



P2000AE

Security Management System

System Configuration Tool

(SCT)

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Security Management System

System Configuration Tool

(SCT) Manual

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INTRODUCTION

This document describes how to use the P2000AE System Configuration Tool (SCT) to configure CK722 controllers for use with the P2000AE Security Management System (SMS). The P2000AE SCT is a browser-based application provided as part of the P2000AE SMS software package. Users can access the P2000AE SCT directly from the P2000AE SMS software or via their browser on any computer with a LAN/WAN connection to the P2000AE server (if permitted by the Security or IT Manager). When the P2000AE SCT's configuration settings are modified, these changes can be downloaded to the CK722 controller, and the P2000AE SMS host software will be automatically updated to reflect the changes.

See “P2000 SCT Overview” on page 1-4 for a more detailed description of the P2000AE SCT, its features, and its role within the P2000AE SMS.

This document does not provide installation instructions for the P2000AE SCT. For installation instructions, refer to *P2000AE Server/Workstation Software Installation Manual*.

NOTES

- *The P2000AE SCT can only be used to configure CK722 controllers. All Johnson Controls legacy controllers are configured using the P2000AE SMS host software. Refer to the P2000AE Software User Manual for more information.*
 - *The screen captures and instructions in this manual may differ slightly, depending on the installation media and the software version you are using.*
 - *“P2000AE” is also referred to as “P2000” throughout this manual.*
-

CHAPTER SUMMARIES

- ***Chapter 1: Introduction*** provides an overview of the P2000 SCT, including basic configuration steps and instructions for getting started.
- ***Chapter 2: User Interface*** provides information on the P2000 SCT user interface.
- ***Chapter 3: Menus and Wizards*** describes the menus, each item within the menus, and the wizards available in the P2000 SCT.
- ***Chapter 4: Archive Database*** provides a description of the archive database and the procedures for managing it in the P2000 SCT.

- **Chapter 5: Objects and Attributes** includes an introduction on objects and attributes.
- **Chapter 6: Templates and Packages** covers the P2000 SCT template and package feature. This includes detailed descriptions of each feature, how they function together, and procedures for creating templates and loading packages.
- **Chapter 7: Database Download/Synchronization** describes how to download the P2000 SCT archive database to a CK722 controller, synchronize the databases of CK722 controllers and the P2000 SCT, and update the P2000 Host with P2000 SCT data.
- **Appendix A: Acronyms and Trademarks** provides descriptions of the acronyms that appear in this document, and lists the trademarks for companies, organizations, and products used in this document according to United States Patent and Trademark Office (USPTO) listings.
- **Appendix B: Troubleshooting** lists various issues that you may encounter while working with the P2000 SCT, the reason behind each issue, and a possible solution to the problem.

MANUAL CONVENTIONS

The following items are used throughout this manual to indicate special circumstances, exceptions, important points regarding the equipment or personal safety, or to emphasize a particular point.

NOTE

Notes indicate important points or exceptions to the information provided in the main text.



Cautions remind you that certain actions, if not performed exactly as stated, can cause damage to equipment, security problems, or cause the system to operate incorrectly due to errors in system setup or programming.

Tip: Tips describe time-saving or additional information.

TECHNICAL SUPPORT

Technical assistance is provided to Johnson Controls authorized dealer representatives from 5 a.m. PT to 5 p.m. PT Monday through Friday. System users can get answers to operator questions by calling the local Johnson Controls Inc. sales/service office.

The authorized dealer representatives can also provide you with information on the maintenance contracts and the on-site field service.

KEY TERMS

The following terms are used throughout this manual:

Archive – The archive database holds the configuration information for the CK722 supervisory devices, field devices, and field points that make up a site.

BACnet (Building Automation and Control Network) – A standard protocol from the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). This protocol provides a standard for allowing computers and equipment controllers to transfer data between the devices in an object-oriented fashion. The BACnet standard defines the types of information and attributes that any device must maintain, and defines how BACnet messages are communicated between the various devices.

CK722 – Object-based network controller used in the P2000 SMS. See “CK722 Controller” on page 1-5.

Field Devices – These devices provide additional reader interfaces, keypad/display modules, input points, or output relays to the P2000 SMS.

Field Points – In the P2000 SCT, a field point represents a peripheral device, such as a keypad, reader, sensor, or relay, which is added to field devices or supervisory devices.

Item – The P2000 SCT uses the term item as a generic reference to an object or selection in the Navigation Tree.

Legacy Controllers – Excluding the CK722 controller, legacy controllers refer to all other security controllers, such as the CK721-A, CK721, CK720, and CK705.

MCE (Metasys Control Engine) – An object-based operating system that resides on the CK722 controller and performs control functions with BACnet objects. MCE interfaces with external control hardware to perform various control functions.

Object – Self-contained functional items in the P2000 SMS that contain processes to manage security components. See “Objects” on page 5-1.

P2000 SMS – P2000 Security Management System, which consists of the host, SCT, controllers, field devices (e.g. S300 modules), field points, etc. The P2000 host system software is a Windows®-based application that resides on the P2000 server and oversees the operation of the complete security system.

Package (or Template Instance) – A copy of objects and connections from an existing template that is loaded into a CK722 Device object. A package has the same objects, attributes and connections as its parent template; however, object names are assigned upon package instantiation according to the tags of the objects being loaded.

Package Tag – Identified as text surrounded by curly brackets, a tag is appended to the name of an object in a template, allowing you to assign a more representative name to the object when loading the template as a package. See “Package Tags” on page 6-13.

Portal – An access point in the P2000 SMS, such as a door or gate.

Site – A site is a logical grouping of CK722 devices and field level devices sharing the same Local Area Network (LAN). For information on the Site object, see “Site Object” on page 5-12.

Template – “Rubber stamps” of pre-defined applications that can be used to rapidly populate the SCT hardware configuration database. Templates are used to create *Packages*, which contain all of the components for a single application, such as a door. JCI Standard Templates are delivered with the SCT installation and are intended to be a starting point to create Job Specific Templates, which are more closely adapted to the job specific requirements. These Job Specific Templates are then used to populate the SCT hardware configuration database. Template objects cannot be used in an actual CK722 supervisory device until the template is loaded as a package into one or more CK722 Device objects, each one representing a CK722 supervisory device, and the archive database is then downloaded to (or synchronized with) the system’s CK722 controller(s).

Template Connections – Links that connect two or more objects to create a basic or advanced, commonly-used access control or intrusion detection application.

P2000 SCT OVERVIEW

The P2000 SCT is a software application installed on the P2000 server that allows you to configure CK722 controllers. Specifically, the SCT enables you to create and modify BACnet objects that will be downloaded to one or more CK722 controllers. These objects determine how the CK722 controller and its peripherals function. See “Objects” on page 5-1.

Objects can be created and then assigned directly to a CK722 Device object, or you may use factory supplied templates (or create templates from scratch) to design common access control or intrusion detection applications. See “Templates and Packages” on page 6-1.

The P2000 SCT is one of three primary components of the P2000 Security Management System. The other primary components are the P2000 host software and the CK722 controller. Each component is critical to the successful operation of the P2000 SMS.

Figure 1-1 illustrates the P2000 SCT as it conceptually relates to the P2000 SMS.

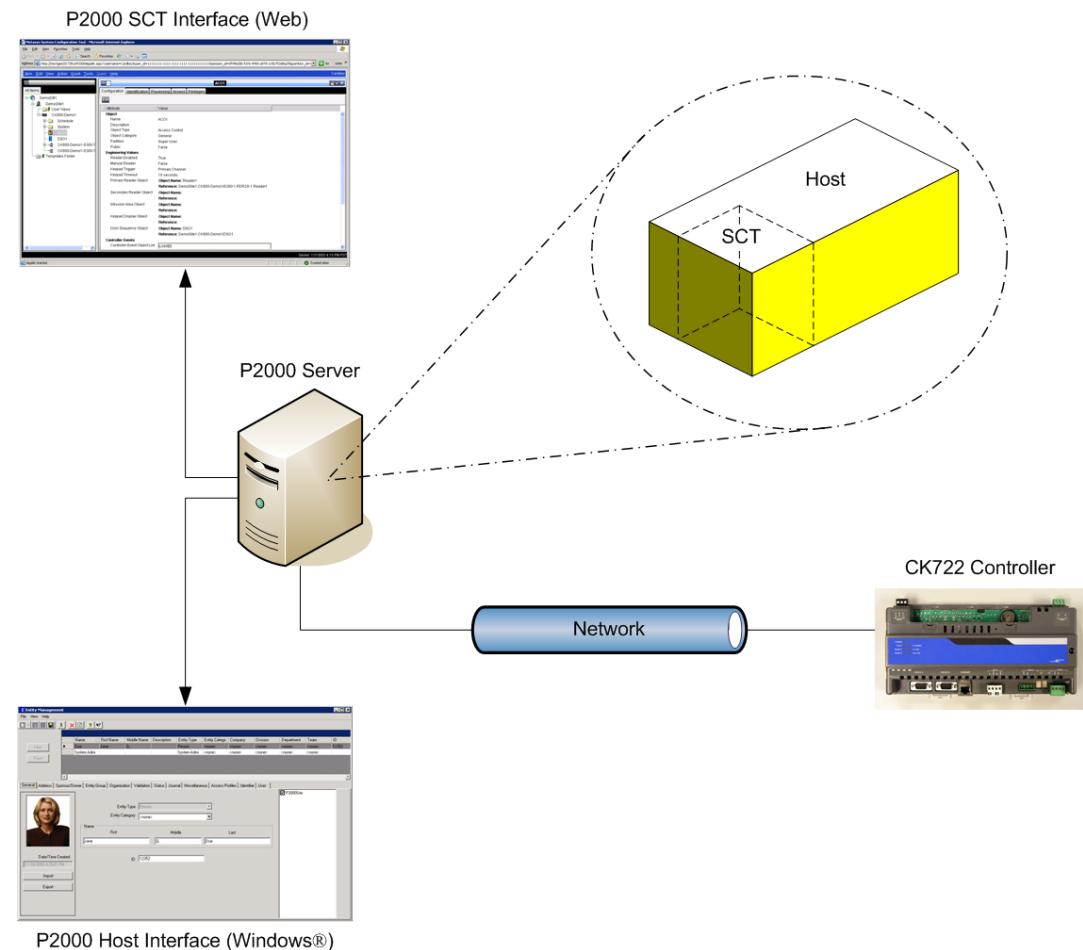


Figure 1-1: P2000 SCT and the P2000 Host

P2000 SMS Host Software

The P2000 SMS host software is a Microsoft® Windows-based application used to manage and operate the P2000 SMS and configure legacy controllers. For example, the P2000 host software is used to manage entities and identifiers, monitor alarms and transactions, configure events, run reports, and perform other security functions.

For more information on the P2000 SMS host software, refer to the *P2000AE Software User Manual*.

CK722 Controller

The CK722 is an advanced, intelligent, network controller capable of handling high volume, high-speed traffic with host security management systems, such as the P2000 SMS. The CK722 uses the Metasys Control Engine (MCE), an object-based operating system that resides on the controller, to perform various functions based

on the objects defined in the P2000 SCT. The CK722 interacts with the P2000 host software and the field hardware (e.g. readers, portal hardware, and I/O devices) to provide SMS controls. Each CK722 supports up to 64 readers/doors.

For more information on the CK722 controller, refer to the *CK722 Network Controller Installation and Operation Manual*.

Basic Configuration Flowchart

Figure 1-2 shows a flowchart for using the P2000 SCT to help configure a CK722 and set up a P2000 system. The left branch of the flow chart shows the configuration steps associated with the P2000 SCT, while the right branch describes the steps associated with the installation of the CK722 controller(s).

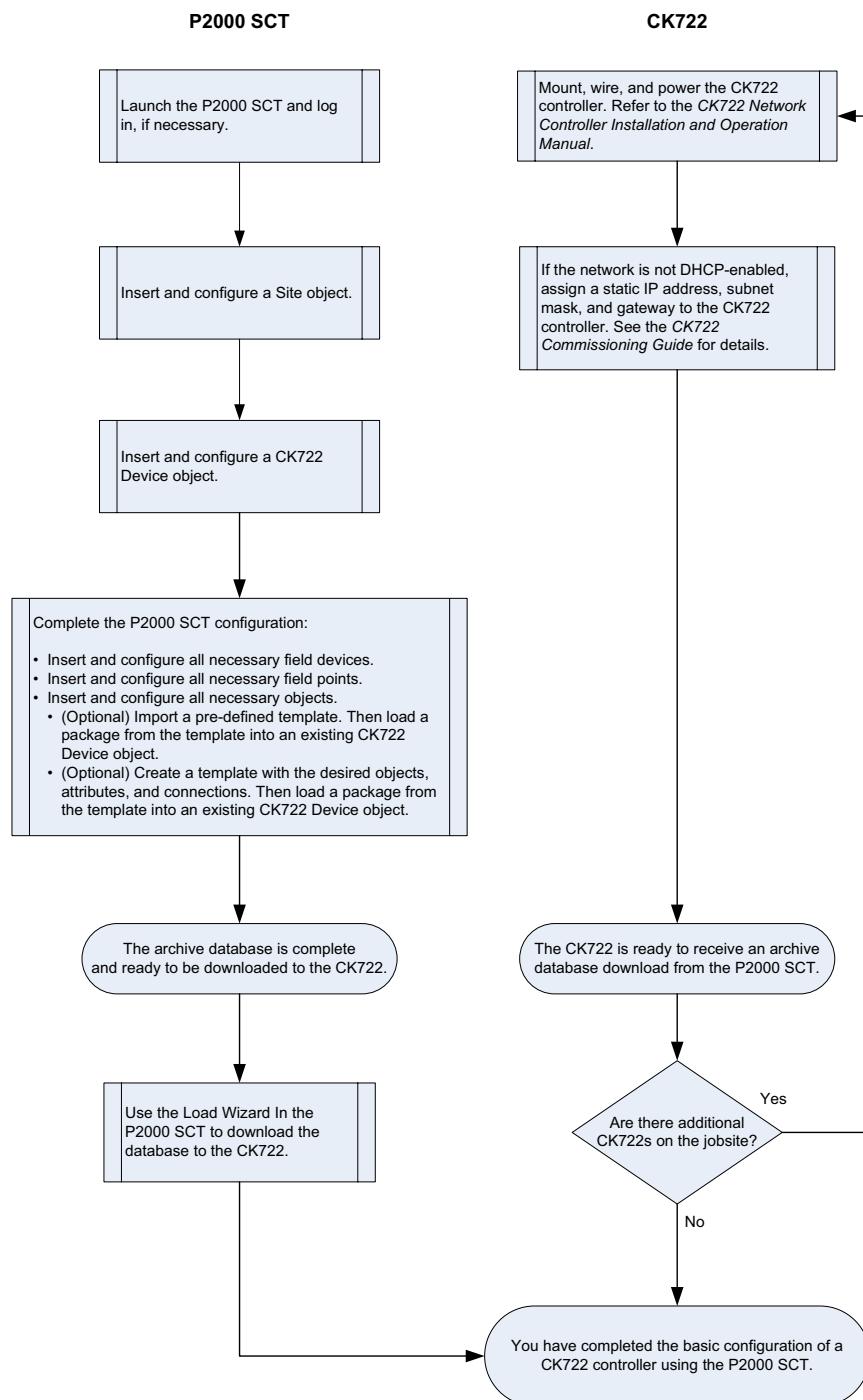


Figure 1-2: CK722 and P2000 SCT Basic Configuration Flowchart

REQUIRED WINDOWS AND JAVA® SETTINGS

This section describes how to configure the Windows and Java settings required to run the P2000 SCT on a P2000 server or workstation.



If you fail to properly configure the Windows and Java settings, the P2000 SCT will not function.

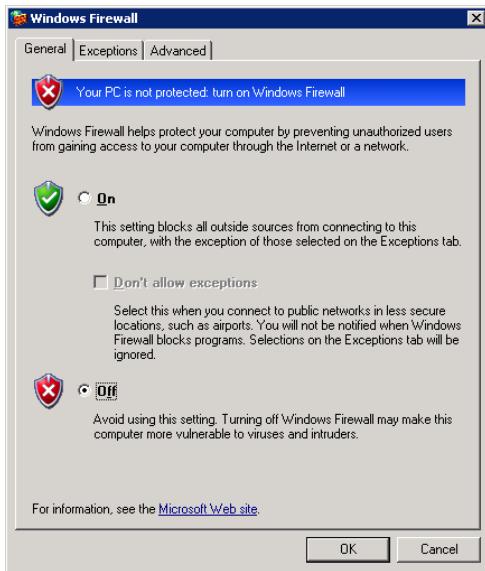
Windows Settings

Disabling the Windows Firewall (P2000 Server Only)

The Windows Firewall must be disabled on the P2000 server for the P2000 SCT to function properly.

► **To disable the Windows firewall:**

1. From the P2000 server, open the Windows **Control Panel**.
2. Double-click the **Windows Firewall** icon.
3. From the Windows Firewall dialog box (**General tab**), select **Off**.



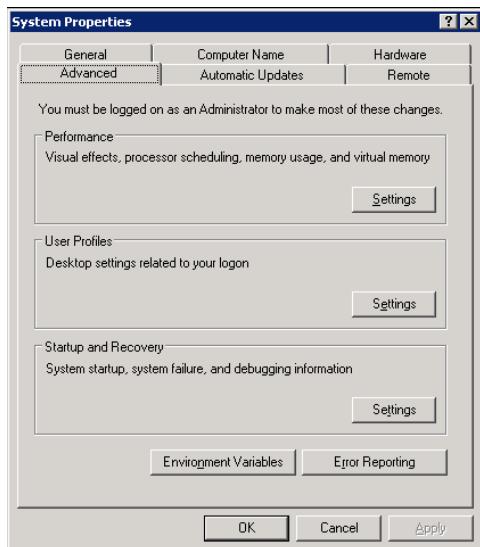
4. Click **OK**.

Data Execution Prevention Setting (P2000 Server Only)

► **To configure this setting:**

1. From the P2000 server, open the Windows **Control Panel**.

2. Double-click the **System** icon.
3. Click the **Advanced** tab.



4. In the **Performance** box, click **Settings**.
5. On the Performance Options dialog box, select the **Data Execution Prevention** tab.
6. Select the **Turn on DEP for essential Windows programs and services only** radio button.



7. Click **OK** or **Apply**.
8. If prompted, restart the server or workstation.

Microsoft Internet Explorer Requirements

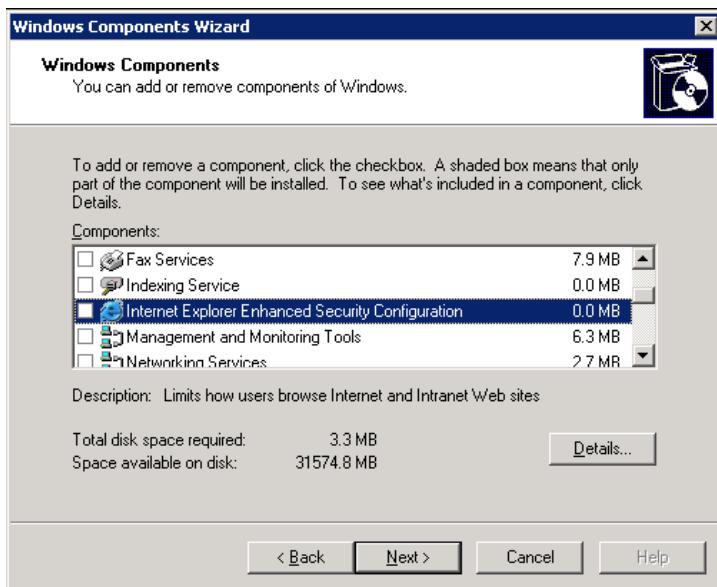
NOTE

Depending on the version of Internet Explorer installed on the P2000 server or workstation, the information and screen captures depicted in this section may differ. Refer to the Internet Explorer user documentation for assistance.

Enhanced Security Configuration (Windows Server 2003 Only)

► **To configure the Internet Explorer Enhanced Security Configuration:**

1. Open the Windows **Control Panel**.
2. Double-click the **Add or Remove Programs** icon.
3. On the Add or Remove Programs window, click **Add/Remove Windows Components** in the left pane.
4. On the Windows Components Wizard, clear the **Internet Explorer Enhanced Security Configuration** check box, if selected.



