

# Getting Started

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## CIMPLICITY Manager

Version 2.60  
May 2002  
GFK-1779C



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[doc@gefedmonton.ge.com](mailto:doc@gefedmonton.ge.com)

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Congratulations on your purchase of CIMPLICITY Manager, the most powerful and flexible automation system management tool available today. With CIMPLICITY Manager, you can protect and coordinate all your projects throughout your system's life cycle. Version control, centralized storage, security, automatic backups and more—they're all covered.

CIMPLICITY Manager provides the following key features.

- **Centralized Storage & Version Control:** tracks projects, and safely stores previous versions. This ensures that everyone uses the correct files and databases, and virtually eliminates lost work.
- **Access Control:** allows only users with approved security to access or modify projects.
- **Audit Trailing:** tracks details of who did what, when they did it, and why.
- **Scheduler:** enables the automatic completion of repetitive tasks such as backups and compares, saving you valuable time.
- **Third-party project support:** with the use of scripting, allows you to manage projects from a variety of formats such as Modicon ProWORX, Logicmaster 9030 and 9070, or GE Fanuc CNC.
- **Factory Layouts:** allows you to organize your projects to better fit your company's structure, thus making it easier for users to navigate to a project.
- **Reporting Tools:** allows you to generate detailed reports of audit trails.

Because CIMPLICITY Manager uses Machine Edition technology, you can purchase other tools such as CIMPLICITY View (an HMI add-on) and CIMPLICITY Logic Developer - PC (a ladder editor add-on) to provide a truly integrated automation software solution. Contact an authorized GE Fanuc distributor for more information on these products.

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## SYSTEM REQUIREMENTS

CIMPLICITY Manager is made up of two parts: a Server and a Client. In a typical CIMPLICITY Manager setup, the Server portion is installed on one networked computer, and the Client portion on each computer that needs access to projects on the server.

To use CIMPLICITY Manager and its tools, you require the following:

### CIMPLICITY Manager Server

- Windows NT4 workstation or server (version 4.0 with service pack 4 or later), Windows 2000 Professional, Windows 2000 Server, or Windows XP
- Internet Explorer™ version 5.5 or later
- Pentium II 450 MHz (1 GHz recommended)
- 100 MB free hard disk space *plus* disk storage for your project files (it is recommended that you start with at least 1 GB)
- 256 MB RAM (512 MB RAM recommended)
- TCP/IP Network protocol
- Microsoft Visual SourceSafe™ 6.0

### CIMPLICITY Manager Client

- Windows 98 SE, Windows NT4 workstation (version 4.0 with service pack 4 or later), Windows 2000 Professional, Windows XP, or Windows ME
- Pentium 250 MHz (1 GHz recommended)
- 50 MB free hard disk space *plus* disk storage for your project files (it is recommended that you start with at least 500 MB)
- 128 MB RAM (256 MB RAM recommended)
- TCP/IP Network Protocol
- Internet Explorer™ version 5.5 or later

### Scheduler

- Windows 98SE, Windows NT 4.0 workstation, Windows 2000 Professional, Windows XP, or Windows ME
- Pentium 166 MHz (Pentium II 300 MHz recommended)
- 30 MB hard disk space
- 64 MB RAM (128 MB recommended)
- TCP/IP Network Protocol

*For Windows NT4:*

- Windows NT version 4.0 or later with service pack 4 or later

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## INSTALLATION

A typical CIMPLICITY Manager system consists of a CIMPLICITY Manager Server on a dedicated network computer, and a Client on each computer that requires access to projects on the server. (You can also install a Client on the same computer as the Server.)

- The following installation procedures assume this is a brand-new installation of CIMPLICITY Manager. If you are upgrading from a previous version of CIMPLICITY Manager or fxManager, look in Manager's "Release Notes" section in the Important Product Information (IPI) document, IPIcimME.chm. A link to this document can be found in the root folder of the CIMPLICITY Manager installation CD.

### To install CIMPLICITY Manager Server


The Server stores and manages the project database, which is kept under Version and Access Control. The CIMPLICITY Manager Server uses Microsoft Visual SourceSafe (a proven, reliable management program) for its version control system.

1. **On the computer that is to be the Server, insert the CIMPLICITY Manager CD into your CD-ROM drive.**

Windows automatically starts the setup program. If the setup program does not automatically start, run Manager.exe in the root directory of the CD.

2. **Click *Install CIMPLICITY Manager*. The Machine Edition Setup dialog box appears.**

3. **Select the CIMPLICITY Manager Server option.**

The icon next to the feature option indicates the install state of the feature. Click the icon to drop down the install state menu for each feature. This icon, , means the feature will be completely installed to the local hard drive. If you do not want any other features installed to the CIMPLICITY Manager server computer, deselect the remaining options.

You will also be asked if you want to search for existing Audit Trail database files. You only need to do so when upgrading from a previous version with Audit Trail database files stored in a different location than the default.

4. **When the CIMPLICITY Manager Server Configuration Utility appears, click *OK* to accept the default settings.**

You should not change any of the information specified in this utility unless the SourceSafe database or Audit Trail database is moved from its default location.


### What to do next?

Install CIMPLICITY Manager Clients.

The CIMPLICITY Manager Server also has to be authorized before you can use it. For details on authorizing, see "Product Authorization" on page 6.

If you intend on using Audit Trailing, share the Audit Trail database folder on the CIMPLICITY Manager Server with “Read” permissions. This allows users to read audit trail data. The default directory path for the CIMPLICITY Manager Server is “\Program Files\CIMPLICITY Machine Edition\fxManager\Server”.

### **To install CIMPLICITY Manager Client**

1. **On the Client computer, insert the CIMPLICITY Manager CD into your CD-ROM drive.**  
Windows will automatically start the setup program. If the setup program does not automatically start, run Manager.exe in the root directory of the CD.
2. **Click *Install CIMPLICITY Manager*. The Machine Edition Setup dialog box appears.**
3. **Select the CIMPLICITY Manager Client option.**  
The icon next to the feature option indicates the install state of the feature. Click the icon to drop down the install state menu for each feature. This icon, , means the feature will be completely installed to the local hard drive. Deselect the CIMPLICITY Manager Server option.
4. **Select the product modules to which you want to have access within CIMPLICITY Manager.**
5. **Click *Next* and follow the instructions on the screen.**

### **What to do next?**

In CIMPLICITY Manager’s Access Control folder, add users to the CIMPLICITY Manager user list. This should be performed by the CIMPLICITY Manager Administrator.



- For more details, see Chapter 3 on page 29, or look up “Access Control: an Overview” in the online help.

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## USING MANAGER FOR THE FIRST TIME

When you use CIMPLICITY Manager for the first time, the CIMPLICITY Manager administrator must set up users, and assign passwords to allow them to access the CIMPLICITY Manager database stored on the Server.

### To start CIMPLICITY Manager

1. Click  **Start**, then go to Programs/CIMPLICITY Machine Edition. Click  **CIMPLICITY Machine Edition**.  
The CIMPLICITY Manager Log On dialog box appears.
2. **Log on as "Administrator"**.  
Leave the password field blank.
3. **Enter the name of the computer where the Server is installed and click OK.**
4. **If asked to select a Theme, choose Manager Administrative and click OK.**  
Themes are pre-configured sets of tools, toolbars, and other options that are suitable for a specific product or type of user.
5. **When CIMPLICITY Manager starts, set up a unique password for the Administrator user in the Access Control folder, located in the Manager tab of the Navigator.**  
You must check out the Access Control folder to edit or configure users, groups or permissions.  
The Administrator user should always have full access to CIMPLICITY Manager and its databases.
6. **Add users to the Access Control folder and assign them unique names and passwords.**  
The users you configure are associated with the Server you're logged on to.
7. **Set up groups, configure their access permissions, then assign users to groups.**

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 **Want to know more?** In the Help Index, look up access and choose "Access Control: an Overview".

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8. **Depending on the custom project modules you installed, you may need to perform additional, site-specific modifications.**  
For details, look in Manager's "Release Notes" section in the Important Product Information (IPI) document, IPICimME.chm. A link to this document can be found in the root folder of the CIMPLICITY Manager installation CD.
9. **When any site-specific modifications are complete, make sure you check in all changed setting files under the "Custom Project Settings" folder in the Manager tab of the Navigator. You only need do this from one CIMPLICITY Manager Client.**

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## PRODUCT AUTHORIZATION

You only need to perform this operation for CIMPLICITY Manager Server installations. You do not need to authorize your copy of the CIMPLICITY Manager Client. If you do not authorize your Server, you will only be able to use it for a four-day period. This procedure will only take a few moments and will allow you to take advantage of any product support for which you qualify. You will need to contact us by telephone, fax, or e-mail as part of the authorization process.

1. **Have your serial number(s) ready. The serial numbers can be found on the License Key sheet that came with your product.**
2. **Run the Product Authorization program from the Start menu/Programs/CIMPLICITY Machine Edition/Product Authorization.**

The Product Authorization dialog box appears.

3. **Click Software, and then click Add.**
4. **Select the method with which you are authorizing: Internet/E-mail, Phone/Fax or Disk. Click Next.**

If you select the Internet/E-mail option, an additional dialog box will appear. Choose Authorize through e-mail or Authorize through the World Wide Web. Click Next.

5. **Fill in the requested information. Fields that are identified with an asterisk (\*) must be filled in. Click Next. (If authorizing via the internet, you are taken to the authorization web page where the fields are located.)**

The screen that follows depends on the method you chose to authorize with in step 4.

- **Phone.** Phone the number listed on the screen to receive a new key code.
- **Fax.** Click Print FAX and fax the Product Authorization Request to us (our fax number will be on the print out). We will then reply by fax with your new key code(s).
- **Internet.** From the Authorization web page, click Submit Authorization. We will reply by e-mail with your new key code(s).
- **E-mail.** Click Authorize to e-mail us. We will reply by e-mail with your new key code(s).

Product Authorization is complete once you type in the new key code and it has been accepted.

## **To move the Server authorization to another computer**

You can only run the Server on the same computer that the Product Authorization was run on. If you want to change the Server computer, you will need to complete the following steps to move the authorization from one computer to another.

1. **Install the Machine Edition Server on the destination computer that the authorization will be moved to. Run the Product Authorization program from the Start menu/Programs/CIMPLICITY Machine Edition/Product Authorization.**  
The Product Authorization dialog box appears.
2. **Click Software.**  
There is a site code on the top right hand side of the screen. Write down this code carefully. It must be accurate for the move to work. You will need the Target Site Code when you move the authorized software from the source computer.
3. **Click Add.**  
The Product Authorization wizard appears.
4. **Click Authorize by disk.**  
At this point, you need to go to the source computer that has the authorized software, and move the authorization to a disk.
5. **On the original Server computer, run the Product Authorization program and click Software.**
6. **Click Move, then click OK. Enter the site code that you wrote down from the destination computer, then click Next. Verify that the site code is correct and click OK.**
7. **Insert a blank, formatted floppy disk into the floppy drive and click Next. The authorization code will be moved to the floppy disk and a dialog box should appear telling you it was successful. Click OK.**
8. **On the destination computer, insert the floppy disk into the computer's drive.**  
The screen should be asking you for an authorization disk.
9. **Click Next, then click Finish.**  
The product authorization program will tell you if the move was successful.
10. **Click OK.**  
The authorization has now been moved to the new computer.

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## TECHNICAL SUPPORT

Support is available to registered users at no charge for 90 days after purchase. A *Support and Free Enhancements (SaFE)* subscription can be purchased from your local GE Fanuc distributor if extended support is required.

If problems arise that can't be solved using the information in your product manual, online Help system, or the GE Fanuc Technical Advisor knowledge base, contact us by telephone, fax, or mail.

When contacting us, call from a telephone near your computer and have your CIMPLICITY Machine Edition software running. Have the following information handy to help us assist you as quickly as possible:

- The serial number from your installation CD case, and the Product name and version number from the Help>About dialog box.
- The brand and model of any hardware in your system.
- Operating system and version number.
- The steps you performed prior to the problem occurring.

### North America

**Support Hotline:** 1-800-GEFANUC (1-800-433-2682)

**Fax:** (780) 420-2049

**Internet:** <http://www.gefanuc.com>

**Email:** [support@gefanuc.com](mailto:support@gefanuc.com)

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**Mailing Address:** GE Fanuc Automation Latin America  
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### Europe

**Internet:** For up-to-date contact information, visit [www.gefanuc-europe.com](http://www.gefanuc-europe.com) and click on "Offices and Services".

For up-to-date technical information visit [www.gefanuc.com/support](http://www.gefanuc.com/support).

**E-mail:** [plc\\_europe@gefanuceur.ge.com](mailto:plc_europe@gefanuceur.ge.com)

# 2

## CIMPLICITY Manager Environment

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CIMPLICITY Manager uses Machine Edition technology to offer you a complete automation system management tool.

The first section in this chapter explains the CIMPLICITY Manager Server—the heart of a CIMPLICITY Manager system. The second section provides an overview of the Machine Edition Client. The third section provides some key Machine Edition concepts you'll need to know before you begin. When you're finished, you'll have a solid foundation for managing and working with projects under CIMPLICITY Manager.

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## THE CIMPLICITY MANAGER SERVER

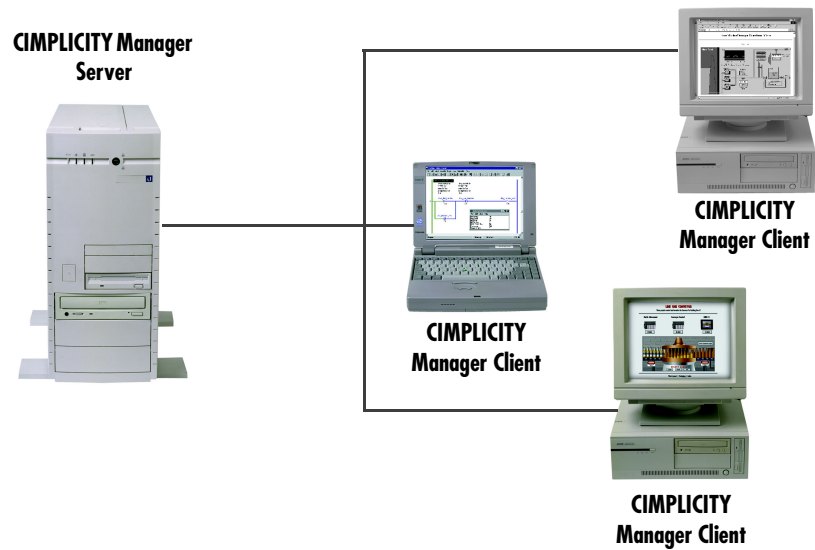
The Server is at the heart of CIMPLICITY Manager. All projects and settings, from user passwords to Scheduler events, are stored on the Server. This includes:

- All projects managed by CIMPLICITY Manager.
- Lists of users, groups, and permissions.
- Lists of Audit Trail settings.
- The Scheduler event list.
- Custom Project settings and scripts.
- Web-based Factory Layouts.

