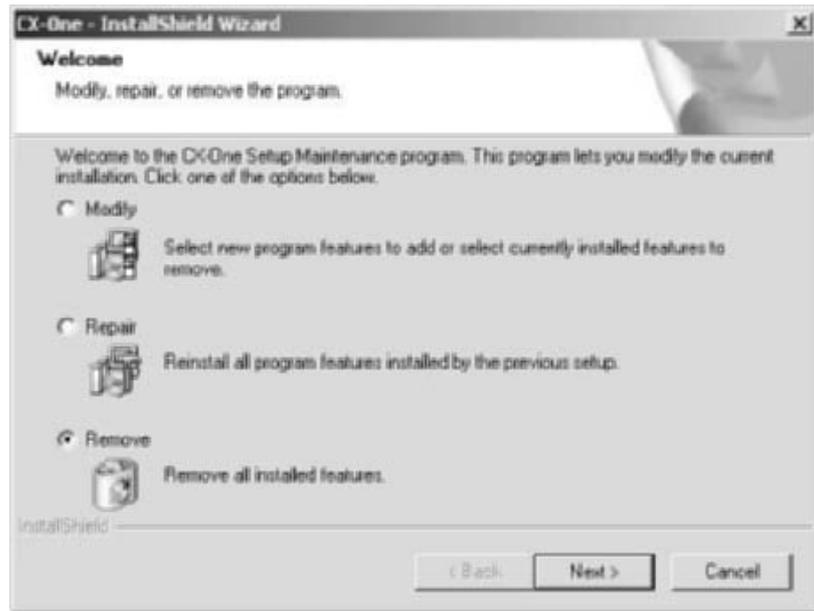
Use the following procedure to delete all of the Support Software in the CX-One from the computer.

Note The CX-Server will not be deleted from the computer even if all CX-One Support Software is deleted. The CX-Server must be uninstalled separately to delete it.

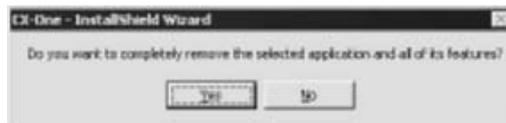
- 1,2,3...**
1. Select **Start - Settings - Control Panel - Add/Remove Programs**. The Add/Remove Programs Dialog box will be displayed.
 2. Select *CX-One* from the dialog box.
 3. Click the **Change/Remove** Button.



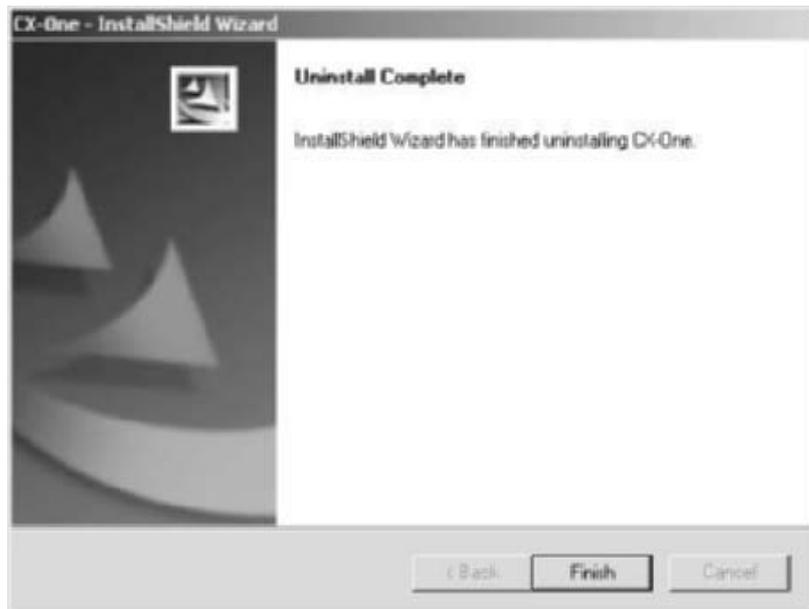
- 4. The CX-One Installation Wizard will be displayed. Select the *Remove* Option and click the **Next** Button.



- 5. The following dialog box will be displayed to confirm that all CX-One software is to be removed. Click the **Yes** Button to start the Uninstaller that will delete the CX-One and then follow the messages in the dialog boxes to delete the CX-One.



- 6. When the uninstallation has been completed, the following dialog box will be displayed. Click the **Finish** Button.