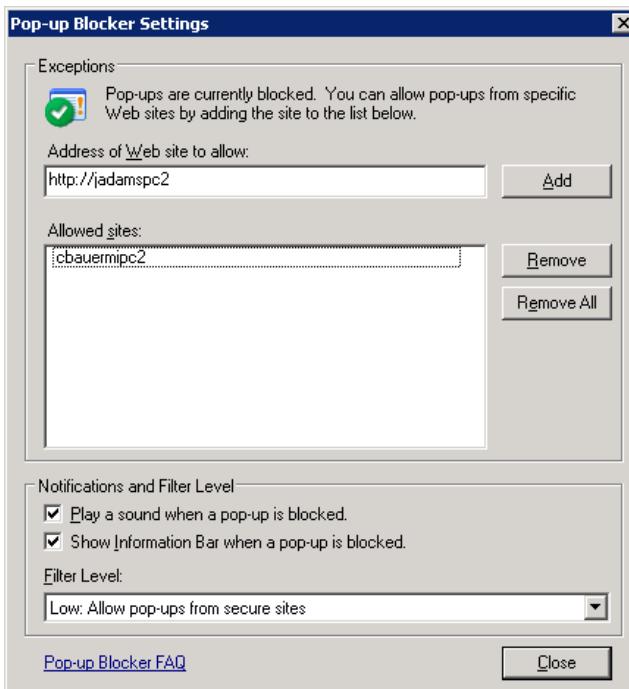
5. Click **Next**. Wait until Windows finishes configuring the component.
6. Click **Finish**.
7. Close the Add or Remove Programs window.
8. Close the Control Panel.

Allowing Pop-ups from P2000 Server (P2000 Server and Workstation)**► To allow pop-ups:**

1. Open an Internet Explorer browser instance.
2. From the menu bar, select **Tools>Internet Options**.
3. Select the **Privacy** tab.
4. In the Pop-up Blocker box, click **Settings**.
5. On the Pop-up Blocker Settings dialog box, in the **Address of Web site to allow** field, enter the following:

http://P2000 server's IP address or computer name

Example: http://jadamspc2



6. Click **Add**.
7. Set the **Filter Level** to **Low**.
8. Click **Close**.
9. Click **OK** on the Internet Options dialog box.

NOTE

If using another pop-up blocker, such as those provided with the Google® and Yahoo® toolbars, you must disable it prior to using the P2000 SCT, or the tool will fail to launch.

Other Internet Explorer Browser Requirements

Always open a new browser window to access the P2000 SCT (if accessing from a Web browser). Do not use the P2000 SCT browser window to navigate to another Web site. If you access a Web site that requires a Java plug-in, configuration and runtime problems may arise. If Microsoft Internet Explorer is configured to re-use windows when you launch shortcuts, then doing the following may replace your P2000 SCT application:

1. Open an Internet Explorer browser instance.
2. Type a Universal Resource Locator (URL) in the Address field of the task bar.

Before using the P2000 SCT user interface, change the following setting in Internet Explorer:

1. From the menu bar, select **Tools>Internet Options**.
2. Click the **Advanced** tab.
3. Clear the **Reuse windows for launching shortcuts** check box.

If you do not clear this check box and you open a new web page, the new page appears in the same window as the P2000 SCT software and the **Back** button will only take you back to the P2000 SCT login screen. You will be logged off the P2000 SCT.

Required Java Settings

P2000 SCT installs two Java run-time client applications. You must configure the newer version on each P2000 server and workstation before using the P2000 SCT. You do not have to configure the older version.

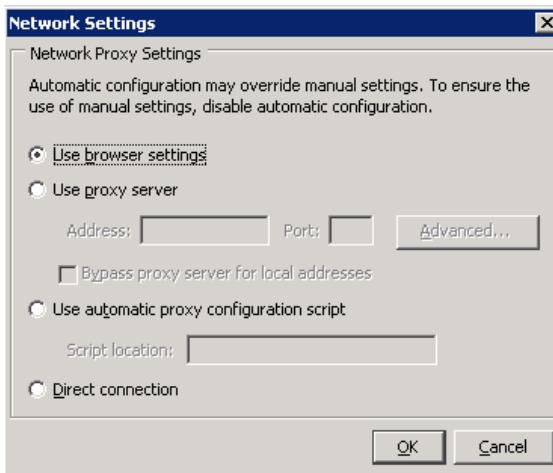
► **To configure the Java settings:**

1. Open the Windows **Control Panel**.
2. Double-click the **Java** icon that represents the newer version of the Java run-time client application.

3. From the Java Control Panel dialog box (**General** tab), click **Network Settings**.

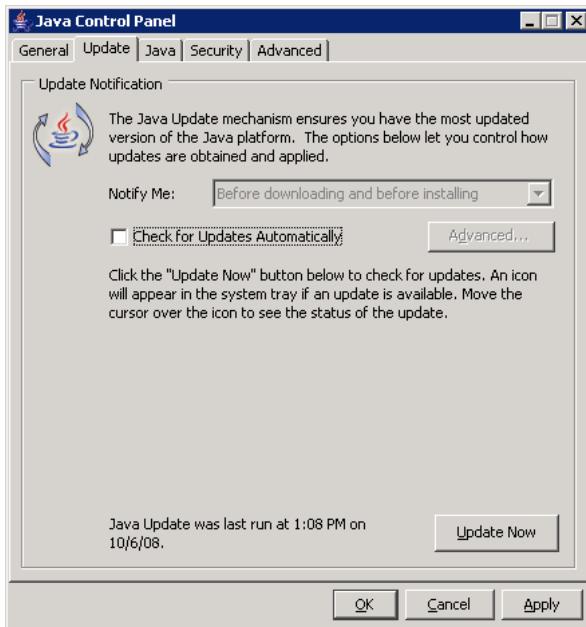


4. From the Network Settings dialog box, verify that the **Use browser settings** radio button is selected.



5. Click **OK**.
6. From the Java Control Panel dialog box, select the **Update** tab.

7. Deselect the **Check for Updates Automatically** check box.



8. Click **OK**.

STARTING THE P2000 SCT

The P2000 SCT is installed on the server as part of the P2000 host software installation. For more information, refer to the *P2000AE Server/Workstation Software Installation Manual*.

The P2000 SCT can be accessed in one of two ways:

- Directly from the P2000 server or workstation.
- Using any web browser from a computer with a LAN/WAN connection to the P2000 server (if configured for remote access).

NOTE

Multiple users may be logged on simultaneously to the P2000 SCT. However, if multiple users edit the same object, the changes from the user who last saves the object take precedence.

► **To launch P2000 SCT directly from the P2000 server or workstation:**

1. Launch the P2000 SMS host software if it is not running. Refer to the *P2000AE Software User Manual* for assistance.
2. From the menu bar, select **Config>SCT**.

If launching the P2000 SCT for the first time, see “Starting the P2000 SCT for the First Time” on page 1-16 for instructions.

If you are **not** launching the P2000 SCT for the first time, the P2000 SCT user interface appears, displaying the archive and its contents. See “User Interface” on page 2-1.

► **To launch P2000 SCT from a computer with a LAN/WAN connection to the P2000 server:**

1. Launch your Web browser.
2. Enter one of the following URLs in your browser and press <Enter>. In Microsoft Internet Explorer, the URL field is called Address.

`http://IP Address of P2000 Server/sct`

Example: `http://122.655.234.411/sct`

OR

`http://Computer Name of P2000 Server/sct`

Example: `http://jsmithpc1.xyz.com/sct`

NOTE

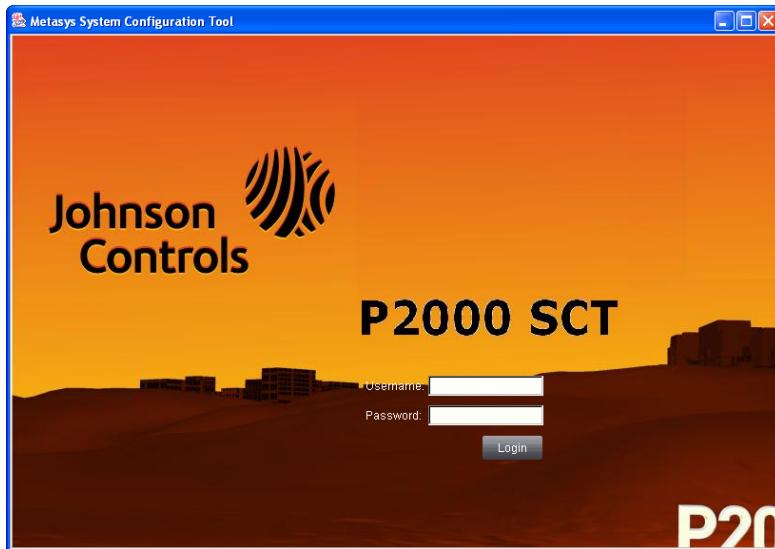
*You may be required to install the Java Runtime Environment in order to access the P2000 SCT via your browser. Follow the Java Install Wizard’s instructions. If asked whether to replace an existing version of Java, select **No**. After the installation, you may need to restart your computer.*

The Java Plug-in Security Warning screen appears.



3. Verify the **Always trust content from this publisher** check box is selected.
4. Click **Run**.

The P2000 SCT Login screen appears.



NOTE

To quickly access the P2000 SCT in the future, you can add the URL to your browser Favorites list. Refer to your browser's online help for assistance.

5. Enter your **Username** and **Password**.

Default: Username:cardkey
Password: master

The Username and Password are the same as those used to access the P2000 host software. For information on creating or editing a user account, refer to the *P2000AE Software User Manual*.

6. Click the **Login** button.

If launching the P2000 SCT for the first time, see “Starting the P2000 SCT for the First Time” on page 1-16 for instructions.

If you are **not** launching the P2000 SCT for the first time, the P2000 SCT user interface appears, displaying the archive and its contents. See “User Interface” on page 2-1.

Starting the P2000 SCT for the First Time

When you launch the P2000 SCT for the first time, you will be asked the following questions:

■ **Would you like to import all standard templates?**

Click **Yes** to import all JCI Standard Templates (recommended). See “Importing All JCI Standard Templates” on page 1-17.

Click **No** to import templates individually at a later time.



- **Would you like to create a site in your new archive?**

Click **Yes** to create a Site object (see “Creating a Site Object” on page 1-18).

Click **No** to create a Site object at a later time.



- **Would you like to create a device in your new site?**

This dialog box appears after you create the Site object.

Click **OK** to create a CK722 Device object. See “Insert Device Wizard” on page 3-10 for more information.

Click **Cancel** to create a CK722 Device object at a later time.



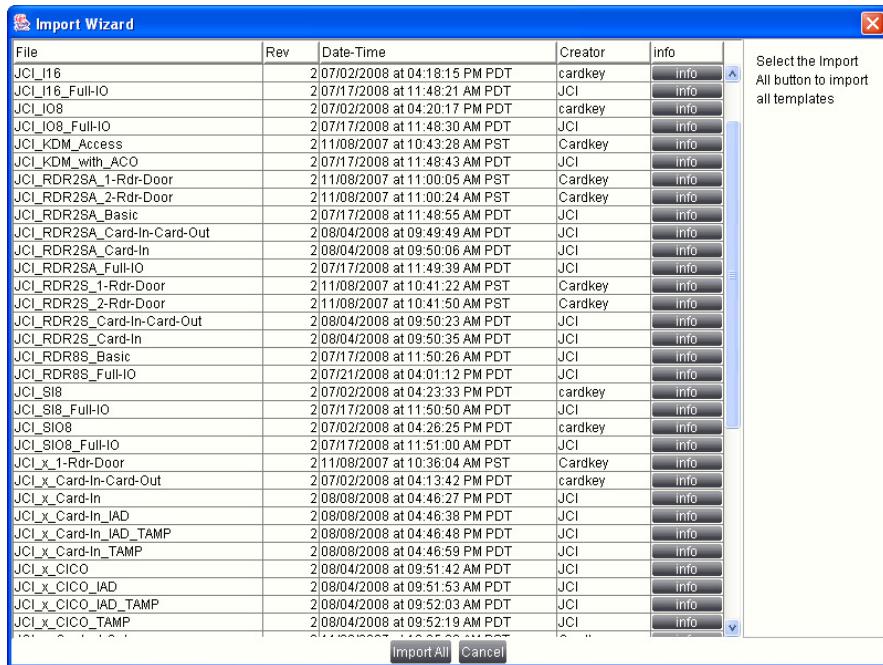
Importing All JCI Standard Templates

You can only import all JCI Standard Templates at one time when starting the P2000 SCT for the first time.

► **To import all standard templates:**

1. When the Import Standard Templates dialog box appears, click **Yes**.

The Import Wizard appears.



2. Click **Import All**.

Due to the large number of templates, importing them may take a few minutes.

Creating a Site Object

When you launch the P2000 SCT for the first time, you will be asked whether you wish to create a Site object. If you answer **Yes**, the Insert Site Wizard appears. If you answer **No**, the P2000 SCT user interface appears. In this case, you may insert a Site object by selecting **Insert>Site** from the menu bar.

See also “Site Object” on page 5-12.

NOTE

The P2000 SCT does not allow multiple sites in the archive. Once you create a site, the Site option under the Insert menu becomes disabled (grayed-out). If you delete the site, this option becomes enabled.

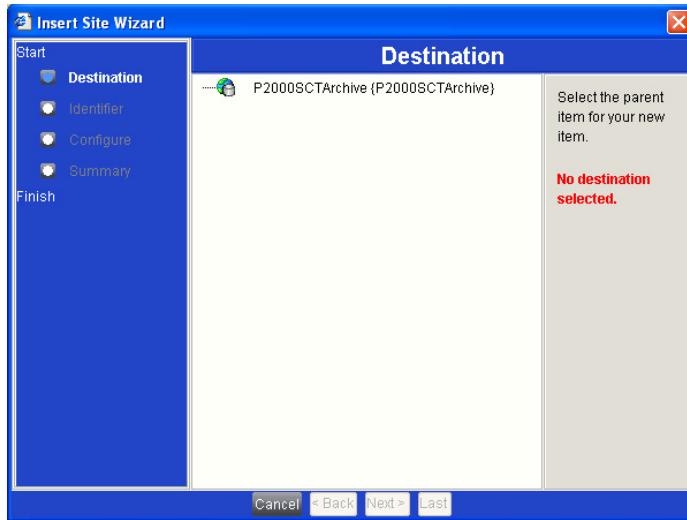
► To create a Site object:

1. If you are launching the P2000 SCT for the first time, the Create Site dialog appears. Click **Yes**.



If **No** was previously selected on the Create Site dialog box and you now wish to create a Site object, select **Insert>Site** from the menu bar.

The Insert Site Wizard's Destination screen appears.



2. Select the archive and click **Next**.
3. Follow the prompts on the screen to configure the site in the archive. See Table 1-1 for details.

Table 1-1: Insert Site Wizard Screens

Screen	Purpose
Identifier	Enter a unique name for the site.
Configure	Set the editable attributes of the Site object you are configuring. See "Site Object" on page 5-12 for further information. Clicking the Advanced button on this screen allows you to access additional attributes.
Summary	View the basic parameters of the site just added.

4. Click the **Finish** button.

A site is created with the parameters you have selected, and you are prompted to insert a Supervisory Device (CK722 Device object) into the new site. See "Insert Device Wizard" on page 3-10.

USER INTERFACE

After launching the P2000 SCT and, if applicable, logging on, you can perform all of the desired functions available to configure the system.

NOTE

The P2000 SCT does not currently follow P2000 partitioning rules. Once you log on, regardless of the partition to which you are assigned, you will have access and editing rights to all objects in the archive.

SCREEN LAYOUT AND FRAMES

The screen contains four frames and provides a consistent look and feel.

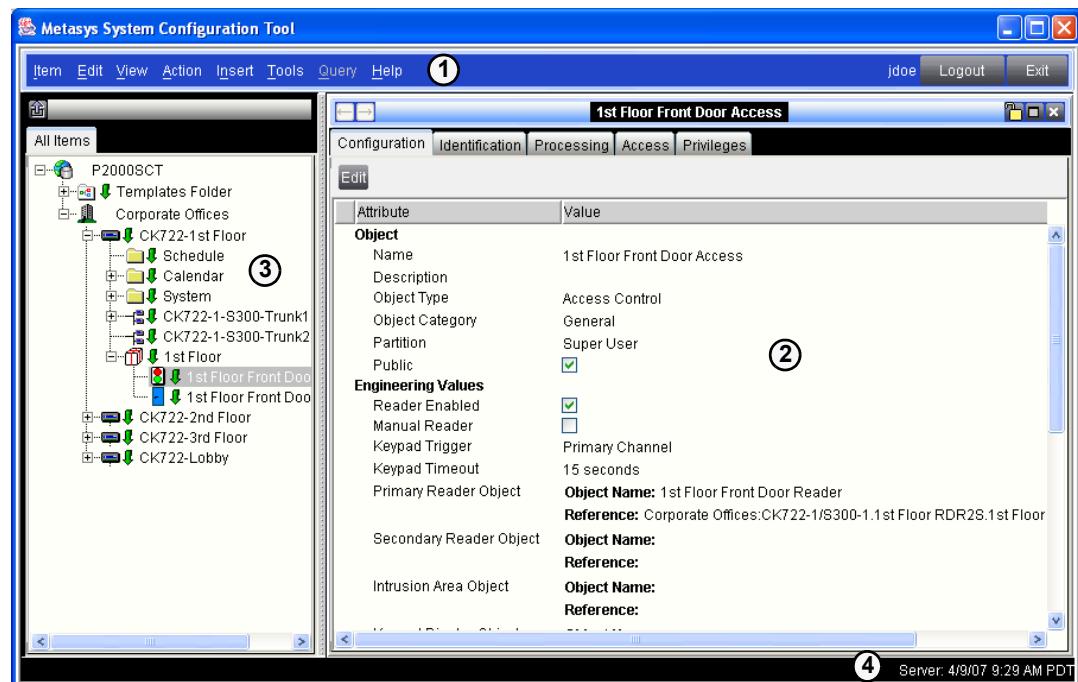


Table 2-1: User Interface (UI) Screen Frames

Number	Name	Description
1	Menu	Displays the menu bar and the name of the logged-on user. For more information on menus, see "Menus" on page 3-1. Log out or exit from the system using buttons in this frame.
2	Display	Presents data or information in the user-selected panel layout. In the example above, the Display Frame shows information about the Access Control object named 1st Floor Front Door Access (the object is selected in the Navigation Tree and the name of the object appears at the top of the Display Panel). See "Display Frame" on page 2-5 for more information.
3	Navigation	Displays the Navigation Tree that organizes items in the system. The Navigation Tree generates automatically when you configure the system database. For more information on the Navigation Tree, see "Navigation Tree" on page 2-2.
4	Status	Displays information about current user actions and the current time and time zone of the P2000 server into which you are logged. Status bar icons indicate system status.

NOTE

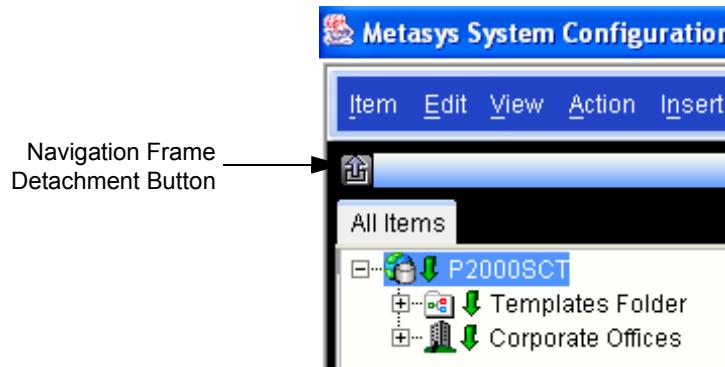
If the Navigation Frame or a Display frame is active, the header bar of the active frame or pane is highlighted. The Menu and Status frames are not highlighted even when you click in them.

NAVIGATION TREE

The Navigation Frame can display several navigation trees. The **All Items** Navigation Tree is generated during system configuration and represents the network layout of your system.