Most systems have only one Server. Other computers in the system run CIMPLICITY Manager as a *client*. The term *client* refers to its relationship with the Server: the Server gives (or “serves”) data upon requests from the client.

Technically, the term “Server” only refers to the module in the Machine Edition application that manages databases. However, in a typical automation management system, the term “Server” refers to the computer that the CIMPLICITY Manager Server application is running on. The following illustration depicts a typical Manager Client/Server system.

### Typical CIMPLICITY Manager System



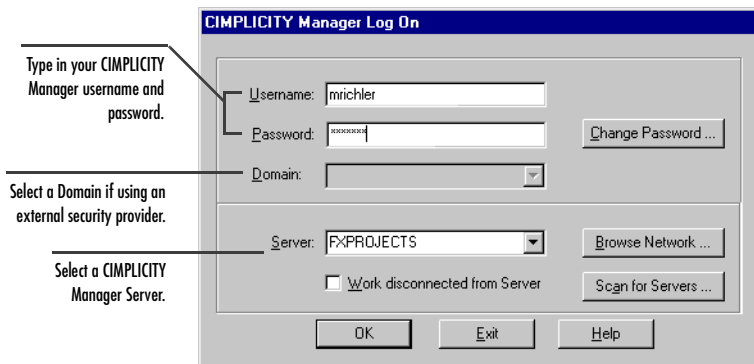
Probably the most important role the CIMPLICITY Manager Server performs is as a centralized storage place for your projects under Version Control. When users want to work on something stored on the CIMPLICITY Manager Server, they check out the item, make their changes, then check it back into the Server. For more information on Version Control, see “Version Control” on page 21.

## Logging on to CIMPLICITY Manager

When you start CIMPLICITY Manager, you must choose a Server and log on as one of the users in its user database. (If you haven't been added to the CIMPLICITY Manager Server, you can log on as a Guest user by entering the username “Guest”.) At this time, you also have the option of working *connected* or *disconnected* from the Server.

- If you are logging on to CIMPLICITY Manager for the first time, you have no choice—you must log on connected to the Server.

You can choose a different Server each time you log on, but each Server maintains separate user databases. This means an Administrator must add you as a user to all CIMPLICITY Manager Servers you'll be working on.



CIMPLICITY Manager Log On Screen

If your administrator has configured your system to use an external security provider (such as the Windows NT network's user accounts), this dialog box may not appear. Instead, CIMPLICITY Manager will use the user name of the user currently logged on to the local workstation.

## Working connected to the Server

If you choose to work *connected* to the Server, CIMPLICITY Manager establishes a communications link with the Server when you log on. It then copies and updates any necessary settings from the Server to the local client computer.

If anything changes on the Server while you're connected, you can update the lists immediately by right-clicking an item in the Navigator and selecting **Refresh**.

- Most operations that use the Server—such as checking items in and out—can only be performed while connected to the Server.



## Working disconnected from the Server

If you choose to work *disconnected* from the Server, CIMPLICITY Manager doesn't update any settings or project information in the server's database. The list of projects, Access Control settings, and everything else will be unchanged from the last time someone logged on to the Server from that computer. You can still work on projects and items that are checked out of the Server, or for which a local version exists on the client computer. However, you won't be able to check in anything until you connect to the Server again.


Since CIMPLICITY Manager doesn't have to update information across the network, working disconnected from the Server is usually faster than working connected. However, keep in mind the following:

- If an Administrator gives you a new security permission, this information won't be updated until you connect to the Server again.
- You can check out an item (such as the Access Control database, which stores security permissions for each user), restart CIMPLICITY Manager, and work on the item while disconnected from the Server. However, you should occasionally connect to the Server and check in the item so other users can make use of your changes.

## CIMPLICITY Manager Console

The CIMPLICITY Manager Console provides Administrators with a summary of the Server status. This includes how much disk space is used, how many projects are stored in the project database (sorted by project type), and other items. To access the CIMPLICITY Manager Console, in the  Utilities tab of the Navigator, double-click  Console.

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 **Want to know more?** In the Help Index, look up "CIMPLICITY Manager Console".

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# THE MACHINE EDITION ENVIRONMENT

CIMPLICITY Manager is a Machine Edition product and as such, is highly integrated with the Machine Edition environment. After you log on to CIMPLICITY Manager, the main Machine Edition window appears. All Machine Edition tools shared with CIMPLICITY Manager appear in the Machine Edition window.

The following illustration shows a possible layout of the tools. Most of the time, you'll only be using a few of these tools at once—you can open and close these tools as you need them.

Want to know more? In the Help Index, look up "Tools".

**Navigator:** organizes and displays project and setting information in a tree structure.

**Inspector:** displays the properties of a selected object.

**InfoViewer:** an embedded browser used to display Factory Layout pages and comprehensive help.

**Companion:** a dynamic help window that provides advice as you work.

**Feedback Zone:** displays output information generated by Machine Edition components.

The screenshot shows the CIMPLICITY Machine Edition - InfoViewer application window. On the left is a tree view (Navigator) showing a hierarchy of projects and settings. The main area is divided into three panes: Product Settings (Inspector), a central InfoViewer pane displaying the CIMPLICITY Machine Edition logo and navigation links (Logic Developer - State, PLC, PC, View, Motion, Manager), and a bottom pane (Companion) showing Scheduler Scripts. A Feedback Zone at the bottom right displays system messages.

## Machine Edition Tools

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## GETTING TO KNOW MACHINE EDITION





In this section, we'll talk briefly about some of the key tools and features of the Machine Edition environment that are used by CIMPLICITY Manager. Learning about them will make your first few hours with CIMPLICITY Manager a breeze.


### Right-click, right-click, right-click

No matter what object appears on your screen while using CIMPLICITY Manager, you can right-click it to perform operations on it. This is probably the most common way you'll get things done.

### Getting Help

There are many ways to access the online help system.

- Press F1 on any selected item for context-sensitive help.
- Browse through the table of contents in the  InfoView tab of the Navigator.
- Search for key words using the index: on the **Help** menu, select **Index**.
- Open the  Companion to dynamically display a brief description about whatever item is selected.
- Set the page that is currently displayed in the InfoViewer as your Home Page by clicking  (the house with a green star in the corner) on the InfoViewer toolbar. To return to that page later, click  (the house without a green star). You can also link these buttons to your own HTML pages.

If you want to set the home page back to its original page, look up "Help Home Page" in the help Index, and then click  (the house with a green star in the corner).

- If you are working on a computer with an active Internet connection, you can connect directly to helpful sites on the web. On the **Help** menu, point to **GE Fanuc on the Web**, then select **Technical Advisor** to visit GE Fanuc's Knowledge Base; or **GE Fanuc Home Page** to jump to the GE Industrial Systems home page.

Machine Edition provides two kinds of help windows to display help information: the **Companion** and the **InfoViewer**.

The screenshot shows the CIMPLICITY Manager Environment interface. The main window is titled "CIMPLICITY Machine Edition - [InfoViewer]". It features a menu bar (File, Edit, Search, Project, Target, Variables, Tools, Window, Help), a toolbar, and a left-hand tree view (Navigator) showing a hierarchy of settings including Projects, Access Control, Custom Project Settings, Modbus Plus Network, Factory Layouts, Audit Trail, Settings, Custom Projects, JobManager, Logic PC, Process Window, Project, ProWORX Nxt, Scheduler, View, Waltz, Reports, and Scheduler Event List. The main pane displays the "Scheduler Audit Trail Settings" dialog, which includes a table of properties (ChangeEventList, EventTrigger, StartStop) and descriptive text. A "Help" menu is open, showing "Ending Information" and "Index...".

**Callout 1:** The online help index allows you to search the entire help system using keywords.

**Callout 2:** The InfoViewer window is a browser that displays the comprehensive HTML-based online help.

**Callout 3:** For detailed context-sensitive help, select any item and press F1.

**Callout 4:** The InfoView Tab contains the table of contents for the online help. Double-click a page to view it.


**Callout 5:** Click this button to open the InfoViewer with more detailed information on the topic in the Companion.

**Callout 6:** The Companion is a dynamic help window that displays snippets of information on any selected item.


## Getting Help

### Companion

The Companion window displays brief information about whatever item you happen to be working with, anywhere in CIMPLICITY Manager. Whether you need the meaning of a property, or the purpose of a node in the Navigator, the Companion is always there for you.

The Companion is open by default, but if it isn't visible, click  on the Tools toolbar.

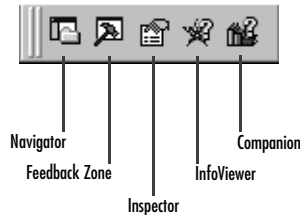
### InfoViewer

The InfoViewer window is an embedded HTML browser that provides more detailed and procedural help. It is launched whenever you access help topics from the InfoView Tab, the help index, or by pressing F1 on a selected item. Click  on the Tools toolbar to open the InfoViewer.

## Accessing the Right Tool

Often, Machine Edition help will direct you to a specific tool window. If the tool isn't visible, there are two ways to open it:

- Under the **Tools** menu, select the tool's name.
- On the Tools toolbar, click the tool's icon. To display the Tools toolbar, in the Options tab of the Navigator, select right-click Toolbars under the Machine Edition folder. Then, in the Inspector, set Tools to True.



### Tools Toolbar

If you are not sure of the name of a tool within a toolbar, hover the mouse over top of the tool to display its name in a tool tip. (Note that if you installed other CIMPLICITY Machine Edition products, you may have more available tools than those pictured.)

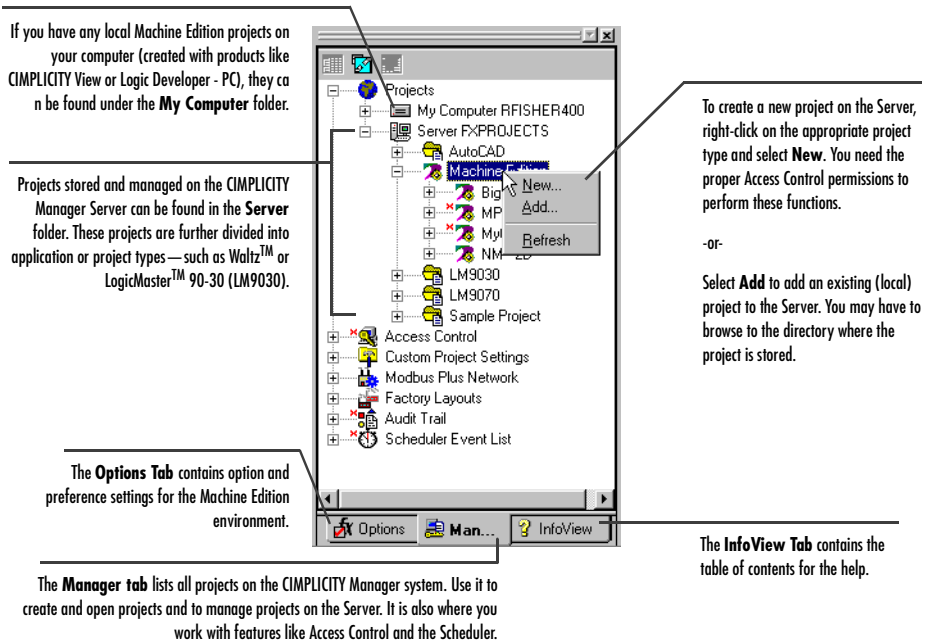
## Projects and the Navigator

### Navigator

The Navigator window organizes projects, project settings and manages your project database.

- Use the Navigator to manage projects, set your environment preferences, create scripts for third-party support, print reports, and more.
- The Navigator is organized into several tabs. The available tabs depend on what Machine Edition products are installed.
- Within each tab, items are displayed in a tree structure of nodes or folders. You can expand and collapse the tree, similar to drives and directories in Windows Explorer™.

The following picture illustrates the Navigator. All the files listed under My Computer are projects that you have access to on your computer.



## Navigator Window

### To open a project in the Navigator

You need the proper Access Control permissions to perform this task. For more information, see page 25.

1. In the **Manager** tab of the Navigator, right-click an existing project listed under **My Computer** or **Server** and choose **Open**.

The project is opened by the appropriate application. You must have the project checked out from the Server before you can open it. If the project is a Machine Edition project, the Project tab and the Variables tab appear in the Navigator.

## Properties and the Inspector

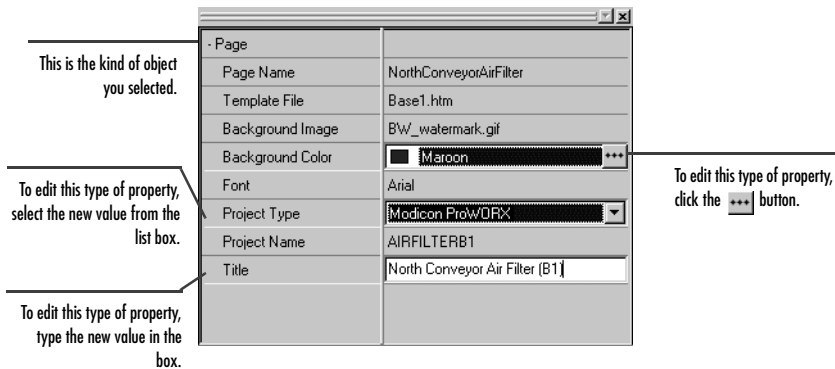


### Inspector

In Machine Edition, practically every object has *properties*. Properties are attributes and information about that object. For example, the properties of a user under the Access Control folder include password, email address, and title to name a few.

Properties of an object are edited in the Inspector window.

- To edit an object's properties, select it with the Inspector open. The Inspector will show all those properties associated with the selected object.
- When a property changes an object's appearance, you'll see the results of the change immediately in the object's editor.
- A read-only property, which cannot be changed, appears greyed out.



### Inspector Window

As you select the various properties within the Inspector, the Companion will display a brief description about the selected property. If you're ever unsure of the valid range for a property, hover the mouse over its current value and look in the status bar.

## The Feedback Zone



### Feedback Zone

The Feedback Zone is an interactive window that displays output information generated by Machine Edition products. Using the Feedback Zone, you can keep track of project information, display generated reports, and more. It is organized into several tabs.

Press F4 to cycle through entries in the Feedback Zone.