2-2-4 Uninstalling the CX-Server

Always uninstall the CX-Server Diver Management Tools before uninstalling the CX-Server.

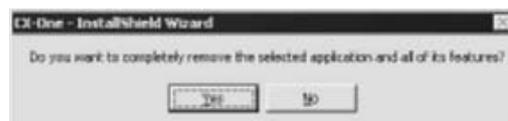
- Note**
- (1) Do not uninstall the CX-Server if there are other programs on the computer that use it as the communications driver, e.g., the CX-Programmer. If the CX-Server is uninstalled, it will no longer be possible to use these other programs.
 - (2) Do not uninstall the CX-Server while other programs that use it as the communications driver are running on the computer, e.g., the CX-Programmer. The CX-Server may not uninstall properly if other programs are using it.
 - (3) When uninstalling all of the CX-Server software, always uninstall the CX-Server Driver Management Tool before uninstalling the CX-Server. If the CX-Server is uninstalled first, it may no longer be possible to uninstall the CX-Server Driver Management Tool properly.

- 1,2,3... 1. Select **Start - Settings - Control Panel - Add/Remove Programs**. The Add/Remove Programs Dialog Box will be displayed.



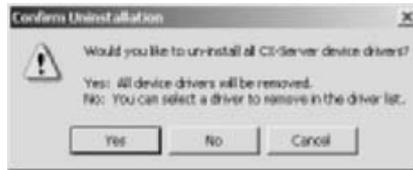
Select *CX-Server Driver Management Tool* from the dialog box and click the **Change/Remove** Button.

2. A file deletion confirmation dialog box will be displayed. Click the **Yes** Button.

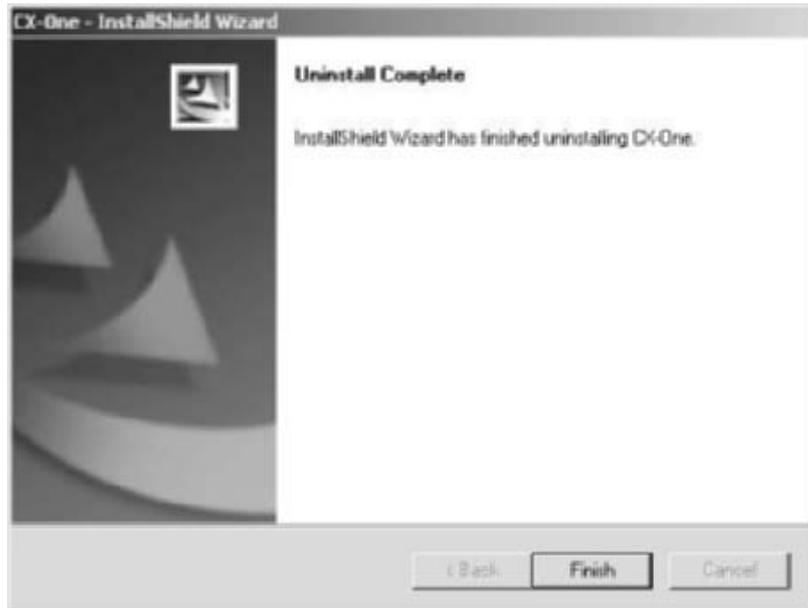


The CX-Server Driver Management Tool will be uninstalled.

3. An uninstall confirmation dialog box will be displayed. Click the **Yes** Button.



4. The CX-Server will be uninstalled.
When the uninstallation has been completed, the following dialog box will be displayed. Click the **Finish** Button. The Add/Remove Programs Dialog Box will be displayed again.

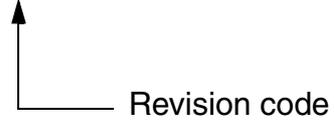


5. In the same way, select *CX-Server* from the Add/Remove Programs Dialog Box, click the **Change/Remove** Button, and uninstall the CX-Server by repeating steps 2 though 4.
6. Restart the computer when all programs have been uninstalled.

Revision History

A manual revision code appears as a suffix to the catalog number on the front cover of the manual.

Cat. No. W444-E1-02



The following table outlines the changes made to the manual during each revision. Page numbers refer to the previous version.

Revision code	Date	Revised content
01	February 2005	Original production
02	November 2005	Revisions for upgrading from CX-One Ver. 1.0 to Ver. 1.1.

Revision History

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