Navigation trees support standard browsing concepts such as the plus sign (+) for expanding items in the tree and the minus sign (-) for collapsing or hiding items in the tree. To see more details on an item in the Navigation Tree, you can select the item with a mouse, and click and drag and drop it into a display panel, or double-click the item in the Navigation Tree. The Navigation Frame also supports scroll bars and both right-click and left-click options.

To detach and move the Navigation frame to a different area of the screen, if desired, click the **Navigation Frame Detachment** button.



You can minimize and maximize the Navigation frame, but if you click the X button, the frame is restored to its default position.

ITEMS

The P2000 SCT uses the term **item** as a generic reference to an object or selection in the Navigation Tree. Items in the All Items Navigation Tree include the site, devices, objects, schedules, field points, and other system data. Each item may have another item under it. Items have right-click pop-up menus that provide viewing options. A symbol represents each item in the Navigation Tree.

Navigating to an Item

To navigate to and select an item, click the plus (+) and minus (-) signs in the Navigation Tree to expand and collapse folders or parent items until the desired item appears on the tree.

NOTE

Use the <Ctrl> or <Shift> key to select multiple items. Also, to display information about the item, see the "Displaying Information about an Item" section.

Displaying Information about an Item

To display information about an item you selected in the Navigation Tree, do one of the following and click on the desired tab:

- Double-click the item in the Navigation Tree and it displays in the default display panel.
- Drag and drop the item from the Navigation Tree into a display panel.

- Select an item in the Navigation Tree, open the **View** menu and click **Selected Item** and the data displays in the default display frame.

When you display information in a panel that already contains data, the older data is replaced and added to the panel history. To access up to 5 previously displayed items in the panel history, click on the **back** button in the display panel.

NOTE

If all available panels are locked and you try to display information about an item, a message appears stating so. Click OK and unlock a panel to display other item information.

Modifying Items

To modify the attributes of an item:

1. View the details of the item in a display panel.
2. Select the desired item tab.
Some items contain an **Advanced** radio button. If you select this button, additional attributes appear.
3. Click **Edit** and modify the attributes, as needed.
If you place your cursor over an edit field, the tool tip provides information about the valid format or range for that value. Tool tips also appear for certain strings (not those with drop-down choices).

NOTE

Required fields are highlighted in red.

4. Click **Save**.

Deleting Objects/Items

To delete objects/items:

1. Select the object/item you want to delete in the **All Items** Navigation Tree.
2. From the menu bar, select **Edit>Delete Items** OR right-click over the item and select **Edit>Delete Items** in the pop-up menu.

You cannot select an object/item in the display frame and delete it from the system. You can only delete objects/items that are not part of a template by selecting them in the Navigation Tree.

NOTE

*When deleting **template** objects, you can only delete certain objects, such as an S300 Trunk object, using the Navigation Tree. All other template objects are deleted from the object logic diagram (Logic tab). See Table 5-1 on page 5-8.*

3. After deleting objects/items, perform a download or synchronization to update the CK722 controller. See “Database Synchronization” on page 7-4 for more information.

Printing a Copy of the Navigation Tree

► **To print a copy of the Navigation Tree:**

1. Select the Navigation Tree you wish to print.

NOTE

You must select the Navigation Tree to enable Print. When you select the Navigation Tree, all visible parts of the tree print out (even parts of the tree that you need to scroll to view). Parts of the tree that are collapsed (not visible in the tree) do not print.

2. From the menu bar, select **Item>Page Setup** if you wish to change the paper, orientation, or margin size.
3. Click **OK** when done.
4. From the menu bar, select **Item>Print Preview** to see what the printout will look like.
5. Click **Print**.

DISPLAY FRAME

The Display Frame can be divided into and up to four display panels. When viewing an item in a display panel, the name, status, and default attribute (usually the present value) of the item you are displaying appear at the top of the display panel. Each display panel can contain different tabs depending on the item selected from the Navigation Tree, and each tab shows different information. The default display panel is the first empty panel or last unlocked panel if all displayed panels are filled. Display panels are locked while in **Edit** mode, or may be locked using the **Lock** button of the selected display panel. If all available panels are locked, you will not be able to display an additional item in any of the display panels.

Each display panel has its own buttons and can be resized by dragging the borders. With some items, an **Edit** button appears allowing you to edit the item's configuration attributes.

You can drag and drop up to five items into a display panel and navigate between them using the back and forward display panel buttons.

Display Frame Layout

The user interface allows you to define your own display frame layout. Six options are available:

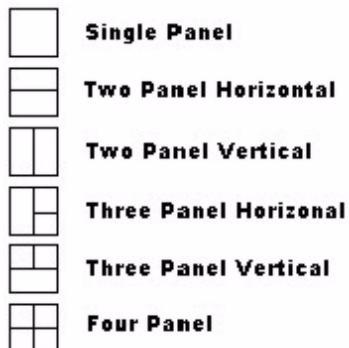


Figure 2-1: Panel Layout Options

To change the Display Panel layout, select **View>Panel Layout** from the menu bar and choose one of the 6 layouts.

If you have a multi-panel display and you change to a layout with fewer panels, the locked items/newest items in the view stay, depending on how many panes are available in the new layout. The other panels close (they do not re-appear if you switch back to the multi-pane view).

To resize the panels, drag the borders of the panel until it reaches the desired size. To make one panel (in a multi-panel arrangement) cover the entire Display frame temporarily, click on the **maximize** button. To restore a maximized panel in a multi-pane view, click the **restore** button.

DISPLAY PANEL

Display Panel Tabs

Each display panel contains tabs that vary depending on the item displayed, and the number and type of attributes associated with the item. For example, the Access Control object has five different tabs (Configuration, Identification, Processing, Access, and Privileges), whereas the Door Sequence object has a single tab (Configuration). Refer to the *CK722 Commissioning Guide* or the individual object manuals for more information.

Display Panel Buttons

The display panel buttons are shown below:

Table 2-2: Display Panel Buttons

Button	Description
	Allows you to edit attributes for the displayed item. The values you can edit vary depending on the displayed item. Select the Save button to save your changes. Note: After saving the changes in the P2000 SCT, the values remain unchanged until you click refresh.
	Displays the content previously displayed in that panel. Each panel can have a display history of up to 5 items.
	Displays the content of the next panel saved in the history.
	Locks the selected display panel (prevents another item from being dropped in this panel and overwriting it). A locked panel can be resized. This button toggles between locked and unlocked.
	Clears the current item displayed in the panel and the history of items displayed (history can contain up to 5 items).
	Maximizes the active panel to the full size of the Display Frame. The other panels reappear if you click the restore button.
	Restores the panels to their original size and position.
 Basic	Displays commonly used information about the displayed item.
 Advanced	Displays all the information the system contains pertaining to the displayed item.

Printing a Copy of the Display Panel

► To print a copy of the Display Panel:

1. Select the display panel you wish to print.

NOTE

You must select a display panel to enable Print. When you select a display panel, the entire contents of the visible display panel prints out.

2. From the menu bar, select **Item>Page Setup** if you wish to change the paper, orientation, or margin size.
3. Click **OK** when done.

4. From the menu bar, select **Item>Print Preview** to see what the printout will look like.
5. Click **Print**.

NOTE

If the panel you selected is not printable, Print is disabled.

POP-UP MENUS

Pop-up menus provide an efficient way to quickly access important item information. To access pop-up menus, right-click on an item in the Navigation Tree. Content of the menu depends on the type of selected item. For example, object pop-up menus usually show the options **View** and **Edit**.

SYSTEM INACTIVITY TIMEOUT

If the P2000 SCT does not detect system activity for a defined number of minutes, the system will time out. When the system times out, you will be logged out of the current session and the P2000 SCT Welcome screen will appear. You must log back in to the P2000 SCT to continue. See “Starting the P2000 SCT” on page 1-14.

NOTE

The P2000 SCT system activity timeout feature does not apply to a session launched from the P2000 host software.

The default timeout setting is 60 minutes.

► **To change the timeout setting:**

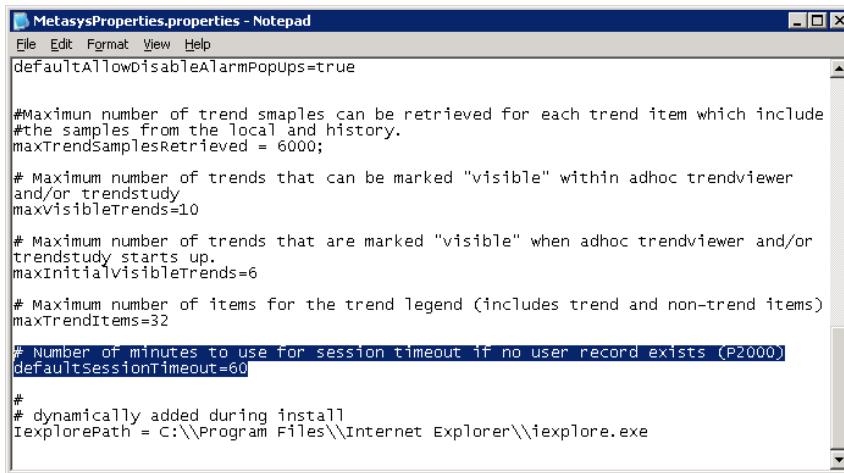
NOTE

The timeout setting should only be modified by the System Administrator or other qualified individual responsible for administering the P2000 system.

1. From the P2000 server, access the following location:
Local Disk:\Inetpub\wwwroot\MetasysIII\toolUI\com\jci\metasys
2. Double-click the **MetasysProperties.Properties** file and open it in Notepad or other text editor.

3. Locate the following text:

```
# Number of minutes to use for session timeout if no user record exists (P2000)
defaultSessionTimeout=60
```



```
MetasysProperties.properties - Notepad
File Edit Format View Help
defaultAllowDisableAlarmPopups=true

#Maximum number of trend smaples can be retrieved for each trend item which include
#the samples from the local and history.
maxTrendSamplesRetrieved = 6000;

# Maximum number of trends that can be marked "visible" within adhoc trendviewer
#and/or trendstudy
maxVisibleTrends=10

# Maximum number of trends that are marked "visible" when adhoc trendviewer and/or
trendstudy starts up.
maxInitialVisibleTrends=6

# Maximum number of items for the trend legend (includes trend and non-trend items)
maxTrendItems=32

# Number of minutes to use for session timeout if no user record exists (P2000)
defaultSessionTimeout=60

#
# dynamically added during install
iexplorePath = C:\\Program Files\\Internet Explorer\\iexplore.exe
```

4. Replace the 60 (or whatever value was entered) with the new timeout setting.
5. Click **File>Save**.

LOGGING OUT

Save changes before logging out. Logging out closes all open windows (except the log in screen) associated with the session. For information on exiting, see “Exiting”.

NOTE

If you launched the P2000 SMS from the host software, there is no Logout button. You can only exit the tool by closing the P2000 SCT browser instance.

► **To log out:**

1. From the menu bar, click the **Logout** button.
2. If you are currently editing an object/item in a display panel, the P2000 SCT aborts the logout process and displays a dialog box asking if you wish to save or cancel your changes. You must exit edit mode before you can log out of the application.

EXITING

Save changes before exiting. Exiting closes all open windows associated with the session, including the login screen (if you launched the tool from the host software). For information on logging out, see “Logging Out”.

► **To exit:**

1. From the menu bar, click the **Exit** button. If you launched the tool from the host software, click the **X** button at the upper-right corner of the browser window to exit the P2000 SCT.
2. If you are currently editing an object/item in a display panel, the P2000 SCT aborts the exit process and displays a dialog box asking if you wish to save or cancel your changes. You must exit edit mode before you can exit the application.

MENUS AND WIZARDS

MENUS

Item Menu

Table 3-1 lists the menu items for the Item menu.

Table 3-1: Item Menu

Menu Item	For more information, see . . .
Export Item	“Export Wizard” on page 3-9
Import Item	“Import Wizard” on page 3-9
Page Setup	“Printing a Copy of the Navigation Tree” on page 2-5 or “Printing a Copy of the Display Panel” on page 2-7
Print Preview	“Printing a Copy of the Navigation Tree” on page 2-5 or “Printing a Copy of the Display Panel” on page 2-7
Print Ctrl+P	“Printing a Copy of the Navigation Tree” on page 2-5 or “Printing a Copy of the Display Panel” on page 2-7

Edit Menu

Table 3-2 lists the menu items for the Edit menu.

Table 3-2: Edit Menu

Menu Item	For more information, see . . .
Copy Ctrl+C	“Copy” on page 3-2
Paste Ctrl+V	“Paste” on page 3-2
Delete Items	“Delete Items” on page 3-2

Copy**Menu Selection:** Edit>Copy

Copies the selected item to the clipboard.

For details on copying and pasting items, see “Paste Item Wizard” on page 3-14.

Paste**Menu Selection:** Edit>Paste

Pastes the clipboard contents to the user-specified location.

For details on copying and pasting items, see “Paste Item Wizard” on page 3-14.

Delete Items**Menu Selection:** Edit>Delete Items

Deletes (removes) one or more items selected in the All Items Navigation Tree from the site.

For details on deleting items, see “Deleting Objects/Items” on page 2-4.

View Menu

Table 3-3 lists the menu items for the View menu.

Table 3-3: View Menu

Menu Item	For more information, see . . .
Selected Item	“Displaying Information about an Item” on page 2-3
ActionQ	“ActionQ” on page 7-7
Extended Labels	“Extended Labels” on page 3-2
Panel Layout	“Display Frame Layout” on page 2-6

Extended Labels**Menu Selection:** View>Extended Labels (select the check box)

Toggles the display of the item labels in the Navigation Tree from standard to extended. An extended label shows the item reference in brackets next to the standard label.

Example:

Standard Label = CK722-1

Extended Label = CK722-1{CK722 Device>>CK722-1}

Action Menu

Table 3-4 lists the menu items for the Action menu.

Table 3-4: Action Menu

Menu Item	For more information, see . . .
Refresh Current Tab	"Refresh Current Tab" on page 3-3
Refresh All Tabs	"Refresh All Tabs" on page 3-3

Refresh Current Tab

Menu Selection: Action>Refresh Current Tab

Refreshes the data displayed in the current tab of the active frame or panel.

Refresh All Tabs

Menu Selection: Action>Refresh All Tabs

Refreshes the data displayed in all tabs of the active display panel or the navigation frame.

Insert Menu

Table 3-5 lists the menu items for the Insert menu.

Table 3-5: Insert Menu

Menu Item	For more information, see . . .
Site	"Insert Site Wizard" on page 3-10
Supervisory Device	"Insert Device Wizard" on page 3-10
Integration	"Insert Integration Wizard" on page 3-10
Field Device	"Insert Field Device Wizard" on page 3-11
Field Point	"Insert Point Wizard" on page 3-12
Folder	"Insert Folder Wizard" on page 3-12
Object	"Objects" on page 5-1
Package	"Templates and Packages" on page 6-1
Template	"Templates and Packages" on page 6-1

Tools Menu

Table 3-6 lists the menu items for the Tools menu.

Table 3-6: Tools Menu

Menu Item	For more information, see . . .
Database	
Create Backup	“Create Backup” on page 3-4
Restore Backup	“Restore Archive Wizard” on page 3-13
Load Archive	“Load Wizard” on page 3-14

Create Backup

Menu Selection: Tools>Database>Create Backup

Creates a backup file for the archive database. If needed, the archive database can be restored by selecting **Tools>Database>Restore Backup** from the menu bar. See “Restore Archive Wizard” on page 3-13.

The backup file is always named <archive>.backup, where <archive> is the name of the archive. Do not rename the backup file (renaming a backup file causes a subsequent restore to fail). To save different versions, copy the backup file to different subdirectories.



To avoid serious operational problems, when backing up or restoring the P2000 SCT archive database, you must also immediately back up or restore the P2000 databases. Refer to the *P2000AE Software User Manual* for details.

Query Menu

The Query menu is not available in the current release of the P2000 SCT. This menu has been disabled.

Help Menu

Table 3-7 lists the menu items for the Help menu.

Table 3-7: Help Menu

Menu Item	For more information, see . . .
About P2000 SCT	“About P2000 SCT” on page 3-5

About P2000 SCT

Menu Selection: Help>About P2000 SCT

Displays the version, copyright, current user name, and URL connection information for the P2000 system. Click the **Terms & Conditions** button to view legal terms and conditions regarding the use of this software.

Right-Click Menus

Table 3-8 shows the menu items that may appear in a right-click menu and their equivalent in the menu bar.

Table 3-8: Right-Click Menus and Menu Bar Equivalents

Right-Click Menu Item	=	Menu Bar Item
Edit		
Copy	=	Edit > Copy Ctrl+C
Paste	=	Edit > Paste Ctrl+V
Delete Items	=	Edit > Delete Items Delete
Refresh All Tabs	=	Action > Refresh All Tabs
Refresh Current Tab	=	Action > Refresh Current Tab
View	=	View > Selected Item

WIZARDS

Wizards make complex tasks easy and guide you through creating and configuring objects and features. A wizard typically consists of a series of steps, each corresponding to a screen presented to the user.

A wizard may appear when you select an option from the **Insert** menu and when you prompt certain actions such as copying and pasting an item in the Navigation Tree. For example, a wizard appears when you select **Insert>Object** from the menu bar.

Types of Wizards

Table 3-9 lists the wizards in the system. If viewing the electronic version of this document, click a wizard type in Table 3-9 to view detailed information.

Table 3-9: Types of Wizards

Export Wizard (see page 3-9)	Insert Folder Wizard (see page 3-12)
Import Wizard (see page 3-9)	Insert Object Wizard (see page 3-12)
Insert Site Wizard (see page 3-10)	Insert Package Wizard (see page 3-13)
Insert Device Wizard (see page 3-10)	Insert Template Wizard (see page 3-13)
Insert Integration Wizard (see page 3-10)	Restore Archive Wizard (see page 3-13)
Insert Field Device Wizard (see page 3-11)	Load Wizard (see page 3-14)
Insert Point Wizard (see page 3-12)	Paste Item Wizard (see page 3-14)

Wizard Navigation Buttons

The buttons listed in Table 3-10 are common to most of the wizards and allow you to move through wizard screens.

Table 3-10: Common Wizard Navigation Buttons

Button	Description
Cancel	Closes the wizard without saving any data. This button is always active.
< Back	Takes you back one screen in the wizard. This may not be the last screen viewed, since you can move between screens. This button is active on all screens except the first.
Next >	Takes you to the next screen in the wizard. If the current screen requires user input or you are on the last screen in the wizard, the Next button is disabled.
Last	If available, presents a summary screen for the wizard. If your input is required in any previous screen, the Last button is disabled. The Last button takes the user to the last wizard screen, which is the summary screen. Once the summary screen is displayed, the Last button is replaced by the Finish button.
Finish	Exits the wizard and saves the data. Selecting Finish is the normal method of exiting a completed wizard. If any prior screens require your input, this button is disabled. If a wizard has a summary screen, the Finish button is not available until the summary screen is displayed.

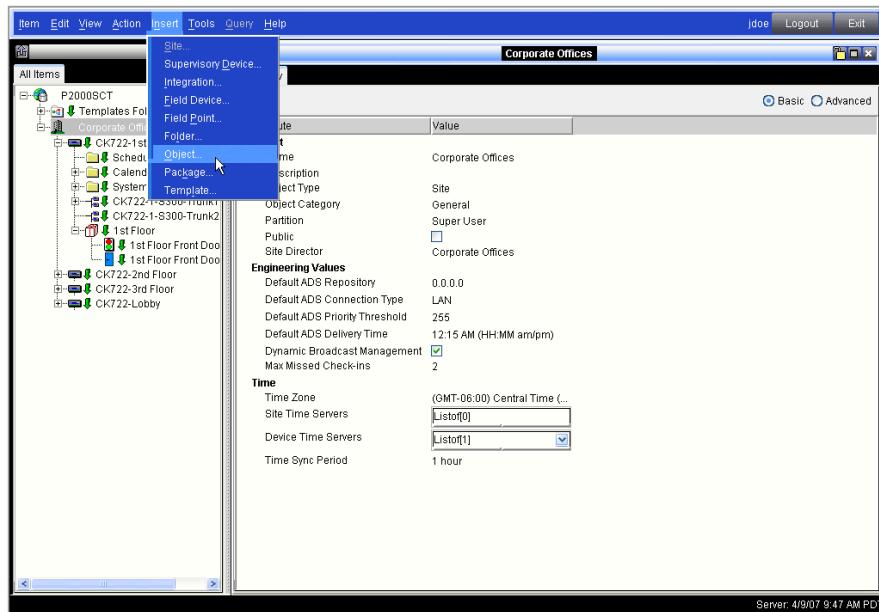
Inserting Items with Wizards

NOTE

The following screen captures show the insertion of an Access Control object as an example.