Version	Date	File	Label	Comment	Action
005	06/07/1999 2:01:28 PM				Checksum
004	05/20/1999 3:00:56 PM				Checksum
003	05/19/1999 9:07:20 AM				Checksum
002	03/16/1999 4:41:28 PM				Checksum
001	03/16/1999 1:17:48 PM				Checksum

The **Build Tab** displays the results of a validate or download operation on projects created with other Machine Edition products, like View or Logic Developer - PC.

The **Import tab** displays the results and status of an Import operation done within other Machine Edition products, like View or Logic Developer - PC.

The **Messages Tab** tracks and displays operations that have been completed within the Machine Edition environment (eg., a message is added every time you check out a project).

The **Reports tab** contains results of a Project History report. You can generate a list of older versions of your database. If you're using View or Logic Developer - PC, the **Reports Tab** also displays a list of all reports generated during the current session. Double-click an item in the report list to redisplay it in the InfoViewer.

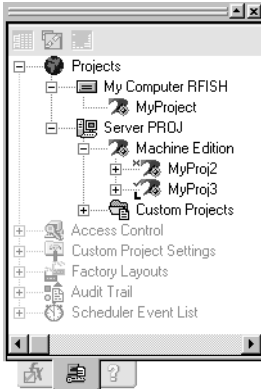
## Feedback Zone



# 3

## Version Control

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**Navigator: Manager tab**

**Project nodes**

Version Control is probably CIMPLICITY Manager's most important feature. With Version Control, all your data is stored in a central location. It also allows you to:

- Ensure that only one user can make changes to an item or project at a time.
- Keep track of who is currently working on an item or project.
- Safely store previous versions of projects.
- Return a project to a previously-archived version.

---

**Want to know more?** In the Help Index, look up version and choose "How CIMPLICITY Manager handles Version Control".

---

## HOW VERSION CONTROL WORKS

As described in chapter 2, all projects and settings are stored in a master database on the CIMPLICITY Manager Server (see page 10). When a user wants to work on something stored on the CIMPLICITY Manager Server—whether it’s a project, Access Control settings, or something else—he or she goes through the following steps:

1. The user *checks out* the project or item.

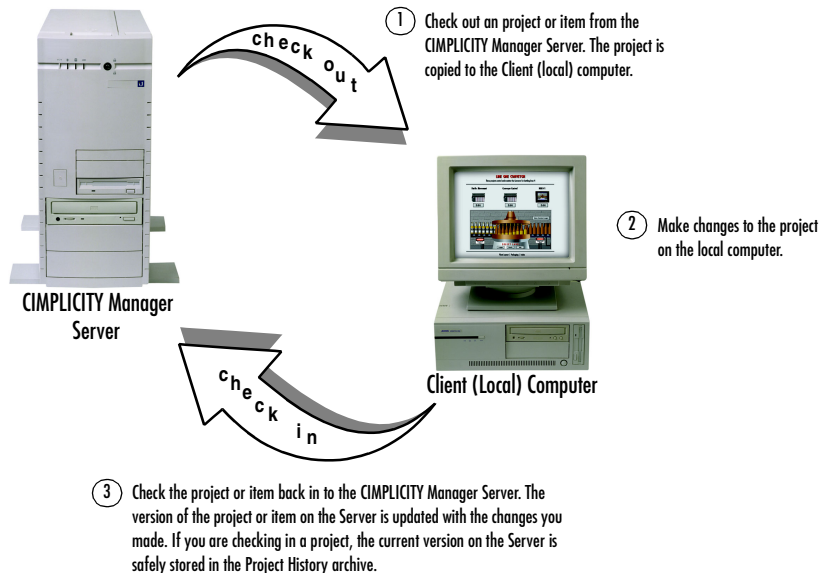
The CIMPLICITY Manager Server copies the item to the user’s local computer (the “client” computer), and marks the item as being “checked out”. As long as the item is checked out, no other user can make changes to that item.

2. The user makes changes to the item on your computer.

At this point, the version stored on the Server is unchanged.

3. When the user is finished, he or she *checks in* the item.


CIMPLICITY Manager copies the updated version from the client computer to the CIMPLICITY Manager Server, and removes the “checked out” flag. Other users can now check the item out to make more changes themselves.



## Security for Version Control


Security in CIMPLICITY Manager is called *Access Control* and is explained in detail in Chapter 4. Briefly, each user that is created in CIMPLICITY Manager is a member of one or more *groups* which have security permissions assigned to them. These permissions let users of that group perform certain actions. In addition, each project has one or more groups assigned to it. Users can only work with a project if they are a member of a group assigned to that project.

---

 **Want to know more?** In the Help Index, look up CIMPLICITY Manager and choose “CIMPLICITY Manager Access Control Permissions”.

---


## Project and drawer history

When you check in a project to the Server, CIMPLICITY Manager automatically archives the old version. You can get a report of all archived versions of a project by right-clicking the project and selecting **History Report**. History reports appear in the Reports tab of the  Feedback Zone.

In the Feedback Zone, right-clicking a previous version of a project gives you the following commands:

- **Get:** Get a copy of the selected version onto the local computer.
- **Label:** Assign a label to the selected version.
- **Make Latest Version:** Make the selected version the current version.








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 **Want to know more?** In the Help Index, look up project history and choose “Project History Reports”.

---

## Checking out other items


Projects aren't the only thing you can check out of the Server. CIMPLICITY Manager also places the following under Version Control:

-  Access Control database (see chapter 4 on page 29)
-  Audit Trail settings (see chapter 5 on page 35)
-  Scheduler event list (see chapter 6 on page 41)
-  Custom Project Settings (see chapter 7 on page 51)
-  Factory Layouts (see chapter 8 on page 67)
-  Modbus Plus Network (only available when using the Modicon ProWORX custom project support module; see the online help for details)
-  Toolchest drawers (used by other Machine Edition products installed with Manager, such as CIMPLICITY Logic Developer - PC or CIMPLICITY View.)

For example, to edit a user's security permissions, the Administrator would check out the  Access Control database, make the desired changes, and then check it back in.

Toolchest Drawers that are managed on a Server work like projects. Manager maintains a “drawer history” for Server drawers and restricts access to each drawer based on the groups assigned to it. Toolchest drawers are only available if you also have another Machine Edition project installed, such as CIMPLICITY Logic Developer - PC or CIMPLICITY View.

---

 **Want to know more?** In the Help Index, look up “Using the Toolchest with CIMPLICITY Manager”.

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Except for Projects and Drawers, you do not need to manually *get* any of these items. Instead, the necessary settings are automatically updated on the local computer when you log on connected to the CIMPLICITY Manager Server.




## Creating and Adding Projects to the Server

There are two ways to get a project onto the CIMPLICITY Manager Server:

- You can create a new project on the Server. For more information, see “To create a new project” on page 25.
- If there are any existing (local) projects on your system, you can add them to the Server. For more information, see “To add a local project to the Server” on page 26.

### Local projects

Local projects are projects that exist on the local (client) computer but not on the CIMPLICITY Manager Server. The term “local project” can refer to several different kinds of projects.



- **Projects created in CIMPLICITY Manager while disconnected from the Server.** These projects are flagged with an “L” under the  Server folder in the Navigator. This indicates that they do not yet exist on the CIMPLICITY Manager Server. You can add these projects to the Server by checking them in.
- **Machine Edition projects created before you installed CIMPLICITY Manager.** If you used another Machine Edition product before installing CIMPLICITY Manager, you may have Machine Edition projects stored on a local computer. In the Navigator, these projects appear under the  My Computer folder. To add Machine Edition projects to the Server, when connected to the Server, right-click the project and select **Add to Server**.
- **Third-party projects created outside the Machine Edition environment.** This refers to projects that were created with a non-Machine Edition application—such as Waltz or ProWORX NxT. To add third-party projects to the Server; the next time you connect to the Server, right-click the appropriate project type node under the  Server folder, and then select **Add**.

## To open a project

1. In the Manager tab of the Navigator, under the  Projects folder, right-click the project you want to open and choose **Open**.


To open a project from the Server, you must have it checked out.

The Projects folder is divided into two folders.

-  My Computer contains local Machine Edition projects that have not been added to the CIMPLICITY Manager Server.
- The  Server folder contains all projects that have been added to the CIMPLICITY Manager Server. Within the Server folder, projects are again separated into appropriate project type folders. For example, all Process Window projects are located under the Process Window folder.

## To create a new project

You must have the proper Access Control permissions to perform this task.

1. In the Manager tab of the Navigator, under the  Projects folder, right-click on the folder of the type of project you want to create and choose **New**. The New Project dialog box appears.

For example, to create a Process Window project, right-click on the Prowin 2.xx node under the Server folder. To create a Machine Edition project, right-click on the Machine Edition node under the Server folder. To create a custom project, right-click on the desired custom project type node.

- Shortcut menus for custom project types are set up by the person who added the custom project type to CIMPLICITY Manager. Therefore, the available options may differ from those presented here. For more details, check with the person who added the custom project type.

You cannot create a new Machine Edition project if a project is already open.

2. Type a unique project name (maximum 32 characters).
3. If you're creating a Machine Edition project, select a project template.  
A sample of the project appears in the Project Template dialog box.
4. If you're not creating a Machine Edition project, ensure the **Check Out** check box is selected so that you can edit the project or add groups to the project once it's created on the Server.

If you choose to check out the project immediately, you won't be able to check it back in until you've added a group that you belong to that has the CIMPLICITY Manager CheckInOut permission. If you're a member of the Administrators group, this isn't a problem—the Administrators group is added to each project by default. For more information, see "Access Control" on page 29.

5. If necessary, enter a database name for the project.

This step is only necessary for ProWORX NxT™ projects and some custom project types. The database name is the actual root name for the set of data files used by a project. What constitutes a valid database name varies with the project type. Typically, the database name must be 8 or less characters, must begin with a letter, can use the letters A through Z, the numerals 0 through 9, and the underscore character (\_).

6. (Optional) Type a comment or description (maximum 256 characters) for the project.
7. Click OK.

The project is created on the Server. If you're creating a new Machine Edition project, it is automatically checked out and opened.

### **What to do next?**


Once you create a new project on the Server, it is recommended that you also add groups to the project, to allow users access to it. For more information, see "Access Control" on page 29.

### **To add a local project to the Server**

Local projects are projects that exist on the local (client) computer but not on the Server. For more information, see "Local projects" on page 24. You must have the proper Access Control permissions to perform this task.

1. In the **Manager** tab of the **Navigator**, right-click the project type you want to add and choose **Add**. The **Project dialog box** appears.

For example, to add a Process Window project, right-click the **Prowin 2.xx** node under the **Server** folder. To add a Machine Edition project, right-click the **Machine Edition** node under the **Server** folder. To add a custom project, right-click the desired custom project type node.

- Shortcut menus for custom project types are set up by the person who added the custom project type to CIMPPLICITY Manager. Therefore, the available options may differ from those presented here. For more details, check with the person who added the custom project type.
2. Type a project name, and then the path and file name, or click  to navigate to the project that you want to add to the CIMPPLICITY Manager Server.

If you're adding a Machine Edition project, in the **Add Project** browse dialog box, select either the **\*.SWXCF** file type or (if the project is backed up) the **\*.ZIP** file type.

3. Ensure the **Check Out** check box is selected so that you can edit the project, or add groups to the project once it's added to the Server.

If you choose to check out the project, you won't be able to check it back in until you've added a group that you belong to that has the CIMPPLICITY Manager

CheckInOut permission. If you're a member of the Administrators group, this isn't a problem—the Administrators group is added to each project by default.

4. (Optional) Type a comment or description (maximum 256 characters) of the project.
5. Click OK.

The project appears under the project type node you chose, and is copied to the CIMPLICITY Manager Server.

When a project is added to a Server, the folder of that project (for Process Window) or the project file (for Waltz) is copied to a new folder on your computer as well as to version control on the CIMPLICITY Manager Server. You will be working from this new folder when editing the project in the future.

### What to do next?

Once you add a project to a Server, it is recommended you add groups to the project to allow users access to it. For more information, see "Access Control" on page 29.

### To check out a project or item from the Server

- In the Manager tab of the Navigator, right-click the project you want to check out, and choose Check Out.

To check out a project, the project must not be already checked out by anyone. You must also be logged onto the CIMPLICITY Manager Server, and have the CIMPLICITY Manager CheckInOut permission.

The CIMPLICITY Manager Server copies the item to the user's local computer (the "client" computer), and marks the item as being "checked out". As long as the item is checked out, no other user can make changes to that item.

### To check in a project or item to the Server

1. In the Manager tab of the Navigator, right-click the project you want to check in, and choose Check In.

The project must be closed and checked out by the current user on the current client computer. You must also be logged on to the CIMPLICITY Manager Server, and have the CheckInOut permission.

2. Select from the available options.
  - **Remove local copy:** Removes the copy of the project on your local computer after the check in is complete.
  - **Keep local copy:** Keeps a copy of the project on your local computer after the check in is complete. If the project is not a Machine Edition project, it is marked as read-only.
  - **Keep checked out:** Updates the Server with your changes, but keeps the project checked out.
3. (Optional) Include a comment (maximum 256 characters) of the changes made while the project was checked out.

#### 4. Click OK.

CIMPLICITY Manager copies the updated version from the client computer to the CIMPLICITY Manager Server.

### To get a read-only copy of the latest version of a project


- In the **Manager** tab of the Navigator, right-click the project you want to get, and choose **Get Latest Version**.

To get the latest version of a project, you must be logged on to the CIMPLICITY Manager Server, and you must have the Get permission. The project also cannot be checked out by you on the current computer.

Getting a project does not check it out. When you Get a project, changes you make to the project can't be saved to the Server. However, depending on the project type, you may be able to save a copy of the project under a different name, and add the project to the Server later.

You can also get a previous version of a project from the project's History Report.

---

 **Want to know more?** In the Help Index, look up project history and choose "Project History Reports".

---

### To undo a check out of a project or item

1. In the **Manager** tab of the Navigator, right-click the project you checked out, and choose **Undo Check Out**.

Normally, to undo a check out, the item must be checked out by you on the current computer. You must also be logged on to the CIMPLICITY Manager Server, and have the CheckInOut permission.

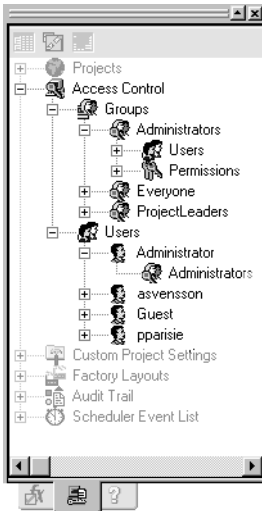
If the item is checked out by someone else (or by you on a different computer), you can still undo the check out if you have the OverrideCheckOut permission.