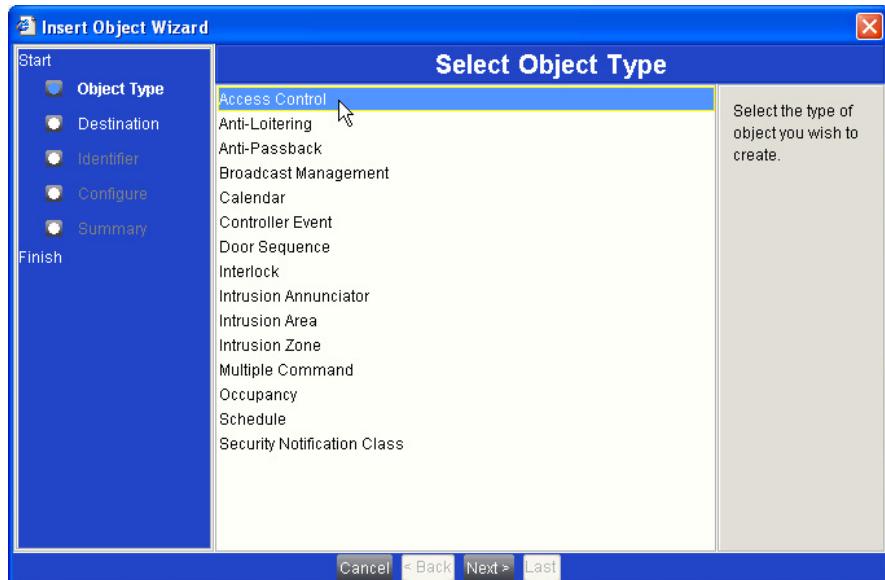
To insert an item with a wizard:

1. From the menu bar, select **Insert**.
2. Select the item to insert.



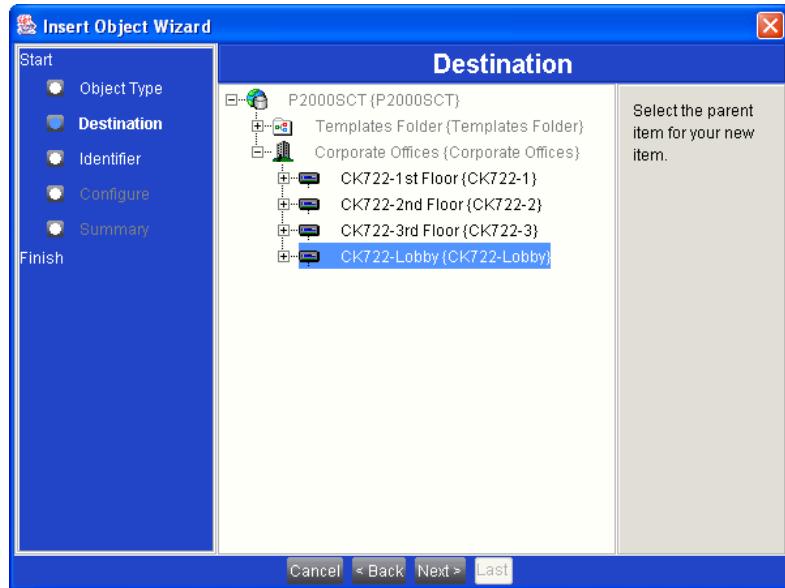
The corresponding wizard appears.

3. If more than one type of item is available, select the desired type. Click **Next**.

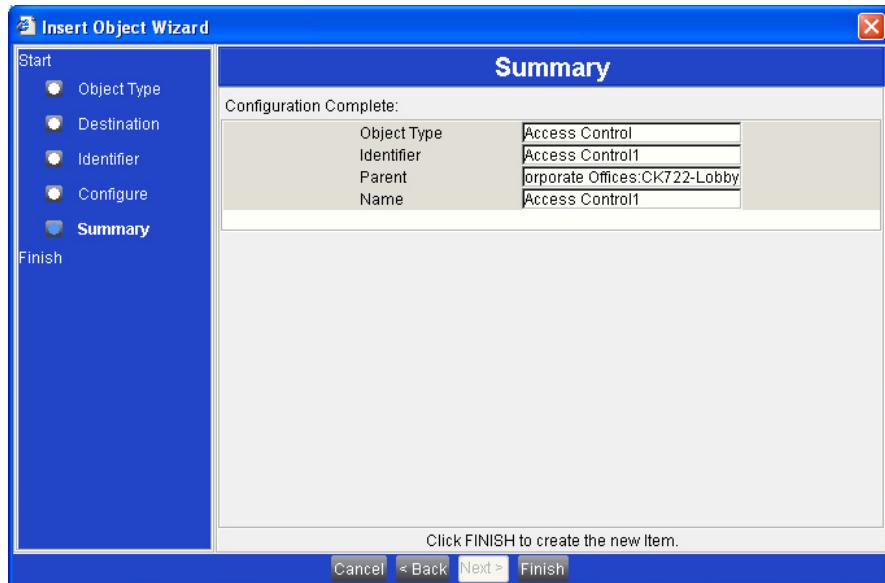


4. Select the destination for the new item and click **Next**. Only valid destinations appear.

In the case of an object, a destination is a parent object under which the inserted object will be attached. Placement of the object must follow the object hierarchy as described on page 5-5.



5. Complete the information on the wizard screens, using the navigation buttons to move through the screens.
The screens vary depending on the item you are creating. See “Using Wizards” for information specific to each wizard.
6. Select **Finish** on the summary page to insert the item.



If an error occurs, a message displays and the wizard returns to the summary page.

NOTE

When working with templates, you can only insert integration objects, such as the S300 Trunk object, and an S300 Hardware Module object using the Insert menu. All other template objects must be inserted using the template's Object Palette. See "Chapter 6: Templates and Packages".

Using Wizards

Export Wizard

Menu Selection: Item>Export Item

Exports an item and all items displayed beneath it in the Navigation Tree so the items can be imported into another archive database on another P2000 system. For instructions, see "Exporting Part of the Archive Database to a File" on page 4-3.

Tips:

- Select the item in the Navigation Tree on the Source screen.
- On the Filename/Identifier screen, you can create a new file or select an existing file to which the data will export and select the **Overwrite** check box.
- To view information associated with an existing file, click the **info** button for that item.

NOTE

The Export operation creates a file and places it in:

Local Disk:\Documents and Settings\All Users\Application Data\Johnson Controls\MetasysIII\DatabaseFiles

When importing the file on another system (destination), copy the file to the corresponding folder on the destination system.

See "Import Wizard" for import information.

Import Wizard

Menu Selection: Item>Import Item

Imports a previously exported item (file) and all items displayed beneath it in the Navigation Tree into the archive database. For instructions, see "Importing Part of an Archive Database from a File" on page 4-4.

Tip: To view information associated with an item (file) in the list of items that you can import, click the **info** button for that item. See “Export Wizard” on page 3-9.

NOTE

Files must be added to the following location before they can be imported:

Local Disk:\Documents and Settings\All Users\Application Data\Johnson Controls\Metasys\III\DatabaseFiles

Insert Site Wizard

Menu Selection: Insert>Site

Inserts a Site object into the archive database in the P2000 SCT.

Tip: The Create Device dialog box appears after inserting a site asking if you want to create a device in the site. Selecting **Supervisory Device** and clicking **OK** invokes the Insert Device wizard. Select **None** and **OK** if you do not want to add a device at this time.

See “Insert Device Wizard” on page 3-10 and “Site Object” on page 5-12 for more information. For instructions on inserting a Site object, see page 1-18.

The Insert Site Wizard can also be launched by clicking **Yes** on the Create Site dialog box, which appears when launching the P2000 SCT for the first time.

NOTE

The P2000 SCT does not allow multiple sites in the archive. Once you create a site, the Site option under the Insert menu becomes disabled (grayed-out). If you delete the site, this option becomes enabled.

Insert Device Wizard

Menu Selection: Insert>Supervisory Device

Inserts a CK722 Device object.

Tip: On the Configure screen of this wizard, click on any tabs that may appear (e.g. Communications, Network) for further device configuration.

Insert Integration Wizard

Menu Selection: Insert>Integration

Inserts one of the following objects under CK722 Device object:

- KONE IP Integration object
- KONE Integration object

- Otis Integration object
- S300 Trunk object

Refer to the individual object manuals for more information.

NOTE

When you insert a CK722 Device object, two S300 Trunk objects are added automatically and grouped under the CK722 Device object.

Insert Field Device Wizard

Menu Selection: Insert>Field Device

Allows you to insert an S300 Hardware Module object representing one of the following devices:

- Generic (Available only with templates)
- S300-DIN-RDR2S Reader Module (RDR2S)
- S300-RDR2 Reader Module (RDR2)
- S300-IO8 Unsupervised Input/Output Module (IO8)
- S300-SIO8 Supervised Input/Output Module (SIO8)
- S300-SI8 Supervised Input Module (SI8)
- S300-I16 Unsupervised Input Module (I16)
- Keypad/Display Module (KDM)
- S300-DIN-RDR2S-A Reader Module (RDR2S-A)
- S300-DIN-RDR8S Reader Module (RDR8S)

NOTE

*Selecting the **Generic** Hardware Module Type enables you to assign the hardware module and field point(s) when loading the package associated with the template. See “Chapter 6: Templates and Packages” for more information.*

Can also be used to insert one of the following elevator objects:

- KONE IP Controller object
- KONE Controller object
- Otis Controller object

On the Select Definition Mode screen, the **Assisted** radio button is disabled.

Tips (S300 Hardware Module objects only):

- Select the device type from the **Hardware Module Type** menu on the Definition screen.
- Select the number you wish to assign to the device from the **Hardware Module Number** menu on the Definition screen.

Refer to the individual object manuals for more information.

Insert Point Wizard**Menu Selection:** Insert>Field Point

Inserts one of the following objects (depending on the selected Destination object):

- S300 Reader Terminal object
- Security Binary Output object
- Security Supervised Input object
- Intrusion Keypad/Display object
- Elevator object
- KONE IP COP object
- KONE IP DOP object
- KONE Elevator object
- Otis Elevator object

On the Select Definition Mode screen, the **Assisted** radio button is disabled.

Refer to the individual object manuals for more information.

Insert Folder Wizard**Menu Selection:** Insert>Folder

Inserts a folder into the Navigation Tree of the system for grouping and categorizing items and information in the Navigation Tree.

See “Folder Object” on page 5-14 for more information.

Insert Object Wizard**Menu Selection:** Insert>Object

Inserts one of the following objects under the selected CK722 Device object:

- Access Control object
- Anti-Loitering object

- Anti-Passback object
- Broadcast Management object
- Calendar object
- Controller Event object
- Door Sequence object
- Interlock object
- Intrusion Annunciator object
- Intrusion Area object
- Intrusion Zone object
- Multiple Command object
- Occupancy object
- Schedule object
- Security Notification Class object

Refer to the individual object manuals for more information.

Insert Package Wizard

Menu Selection: Insert>Package

Inserts a package based on a selected template into a CK722 Device object.

See “Loading Packages” on page 6-28 for more information.

Insert Template Wizard

Menu Selection: Insert>Template

Creates a template that can then be loaded as a package.

See “Creating a Template” on page 6-7 for more information.

Restore Archive Wizard

Menu Selection: Tools>Database>Restore Backup

Restores a backup (archive) database that was created using the
Tools>Database>Create Backup menu option.



To avoid serious operational problems, when backing up or restoring the P2000 SCT archive database, you must also immediately back up or restore the P2000 databases. Refer to the *P2000AE Software User Manual* for details.



When restoring the archive database, all changes to the database since the last database backup will be lost.

Load Wizard

Menu Selection: Tools>Load Archive

Downloads or synchronizes the archive database to the selected CK722 controller.

See “Database Download/Synchronization” on page 7-1 for more information on the Load process.

Paste Item Wizard

Menu Selection: Edit>Copy, then Edit>Paste

Copies an item from the Navigation Tree and pastes it into another location in the Navigation Tree.

Tip: You can copy an item and paste it into another equivalent node in the Navigation Tree or you can copy an item and paste it into the same node on the tree, but you must select a new name for the item. For example, you can copy a CK722 Device object (CK722-A) and paste it into the site if you rename it CK722-B.

ARCHIVE DATABASE

INTRODUCTION

The archive database holds the configuration information for the field devices and field points that make up the site. The archive database contains information about such items as CK722 controllers, input/output points, and alarms.

When you launch the P2000 SCT, the archive database opens automatically (except when launching the application for the first time). You may then add or edit information and references to controllers, field points, and other objects (e.g. Schedule objects, Access Control objects, Door Sequence objects, etc.).

You may also use the P2000 SCT to restore an archive database from a backup copy of the archive. An archive database backup is a backup file of the archive database. You must restore the archive backup into an archive database before a backup can be used. See “Backing Up and Restoring the Archive Database” on page 4-5 for more information.

NOTE

The P2000 SCT does not support multiple archives.

POPULATING THE ARCHIVE DATABASE

The following procedures can assist you in configuring the archive database. They are listed in the order in which they should be performed. For example, to add a CK722 Device object to the database archive, you must first have a Site object defined.

In addition to the following procedures, you can speed up your work by importing previously exported portions of a database. For information on importing portions of a database, see “Importing Part of an Archive Database from a File” on page 4-4. For information on exporting portions of a database, see “Exporting Part of the Archive Database to a File” on page 4-3.

► **To populate the archive database:**

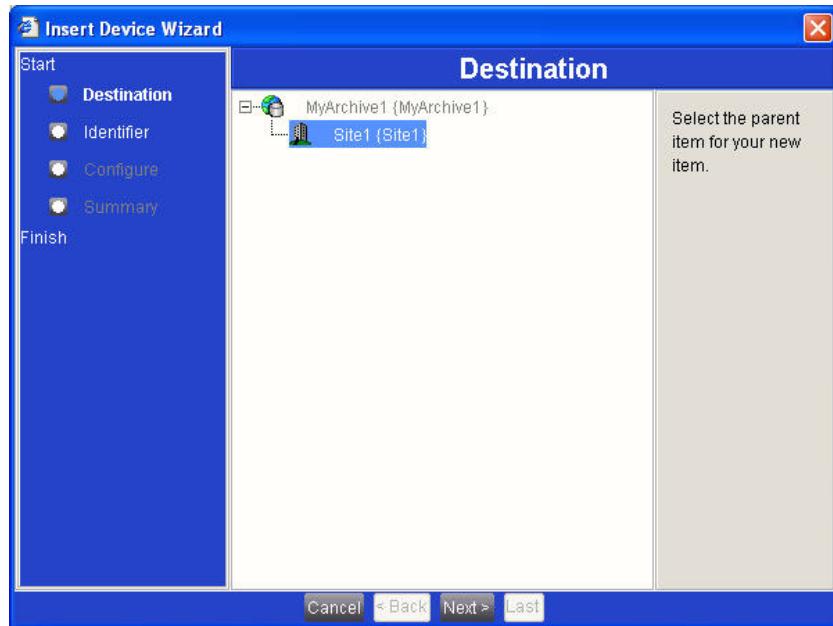
1. Add a site to the archive database.
See “Creating a Site Object” on page 1-18.

2. Add one or more CK722 Device objects to the archive database.
See “Adding CK722 Device Objects to the Archive Database” on page 4-2.
3. Add one or more field devices, such as S300 Hardware Module objects, to an integration object, such as an S300 Trunk object. If adding field devices for an elevator application, you must first add an elevator integration object, such as a KONE Integration object.
See “Insert Field Device Wizard” on page 3-11.
For information on object hierarchies, see “Object Hierarchy” on page 5-5.
4. Add field points to the archive database.
See “Insert Point Wizard” on page 3-12.
5. Add objects, such as an Access Control object and Door Sequence object, to the CK722 Device object.
See “Objects and Attributes” on page 5-1.
See also “Templates and Packages” on page 6-1 for information on designing and using templates.

Adding CK722 Device Objects to the Archive Database

► **To add CK722 Device objects to the archive database:**

1. From the menu bar, select **Insert>Supervisory Device**.
The Insert Device Wizard’s Destination screen appears.



2. Follow the prompts on the screen to configure the CK722 Device object.
See Table 4-1 for details.

Table 4-1: Insert Device Wizard Screen

Screen	Purpose
Destination	Select the Site where the CK722 Device object will reside.
Identifier	Enter a unique name for the CK722 Device object. A unique name is required for each CK722 Device object in the archive.
Configure	Configure the CK722 Device object on this screen. For detailed information on these configuration settings, refer to the <i>CK722 Device Object Manual</i> .
Summary	View the basic parameters of the CK722 Device object just added.

- Click the **Finish** button.

Exporting Part of the Archive Database to a File

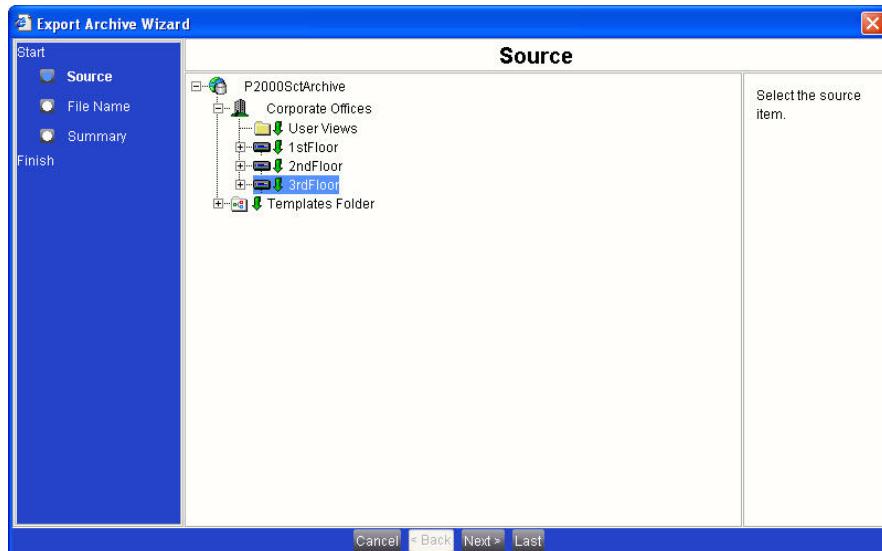
Items can be exported from the P2000 SCT archive for use in a different archive, or if you wish to save a template in the P2000 SCT database as a new template file that can be imported later or into another archive. See also “Importing Part of an Archive Database from a File” on page 4-4.

When selecting an object or template to export, the selected object or template and all of its subordinate objects will be exported. However, you cannot export an entire site.

► **To export part of the archive database to a file:**

- From the menu bar, select **Item>Export Item**.

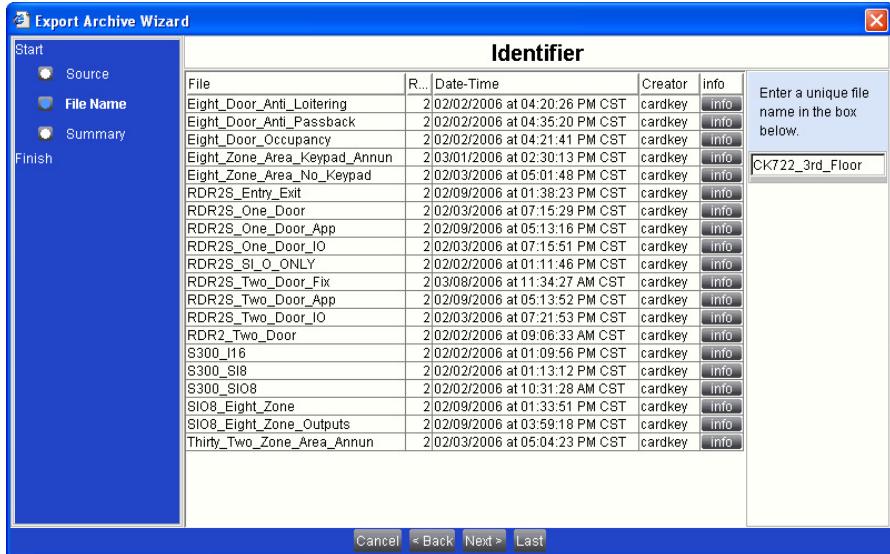
The Export Archive Wizard starts.



The source must be at a level lower than a Site object or a template from the Templates Folder.

2. Select the item to export and click **Next**.

The Export Archive Wizard's Identifier screen appears.



3. Enter a unique name for your export file. This is the name that appears in the Import Wizard's Select File screen.
4. Click **Next**.

The Export Archive Wizard Summary screen appears. This screen displays the information that appears when the user clicks the **info** button on the Import Archive Wizard's Select File screen.

5. If the Summary appears correct, click **Finish**. Otherwise, click **Back** and edit as necessary.

Importing Part of an Archive Database from a File

Follow these instructions to import a previously exported part of an archive database from a file or to import a template. See "Templates and Packages" on page 6-1 for more information on templates.

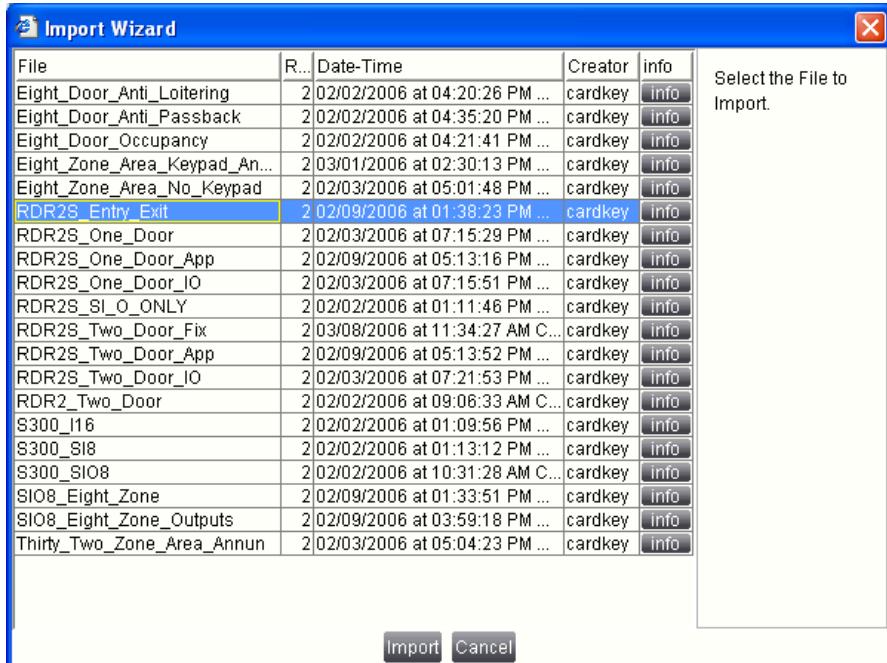
NOTE

All files to be imported must be located in the following location on the computer running the P2000 SCT:

Local Disk:\Documents and Settings\All Users\Application Data\Johnson Controls\Metasys\III\DatabaseFiles

► To import part of an archive database from a file:

- From the menu bar, select **Item>Import Item**. The Import Wizard appears.



- Select the file you want to import and click the **Import** button.

If an item or template of the same name already exists, a dialog checks to verify that you want to overwrite the existing item.

BACKING UP AND RESTORING THE ARCHIVE DATABASE

The backup is saved as a **.backup** file and stored in the following default directory:

C:\Documents and Settings\All Users\ApplicationData\Johnson Controls\MetasysIII\DatabaseFiles



To avoid serious operational problems, when backing up or restoring the P2000 SCT archive database, you must also immediately back up or restore the P2000 databases. Refer to the *P2000AE Software User Manual* for details.

To restore the database backup file, it must be in this directory.

► To back up the archive database:

- From the menu bar, select **Tools>Database>Create Backup**.
A message appears telling you that the backup was successful.

► **To restore the archive database:**

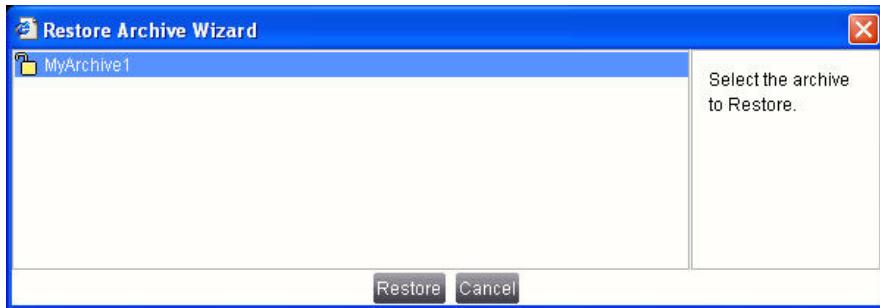


When restoring the archive database, all changes to the database since the last database backup will be lost.

CAUTION

1. From the menu bar, select **Tools>Database>Restore Backup**.

The Restore Archive Wizard appears.



2. Click **Restore**. The Confirm Delete and Restore message appears.
3. Click **Yes** to delete the current archive and replace it with the most recent backup of that archive.

NOTE

Do not rename the backup file.

OBJECTS AND ATTRIBUTES

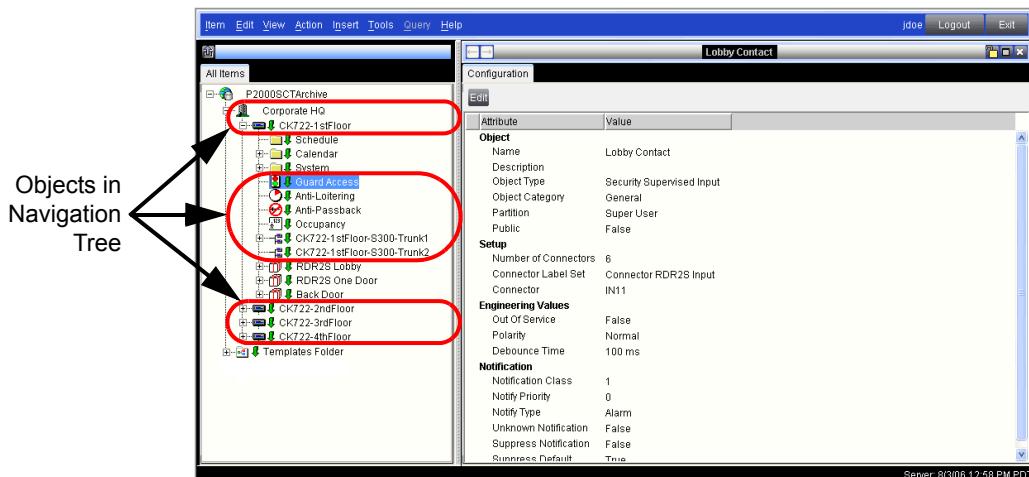
INTRODUCTION

This chapter provides information on objects and attributes of the CK722 controller and its peripherals, including information on creating and deleting objects, editing attributes, and detailed information on those objects not covered in separate manuals, such as the Site object.

OBJECTS

Objects are self-contained functional items in the P2000 SMS that include processes to manage security components. Objects appear as items in the Navigation Tree that shows the hierarchical physical or logical relationship between the objects as the user created them. These objects are generally referred to as items in the P2000 SCT user interface.

Each object that exists in a system is based on a specific object type. There is an object type to manage the functions of the site, object types to manage the operation of the various device types installed on the site, object types to manage the physical input and output points of each field device, and others.



Examples: Site object, CK722 Device object, Access Control object, Door Sequence object, Anti-Passback object.

Objects communicate with the rest of the system and with the user through their attributes. The object type defines the basic function of the object, but the actual behavior of each object also depends on the values assigned to its configuration attributes and received by its input attributes from other objects. The object writes its status conditions and the results of internal processes to its output attributes.

When an object type has an equivalent BACnet Object Type, the attribute list includes the BACnet Properties required by the BACnet protocol specification and some of the optional properties. These objects may be accessed from a BACnet network. For detailed information on BACnet objects and properties, refer to *ANSI/ASHRAE Standard 135-2001 - A Data Communication Protocol for Building Automation and Control Networks*.

Object Names (Identifiers)

An object name or identifier is a unique name for the software representation (object) of the P2000 SCT. Object names are optional, but if the name is defined, it must be unique throughout the site. If the object name is not defined, it assumes the value of the full item reference (for example, Floor2Door3).

The following characters are not allowed: @ . , ? * # : ' " / \ [] < > | \$

When inserting an object, excluding a CK722 Device object, the P2000 SCT assigns a default name of **C#####-#####-(Object Type Suffix)**.

Note

Periods (.) are allowed in Domain names.

NOTE

Spaces are not allowed with the Item Reference name of a CK722 Device object. All other objects can have spaces in their names.

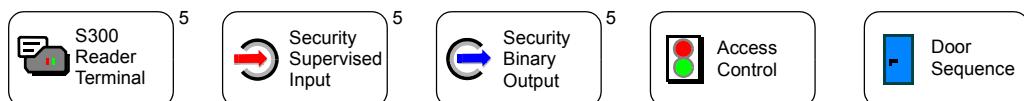
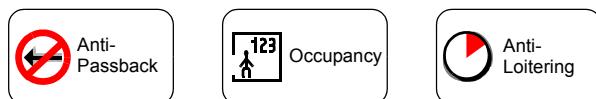
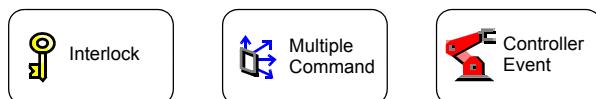
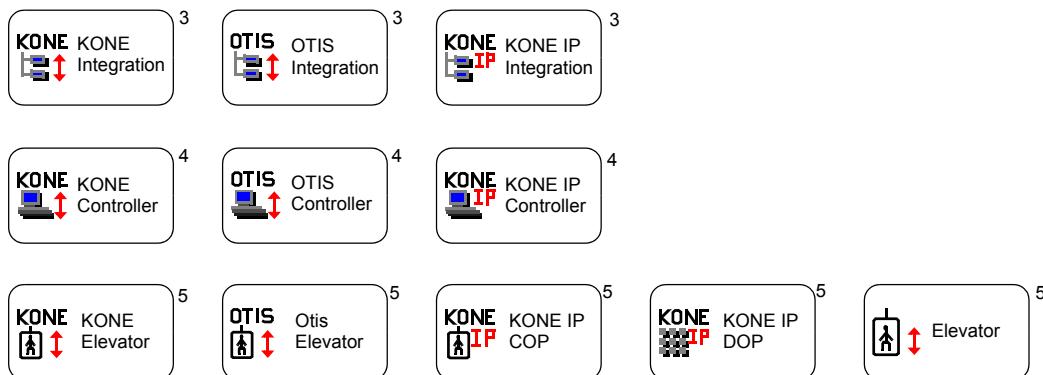
Object List

The bulleted list below shows the objects that are available in the P2000 SCT. For more information on the listed objects, refer to their respective manual.

For information on the Site object, see page 5-12. For information on the Folder object, see page 5-14.

- Access Control object
- Anti-Loitering object
- Anti-Passback object
- Broadcast Management object
- Calendar object
- CK722 Device object
- Controller Event object
- Door Sequence object
- Elevator object
- Folder object
- Interlock object
- Intrusion Annunciator object
- Intrusion Area object
- Intrusion Keypad/Display object
- Intrusion Zone object
- KONE Controller object
- KONE Elevator object
- KONE Integration object
- KONE IP Controller object
- KONE IP COP object
- KONE IP DOP object
- KONE IP Integration object
- Multiple Command object
- Occupancy object
- Otis Controller object
- Otis Elevator object
- Otis Integration object
- S300 Hardware Module object
- S300 Reader Terminal object
- S300 Trunk object
- Schedule object
- Security Binary Output object
- Security Notification Class object
(Internal Use Only)
- Security Supervised Input object
- Site object

The following figure lists each object by category and displays its associated icon as it appears in the P2000 SCT software.

Hardware-related objects:*Basic application objects:**Advanced application objects:**Intrusion detection objects:**Custom logic objects:**Elevator-related objects:**Miscellaneous objects:**Internal and diagnostic object:*

Notes: ¹ Site, ² Supervisory Device, ³ Integration, ⁴ Field Device, ⁵ Field Point, ⁶ Folder

Object Hierarchy

The P2000 SCT consists of an object hierarchy, which enables you to better manage the many objects that make up a particular access control or intrusion detection application. The hierarchy consists of parent and child objects. A parent object has one or more subordinate child objects. For example, the S300 Trunk object is a parent object of an S300 Hardware Module object, since you can only add an S300 Hardware Module object to an existing S300 Trunk object. Child objects are grouped under a particular parent object.

Figure 5-1 lists each P2000 SCT object type and its placement within the hierarchy.

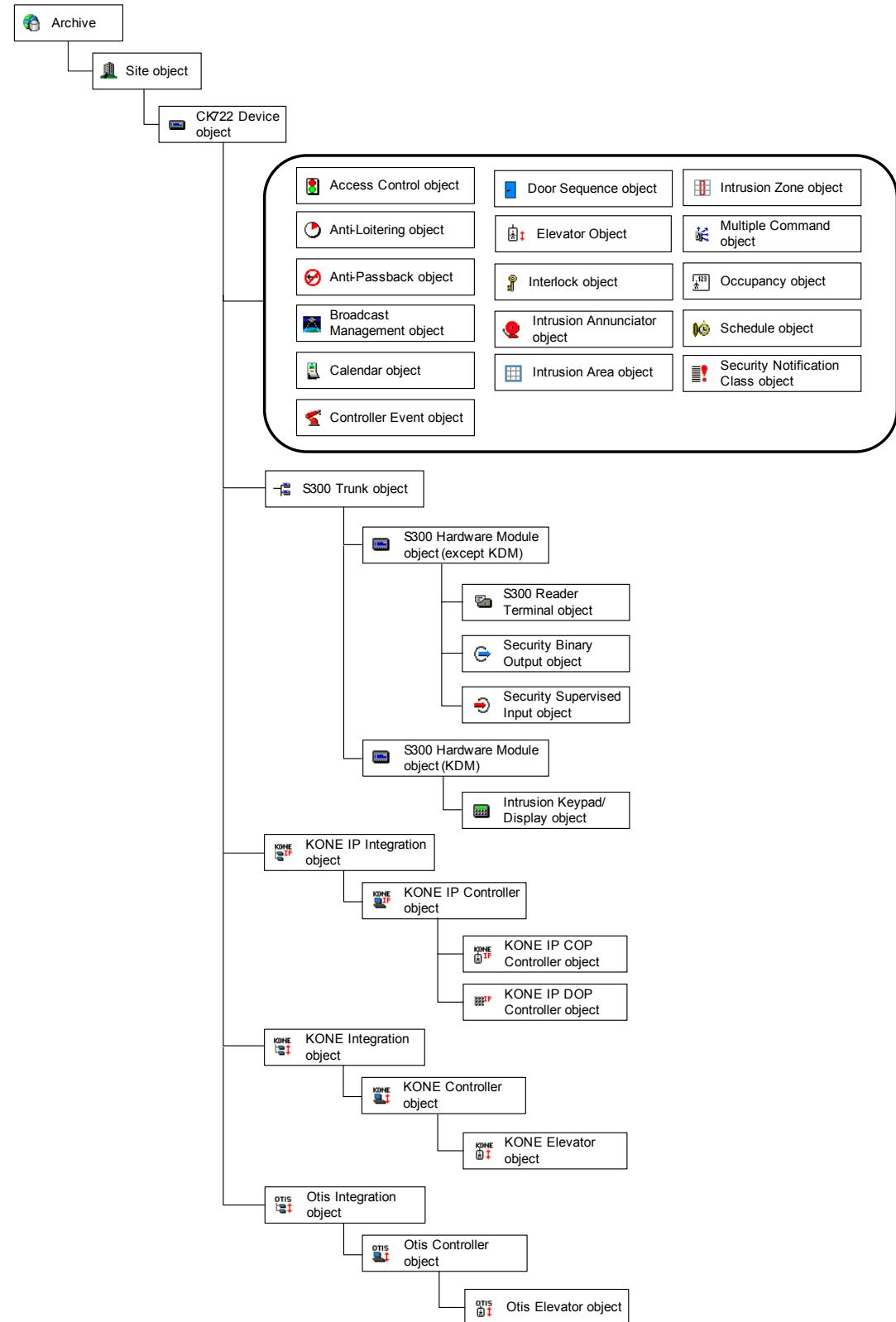


Figure 5-1: Object Hierarchy

Object Creation

Objects can be created with the P2000 SCT and later downloaded to the P2000 host as part of the edited database. Creating an object involves placing it at the desired position in the Navigation Tree and defining all the attributes that are required for it to operate. The procedure begins with the **Insert** menu, and a wizard guides you through all the necessary configuration steps.

See “Inserting Items with Wizards” on page 3-6 for the steps to insert objects/items. For information on inserting objects with the template feature, see “Designing an Object Logic Diagram” on page 6-9.

NOTE

An S300 Hardware Module object’s Hardware Module Type attribute cannot be modified.

NOTE

When working with templates, you can only create certain objects, such as an S300 Trunk object, using the Navigation Tree. Other template objects are created using only the template’s Object Palette on the Logic tab. See “Creating Objects” on page 6-9 for more information.

Object Deletion

Objects can be deleted with the P2000 SCT and the updated archive can be downloaded to the P2000 host as part of the edited database. Deleting an object involves selecting it in the Navigation Tree and using the **Delete Items** command.

See “Deleting Objects/Items” on page 2-4 for more information.

NOTE

Before deleting an object, delete all references to the object within other objects and reconfigure any objects that are referenced in the object to be deleted. If the references are not modified or deleted, the referenced objects may not operate correctly.

NOTE

*When deleting **template** objects, you can only delete certain objects, such as an S300 Trunk object, using the Navigation Tree. All other template objects are deleted from the object logic diagram (Logic tab). These deletion methods are mutually exclusive – if an template object is deleted from the Navigation Tree, it cannot be deleted from the Logic tab (and vice-versa). See Table 5-1.*

Table 5-1: Deleting Template Objects (Logic Tab or Navigation Tree)

Object ¹	Logic Tab	Navigation Tree
Access Control	X	
Anti-loitering	X	
Anti-Passback	X	
Broadcast Management	X	
Calendar	X	
CK722 Device ²	N/A	N/A
Controller Event	X	
Door Sequence	X	
Elevator	X	
Folder ²	N/A	N/A
Interlock	X	
Intrusion Annunciator	X	
Intrusion Area	X	
Intrusion Keypad/Display	X	
Intrusion Zone	X	
KONE Controller		X
KONE Elevator	X	
KONE Integration		X
KONE IP Controller		X
KONE IP COP	X	
KONE IP DOP	X	
KONE IP Integration		X
Multiple Command	X	
Occupancy	X	
Otis Controller		X
Otis Elevator	X	
Otis Integration		X
S300 Hardware Module		X
S300 Reader Terminal	X	
S300 Trunk ³		X
Schedule	X	
Security Binary Output	X	
Security Notification Class (Internal Use Only) ²	N/A	N/A
Security Supervised Input	X	

1. Listed in alphabetical order.
2. Object cannot be added to a template – only a site.
3. In templates, S300 Trunk objects with child objects cannot be deleted. You may only delete an S300 Trunk object if it has no child objects.

ATTRIBUTES

Attributes contain data that an object exposes to the system. The data in some attributes is set by the user or by other objects and features in the system and is used by the object to perform its function. Other attributes contain data produced by the object itself. The Attributes table for those objects that are covered in this manual lists the characteristics of the attribute to help you configure the object.

Attribute Table

The column headings in the Attribute table are defined according to the following subsections.