2. If you're undoing a check out of a project, in the **Undo Check Out** dialog box, select one of the following option(s), and then click **OK**.
  - **Remove local copy:** Deletes the copy of the project on your local computer.
  - **Replace local copy:** Overwrites the local copy with a copy of the latest version from the Server.
  - **Keep checked out:** Keeps the project checked out so you can continue working on it after cancelling the changes you made since you last checked it out. This option is only available with the Replace local copy option.
  - **Leave local copy as is:** Keeps a read-only copy of the project with the changes you made while it was checked out.

# 4

## Access Control

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**Navigator: Manager tab**

**Access Control nodes**

Access Control is CIMPPLICITY Manager's security tool. With Access Control, you can:




- Organize users into groups.
- Allow or disallow groups access to projects stored on the CIMPPLICITY Manager Server.
- Allow or disallow groups access to Toolchest drawers (*only available when other Machine Edition products are installed*)
- Allow or disallow groups from performing operations in CIMPPLICITY Manager.

When used with CIMPPLICITY Manager's Version Control, Access Control keeps your projects under security.

---


## HOW ACCESS CONTROL WORKS


The  Access Control folder in the Manager tab of the Navigator contains these items:

-  **Users** represent individual users of CIMPLICITY Manager Clients (not to be confused with Windows NT users). When you log on to a CIMPLICITY Manager Server, you must identify which User you are.
-  **Groups** are groups of Users. Each group is assigned a set of permissions. Users in a group inherit its permissions.
-  **Permissions** are security settings assigned to groups. In general, a permission allows or disallows a particular action or set of actions.

Casually, we say that a user “has” a permission if they’re a member of a group for which that permission is set to True. Most permissions are True/False settings; the exceptions are documented in the online help.


Administrators cannot assign permissions to individual users. Instead, they assign permissions to groups, then add users to those groups. This lets an administrator assign permissions to an entire group of users with similar roles and responsibilities.

Under a group node, permissions are organized based on the feature or application they’re associated with. You configure the actual permissions in the Inspector. For example, if you select a group’s  CIMPLICITY Manager permissions node, permissions that control access to CIMPLICITY Manager features appear in the Inspector. By setting the appropriate permission in the Inspector, you can allow or disallow access to specific CIMPLICITY Manager features for that group.

- For more details on specific permissions, select its  permissions node in the Navigator and press F1. Or, for a short description, open the Companion window and click the permission in the Inspector.

Users can be members of more than one group. If this is the case, the group permissions are combined, and they get the most advantageous set of permissions for all groups they are a member of. For example, if you’re a member of both the “Executives” and “Technicians” groups, and Executives have the CIMPLICITY Manager Edit Project List permission but the Technicians don’t, you are considered to have the Edit Project List permission.

## **The Access Control Database**

A list of users and groups are stored in the Access Control database. To make any changes to users, groups, or permission settings (including adding new users or groups), you must first check out the  Access Control database. The changes you make don't take effect until the Access Control database is checked back in to the CIMPLICITY Manager Server.

Each CIMPLICITY Manager Server maintains its own Access Control database. If you need to work on projects from more than one Server, you must be added as a user to all of them.

## **Access Control of Projects and Toolchest drawers**

Access Control for projects depend on which groups are assigned to the project. The users or members of a group that are assigned to a project—and that have the CIMPLICITY Manager CheckInOut permission—can check the project in and out of the Server (see “To assign a group to a project or layout” on page 33). Since users can only edit a project when it's checked out of the Server, this lets the administrator control who can make changes to a given project.

- If you have another Machine Edition product installed (such as CIMPLICITY View or CIMPLICITY Logic Developer), you can configure Access Control for Toolchest drawers in much the same way. That is, you assign groups to drawers, and only those groups can make changes to fxClasses within those drawers. For details, look up “Using the Toolchest with CIMPLICITY Manager” in the online help index.

## **Access Control of Layouts**


CIMPLICITY Manager's Factory Layout feature lets you organize your projects into a web page for ease of access to users (for more information on Factory Layouts, see chapter 8). You control who has access to particular layouts by assigning groups to an individual layout. Unlike projects, however, only members of those groups can view the layout in the InfoViewer.

If a user is a member of a group assigned to a layout, that user can view it in the InfoViewer and use it to navigate to the projects they need to work with. If the user has the EditLayouts permission, they can also edit that layout.

## Security Providers

Administrators have the option of using an external security provider (such as the Windows NT network user account list) that Manager uses when logging users on to the network. Each Manager user is associated with a user account from the security provider's list. When Manager is started, the logon dialog box does not appear—the user is assumed to be the user currently logged on the local workstation.

---

 **Want to know more?** In the Help Index, look up “Selecting a Security Provider”.

---

## System Groups and Users




There are two system groups and two system users that cannot be deleted. The system groups are:

- **Administrators group:** This group has every available permission and is automatically assigned to every project managed by CIMPLICITY Manager. As the name implies, it is really only designed for system administrators.
- **Everyone group:** All users on a Server are members of the Everyone group, and have minimal permissions. By assigning a permission to the Everyone group, you can assign that permission to every user in the Access Control database.

The two system users are:



- **Administrator user:** As the name implies, the Administrator user is a member of the Administrators group. When you start CIMPLICITY Manager for the very first time, you must log in as the Administrator.
- **Guest user:** The Guest user can be assigned to any group and inherits that group's permissions. The Guest user is useful for people who need temporary or limited access to the CIMPLICITY Manager Server.

### To create a new user





1. In the Manager tab of the Navigator, right-click the  Access Control folder, and choose Check Out Access Control.
2. Under the  Access Control folder, right-click the  Users folder and choose New User.
3. Type a name for the user.  
User names can only use the characters 0-9, a-z, A-Z, and \_. Spaces are not allowed in the user name, and the maximum number of characters is 20.
4. Configure the user's properties in the Inspector.

### To create a new group


1. In the Manager tab of the Navigator, right-click the  Access Control folder, and choose Check Out Access Control.

2. Under the  Access Control folder, right-click the  Groups folder and choose New Group.
3. Type a name for the group.  
Group names can only include the characters 0-9, a-z, A-Z, and \_. Spaces are not allowed in a group name, and the maximum number of characters is 20.
4. Type a description for the group in its Description property in the Inspector.

### To assign permissions to a group







1. In the Manager tab of the Navigator, right-click the  Access Control folder, and choose Check Out Access Control.
2. Under the Access Control folder, in the  Permissions section of the  Group folder, right-click the type of permissions you want to set, and select Properties.  
Except for custom project permissions, you cannot edit permissions for the Administrator group.
3. Configure the properties in the Inspector window.  
For more details on specific permissions, select its  permissions node in the Navigator and press F1. For a short description, ensure the Companion window is open and select the permission in the Inspector.

---

 **Want to know more?** In the Help Index, look up permissions and choose the appropriate permissions topic.

---

### To add a user to a group

1. In the Manager tab of the Navigator, right-click the  Access Control folder, and choose Check Out Access Control.
2. Under the  Groups folder, right-click the  Users folder of an individual  Group and choose Add User. Select a user from the list that appears.  
- or -  
In the  Users folder (directly under Access Control), right-click the  User you want to assign to a group and choose Add to Group. Select a group from the list that appears.

### To assign a group to a project or layout

To add a group to a project, you must be a member of a group that has the EditProjectList permission. To add a group to a layout, you must have the EditLayouts permission.

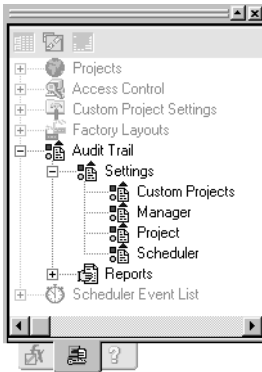
1. Check out the project you want to add a group to.
2. In the Manager tab of the Navigator, right-click the project you checked out and choose Add Group.
3. Choose one of the groups in the list.  
The group is added to the project along with its permissions and users.
4. Check in the project.



# 5

## Audit Trailing

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**Navigator: Project tab**  
**Audit Trail nodes**

Audit Trailing is a tool designed to help you track actions performed in your automation and control system. Audit Trailing lets you:

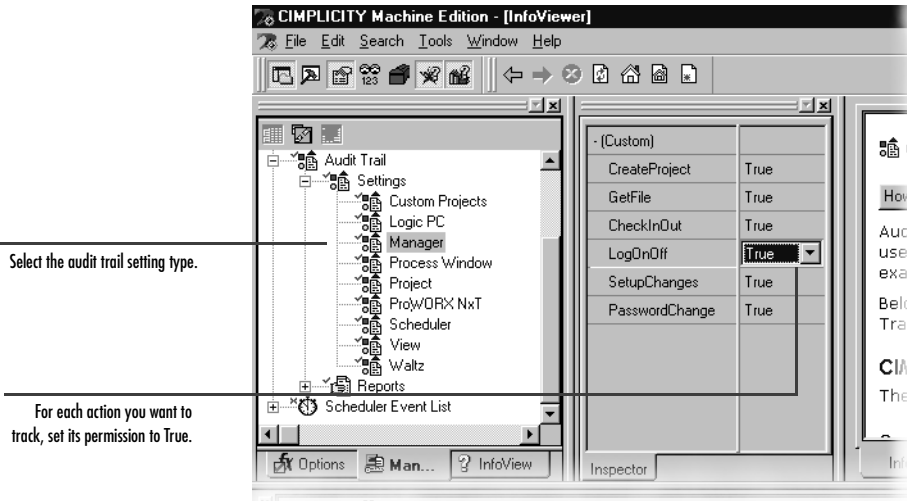
- Add a record to the audit trail database when certain actions occur.
- Generate audit trail reports to get a history of changes and actions in CIMPPLICITY Manager.
- View the audit trail database in Microsoft Access™ (or a compatible database application).

## HOW AUDIT TRAILING WORKS


CIMPLICITY Manager can track and record actions performed by its users. If a user performs an action and the administrator has flagged that type of action to be audited, a record is logged in the audit trail database.

You specify which actions to track by configuring the Server's *audit trail settings*. Located under the  Audit Trail folder in the Navigator, audit trail settings are grouped by feature or product type.

The settings are configured in the Inspector. If an audit trail setting is set to True, CIMPLICITY Manager tracks and records all actions of that type. For example, if the CIMPLICITY Manager audit trail setting PasswordChange is set to True, CIMPLICITY Manager logs a record every time a user's password is changed.



Audit trail settings for Custom Projects—including custom project modules included on the installation CD—work a little differently. First, Custom Project audit trail settings are integers, not discrete (true or false) values. Second, CIMPLICITY Manager does not use Custom Project audit trail settings directly—this is done with scripts that check audit trail settings and create audit trail records.

 **Want to know more?** In the Help Index, look up “Custom Project Audit Trail Settings”.

## **The Audit Trail Database**

Audit trail records are added to the CIMPLICITY Manager Server's audit trail database, which is stored in Microsoft Access™ format. You can use Microsoft Access (or another application capable of reading Microsoft Access databases) to view, sort, and generate custom reports on audit trail records. Though not as simple as the Audit Trail Report Manager, this gives you the most flexibility in searching the audit trail database.

You can find the audit trail database in two places.




- The main audit trail database file is located on the CIMPLICITY Manager Server computer under "...\\CIMPLICITY Machine Edition\\fxServer\\VSS\\Audit.mdb", where "...\\CIMPLICITY Machine Edition" is the Machine Edition installation directory.
- When in disconnected mode, audit trails are temporarily added to a file named "...\\CIMPLICITY Machine Edition\\SecurWorX\\ServerName.mdb" on the client computer, where "...\\CIMPLICITY Machine Edition" is the Machine Edition installation directory, and "ServerName" is the name of the CIMPLICITY Manager Server computer. The next time you connect to the CIMPLICITY Manager Server, records in this database are automatically added to Audit.mdb on the Server computer, and the local copy from the client computer is removed.

Since audit trail records are constantly being logged to the Server, the audit trail database file can get very large. It's a good idea to occasionally archive the database file to another computer to free space on the Server computer. You can simply move the database file to another computer or, if you're using the Scheduler, you can create an event that archives the database file automatically.

- It is recommended that you only archive the audit trail database when no one is connected to the Server.

For more information on using the Scheduler, see "The Scheduler" on page 41.

**To edit Audit Trail settings**

1. In the Manager tab of the Navigator, right-click the  Audit Trail folder, and choose Check Out Audit Trail.
2. Under the  Settings folder, right-click CIMPLICITY Manager, Scheduler or the project type whose audit trail settings you want to edit and choose Properties.
3. Edit the settings for your selection in the Inspector window.  
For a description of a particular audit trail setting, ensure the  Companion window is open, and click the audit trail setting in the Inspector.



**To archive the Audit Trail database**

1. Ensure that all users are logged out of the CIMPLICITY Manager Server.
2. In Windows Explorer, move the Audit Trail database file (\*.mdb) from the Server computer to the computer you want to archive the database to.  
You can get the location and file name of your audit trail database from the CIMPLICITY Manager Server Configuration Utility (go to **Start** on the Windows Taskbar, point to Programs, Machine Edition, and select Server Config).
3. Rename the moved file so that the next time you archive the database, you won't overwrite the previously archived file.

Include the current date in the new file name to make it easier to find in the future. CIMPLICITY Manager will create a new audit trail database file the next time an audit trail action is recorded. The file will have the same name, and will be created in the same directory you moved the database from.

You can view records in an archived database by opening the archived file in any database or report application capable of reading Microsoft Access™ databases.

## Audit Trail Reports

The easiest way to view records in the audit trail database is through the Audit Trail Report Manager, located under the  Reports folder in the Audit Trail folder. To open the Report Manager, right-click the  Audit Trail Report Manager node and choose **Open**.

Generated Audit Trail Reports can be displayed on screen and, if desired, sent to a printer.

- If you have an application that can read Microsoft Access databases, you can use it to view and sort audit trail records.

### To generate an Audit Trail report

1. In the  Reports folder, right-click  Audit Trail Report Manager and choose **Open**. The **Audit Trail Report Manager dialog box** appears.

The very first time you open the Audit Trail Report Manager you will be asked to locate the audit trail database file (\*.mdb) on the Server computer.

- The main audit trail database file is located on the fxManger Server computer under "... \CIMPLICITY Machine Edition \fxServer \VSS \Audit.mdb", where "... \CIMPLICITY Machine Edition" is the Machine Edition installation directory.
  - When in disconnected mode, audit trails are temporarily added to a file named ... \CIMPLICITY Machine Edition \SecurWorX \ServerName.mdb on the client computer, where ... \CIMPLICITY Machine Edition is the Machine Edition installation directory, and ServerName is the name of the appropriate CIMPLICITY Manager Server.
2. Select the **Report Template** you want to create.
  3. Configure the following settings for the report.
    - Select a **Date** range.
    - Set the **Filters** you want to use.
    - Select how you want the report **sorted** (by date, user, computer name, or project name).
    - Select the **page size**.
  4. (Optional) If you want to print the report, select a printer.  
Select **Default** to print the report on the printer configured as the Windows default.
  5. Click **Print Preview**.