Attribute Name

Gives the name of the attribute as it appears on the user interface.

Example: Access Time

Attribute Number

The Attribute Number column specifies the number to be used for this attribute in the P2000 user interface.

Data Type

Lists the data type of the attribute value. Table 5-2 defines the various data types used in the P2000 SCT.

Table 5-2: Data Types

Data Type	Formal Name	Definition
Attribute Reference	Attribute Reference	Reference of an attribute from which data will be read or to which data will be sent. The format is <Object Reference.Attribute Name>
Date	Date	Day of week, day, month, year Example: Wednesday, October 9, 2008

Table 5-2: Data Types

Data Type	Formal Name	Definition
List	List	List of attributes or properties of other objects that will be created or used by a particular function of this object.
Number	Byte or Unsigned8	Number from 0-255 with no decimal point. Allowable range appears in column headed Values/Options/Range.
Number	Signed Integer Short	Number from -32,768 to 32,767 with no decimal point. Allowable range appear in column headed Values/Options/Range.
Number	Signed Integer Long	Number from -2,147,483,648 to 2,147,483,647 with no decimal point. Allowable range appear in column headed Values/Options/Range.
Number	Unsigned Integer Short or Unsigned16	Number from 0 to 65,535 with no decimal point. Allowable range appear in column headed Values/Options/Range.
Number	Unsigned Long or Unsigned32	Number from 0 to 4,294,967,295 with no decimal point. Allowable range appears in column headed Values/Options/Range.
Object Reference	Object Reference	Item Reference of an object to which a command will be sent.
One state/type/mode /zone from a set	Enumeration	Discrete state/type/mode taken from a set of numbered possible values and normally represented on the user interface by text.
Real value	Float	Number with a decimal point to show required precision. Example: 24.5
Set of related values	Structure	A set of values of mixed data types representing one physical entity.
Series of True or False states.	Bit String	Series of true/false states that each have an independent meaning but together define the overall state of an attribute or object.
Set of values	Array	A set of a specified number of values of the same data type.
Text	String	A line of characters (letters and numbers)
Time	Time	Hours, minutes, seconds. Example: 12:30:56 AM
True or False	Boolean	Data that can only be true or false.

Notes

The Notes column lists specific characteristics of the attribute and its value. The characteristics (or flags) in Notes specify how the attribute is used in the object and how it can be set within the P2000 SCT.

Table 5-3: Notes

Attribute (Boolean)	Definition
A - Archive	Internal use only.
C - Configurable	Indicates if the value of the attribute is defined by the user when first creating the object and cannot be changed by the object itself. Configurable (C) attributes that are writable (W) can be changed by the user or by a process or feature in the running system after the object has been created.
N - Value Not Required	Indicates that this configurable attribute may contain a blank value. (Other configurable [C] attributes without N must contain a valid value for the object to function.) For example, a value for a high or low limit attribute is not required and a blank value indicates that the alarm processing is not required.
W - Writable	Indicates that the value of the attribute can be modified by the user or by a process or feature in the running system or network. A write to a configurable (C) attribute replaces the existing value. A write to other attributes is handled as an override to the value calculated by the object or as a command for some action by the object.

Initial Value

This column specifies the value taken by a configurable attribute when the object is being created and the user does not enter another value. Other attributes take the initial value on start-up and until the object calculates a new value.

Values/Options/Range

Based on the attribute's data type, this column may show the range of valid values or a reference to the set of possible values for this attribute. If the complete set of values for the attribute is small, all possible values are shown in this column.

Object Identification

Every object can be identified by one of three naming attributes.

Name – A freely definable user name for the object.

Item Reference – A fixed name used internally by the system.

BACnet Object Name – The name exposed to a BACnet network based on the Item Reference.

See “General Object Attributes” for more information on these attributes.

General Object Attributes

The General Object Attributes are used by most of the object types in the P2000 SCT. Each object type also has specific attributes that apply only to that object type.

For detailed information on the General Object Attributes, see the *General Object Information Manual*.

SITE OBJECT

A site is a logical grouping of CK722 devices and their field level devices that are on the same Local Area Network (LAN). A site may consist of one or many CK722 controllers.

The Site object is a representation of the site, and it contains the attributes and values that represent the characteristics of the site. One important function of the Site object is to maintain time-of-day synchronization for a site.

Site Organization

The P2000 SCT provides a way to use folders to organize your site. Use folders as containers to assist in organizing your archive database. The default CK722 database contains System and Schedule folders. See “Folder Object” on page 5-14.

Attributes

The Site object contains attributes common to P2000 SMS objects. For detailed information on the General Object Attributes, see the *General Object Information Manual*.

Table 5-4 lists the attributes specific to the Site object.

NOTE

Do not modify the value of an attribute that does not apply to the P2000 SMS (see Values/Options/Range column).

Table 5-4: Site Object Attributes

Attribute Name	Attribute Number	Data Type	Notes ¹	Initial Value	Values/Options/Range
BACnet Encoding Type	32578	One type from a set	CW	Unicode (0)	Not applicable to the P2000 SMS
BACnet Site	32577	True or False	CW	False (0)	Not applicable to the P2000 SMS

Table 5-4: Site Object Attributes

Attribute Name	Attribute Number	Data Type	Notes ¹	Initial Value	Values/Options/Range
Default ADS Priority Threshold	2585	Number	CW	255	Not applicable to the P2000 SMS
Default ADS Connection Type	32575	One type from a set	CW	LAN	Not applicable to the P2000 SMS
Default ADS Delivery Time	32576	Date/Time	CW	12:15 AM	Not applicable to the P2000 SMS
Default ADS Repository	32574	Set of values	CW	0.0.0.0	Not applicable to the P2000 SMS
Description	28	Text	CNW	No text	Maximum 40 characters
Device Time Servers (DTS)	32572	List of value sets	CW		Not applicable to the P2000 SMS
DNS Refresh Period	2336	Number	CW	20	Not applicable to the P2000 SMS
Dynamic Broadcast Management	2588	True or False		True	Not applicable to the P2000 SMS
Max Missed Check-ins	32562	Number	CW	2	Not applicable to the P2000 SMS
Name	2390	Text	CW	Item ID	Maximum 400 characters (40 or less is best for display layout)
Object Category	908	One type from a set	CW	General	Internal use only
Object Type	79	One type from a set	—	>>>	Actual Object Type
Partition	2220	Enumeration	CA	1	Select from any P2000 partition
Public	2221	Boolean	CA	—	—
Site Time Servers (STS)	32584	List of value sets	CW		Not applicable to the P2000 SMS
Third Party BBMDs	32591	List of value sets	CW		Not applicable to the P2000 SMS
Time Sync Period	32573	Number	CW	1	Not applicable to the P2000 SMS
Time Zone	32583	One zone from a set	CW	Central Time (US and Canada)	Standard global time zones.

1. A - Archive, C - Configurable, N - Value not required, W - Writable

Attribute Descriptions

NOTE

Attributes that are not applicable to the P2000 SMS are not described.

Description – Contains a user defined description of the object.

Name – Contains a freely definable user Name for the object that is independent of the Item Reference or the location of the object in the physical network. The Name is shown in alarm reports, the event and audit viewers, and in summaries and must be unique within the site.

Object Category – Classifies the object by the category of system or equipment that it monitors to aid in the determination of user access privileges and alarm routing.

Object Type – Indicates the Object Type as displayed in the P2000 software and as exposed to a BACnet network.

Partition – Specifies the P2000 partition to which this object belongs.

Public – Select this attribute if you wish this object to be visible from all P2000 partitions.

Time Zone – Specifies the site's time zone. The Site object determines and updates the Universal Time Coordinated (UTC) offset from this value. Once set in the Site object, the time zone is propagated to the other devices on the site.

NOTE

*Time zones with “(No DST)” in the name do **not** conform to Daylight Savings Time (DST) rules of the selected region. Select the correct time zone (with or without DST) according to the region where the CK722 controllers are installed. If the wrong time zone is selected, each CK722 controller clock that receives its time zone setting from the Site object will be out-of-sync with the local time, and some P2000 notifications may not be reported.*

FOLDER OBJECT

A Folder object helps support the hierarchical organization of objects. A total of 1000 objects can be added per folder, and up to 10 consecutive levels of Folder objects can be added within any other folder or object.

NOTE

You must name a new folder differently from the folders in the default set on the user interface.

The Folder object contains attributes common to P2000 SMS objects. For details, see the *General Object Information Manual*.

OBJECT QUANTITY LIMITS

The P2000 SCT allows you to add more objects than officially supported by the CK722 controller. This is desired as not every project requires the same mix of objects. For example, some projects require more Anti-Passback Objects, but no Intrusion Objects whatsoever.

Table 5-5 indicates the maximum number of objects supported by the CK722 controller.

- Exceeding the **soft** quantity limitation will degrade the CK722's performance, but the objects should still work as designed.
- Exceeding the **hard** quantity limitation will cause the excessive objects to not work as desired, and may negatively impact other objects.

Table 5-5: CK722 Soft Object Quantity Limitations

Object Type	Soft Quantity Limitation	Hard Quantity Limitation
CK722 Device Object	1	1
S300 Trunk Objects	2	2
S300 Hardware Module Objects	64	--
S300 Reader Terminal Objects	64	--
Security Supervised Input Objects	256	--
Security Supervised Output Objects	256	--
Access Control Objects	64	128
Door Sequence Objects	64	--
Schedule Objects	64	--
Calendar Objects	3	--
Security Notification Class Object	1	--
BACnet Broadcast Management Object (only one per IP subnet allowed)	1	1
Intrusion Keypad Display Objects	16	--
Intrusion Area Objects	256	256
Intrusion Zone Objects	256	256
Intrusion Annunciator Objects	256	256
Folder Objects	100	--
Interlock Objects (not more than 10 conditions and 10 entries in each state's action table)	100	--
Multiple Command Objects (not more than 10 states and 10 entries in each state's action table)	100	--

Table 5-5: CK722 Soft Object Quantity Limitations

Object Type	Soft Quantity Limitation	Hard Quantity Limitation
Controller Event Objects	100	--
Anti-Passback Objects	10	45
Occupancy Objects	10	--
Anti-Loitering Objects	10	--
Elevator Integration Object (either KONE, KONE IP, or Otis)	1	--
Elevator Controller Objects (either KONE, KONE IP, or Otis)	8	--
Elevator Objects (either Elevator, KONE Elevator, KONE IP COP, KONE IP DOP, or Otis Elevator)	64	--

TEMPLATES AND PACKAGES

INTRODUCTION

This chapter describes how to develop templates and apply packages for use in the P2000 SCT.

Templates are “rubber stamps” of pre-defined applications that can be used to rapidly populate the P2000 SCT hardware configuration database. Templates are used to create *packages*, which contain all of the components for a single application, such as a door.

JCI Standard Templates are delivered with the P2000 SCT installation and are intended to be a starting point to create Job Specific Templates, which are more closely adapted to the job specific requirements. These Job Specific Templates are then used to populate the P2000 SCT hardware configuration database.

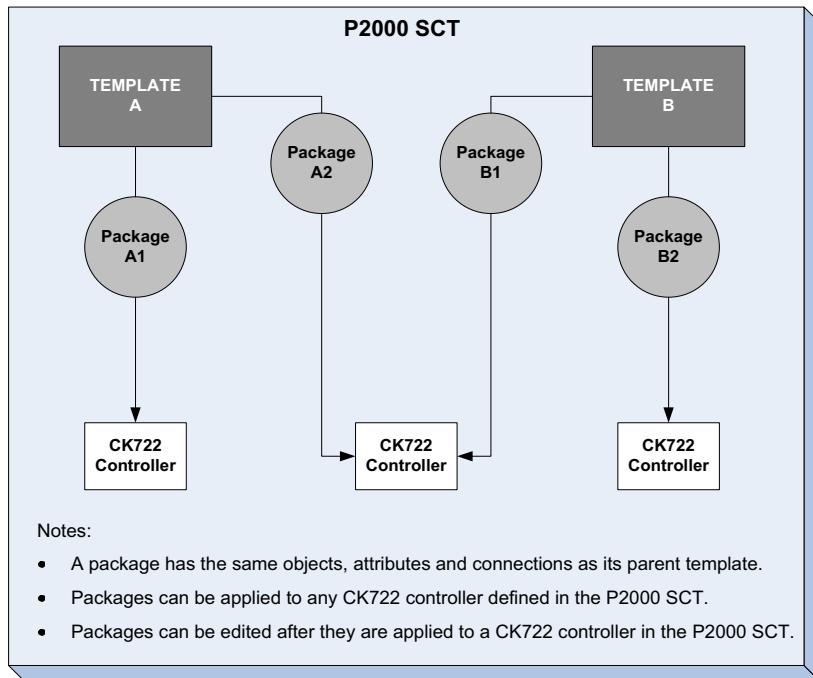
NOTE

For more detailed information on JCI Standard Templates and Job Specific Templates, refer to the CK722 Network Controller Commissioning Guide.

A package is a set of objects derived from an existing template that is loaded into a CK722 Device object. A package consists of the same object types, attributes and connections as its parent template. However, new object names are assigned when loading the package.

Templates are used to define security logic functions using the P2000 SCT graphics tool, and a package is simply an instance of a particular template. Applying templates enables you to streamline the object creation and logic definition process by assigning pre-defined security functions to a particular CK722 controller.

Figure 6-1 illustrates how templates and packages relate within the P2000 SCT. In the example, the P2000 SCT has three CK722 controllers defined. There are two templates (A & B). Package A1, an instance from Template A, has been applied to the first CK722 controller. Package A2, an instance from Template A, has been applied to the second CK722 controller. Packages B1 and B2 have been applied to the second and third controllers respectively.

*Figure 6-1: Templates and Packages*

Using templates and packages helps save time if you have duplicate security applications. For example, if your facility has multiple portals (doors) wired to RDR2S devices, and these doors will have the same or similar access control logic, you could use an existing template, or create a new one, specifically for two-door control using an RDR2S field device and with the desired security logic. You could then create packages (instances) from this template and apply it to other CK722 devices defined in the P2000 SCT.

TEMPLATES

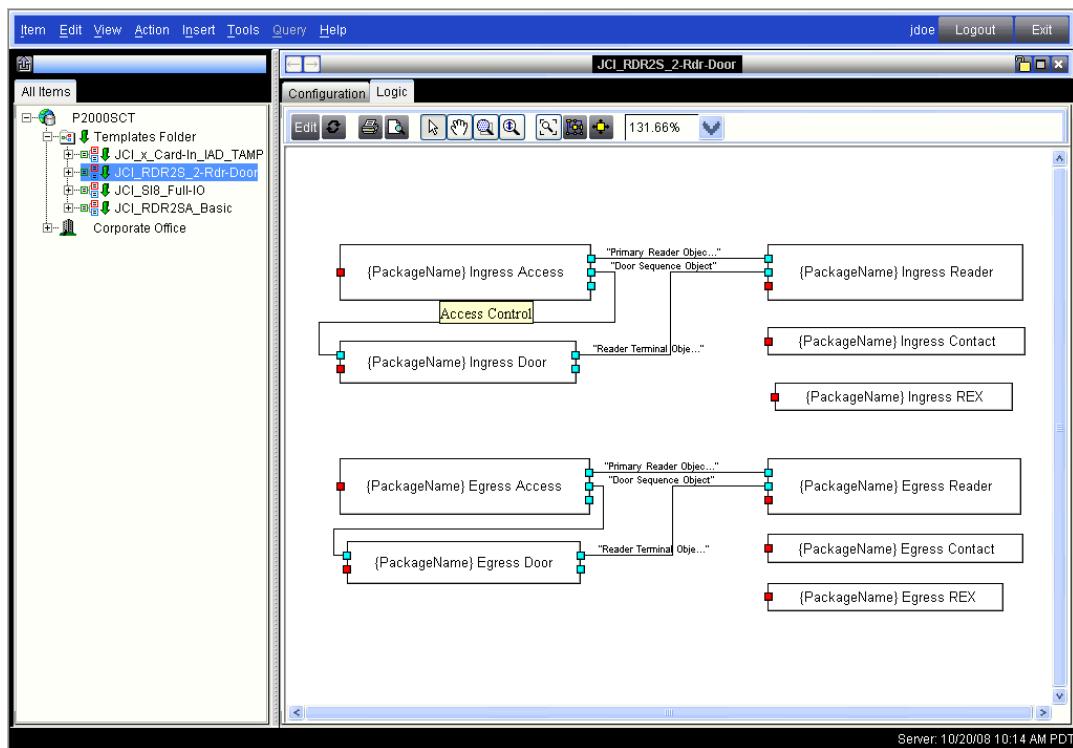
There are two basic types of templates: Hardware Module Templates and x-Templates.

- **Hardware Module Templates** contain one or more hardware modules. This is beneficial when the contained hardware modules are essentially entirely dedicated to the application, such as a 2-door hardware module in a Card-In-Card-Out door application, or a fully loaded Input/Output (I/O) board in an elevator or intrusion application. Hardware Module Templates therefore save the step of creating a hardware module manually.
- **x-Templates** do not contain any hardware modules. This is beneficial when the application shares the hardware module with other applications, such as a single door on an 8-door hardware module, or a Contact-Only door on a still available input on an existing hardware module. x-Templates therefore allow a wide variety of doors to be added to a single hardware module.

NOTE

For a detailed description of the templates provided with the P2000 SCT, refer to the CK722 Network Controller Commissioning Guide.

All templates are located in the **Templates Folder** (this folder is located at the Site level).



Templates are not associated with a controller until you load a package based on a template.

The template feature operates in two modes:

- The **View Mode** allows you to view existing templates.
- The **Edit Mode** allows you to edit an existing template or create new templates.

Template Directory Structure

Templates are stored as *.ZIP files in the following directory:

Local Disk\Documents and Settings\All Users\Application Data\Johnson Controls\MetasysIII\DatabaseFiles

A template's background image and other graphics related information is stored inside the *.ZIP file, so that a template can be shared across computers and projects as a single file.

Viewing a Template

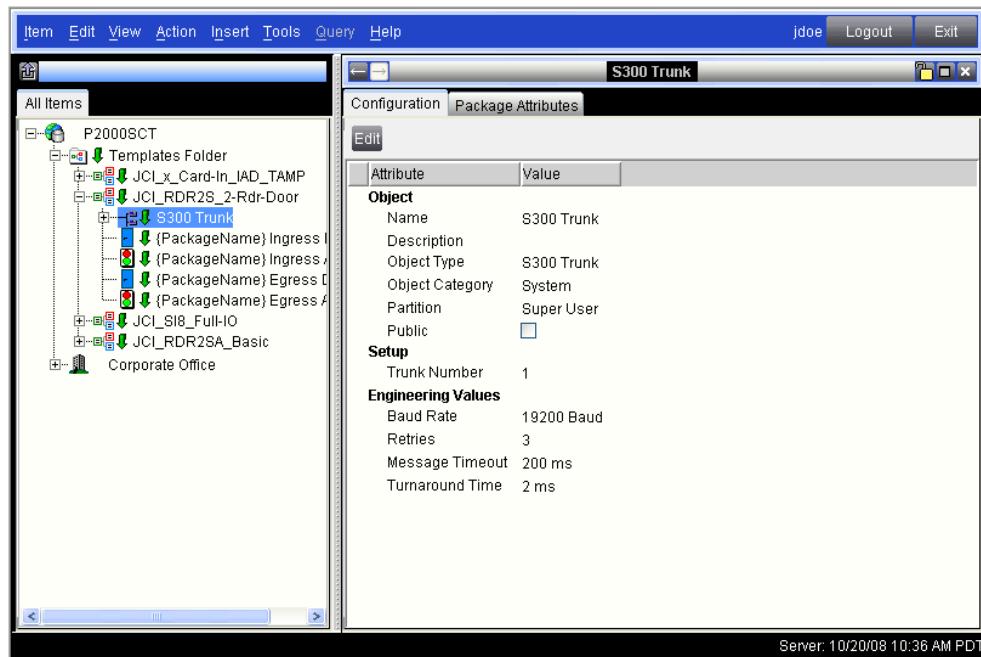
To view an existing template, expand the **Templates Folder** Navigation Tree in the Navigation frame. Double-click a template from the tree, or click and drag the template to the Display frame. The Configuration tab appears. See “Configuration Tab” on page 6-4 for more information.