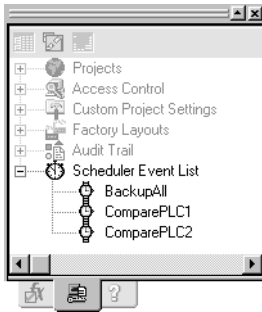
The Report Viewer dialog box displays the report you requested. You can then print or save the report to a file.



# 6

## The Scheduler

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**Navigator: Project tab**  
**Scheduler nodes**

The Scheduler is a tool designed to help you automate repetitive tasks associated with maintaining industrial projects. For example, you can automate PLC backups and logic compares.

Although you configure the Scheduler's tasks (called "events") within CIMPPLICITY Manager, the Scheduler itself is a stand-alone application—you run the Scheduler outside the Machine Edition environment. You can install and run the Scheduler on any computer that has access to the CIMPPLICITY Manager Server.

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## HOW THE SCHEDULER WORKS

You configure tasks for the Scheduler by creating a list of *events* in CIMPLICITY Manager. Each event consists of a specific action (or series of actions) and a trigger. The trigger indicates when the event occurs, and the action determines what happens. Events also have


Events are stored on the CIMPLICITY Manager Server in a database called the *Scheduler Event List*. The Scheduler itself is a stand-alone application (that is, you run the Scheduler from outside the Machine Edition environment). When the Scheduler application is started, it gets a copy of the scheduler event list from the Server. When the Scheduler is started for the first time, you must specify the location of the Server that contains the Scheduler Event List.

- For more information on running the Scheduler, see “Running the Scheduler” on page 46.

### Configuring Events

Before you can edit events or Scheduler properties, you must check out the scheduler event list from the Server. (You can find the  Scheduler event list in the  Manager tab of the Navigator.) Then, you can add, remove, or edit  events.


Events can be edited:

- By editing an event’s properties directly in the Inspector.
- By opening the Event Properties dialog box. To open the Event Properties dialog box, right-click an  event and select **Edit**.

Events consist of a Trigger and an action(s).

- **Event Triggers** are configured with an event’s EventTrigger, Date, and Time properties. EventTrigger specifies how often the event should be triggered (such as “Once”, “Weekly”, or “Hourly”). Date and Time specify either the start date for periodic events, or the trigger date for events that only occur once.
- **Event actions** are scripts, written in either VBScript or JavaScript. The Scheduler includes predefined events that you can use to automate common tasks.

If you use a predefined action script, you can also edit the event’s Project Type and Project properties, which associate a specific project with the event.

Most events are also associated with a list of one or more projects. When the event is triggered, its script is repeated for each of those projects. You configure an event’s project list in the Project List dialog box. To open the Project List dialog box, click  in the Event’s Project List property.

## **Event Scripts**

If you want to write your own event scripts, set EventType to “custom event”. Then, write your event script in the Event Properties dialog box.

Event scripts can be written in VBScript. CIMPLICITY Manager provides many additional script functions that you can use in scripts, including several that perform CIMPLICITY Manager operations (such as checking projects in and out of the Server). Other useful script functions let you add or remove projects from the list associated with an event.

- For a list of script functions that are available to the Scheduler that are not part of the Visual Basic language or object list, look up *Script Function Summary* in the online help index. You can also look in the *Script Functions A to Z* and *Script Functions by Purpose* books, located in the InfoView tab of the Navigator.
- For more information on these scripting languages, go to [msdn.microsoft.com](http://msdn.microsoft.com) and search for **vbscript**.



## **Audit Trailing the Scheduler**

You can configure the Scheduler Audit Trail settings to record an audit record each time a scheduled event executes and/or every time the Scheduler Event List changes. Audit trail settings for these types of Scheduler actions are located under the Audit Trail folder.



- You can also use the script function `CreateAuditRecord` in your custom event scripts to record an audit record when a certain action occurs in an event. For more information, look up *CreateAuditRecord* in the online help index.

For more information on setting up audit trails, see “Audit Trailing” on page 35.







**To configure the Scheduler**

1. In the **Manager** tab of the Navigator, right-click the  Scheduler Event List folder and choose **Check Out**.
2. Right-click the  Scheduler Event List folder and choose **Properties**.  
To set or edit the Scheduler, you need to be logged on to the Server, and have the CIMPLICITY Manager EditEventList permission.
3. **Configure the Scheduler properties in the Inspector.**  
To ensure everyone has the latest version of the event list, you should periodically check in the Scheduler Event List folder.  
To cancel the changes you have made since you last checked out the event list, right-click on the Scheduler Event List folder and choose **Undo Check Out**.

**To add and edit a Scheduler event**

1. In the **Manager** tab of the Navigator, right-click the  Scheduler Event List folder and choose **Check Out**.
2. Right-click the  Scheduler Event List node and choose **Add Event**.  
To make any changes to the Scheduler Event List you must be logged on to the Server, and have the CIMPLICITY Manager EditEventList permission.
3. **Type a unique name.**  
Event names can only include the characters: 0-9, a-z, A-Z, and `_`. Spaces are not allowed and the first character must be a letter. The maximum number of characters is 31.
4. **Right-click the new event and choose Properties. Edit the event properties in the Inspector.**
  - In the Event Type field, select one of the predefined events or select Custom to write your own script. For more information on custom events, look up *Creating a Custom Event* in the online help index.
  - Set the rest of the event properties in the Inspector. You can also edit event properties in a dialog box by right-clicking the event and selecting **Edit**.

## To create a custom Scheduler event

1. In the Manager tab of the Navigator, right-click the  Scheduler Event List folder and choose Check Out.
2. Right-click the  Scheduler Event List folder and choose Add Event.  
To make any changes to the Scheduler Event List you must be logged on to the Server, and have the CIMPLICITY Manager EditEventList permission.
3. Type a unique event name.  
Event names can only include the characters: 0-9, a-z, A-Z, and \_. Spaces are not allowed and the first character must be a letter. The maximum number of characters is 31.
4. Right-click the event and choose Properties.
  - In the **Event Type** field, select “Custom”.
  - Right-click the  event in the Navigator and select **Edit**. The Event Properties dialog box appears.
  - Set the other event properties as appropriate.  
You can also open the Event Properties dialog box by clicking  in the **(Custom)** field at the top of the properties in the Inspector. (You may have to click the field once to see the button.)
5. Type the list of actions for the custom event in the script window.  
You must use VBScript format. For more information on these scripting languages, go to [msdn.microsoft.com](http://msdn.microsoft.com) and search for **vbscript**.
  - For a list of additional script functions that are available to the Scheduler that are not part of the Visual Basic language or object list, look up *Script Function Summary* in the online help index.
6. When you're done making changes, right-click on the  Scheduler Event List and select Check In.  
To cancel the changes you made, right-click the  Scheduler Event List folder and choose **Undo Check Out**.


## What to do next?


Run the Scheduler application to begin executing the events (tasks) you just configured.


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## **RUNNING THE SCHEDULER**


The Scheduler is run outside of the Machine Edition environment. You don't even need Machine Edition installed on the same computer. However, the Scheduler connects to the CIMPLICITY Manager Server to get the Scheduler event list, so the Scheduler computer must still have access to the Server computer over the network.

When you first run the Scheduler, you select a Server to connect to. The Scheduler gets its event list from that Server (you can change the Server later, if needed). While the Scheduler is active, a  appears in the Windows Taskbar.

- Normally, the Scheduler operates in the background. To work with the Scheduler directly, right-click  on the Windows Taskbar and select **View CIMPLICITY Manager Scheduler**.

The Scheduler has its own online help system, separate from the CIMPLICITY Manager/Machine Edition help. To open it, right-click  on the Windows Taskbar and select **Help**.

Some things to keep in mind while running the Scheduler:

- A clock  appears in the Windows Taskbar to indicate that the Scheduler is active. It does not necessarily mean the Scheduler is running (that is, checking for triggers or executing its events). You can start and stop the Scheduler without completely closing it.
- If a Windows screen saver is configured on the computer with password protection, Scheduler scripts will stop working. If you need password protection for a screen saver on a computer running the Scheduler, use the Machine Edition Screen Saver. For more information, look up Machine Edition Screen Saver in the online help index.
- If you lose the Start menu's shortcut for the Scheduler, the Scheduler program file ("SchedulerEngine.exe") is stored in the same location where CIMPLICITY Manager was installed.

## To start the Scheduler

Once you set up a list of events in CIMPLICITY Manager, you can execute them by running the Scheduler. You can run the Scheduler from any computer that has access to the CIMPLICITY Manager Server that stores the event list.

- **To run the Scheduler, click the Start button on the Windows taskbar, point to Programs, and click Scheduler.**


If you want the Scheduler application to be automatically activated when Windows starts, copy the Scheduler shortcut to your Windows 95 or Windows NT Startup group.

- If you want the Scheduler to automatically start and execute its events, set its AutoStart property to **True**. This also ensures that the Scheduler restarts automatically if a power failure should occur.
- Under Windows NT, a user must be logged on to the NT computer before the Scheduler will start automatically. To log on to Windows NT automatically so that the Scheduler can launch, you need a Windows utility called *Autolog.exe*. You can obtain this utility from our Support web site at [www.total-control.com](http://www.total-control.com).

The very first time you start the Scheduler, you must select a CIMPLICITY Manager Server. The Scheduler remembers the Server you last connected to and automatically connects to that Server the next time you start the Scheduler.

If the Scheduler can't log in to the CIMPLICITY Manager Server, check to see if the CIMPLICITY Manager Server is installed. In particular, check the following:

- Ensure the CIMPLICITY Manager Server computer is running.
- Ensure the CIMPLICITY Manager Server computer has SourceSafe installed.

To work with the Scheduler directly, right-click the  Scheduler icon in the Windows Taskbar and select **View Scheduler**. Then, you can start and stop the Scheduler, monitor events configured for the Scheduler, test events, and perform other operations.

- To perform some operations on the Scheduler while it is active, you must be logged on to Windows NT as a specific user (that is, as someone other than a "Guest").
- For more information on specific Scheduler operations, see the Scheduler's online help.

**To change the Server for the Scheduler**

You can only change the CIMPLICITY Manager Server if:

- you are logged on to a Server from the Scheduler; and
- the Scheduler is stopped.

Normally, when you change the Server you are automatically logged off the previous Server and logged on to the new one. However, if the Scheduler AutoStart property is set to False on the new Server, you will need to log on and start the Scheduler manually.

1. **Right-click the Scheduler icon in the Windows taskbar.**
2. **Click Select Server. The Select Server dialog box appears.**
3. **Type the name of the Server you want to connect to.**
4. **(Optional) Select Work Disconnected if you don't want to connect directly to the Server.**

When working disconnected, the list of events is taken from the last time you connected to the Server from this computer.

You can only work disconnected from the Server if you have connected to the Server at least once before on this computer, either through the Scheduler or CIMPLICITY Manager.

**To log on to the Server from the Scheduler**

1. **On the Scheduler's File menu, point to User, then click Log On.**

You must have the CIMPLICITY Manager permission EditEventList to log on to the Server.


2. **Type your User Name and Password.**

The user name and password entered must be the same one configured in CIMPLICITY Manager under Access Control. For information on how to do this, see "To create a new user" on page 32.

3. **Click OK. When the Server identifies your name and password, you're logged on.**

You must be logged on to the Server that stores the event list to start and stop the Scheduler, or manually run events from the Scheduler.

## **To run or test an event manually**

- In the list of events on the left side of the Scheduler display, right-click the  event you want to test, and then select **Run**.

-or-

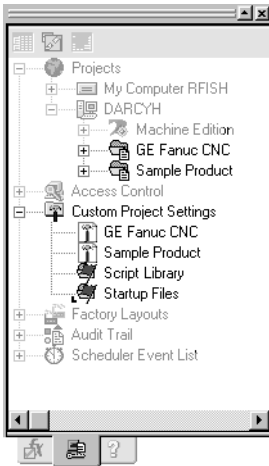
Select the event you want to test, and then choose **Run Selected Event** from the Scheduler menu.

The event is executed and the results are displayed in the Scheduler's Feedback Zone. Unless the event is configured to be run manually (which must be done from CIMPPLICITY Manager), you must be logged on to the Server that stores the event list to test an event. Events can be executed manually regardless of whether the Scheduler is running or not.



# 7

## Custom Project Support



**Navigator: Project tab**  
**Custom Project nodes**




CIMPLICITY Manager™ provides built-in support for projects created with several different applications, such as Waltz™, Process Window™, and native Machine Edition applications. If you have another application that you want CIMPLICITY Manager to manage for you, you can add the application as a *custom project type*.

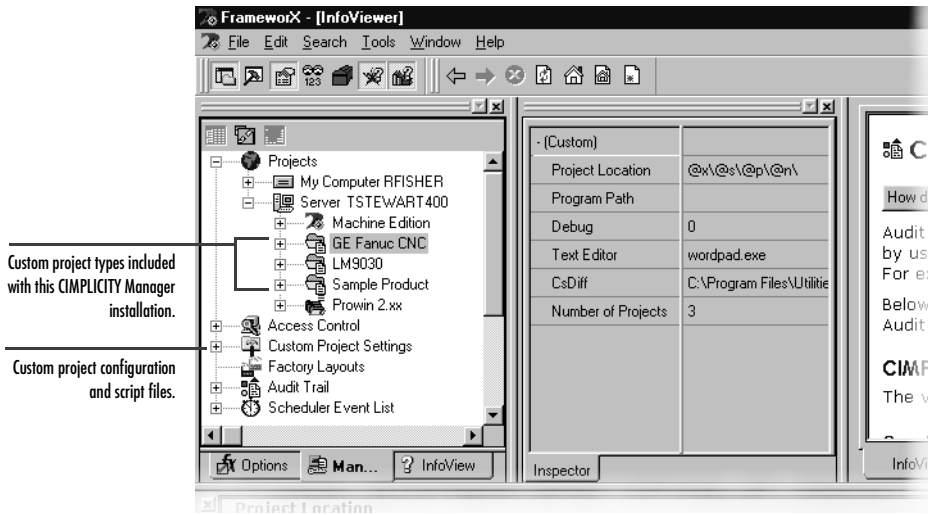
- This chapter describes how to set up support for custom (or third party) project types in CIMPLICITY Manager. If you just want to work with custom projects themselves, you don't need to read this chapter—the Machine Edition system administrator should set things up for you.

Several pre-designed custom project modules are available with CIMPLICITY Manager. You can select them when installing CIMPLICITY Manager from the CD. This includes support for Modicon ProWORX™, LogicMaster™ 90-30 and 90-70 projects, Microsoft Word™, Microsoft Excel™, and GE Fanuc CNC projects.





Normally, it is the system administrator or a project manager who adds or reconfigures a custom project type to CIMPLICITY Manager (such a person is referred to in the online help as the Custom Project Implementor). Configuration files for different custom project types can also be added to the CIMPLICITY Manager Server; when users log on to the Server, these project types are automatically copied to their local computers.

## HOW CUSTOM PROJECT SUPPORT WORKS

Once support for a custom project type has been set up in CIMPLICITY Manager, custom projects appear under the  Projects folder in the Navigator.  Custom projects are located under the  Server folder, similar to other project types.



Custom projects nodes appear in two places in the Navigator:

-  **Custom projects** themselves appear under Server folder and are organized by each  custom project type.
-  **Settings** for each custom project type appear under the  Custom Project Settings folder. The Custom Project Settings node represents the configuration and script files that define the characteristics and behaviors of the custom project type. All custom project types installed on your system appear in the Custom Project Settings folder.

If you're not responsible for adding or setting up support for custom project types, you won't need to look in the Settings folders at all.

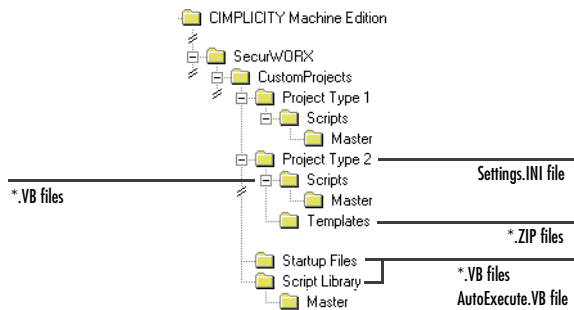
You can set up the following CIMPLICITY Manager features for a custom project type:

- **Version Control:** You can store custom projects on the CIMPLICITY Manager Server, check them in and out, and so on, just like any other project types.
- **Access Control:** The custom project type can be set up such that certain permissions are required to access and use its projects.
- **Audit Trails:** The custom project type can be configured to create audit trail records. These records can then be viewed in the normal CIMPLICITY Manager manner.
- **User-created Help:** You can specify special help topics for each custom project type, to be displayed in the InfoViewer or Companion windows. In addition, you can set up Companion help for custom project permissions, audit trail settings, and arguments.

## Custom Project Type Files

Configuration Files for custom project types are stored on the CIMPLICITY Manager Server. When users log on to the Server, any setting files or scripts for project types added to the Server are automatically copied to their local computers. For more information, see “Managing Custom Project Types” on page 60, or look up *Custom Project Settings Folder* in the online help index.

On the local (client) computer, all configuration files relating to custom project types are stored in the “SecurWORX\CustomProjects” directory under the Machine Edition installation directory. The directory structure looks something like this:



Custom Project Directory Structure

### Custom Project Type directory

Each custom project type has its own subdirectory with the name of that custom project type. So, if you were managing Microsoft Word™ documents with CIMPLICITY Manager, you might have a directory named “...\CIMPLICITY Machine Edition\SecurWORX\CustomProjects\Microsoft Word”.

Each project type directory contains the following:

- **A Project Type Settings file (“Settings.INI”):** Settings in the Settings.INI file determine the location of the custom project type’s application; where its projects are stored; the properties for the custom project; the names of its arguments; its right-click menu options; and context-sensitive help for the projects, project types, and arguments.

---

🔍 **Want to know more?** In the Help Index, look up custom and choose “Custom Project Settings File”.

---

- **A “Scripts” subdirectory:** This directory contains all menu scripts for the project type. These scripts implement commands found on the right-click menus of the custom project type and its projects.

- **(Optional) A “Templates” subdirectory:** This directory contains project templates (in .ZIP files) for the project type. These templates can be used by a menu script that creates new projects.

## Startup Files directory

The “Startup Files” subdirectory contains the following:

- A global settings file for custom project types, called **GlobalSettings.INI**. This file contains settings pertinent to all custom project types added to the Machine Edition system. Settings in GlobalSettings.INI determine the names of custom project permissions and context-sensitive help for permissions and audit trail settings.
- **Startup scripts** for controlling how and where custom project type configuration files are retrieved from the CIMPLICITY Manager Server. Startup scripts (which must be VBScript files) retrieve custom project types from the Server when a user logs on to CIMPLICITY Manager. The system administrator can specify different Startup scripts for different users or computers.

The main startup script is named “Startup.vb” and should *not* be modified. Rather, if you have script actions you want performed during the startup, create a new script named “*UserName.vb*” (for a specific user), “*ComputerName.vb*” (for a specific computer), or “*CustomStartup.vb*”. Since these scripts are executed while Machine Edition builds the project tree, function calls in these scripts cannot perform operations on specific, individual projects or project types. Rather, should enable or disable installed project types as needed.

You can also add a third type of startup script, named “PostStartup.vb”. If it exists, PostStartup.vb is executed after the project tree is built—so function calls can perform operations on specific projects and project types.

The two kinds of .INI files (“Settings.INI” and “GlobalSettings.INI”) use a standard Windows Initialization file format. Related settings are grouped into sections. Section headings are enclosed in square brackets (“[” and “]”). Each setting is written in the format:


```
<Setting Name>=<Setting Value>
```

Where <Setting Name> is the name of the setting and <Setting Value> is the value assigned to that setting.

---

 **Want to know more about the GlobalSettings.ini file?** In the Help index, look up global and choose “Custom Project Global Settings File”.

---

 **Want to know more about the Startup Files directory?** In the Help Index, look up sample and choose “Startup Files”.

---

**Script Library directory**

The custom projects “Script Library” subdirectory contains scripts that are used by several project types. If you need to update the functionality of a particular script, it only has to be changed in one place. You can run a Script Library script from another custom project script with the *fxIncludeGlobalScript* function.

**Master scripts**


Scripts in “Master” subdirectories let you provide default functionality for a custom project script, allowing you to override specific scripts on a site-by-site basis. Master scripts are used by custom project modules included with the CIMPLICITY Manager installation CD.

- Master scripts are used whenever CIMPLICITY Manager needs to access a script from a folder with a Master subdirectory. This includes scripts used to implement commands from a project or project type's right-click menus.
- If a script with the needed name exists in the main directory, it runs that copy of the script. The Master copy is ignored.

Otherwise, Manager looks for the indicated script in the appropriate “Master” subdirectory. If the named script exists in the Master directory, it runs that script instead.

Directories with Master subdirectory functionality are the Script Library, the Startup Files folder, and each project type's Scripts directory. In general, Master scripts themselves should not be edited or modified—rather, you should override a specific Master script by including a script with the same name in the Master directory's parent directory.

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 **Want to know more?** In the Help Index, look up sample and choose “Master scripts directories for custom projects”.

---

**Custom Project Access Control and Audit Trail settings**


CIMPLICITY Manager provides one master set of user-defined Access Control permissions and Audit Trail settings for all custom project types. Custom project types draw from the same list of Permissions and Audit Trail settings. CIMPLICITY Manager does not use these settings automatically. Instead, it is up to the Custom Project Implementor to:

- Decide which permissions and audit trail settings apply to which custom project types;
- Set up the menu scripts so they check the appropriate permissions before performing an action; and
- Set up the menu scripts to check the audit trail settings and, if the setting is high enough, add a record to the Audit Trail database.

Many script functions are available to help implement these tasks. Names for custom project permissions are specified in the [Permissions] section of GlobalSettings.INI.

Note that CIMPLICITY Manager still enforces the “standard” CIMPLICITY Manager permissions. For example, you still need the CIMPLICITY Manager CheckInOut permission to check custom projects in and out of the Server.

---



 **Want to know more?** In the Help Index, look up define and choose “Defining Custom Project Permissions” and “Defining Custom Project Audit Trail Settings”.

---

## User-defined Custom Project Help

You can create your own context-sensitive help for the following items:

- Custom projects (Companion and InfoViewer help)
- Custom project types (Companion and InfoViewer help)
- Arguments of custom project types (Companion help)
- Custom Project permissions (Companion help)
- Custom project audit trail settings (Companion help)


InfoViewer help is displayed in the  InfoViewer when a user selects an item and presses F1. Companion help appears in the  Companion when the user selects the item. Typically, Companion help is quite short, a quick summary of what the item is and what it does. InfoViewer help describes the item in greater detail.

When CIMPLICITY Manager needs to find a custom help topic, it looks for a URL in the Settings.INI or GlobalSettings.INI file. If the appropriate settings are left blank, Machine Edition displays default help for the item; otherwise, it opens the document specified by the URL.

- Help URLs for the **custom project type node**, **custom project nodes**, and a project type’s **arguments** is specified in the [Help] section of the project type’s Settings.INI file.
- Help URLs for **custom project permissions** and **audit trail settings** is specified in the [PermissionsHelp] and [AuditHelp] sections of GlobalSettings.INI, respectively.

URL stands for “Universal Resource Locator”. This can be a document’s file name (with the drive and path, if necessary) or an HTTP web address.

---

 **Want to know more?** In the Help Index, look up help and choose “Setting up Help for Custom Projects”.

---

## **Scripts for Custom Project right-click menus**

When you right-click a project or project type node in the Navigator, a shortcut menu appears. For custom projects, the commands in these menus are based on lists in the project type's Settings.INI file.

You implement menu commands with scripts written in VBScript format. The Settings.INI file specifies two sets of scripts for each menu command:

- First, CIMPLICITY Manager runs the **UI scripts** to see if the menu command should be disabled (dimmed). If the UI script fails—or if it calls the `fxDisableMenuItem` function—the appropriate command is dimmed and the user cannot select it. UI Scripts are specified in the [ProjectTypeMenuUI] and [ProjectMenuUI] sections.
- Second, CIMPLICITY Manager runs the **Action scripts** to perform the actual function of the menu command. The action scripts for an “Open” command should open the selected project; the action scripts for a “New” command should create a new project of that project type, and so on. Action scripts are specified in the [ProjectTypeMenu] and [ProjectMenu] sections.

You can specify multiple scripts for each menu entry by separating their names with semicolons. For example, if you specify two scripts as UI scripts for the “Open” command, both scripts must complete successfully before CIMPLICITY Manager enables the Open command.

## Basic Menu Actions

If the name of a menu item (as set in the Settings.INI file) fits any of the *basic menu actions*, CIMPLICITY Manager performs some additional checks before enabling the command. These checks are the same as those it performs for its built-in project types and are performed before running the UI script. For example, if a menu command is named “Checkout”, CIMPLICITY Manager automatically checks to see if the current user is connected to the Server, is assigned to the project, and has the CheckInOut permission.


- The Basic Menu Actions are: **Add, Checkin, Checkout, Delete Local Copy, Destroy, Get Latest Version, Label, New, and Undo Check Out.**

All menu scripts must be written in VBScript format. CIMPLICITY Manager supplies many additional script functions for use with custom projects. These functions perform operations like checking projects in and out of the Server, retrieving the values of permissions for the current user, and so on.

A complete list of available script functions can be found in the following places in the online help:

- For an alphabetical list of script functions, in the InfoView tab of the Navigator, under the CIMPLICITY Manager book, look in *Script Functions A to Z*.
- For lists of script functions grouped by purpose or type, in the InfoView tab of the Navigator, under the CIMPLICITY Manager book, look in *Script Functions by Purpose*.

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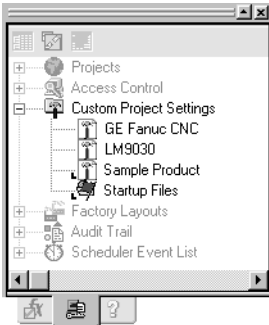
 **Want to know more?** In the Help Index, look up shortcut and choose “Setting up Shortcut Menus for Custom Projects”.

---

Most script functions can also be used to with custom event scripts in the Scheduler. For more details, see “To create a custom Scheduler event” on page 45.

---

## MANAGING CUSTOM PROJECT TYPES



**Navigator: Project tab**  
**Custom Project setting nodes**

The Custom Project Settings folder lets you easily manage your custom project type files.

- You can check configuration files for custom project types in and out of the Server; and
- You can automatically update configuration files for a custom project type on all CIMPPLICITY Manager Client computers connected to the CIMPPLICITY Manager Server.

Within the Custom Project Settings folders are the following:

- **Custom Project Settings** nodes, which represent setting files for the custom project types currently available on the local computer. If the custom project type exists on the local computer but not on the Server, it is flagged with an “L”, as in “”.
- The **Startup Files** node, which represents Startup scripts and the GlobalSettings.INI file for custom project types.

Before you can edit setting files or scripts for a non-local custom project type, you must check out the appropriate Settings from the Server. Similarly, to edit Startup scripts or the GlobalSettings.INI file, you must check out the Startup Files from the Server.





You can add a local custom project type to the Server by checking in its settings (see “To check in or add a custom project type (or Custom Project Startup Files) to the Server” on page 61). If you check in a custom project type that doesn’t already exist on the Server, it becomes a Server custom project type.

---

**Want to know more?** In the Help Index, look up global and choose “Custom Project Global Settings File”, “Sample GlobalSettings.INI file”, and “How CIMPPLICITY Manager Handles Custom Project Types”.

---

## To check out a custom project type (or Custom Project Startup Files) from the Server


- Under the  Custom Project Settings folder, right-click the  Settings node of the desired custom project type (or right-click the  Startup Files or  Script Library folder) and choose Check Out.

You can only check out custom project settings if you're logged on connected to the CIMPLICITY Manager Server and you have the CIMPLICITY Manager Edit Custom Settings permission.

Once a custom project type is checked out, its configuration files on your computer are made writable (except for master scripts, which you should override rather than editing). After you've made changes to them, you can check the custom project type back in to the Server.




- Files for a project type are located in the "...\\CIMPLICITY Machine Edition\\SecurWORX\\CustomProjects\\ProjectType" directory (where "CIMPLICITY Machine Edition" is the CIMPLICITY Manager installation directory and "ProjectType" is the name of the custom project type).
- Custom Project Startup files are located in the "...\\CIMPLICITY Machine Edition\\SecurWORX\\CustomProjects\\Startup Files" directory.
- Script Library files are located in the "...\\CIMPLICITY Machine Edition\\SecurWORX\\CustomProjects\\Script Library" directory.