Configuration Tab

This tab is accessible when viewing or editing a template and lists the following profile information of the template (see Table 6-1). This information is not populated by the system; all information is entered by the user.

Table 6-1: Configuration Tab

Attribute	Description
Name	Unique name assigned to the template.
Created By	Person who created the template.
Description	Description of the template beyond what can be gleaned from the name.
Status	Status of the template (e.g. Work in Progress, Completed).



To edit the attributes on the Configuration tab, click **Edit**, change the desired attributes, and click **Save**.

Logic Tab

Use this tab to create, edit, or view the object logic diagram of a template. An object logic diagram includes two or more objects with interconnecting links that comprise a basic or advanced, commonly-used security application.

The Logic tab consists of three frames. See Table 6-2.

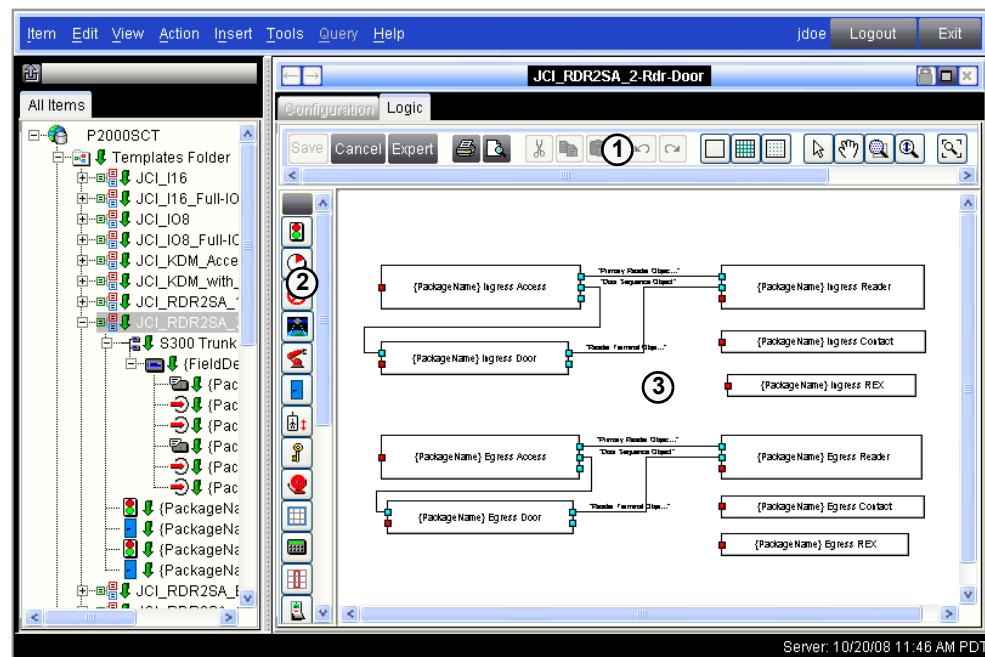


Table 6-2: Logic Tab Frames

Number	Frame Name	Description
1	Toolbar	Provides the tools for developing the object logic diagram. For information on individual buttons, see “Toolbar Button/Icon Definition” on page 6-5.
2	Object Palette	List of objects that can be added to the object logic diagram. To add an object to the diagram, click Edit on the toolbar and click and drag an object to the diagram.
3	Object Logic Diagram	Diagram of the template, which mainly consists of objects and interconnecting links. This diagram determines the manner in which the defined security application will function.

Toolbar Button/Icon Definition

Table 6-3 describes the buttons/icons and functions available on the template toolbar. The available buttons/icons depend on the current mode in which you are working (e.g. View mode, Edit mode, or using the Template Wizard).

- **View mode** allows you to view object attributes of an existing template.

- **Edit mode** allows you to view or edit object attributes of an existing template.
- The **Template Wizard** allows you to add and configure objects when inserting a new template.

Table 6-3: Toolbar Buttons

Button	Name	Description	Visible In		
			View Mode	Edit Mode	Template Wizard
	Edit	Changes the tool to Edit mode. Click to modify the object logic diagram. Additional buttons appear on the toolbar when you click Edit . After finishing your modifications, click Save .		X	
	Refresh Data	Refreshes the data in the object logic diagram.	X		
	Save	Saves any changes to the object logic diagram, including modifications to object attributes.		X	
	Cancel	Cancels any modifications to the object logic diagram since your last save, and exits Edit mode.		X	X
	Beginner	Click to work with the Expert object palette frame. The buttons on this frame are identified by icons only (no text).		X	X
	Expert	Click to work with the Beginner object palette frame. The buttons on this frame are identified by text only (no icons).		X	X
	Print	Opens the Print dialog, which allows you to print a copy of the object logic diagram.	X	X	X
	Print Preview	Opens the Print Preview dialog, which displays a preview of how the object logic diagram will appear on the printed page. The Print Preview dialog allows you to print the diagram, configure print options, and zoom in or out.	X	X	X
	Cut/Copy/Paste	Standard Windows functions.		X	X
	Undo/Redo	Standard Windows functions.		X	X

Table 6-3: Toolbar Buttons

Button	Name	Description	Visible In		
			View Mode	Edit Mode	Template Wizard
	No Grid Lines Grid Points Grid	Changes the background of the diagram frame. Choose between two types of grid backgrounds, or no grid background at all.		X	X
	Select	Turns the cursor into a selection cursor. Use to select a graphic on the object logic diagram.	X	X	X
	Pan	Turns the cursor into a hand that allows you to pan over the diagram by dragging.	X	X	X
	Marquee Zoom	Allows you to select an area to zoom in on.	X	X	X
	Interactive Zoom	Zooms in and out on a graphic when you hold the mouse down.	X	X	X
	Zoom – Fit in Window	Zooms the diagram to fit within the window.	X	X	X
	Trace Mode	Toggles between displaying and not displaying interconnection lines between objects.	X		
	Selective Zoom	Allows you to select the percentage zoom applied to the diagram.	X	X	X
	Overview	Shows an overview of the entire diagram in one window.	X	X	X

NOTE

If the Object Logic Diagram seems to disappear while using the Zoom functions, click the **Zoom – Fit in Window** button to fit the diagram inside the window.

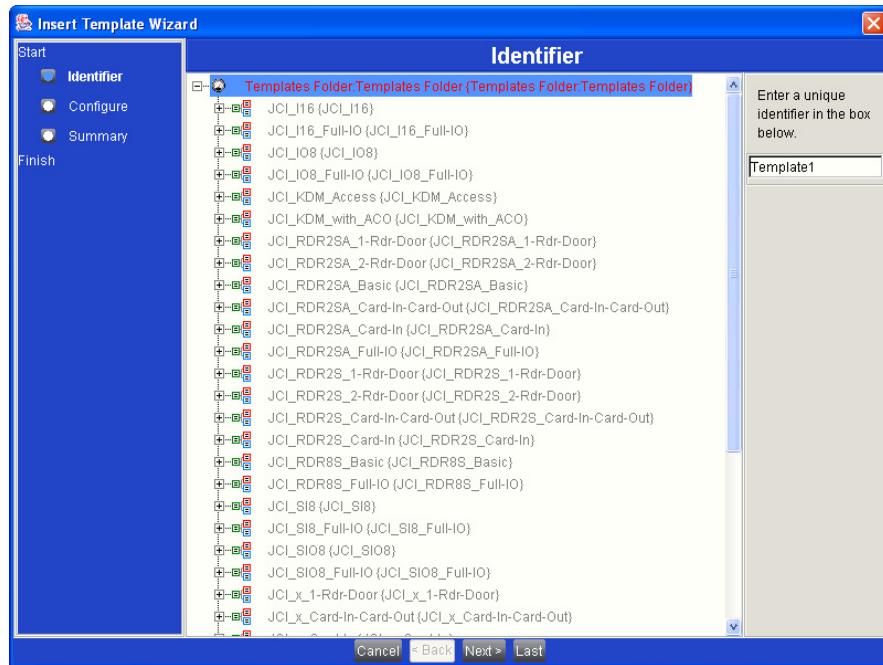
Creating a Template

Before creating a template, review the existing templates to see if one closely matches the logic you wish to design. You can still edit a package once it is loaded into a CK722 Device object defined in a site. Also, you can use the copy/paste functions to make a copy of an existing template and modify it to your liking. See “Edit Menu” on page 3-1 for information on copying and pasting using the **Edit** menu.

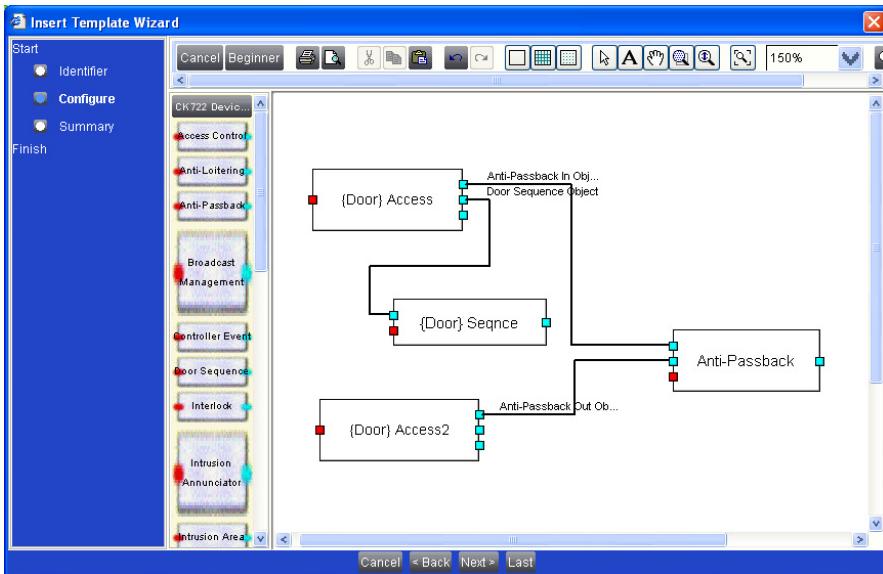
► **To create a template:**

- From the menu bar, select **Insert>Template**.

The Insert Template Wizard appears.



- Enter a unique name for the template and click **Next**.
- Design an object logic diagram and click **Next**. See “Designing an Object Logic Diagram” for more information.



NOTE

Certain hardware objects, like the S300 Reader Terminal object, require you to select a device as its parent hardware, such as the S300 Hardware Module object. However, when creating a template for the first time, you must finish the wizard without having added devices that require you to select a device as its parent hardware. Then, using the Insert menu, insert all objects that will be selected as parent objects, such as an S300 Trunk object, into the template. Finally, open and edit the template, add any remaining objects, and attach them to their parent objects in the template.

4. Review the template's summary. If any changes are required, click **Back** and make any necessary modifications to the template.
5. Click **Finish** on the summary screen if no changes are required.

Designing an Object Logic Diagram

You can design an object logic diagram using the Insert Template Wizard or after selecting an existing template and switching to Edit mode. The object logic diagram consists of objects linked together to define the logic for a particular security application. For example, you can add an Access Control object (ACO) and a Door Sequence object (DSO) and link them together so that the door hardware associated with the DSO can be logically controlled according to the attributes defined in the ACO. In other words, the ACO can tell the DSO to unlock the door for an entity with a valid identifier (e.g. access badge, Card ID, etc.).

Object logic diagrams can be basic or advanced, depending on your needs. Before starting, we recommend the following:

- Determine whether the template will include one or more hardware modules (e.g. RDR2S, RDR2S-A, I16, etc.) or a generic hardware module that enables you to assign the hardware module and any field points while loading a package.
- Test the template package on a particular controller before applying it to other controllers.
- Consult the *CK722 Network Controller Commissioning Guide* for information on logically constructing the diagram based on various security applications.
- Consult the individual object manuals for information on configuring the objects and their attributes.

Creating Objects

If you are viewing an existing template, click **Edit** to change to Edit mode. The Object Palette frame opens. If you are using the Insert Wizard Template, this frame automatically appears on the Configure screen.

NOTE

Objects are added to a template via the *Insert menu* or the *Object Palette*, depending on the object. See Table 6-4. These insertion methods are mutually exclusive – if an template object is inserted from the *Insert menu*, it cannot be inserted from the *Object Palette* (and vice-versa).

Table 6-4: Inserting Template Objects (Object Palette or Insert Menu)

Object ¹	Object Palette	Insert Menu
Access Control	X	
Anti-loitering	X	
Anti-Passback	X	
Broadcast Management	X	
Calendar	X	
CK722 Device ²	N/A	N/A
Controller Event	X	
Door Sequence	X	
Elevator	X	
Folder ²	N/A	N/A
Interlock	X	
Intrusion Announcer	X	
Intrusion Area	X	
Intrusion Keypad/Display	X	
Intrusion Zone	X	
KONE Controller		X
KONE Elevator	X	
KONE Integration		X
KONE IP Controller		X
KONE IP COP	X	
KONE IP DOP	X	
KONE IP Integration		X
Multiple Command	X	
Occupancy	X	
Otis Controller		X
Otis Elevator	X	
Otis Integration		X
S300 Hardware Module		X
S300 Reader Terminal	X	

Table 6-4: Inserting Template Objects (Object Palette or Insert Menu)

Object¹	Object Palette	Insert Menu
S300 Trunk		X
Schedule	X	
Security Binary Output	X	
Security Notification Class (Internal Use Only) ²	N/A	N/A
Security Supervised Input	X	

1. Listed in alphabetical order.
2. Object cannot be added to a template – only a site.

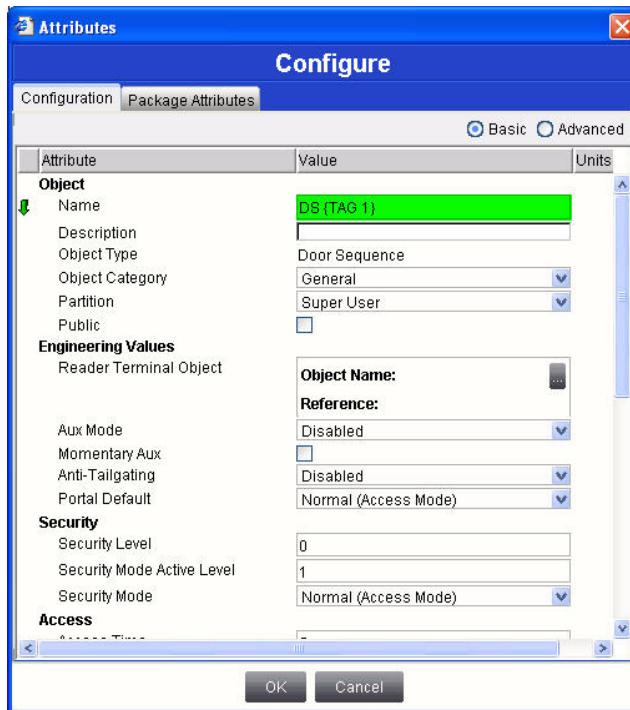
► **To insert an object using the object palette:**

1. Click and drag the object from the Object Palette to the diagram frame.
The Attributes dialog appears.
2. Enter the **Name** of the object using the following guidelines:
Use a name that represents the object type preceded or followed by a tag in curly brackets {}.
Example: AC {TAG 1} or {TAG 1} AC
“AC” represents the Access Control object and “{TAG 1}” will be used to assign a more representative name of the object when loading a package. For example, you can indicate which physical door in the facility is controlled by the ACO. For more information on using tags, see “Package Tags” on page 6-13.

NOTE

Use a generic name for the object (e.g. “AC {TAG 1}”). By assigning a generic name, you can assign a more specific name to the object when it is loaded as part of a package (e.g. “AC Front Door”). If you were to use a more specific name for an Access Control object, such as “AC Front Door {TAG 1},” then all packages with this object will refer to the Front Door, even though the object may be associated with a different area of the facility.

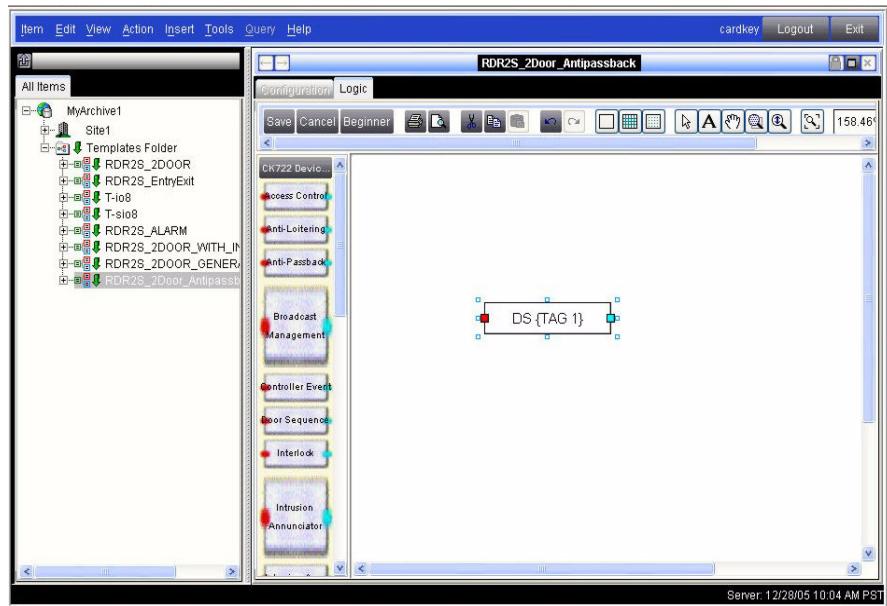
3. Edit the remaining attributes, as needed.



NOTE

For information on the Package Attributes tab, which is specific to templates and packages, see “Package Attributes” on page 6-14.

4. Click **OK**. The object appears on the diagram frame.



Once you have at least two objects defined in the template, you can start connecting them. See “Connecting Objects in a Template” on page 6-16.

Package Tags

When you create a template, the objects in the template will be inserted under the selected CK722 Device object when the template is loaded as a package (see Figure 6-2). However, the name of the object in the template should not be too specific. For example, an object with the name “DS {TAG 1}” means that this is a DSO with a tag that will allow the user to modify the object name when loading the package. Tags allow you to assign a more representative name to an object (e.g. “Lobby Door” for a DSO) when loading a package.

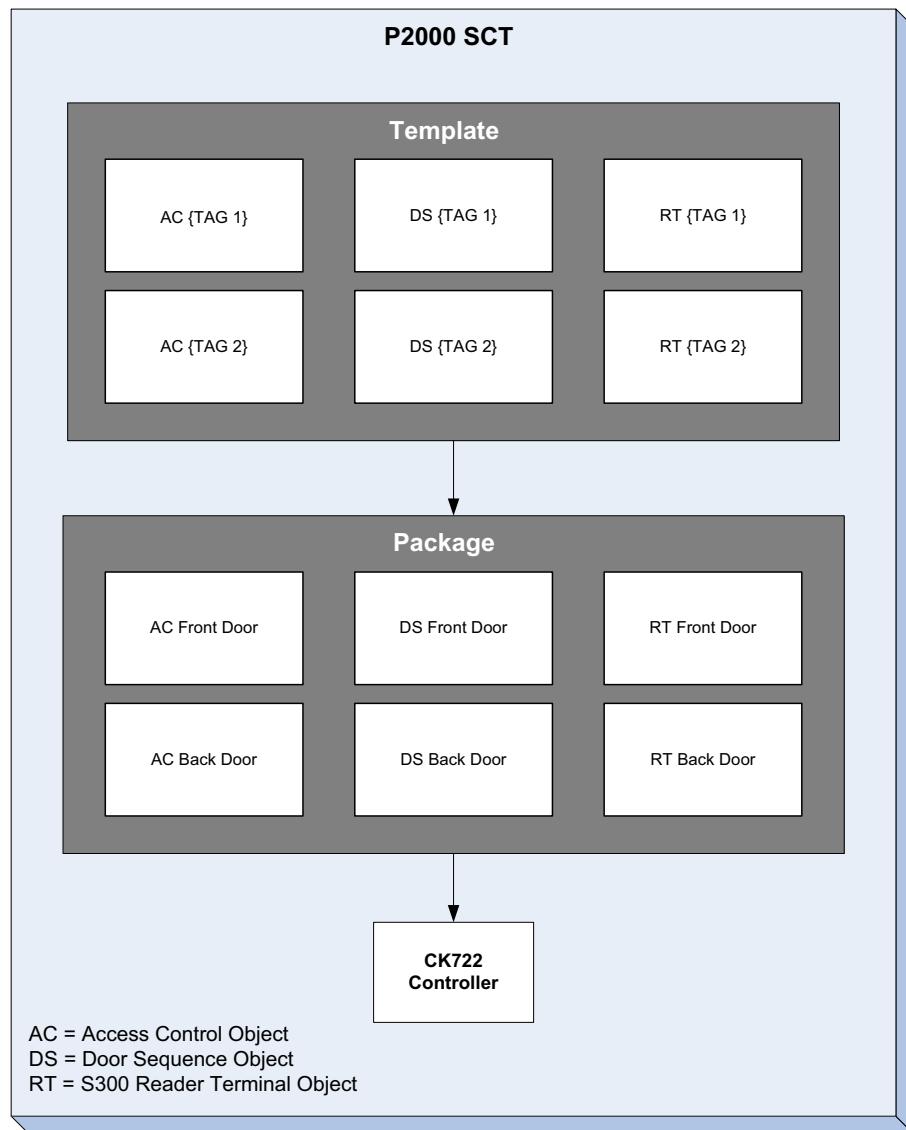


Figure 6-2: Package Tags

All tags must be in closed, curly brackets.