---

 **Want to know more?** In the Help Index, look up configuring and choose "Configuring Custom Project Types".

---

## To check in or add a custom project type (or Custom Project Startup Files) to the Server

- Under the  Custom Project Settings folder, right-click the  Settings node of the desired custom project type (or right-click the  Startup Files folder) and choose Check In.

You can only check in a custom project type if you're logged on connected to the CIMPLICITY Manager Server and either you have the particular settings folder checked out on the local computer, or the settings folder is for a local custom project type that does not yet exist on the Server.

When you check settings back into the Server, all the changes you made on the local computer are copied to the Server. The configuration files on the local computer are also marked as read-only.

To check in the project type without updating the changes you made, right-click the project type's Settings folder and select **Undo Checkout**.

## To open a custom project's settings directory (or the Startup Files directory) in Windows Explorer

- Under the  Custom Project Settings folder, right-click the  Settings or  Startup Files folder that you want to explore and choose Explore.

Windows Explorer opens to the "...\\CIMPLICITY Machine Edition\\SecurWORX\\CustomProjects\\ProjectType" directory, where "...\\CIMPLICITY Machine Edition" is the CIMPLICITY Manager installation directory and "ProjectType" is the name of the custom project type. All settings files for the project type are stored in this directory. (Custom project modules included with the CIMPLICITY Manager installation CD will also include a "Master" subdirectory, whose script should not be edited.)

You can only explore a custom project's settings directory if you have those settings checked out or if it is a local custom project type.

## To copy (clone) a custom project type


1. Under the  Custom Project Settings folder, right-click the  Settings node of the custom project type you want to copy and choose Clone.

You can only clone a custom project type if you have the Edit Custom Settings CIMPLICITY Manager permission.

2. Type a new name for the custom project type.

The name of the custom project type cannot be the same as an existing one. Custom project type names can only include the characters: 0 through 9, A through Z, "-" (hyphen), and "\_" (underscore). The first character must be a letter and names are not case-sensitive. The maximum number of characters is 18.

When you clone a custom project type, the new version is created as a local custom project type. If you want to make it available to other users, you must add it to the Server by checking it in.



If you ever want to get rid of a custom project type, right-click its  Settings folder and select **Destroy**.

---

## SETTING UP A CUSTOM PROJECT TYPE



To initially add a custom project type to CIMPLICITY Manager, create a directory for the project type on the local computer called CIMPLICITY Machine Edition\SecurWORX\Custom Projects. Create (or copy) a *Settings.INI* file, and set up some basic shortcut menu actions and scripts. Later, you can prepare Access Control permissions, Audit Trail Settings, and InfoViewer and Companion Help. When you're done, you can add the custom project type to the CIMPLICITY Manager Server, where it becomes available to all users connected to that Server.

Thus, there are five general tasks:

- Creating the project type's *Settings.INI* file.
- Setting up shortcut menus and menu scripts (especially commands for creating, deleting, and checking projects in or out of the CIMPLICITY Manager Server).
- Setting up  Access Control permissions (optional).
- Setting up  Audit Trail settings (optional).
- Setting up Help for custom projects (optional).


### Basic Custom Project Support: Step by Step

The following procedure adds very basic support for a new custom project type.

1. In the Manager tab of the Navigator, under the  Custom Project Settings folder, right-click the  custom project type whose settings are closest to the new project type and choose Clone.

If you're not sure which one to use, you can use the Sample project type. The Sample project type supplies very basic support for a generic custom project type. If you don't have the Sample project type, run the CIMPLICITY Manager installation procedure from the CIMPLICITY Manager CD.

- Installing a project type from the CIMPLICITY Manager CD only adds it to the local computer. If you install a project type from the CD that already exists on the Server, the local version will be overwritten by the Server version the next time you log on to the CIMPLICITY Manager Server.
2. In the Clone dialog box, enter a name for the new custom project type and click OK.  
A new directory is created on the local computer. The new directory's path name is "... \CIMPLICITY Machine Edition \SecurWORX \CustomProjects \ProjectType", where "... \CIMPLICITY Machine Edition" is the CIMPLICITY Manager installation directory and "ProjectType" is the name of the custom project type.
  3. In Windows Explorer, navigate to this new directory.

An easy way to do this is by right-clicking the  Settings node in the Navigator and selecting **Explore**.

4. Within this directory is the project type's *Settings.INI* file. With a text editor (such as Windows Notepad), edit the [Local Settings] section of the *Settings.INI* file to fit the new project type.

Edit the [Local Settings] section as follows:

- For **ProgramPath**, change `c:\sampleProduct\bin` to the full path to the application used to open and edit projects of this project type, as located on your system.
- (Optional) For **ProjectLocation**, change `@x\s\p\n` to the full path to the directory where you want to store working projects for this project type.

ProjectLocation is the working directory where local copies of projects that you check out of the CIMPLICITY Manager server are stored. We strongly recommend you leave this setting as-is. This tells Machine Edition to substitute the `fxData` directory (`@x`), the Server name (`@s`), the project name (`@p`), and the user name (`@n`) respectively. Using these parameters automatically stores local copies of each project in separate directories. (The `fxData` directory is a directory on the local computer that CIMPLICITY Manager uses to store files and settings.)

- For **FileSpecs**, change `*.*` to the list of files that make up one project.

This specifies the files within the working directory that are checked in and out of a Server. All files that fit FileSpecs are included as part of the project; other files are ignored.

Use Windows and DOS filename wildcards in the list of filename specifications. The default of `*.*` indicates that all files within the working project directory are considered part of the project.

Separate multiple filename specifications with a semicolon (;).

You can also exclude files from the list by preceding an individual specification with an exclamation mark. For example, to include all files except those that end in `.log`, enter `*.*;!*.log` in the FileSpecs setting.

- For **IncludeSubDirs**, change 0 to 1 if you want CIMPLICITY Manager to include subdirectories within the Project Directory as part of the project.

If IncludeSubDirs is 1, Machine Edition recursively adds all files in all subdirectories, except those specified as exclusions in FileSpecs. You can also add a **SubDirFileSpecs** setting to specify the files from those subdirectories that should be included. If not explicitly written, it is assumed to be `*.*`.

5. **(Optional) Create one or more "template" .ZIP files containing new, blank versions of the files contained in a custom project.**

This step is only necessary if you want to use the `fxNewCurrentProject` script function to create new projects of this custom project type.

  - You can use PKZIP™ or WinZip™ to create the zip file. For a shareware copy of PKZIP, see PKWare's web site at [www.pkware.com](http://www.pkware.com).


Store this file in the "Templates" subdirectory off of your new project type directory. You can use any standard Windows file name you like. For more details, look up `fxNewCurrentProject` in the online help.
6. **With a text editor (such as Windows Notepad), edit the project type's menu scripts to fit the new custom project type.**

A custom project type's right-click menu commands are implemented with VBScripts. Menu scripts are located in the "Scripts" subdirectory under the new project type directory.

Most scripts will probably work as-is. However, at the minimum, you will need to edit the **New.vb** script, which tells CIMPLICITY Manager how to create a new custom project.

  - If you decide to use the `fxNewCurrentProject` script function in `New.vb` (and you created a template file in step 5.), within `New.vb`, change the reference to "txtdoc.zip" to the name of the new zip file you created.
7. **Work with and test the new custom project type in CIMPLICITY Manager.**

You may have to exit and restart CIMPLICITY Manager for the changes to take effect.
8. **(Optional) Set up customized Access Control permissions, audit trail settings, and help topics for the new custom project type.**

For more information, look up *Setting up CIMPLICITY Manager Features* in the online help index.
9. **(Optional) When the custom project type settings are configured on your computer, you can also add them to the Server by checking in the appropriate  Settings folder.**

This makes it available to all users associated with the Server.

  - If you do add the project type to the Server, some entries in its `Settings.INI` file may be invalid for some users or computers. This is especially true for the [Local Settings] section you configured in Step 4. To remedy this, you can set up a Startup script that overrides specific sections in the `Settings.INI` file for certain users or computers. For more information, look up *Overriding Custom Project Settings on Specific Computers* in the online help index.



# 8

## Factory Layouts



**Navigator: Project tab**





**Factory Layout nodes**


Factory Layouts allows you to organize your projects to better fit your company's structure as opposed to how the Navigator organizes projects. This results in easier navigation to your projects. For example, you may want to layout projects based on the structure of a factory, a plant's process, or any other way that makes sense to users who access projects through CIMPLICITY Manager. Engineers, technicians, and other users can use layouts to quickly get to the project they need to work with.


- From the layout user's point of view, Factory Layouts are a series of HTML pages displayed in the InfoViewer. Users click on hypertext links to navigate to the project they want to work with. Once the proper project is found, users can perform the same CIMPLICITY Manager operations on the project as those from the Navigator—all the right-click menu commands for the project can be made available from the InfoViewer.
- From the layout developer or administrator's point of view, a layout's pages are organized in the Navigator. The administrator also writes HTML templates for each layout page. When complete, the layout is published to a shared directory. This tells CIMPLICITY Manager to generate the layout's finished files, based on the properties of the layout, its pages, and how the pages are organized in the Navigator.

---

## USING LAYOUTS

In the Navigator, all  Layouts appear in the  Manager tab under the  Factory Layouts folder. A layout's pages and the groups assigned to the layout are organized under individual  Layout folders. Users access layouts from these folders.


- When you want to use a layout to navigate to a project, right-click the desired  layout page and select **Open**. You may have to log on connected to a CIMPLICITY Manager Server first to get the latest layouts available.

You can only see layouts to which  groups have been assigned that have you as a member. Other layouts do not appear.

- The **Administrators** group is automatically assigned to every layout. For example, if a manager assigns only the Sector1 group to the BottlingArea layout, only users in the Sector1 and Administrators groups will see the BottlingArea layout in the Navigator.

Once opened, a layout's pages appear in the InfoViewer as a series of web pages. You can use these web pages to navigate to the project you want to work on. After navigating to the desired project, you can perform CIMPLICITY Manager actions on the project with links in the InfoViewer. Typically, most actions that can be performed on a project from the Navigator can also be done through a layout page, but this depends on the layout's creator.

Tips for using factory layouts:

- You can set Machine Edition's default home page to the currently-displayed page in the InfoViewer by clicking . This can be any page or URL, including a layout page. For more information, see "Getting Help" on page 14.
- To hide or minimize other Machine Edition tool windows (to make it easier to view a layout page), click the tool buttons in the Tools toolbar. For more information, see "Accessing the Right Tool" on page 16.

## To open a layout for viewing

1. In the  Manager tab of the  Navigator, under the  Factory Layouts folder, navigate to the  Layout and  Page you want to view.



You can only see layouts to which groups have been assigned that have you as a member. Other layouts do not appear.

If you're not sure which of the layout's pages to open, try opening the first "root" page in the layout's pages tree.

2. Right-click the  page and choose Open, or double-click on the  page.




The layout page is displayed in the  InfoViewer.

3. Click hypertext links in the page to navigate through the layout's pages and projects.

- Click on hypertext links (blue, underlined text) to jump to other pages in the layout. Links can also be found on pictures and diagrams.
- You may be asked to select items from list boxes  like this .
- If the page is associated with a project or projects, you can often perform commands on the project by clicking on buttons. This is exactly the same as selecting the right-click menu command in the Navigator.

Depending on the developer of the layout pages, the format of these links may vary. For example, menu commands may appear as regular blue, underlined hypertext links.

## To refresh the layout list from that stored on the CIMPLICITY Manager Server

- In the  Manager tab of the  Navigator, right-click the  Factory Layouts folder and choose Refresh. CIMPLICITY Manager retrieves the latest layout information available from the CIMPLICITY Manager Server. Any changes made since you connected to the Server (or since the last refresh) appear in the Navigator.

---

## HOW LAYOUTS WORK

*(This section is intended for administrators and other users who need to create layouts. If you just want to use layouts to get to projects you need to work on, see “Using Layouts” on page 68.)*

Factory Layout files exist in two places:

- The source and configuration files for the layout are stored on the CIMPLICITY Manager Server. You check these files in and out of the Server just like a project.
- A finished layout is *published* to a directory on the Server computer, which must be shared to other computers as “fxPublish”. Publishing a layout creates a complete web site, accessible through the InfoViewer. The published files consist of a series of HTML and XML files, plus any image or other supplemental files used by the layout.

### The fxPublish directory

Though the source layout files are stored in a Server database, the final web pages are accessed through a shared directory on the Server computer. Before you can publish layouts, you or the system administrator must set up this shared directory. (Shared directories are simply directories on a local computer made available to other computers on the network.) This directory must be set up as follows:

- The directory must reside on the same computer running the CIMPLICITY Manager Server.
- The directory must be shared with the name “fxPublish”.
- All users of CIMPLICITY Manager who will edit Factory Layouts must have “Full Control” network access permissions. That is, they must have read/write capabilities to all files in fxPublish, and must be able to create and delete subdirectories of fxPublish.
- If you’re not using a web server (see below), all users of CIMPLICITY Manager who will open Factory Layouts in the InfoViewer must have “Read” network access permissions. See your network administrator for assistance.

## Using a Web Server

By default, the InfoViewer accesses the fxPublish directory directly. This means that a Server's fxPublish directory must be shared to all CIMPLICITY Manager users on the network who connect to that Server. If security is a concern, you can instead get CIMPLICITY Manager to acquire the layout files from a web server on your network.



To use a web server to distribute the final layout files, you must do the following:

- Set up the web server so that a specific HTTP address resolves to the fxPublish directory. For more information, see the documentation for your web server.
- In the Inspector, set the layout's **Use a Webserver** property to True.
- In the Inspector, set the layout's **HTML Location** property to that HTTP address.

Even when using a web server, CIMPLICITY Manager uses the fxPublish shared directory to publish layouts. You must still give factory layout developers full read/write access to the shared fxPublish directory.

## Backing up layouts

You can back up your layouts or transfer them to a different CIMPLICITY Manager system with the Export and Import commands. CIMPLICITY Manager saves an exported layout in a file with an .LAY file name extension. Exported layouts include everything in its supplemental files directory.


To export a layout, right-click the  layout and select **Export**. To import a layout, right-click the  Factory Layouts folder and select **Import**.


- The CIMPLICITY Manager CD contains a sample layout, exported as "Sample.LAY". This layout contains several HTML page templates that can be adapted for your own layouts.

---

## CREATING LAYOUTS

(This section is designed for administrators and other users who need to create layouts. If you just want to use layouts to get to projects you need to work on, see “Using Layouts” on page 68.)


When you need to edit a  layout, you first check it out from the CIMPLICITY Manager Server. You can then add or delete pages, edit page templates, preview and test pages, and add or edit files to be included with the layout’s web pages.

When the changes are complete and the layout is ready to be used by its target users (that is, users who use the layout to navigate through projects on your system), you *publish* the layout. Publishing creates the final layout files in a shared directory on the CIMPLICITY Manager Server. These files comprise a web site of HTML (and XML) pages based on the page nodes under the Layout’s  Pages folder.

- Before a factory layout can be published, the system administrator must share this directory as “fxPublish”. For more details, see “The fxPublish directory” on page 70.

Whether or not the layout is published, when the user is finished editing the layout, he or she checks it back into the CIMPLICITY Manager Server.

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 **Want to know more?** In the Help Index, look up layouts and choose “Creating and Editing Layouts: an Overview”.


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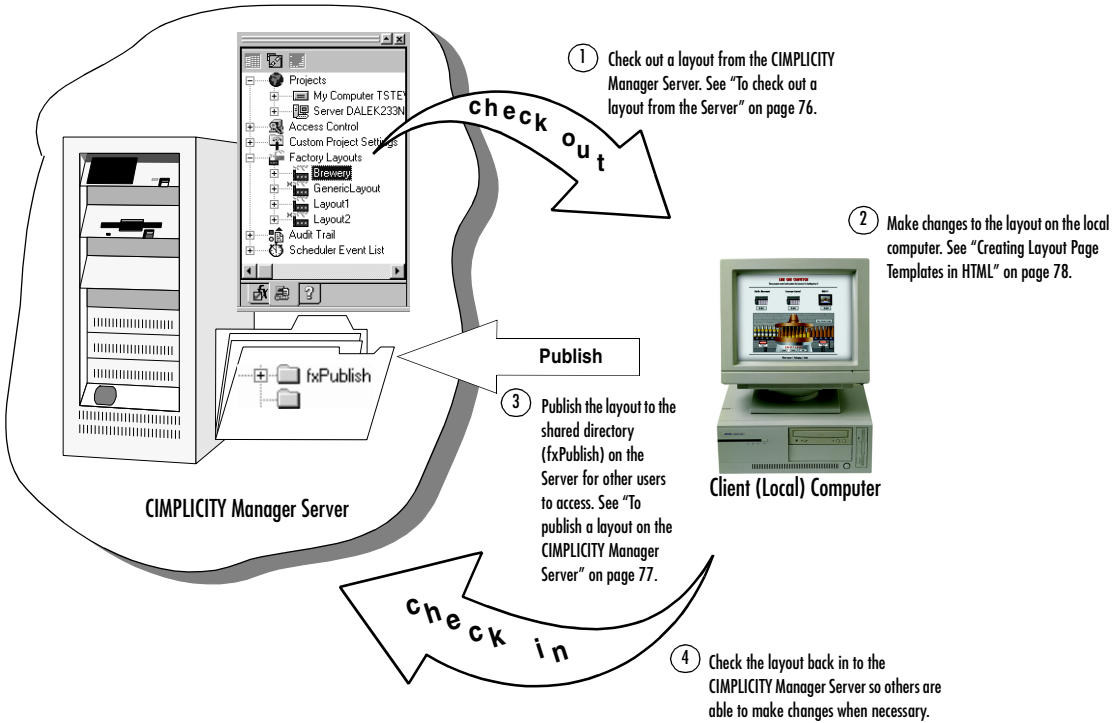
### Supplemental Files directory

Each layout has a *Supplemental Files directory*, whose fixed location on the local computer is shown as its Supplemental Files property. Any files in this directory are checked in and out of the Server with the rest of the layout and included with the final published layout files.

Files you must place in this directory include:

- Any image files referenced by the layout pages.
- The image file with the company’s logo, specified by the **Company Logo** property.
- Any image files specified by the **Background Image** properties of the layout’s pages.
- All HTML templates for the layout’s pages, specified by the pages’ **Template File** properties.
- Any HTML files specified by a layout’s **Header HTML File** or **Footer HTML File** properties.

You can copy files to the Supplemental Files directory with Windows Explorer. To open a Windows Explorer window at the Supplemental Files directory, select the Supplemental Files property in the Inspector and click .



**Creating Factory Layouts**

## **How Manager generates the published layout files**

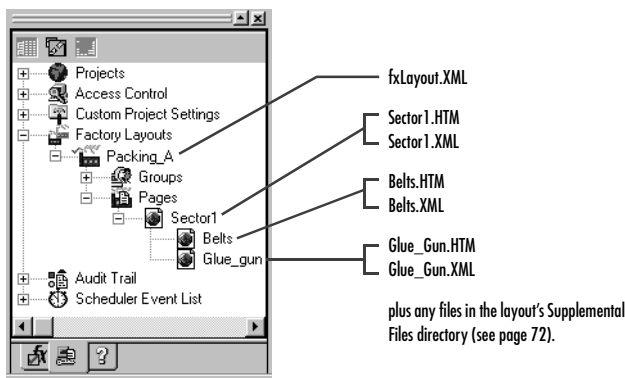
When creating layouts, it is useful to understand the steps CIMPLICITY Manager performs when a layout is published. This information is especially useful when creating HTML page templates for layout pages (see page 78).

When a layout is published, CIMPLICITY Manager creates several files in a subdirectory under the fxPublish directory (or, if a preview is being generated, on the local computer).

- It copies all files from the directory specified by the layout's Supplemental Files Directory property.
- It creates a file called "fxLayout.XML", containing an XML object called FXLAYOUT. This object contains information on the layout in general, including the values of many of its properties.
- For each page in the layout, it creates a copy of the page's HTML template (specified by the page's Template File property) with a filename based on the layout page node. So, for a page node called "MyPage", it creates a copy of the page template as "MyPage.HTM".
- Similarly, for each page in the layout, it creates an XML file with a filename based on the layout page node (that is, the file has an extension of ".XML"). For example, for a page node called "MyPage", CIMPLICITY Manager creates an XML file called "MyPage.XML". This XML file contains an XML object called FXPAGE. This object contains information on the page, including many of its properties.

All files are created in the same directory, regardless of the "tree" configuration of the layout's pages. For example, a layout called "Packing\_A" has three pages, "Sector1", "Belts", and "Glue\_Gun", with "Belts" and "Glue\_Gun" children of

“Sector1”. The following diagram illustrates the files CIMPLICITY Manager creates for the Packing\_A factory layout:



**Generated Factory Layout files**


CIMPLICITY Manager “remembers” the organization of the page tree in each FXPAGE object's <CHILDREN> and <PARENT> tags.

CIMPLICITY Manager also copies the files in Packing\_A's Supplemental Files directory.

- For more information on the XML objects created by CIMPLICITY Manager, look up Factory Layout XML Objects and Tags in the online Help.

### **To add a new layout node to the CIMPLICITY Manager Server**

1. In the Manager tab of the Navigator, right-click the  Factory Layouts folder and choose New.

A new  Layout node appears.

You can only create a new layout if you are:

- connected to the CIMPLICITY Manager Server, and
- a member of the Administrators group.

2. Enter a name for the layout.

Layout names can be from 1 through 32 characters long, must begin with a letter, and can use the characters A through Z (upper or lower-case), the numerals 0 through 9, and the underscore character (“\_”). Layout names are not case-sensitive.

## Factory Layouts

### Creating Layouts

New layouts only have the Administrator group assigned to it. If you want other groups to have access to the layout (both for editing and viewing), you must add the desired groups to the layout.

- A layout can be edited by users who are not members of the Administrator group. These users must have the Edit Layouts CIMPLICITY Manager permission and need to be a member of a group assigned to that layout.

Once a layout has been created, you'll probably want to edit the layout. For more information, look up *Creating and Editing Layouts: an Overview* in the online Help.

### To check out a layout from the Server






- In the Manager tab of the Navigator, under the  Factory Layouts folder, right-click the  Layout you want to check out and choose Check Out.

You can only check out layouts if you:

- Are connected to the CIMPLICITY Manager Server,
- Are a member of a group assigned to the Layout, and
- Have the Edit Layouts CIMPLICITY Manager permission.



## To add new pages to a layout

To add new pages to a layout, you must have the CIMPLICITY Manager Edit Layouts permission and have the layout checked out on the local computer.

1. In the Manager tab of the Navigator, under the  Factory Layouts folder, in the  Pages folder of the appropriate  Layout, right-click the node you want to add the new page to and choose **New**.
  - If you want to add it as a child of an existing page, right-click that  Page.
  - If you don't want to add it as a child of any node, right-click the  Pages folder. A new page appears.
2. **Type a name for the page.**

Page names can be from 1 through 32 characters long, must begin with a letter, and can use the characters A through Z (upper or lower-case), the numerals 0 through 9, and the underscore character (“\_”). Page names are not case-sensitive.
3. **Edit the page's properties in the Inspector.**

## To publish a layout on the CIMPLICITY Manager Server

- In the  Factory Layouts folder, right-click the  Layout you want to publish and choose **Publish**.

You can only publish a layout if:

  - You have the CIMPLICITY Manager Edit Layouts permission.
  - You have the layout checked out on the local computer.
  - The local computer (or the user logged into the local computer) has read/write access to the fxPublish directory (see page 70).

CIMPLICITY Manager generates files for the final web site for the layout and places them in the fxPublish directory. Users can now open the layout in the InfoViewer.

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## CREATING LAYOUT PAGE TEMPLATES IN HTML

*(This section is intended for administrators and other users who need to create layouts. If you just want to use layouts to get to projects you need to work on, see “Using Layouts” on page 68.)*

When CIMPLICITY Manager publishes a factory layout to the CIMPLICITY Manager Server, it creates HTML pages (.HTM files) based on a generic HTML page template. You specify which template to use in the page’s **Template File** property.

An HTML template for a page should contain VBScript routines that access the XML files created when the layout is published. This makes the published HTML pages “dynamic”—what gets displayed in the InfoViewer is based on the contents of the page’s associated XML file.

You can create page templates in any standard text or HTML editor. These page templates must be stored in the directory specified by the layout’s **Supplemental Files** property. Any graphic or other files used by the HTML page must also be placed in this directory.

- When you install CIMPLICITY Manager, sample page templates are included in a sample factory layout. The sample layout is stored in the .LAY file called “...\CIMPLICITY Machine Edition\SecurWORX\Samples\Layouts\Generic.LAY”, where “...\CIMPLICITY Machine Edition” is the CIMPLICITY Manager installation directory. To use this layout (or the files that make up this layout), you must import the Generic.LAY layout into CIMPLICITY Manager. For more information, see “Backing up layouts” on page 71.

### Performing CIMPLICITY Manager actions from layout pages

To let users perform actions on projects from layouts (such as “check out” or “open”), you do the following.

- Somewhere in the HTML document (preferably close to the beginning), include the fxLinkWizard object. This ActiveX object contains several script functions (or “methods”) that perform various actions in the CIMPLICITY Manager environment. For information on adding the fxLinkWizard to your HTML file, see “To add the fxLinkWizard ActiveX object to the HTML page” on page 80.
- Set up a script tag that performs the desired operations when the user clicks on the appropriate hypertext link.

For a list of the functions and commands supplied with the fxLinkWizard object, in the InfoView tab of the Navigator, under the CIMPLICITY Manager library, look up “fxLinkWizard Script Functions” in the online help.

## **Generalizing page templates with XML**

In a factory layout, each layout page uses an HTML page template, specified by the page’s Template File property. When CIMPLICITY Manager publishes each page, it creates an XML file and a copy of the HTML template file, both named after the layout page node. In addition, CIMPLICITY Manager creates a single XML file for the layout itself (called “fxLayout.XML”).

- For more details on layout file generation, see “How Manager generates the published layout files” on page 74.

The XML files contain values of layout and page node properties as appropriate, stored as XML objects. By acquiring information from the appropriately-named XML objects, you can refer to names and data specific to that page or layout.

For example, you have 10 pages in your layout. If you want to display a different title at the top of each page, without using XML you’d have to write 10 different page templates. However, pages have a **Title** property, the value of which (when published) is stored in its FXPAGE object as a <TITLE> tag. To retrieve a page’s title, you would:

- Determine the name of the page’s associated XML file. For a given page, the XML file name will be the same as the current HTML file name, with an “.XML” file name extension.
- From the page’s associated XML file, extract the value of its “<TITLE>” tag.
- Then, instead of displaying specific text at the top of the page, you would display the value of the <TITLE> tag.

Within an HTML page, one way to acquire data from XML objects is through VBScripts. For more information on VBScript and XML, search for “VBScript” and “XML” on Microsoft’s web site at [www.microsoft.com](http://www.microsoft.com).

- For sample VBscript functions that use a layout’s XML objects, look up *HTML Script Examples for Page Templates* in the online Help.
- For a list of information stored in each XML object, look up *Factory Layout XML Objects and Tags* in the online Help.

## To create your own page template

When creating and editing page templates, you go through the following general steps:

1. Create a new HTML file (with an .HTML or .HTM file name extension) in the layout's Supplemental Files directory and set the layout page's Template File property to refer to that file.
2. Write and edit the HTML files and DHTML scripts.

Here are some things to keep in mind when writing HTML page template files:

- When CIMPLICITY Manager publishes the layout, the template is simply copied to the published directory with a name based on the layout page node. If you refer to a specific project or set of projects in this HTML file, those references will appear in all pages that use that template.

To circumvent this, instead of referring to specific projects in your HTML file, first set the page's **Project Name** and **Project Type** properties to the project you want this topic to refer to. Then, in the template's HTML code, use the values of the <PROJECT\_NAME> and <PROJECT\_TYPE> tags from the page's XML file. For more details, see "Generalizing page templates with XML" on page 79.

- To perform CIMPLICITY Manager operations from a page displayed in the InfoViewer (like checking projects in and out of the CIMPLICITY Manager Server), use fxLinkWizard script functions within a <SCRIPT> tag. For more information, see *Using the fxLinkWizard ActiveX Object* in the online help.
3. Test and preview your page templates and rewrite them to your satisfaction.

## To add the fxLinkWizard ActiveX object to the HTML page

1. In an HTML or text editor, open the HTML file you want to add the fxLinkWizard object to.

You'll need to view the actual HTML code of the file, so if your HTML Editor does not support this, open the file in Windows Notepad.

2. Add the following lines near the beginning of the file, outside any other objects or tags:

```
<OBJECT ID="fxLinkWizardMgr" WIDTH=0 HEIGHT=0
  CLASSID="CLSID:928DED00-1B76-11D3-A34B-00C0F022383D">
</OBJECT>
```

You can now use the fxLinkWizard script functions elsewhere in the HTML file. For a list of the functions and commands supplied with the fxLinkWizard object, in the InfoView tab of the Navigator, under the CIMPLICITY Manager library, look up "fxLinkWizard Script Functions" in the online help.

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