Example: DS {TAG 1}

When you load a package with the above DSO, you will be able to change “TAG 1” to a specific name (e.g. Front Door).

NOTE

More than one object may have the same tag name, as shown in Figure 6-2, as long as the object names differ. If you assign the same tag name for multiple objects, all tags with that name will have the object tag name that you assign during the package load process. You cannot assign a different object tag name for tags with the same name.

NOTE

When loading a package, entering tags that are too long will lead to truncation of object names and may even cause the package not to be created if the truncation results in any name duplication. An object name from a loaded package cannot exceed 32 characters. This includes the non-tag text and the tag itself. For example, if the name of an Access Control object is {PackageName} Access, {PackageName} is the tag and Access is the non-tag text.

Tags Used in JCI Templates

All JCI templates contain tags that are replaced with individual names as packages are created. There are only two tags across all JCI templates.

- The {PackageName} tag, which you can use to name the door, supports up to 16 characters.
- The {FieldDevice} tag, which you can use to name the hardware module, supports up to 16 characters.

Package Attributes

The Package Attributes tab appears when editing an object’s attributes for use in a template. This tab allows you to select which attributes you want to appear for possible editing when loading the current template as a package.

When a template is loaded as a package, the objects and their attributes will be loaded with the current settings, unless during the object definition process you specify which attributes you wish to change. During the package load process, an attribute enabled on the Package Attributes tab of the template can be edited before being added to a CK722 Device object defined in the P2000 SCT. In addition, all enabled package attributes appear on a single page to facilitate the process of editing the selected attributes.

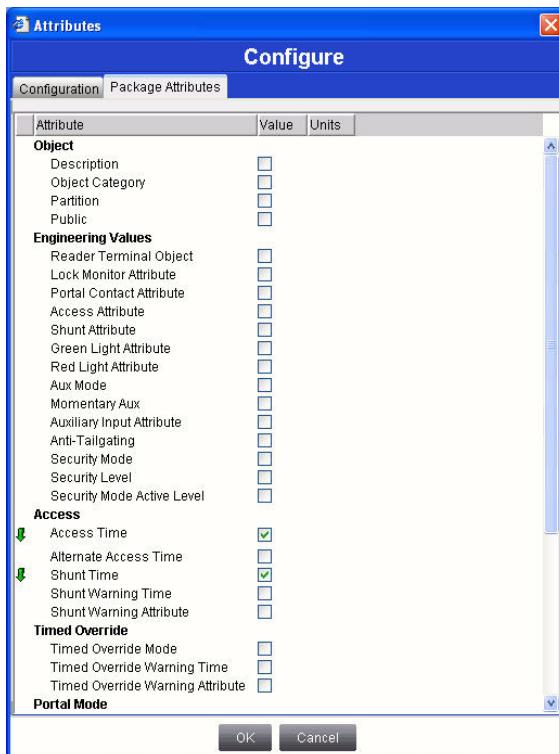
NOTE

Enabling package attributes for a specific object will affect all other package attributes of the same object type in the template. For example, if your template has two Security Supervised Input objects (IN01 and IN02), and you enable the Debounce Time package attribute for IN01, the Debounce Time package attribute for IN02 will also be enabled.

► To enable attributes for editing:

1. Open a template object.
2. On the object's Attributes screen, select the **Package Attributes** tab and click **Edit**.
3. For each attribute you wish to enable for possible editing during the package load process, select the corresponding check box.

In the following screen capture, the *Access Time* and *Shunt Time* attributes can be edited when loading a package from a template that includes this object.



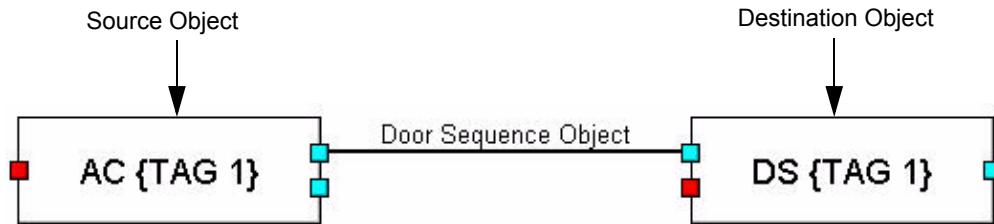
See “Loading Packages” on page 6-28 for more information on changing package attributes during the package load process.

Connecting Objects in a Template

Connecting objects in a template ties them together to create a particular security application. When objects are added to the template, they appear as boxes with red and cyan colored connectors.



Connections start from the cyan connector of the first object block (source object) and end at the red connector of a different object block (destination object). If the source object can start another connection, another cyan connector appears on the block. If the destination object can accept another connection, a red connector appears on the block.

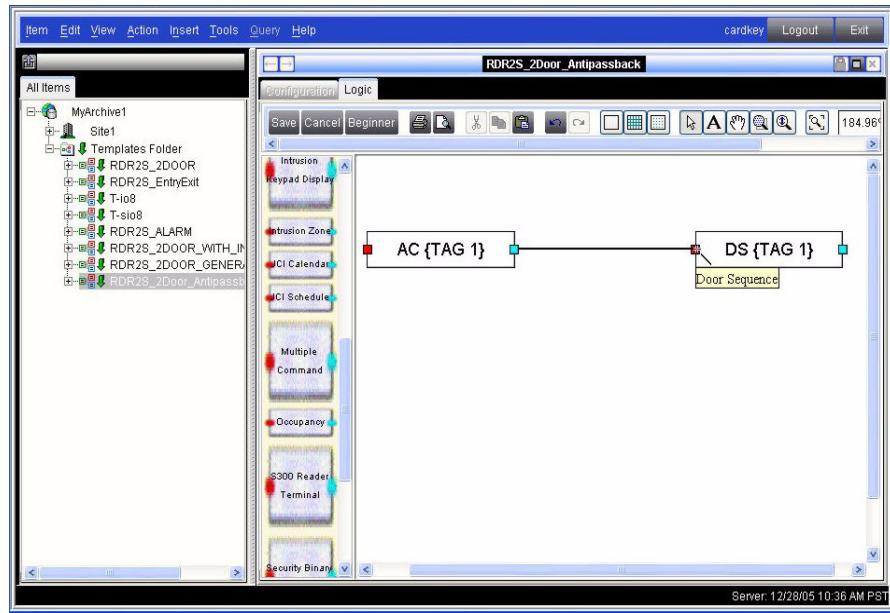


NOTE

When viewing object attributes, source objects do not appear in the attribute list of destination objects.

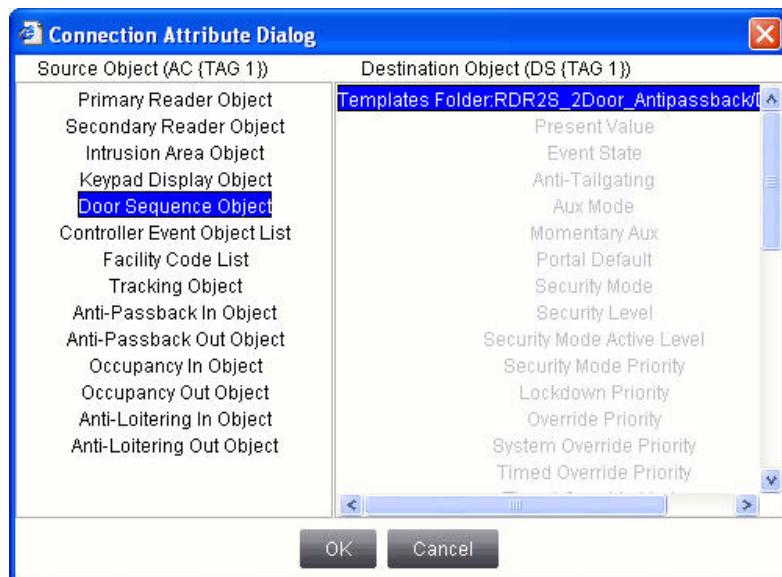
► **To connect objects in a template:**

1. Click on a cyan connector on the source object and drag the connection line to the red box on the destination object.



2. Release the mouse button.

The Connection Attribute Dialog appears. This dialog allows you to logically link the source object, or an attribute of the source object, with the destination object, or an attribute of the destination object.



If you select an object in the Source Object column, then you can only select the destination object itself, not an attribute of that object.

If you select an attribute in the Source Object column (if one is available based on the connection type), then you can only select an attribute from the destination object.

NOTE

Object attributes that should not be selected are grayed-out.

3. Select an object or attribute from the **Source Object (object name)** column.
4. Select an object or attribute from the **Destination Object (object name)** column.
5. Click **OK**.

The object connection appears on the diagram.

Using a Generic Hardware Module in a Template

All JCI x-Templates have **Generic** assigned as the *Hardware Module Type* for S300 Hardware Module objects instead of specific hardware modules (e.g. RDR2S, I16, etc.). Using generic hardware modules enables you to assign the application to an existing hardware module on a site, and assign field points, while loading a package. When creating your own template, you may also assign a generic hardware module.

Note the following:

- The {PackageName} Generic S300 Hardware Module objects in JCI x-Templates have **Generic** assigned as the *Hardware Module Type*.
- If creating your own template and you wish to assign a generic hardware module type, insert an integration object, such as the S300 Integration object, using the Navigation Tree and then create the generic S300 Hardware Module object as its child object.
- For information on assigning the application and associated field points to an existing hardware module during the package load process, follow the instructions in “Loading Packages” starting on page 6-28.

Editing a Template

To edit an existing template:

1. Open the template you wish to edit by dragging the template name from the **Templates Folder** to the Object Logic Diagram frame or double-clicking the template name in the Navigation Tree.
2. Select the **Configuration** tab or **Logic** tab, depending on what information you want to edit.
3. Click **Edit**.
4. Edit the template, as necessary.
5. Click **Save**.

Deleting a Template

To delete an existing template:

1. From the **Templates Folder**, select the template you wish to delete.
2. From the menu bar, select **Edit>Delete Items**.
3. At the Confirm Delete dialog, click **Yes**.

Changing the Hardware Module Type in Templates

Field points in templates are either linked to a specific type of hardware module, such as RDR2S-A, RDR2S and RDR8S, or to a “generic” hardware module, which allows you to pick a hardware module at the time the package is created.

If needed, you can change the hardware module type for each field point within a template, which is useful when an existing template needs to be ported to a different hardware platform, or an existing template needs to be converted into an x-Template (i.e. a hardware module independent template).

Overview of Procedure

Changing the hardware module type requires you to perform the following series of steps:

1. Copy the template. See page 6-19.
2. Export the template. See page 6-21.
3. Unpack the template. See page 6-22.
4. Modify the *Hardware Module Type* attribute. See page 6-22.
5. Modify the *Connector Label Enum Set* attribute. See page 6-23.
6. Modify the *Number of Connectors* attribute (optional). See page 6-25.
7. Repack the template. See page 6-26.
8. Import the new template. See page 6-27.
9. Verify the template. See page 6-27.

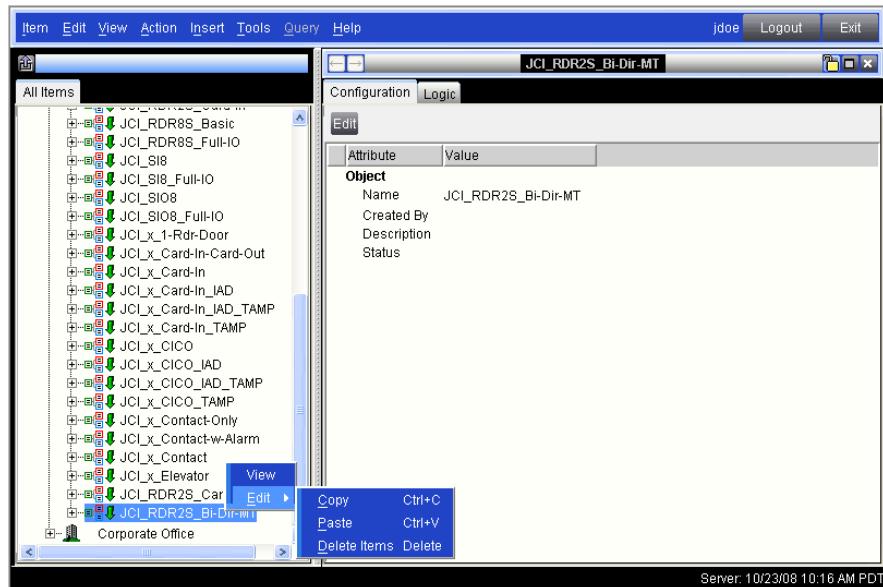
Copying the Template

Part of the process of changing the hardware module type consists of making a copy of the template you wish to change. The template to copy may have the hardware module type included in its name (e.g. JCI_RDR2S_Bi-Dir-MT, which has the RDR2S hardware module type). As a general rule, modify the name of the new template to reflect the new hardware module type (e.g. JCI_RDR2SA_Bi-Dir-MT, if you change the hardware module type from RDR2S to RDR2SA).

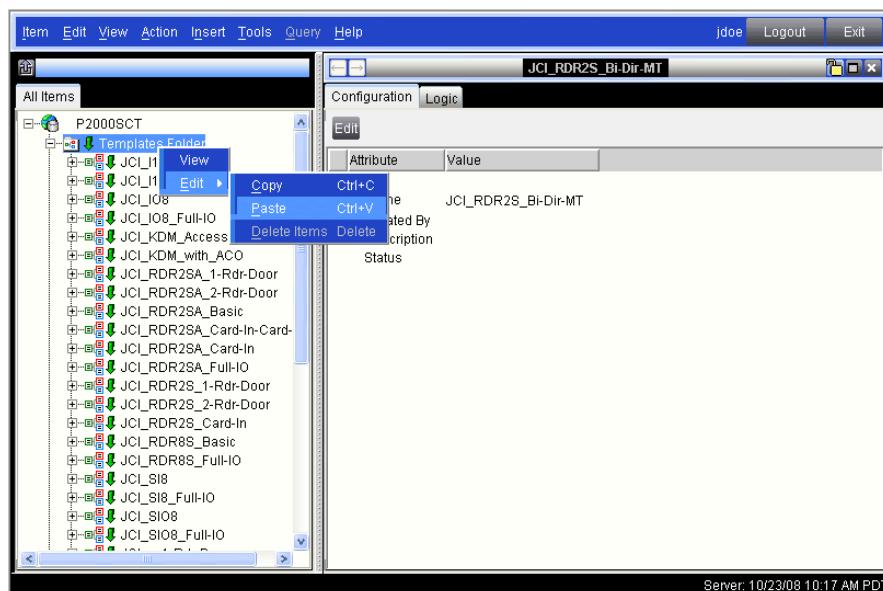
► **To copy a template:**

1. In the Navigation Tree under **Templates Folder**, locate the template to be copied.

2. Right-click over the template and select **Edit>Copy**.



3. Right-click over **Templates Folder** and select **Edit>Paste**.



The Paste Item Wizard screen appears.



4. Enter the new template name (e.g. JCI_RDR2SA_Bi-Dir-MT) and click **Paste**.

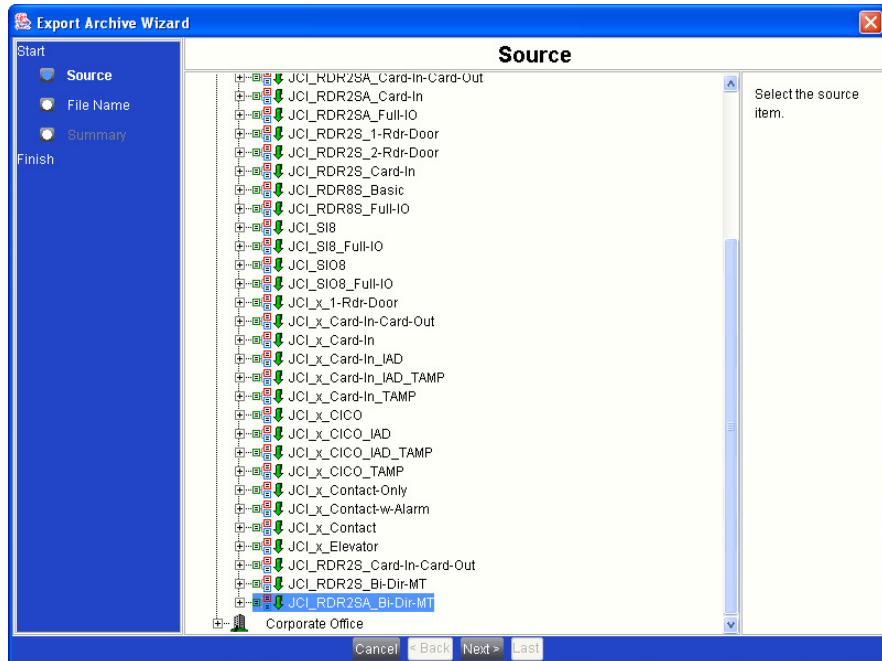
The new template appears under the Templates Folder.

Exporting the Template

The next step in the process of changing a template's hardware module type involves exporting the template.

► **To export the template:**

1. In the Navigation Tree under **Templates Folder**, select the template to be exported (e.g. JCI_RDR2SA_Bi-Dir-MT).
2. From the menu bar, select **Item>Export Item**. The Export Archive Wizard appears.



3. Click **Next**.

4. On the Identifier screen, enter the name of the template (e.g. JCI_RDR2SA_Bi-Dir-MT) into the field in the upper-right corner of the screen.
5. Click **Next**.
6. On the Summary screen, click **Finish**. The P2000 SCT creates the new template's ZIP file and saves it into the following directory on the P2000 server:
Local Disk\Documents and Settings\All Users\Application Data\Johnson Controls\MetasysIII\DatabaseFiles

Unpacking the Template

To perform the instructions in this section, you must have access to the P2000 server, and you will need to use WinZip® or similar software capable of extracting (decompressing) the contents from a ZIP file.

► To unpack the template:

1. From the P2000 server, access the following directory:
Local Disk\Documents and Settings\All Users\Application Data\Johnson Controls\MetasysIII\DatabaseFiles
2. Locate the new ZIP file you previously exported (e.g. JCI_RDR2SA_Bi-Dir-MT.zip). See “Exporting the Template” on page 6-21.
3. Right-click over the ZIP file and select **Open With**. Select **WinZip** or similar software.
4. Extract *all* of the ZIP files to the same directory. The following files are extracted from the ZIP:
 - export.xml
 - filedata.bin
 - PackageView.bin
 - <Name of Original Template>.gif

Modifying the Hardware Module Type Attribute

Next, you will need to open the **export.xml** file and modify the *Hardware Module Type* attribute.

► To modify the *Hardware Module Type* attribute:

1. Open the **export.xml** file with a text editor, such as Microsoft® Notepad.
2. Find all places where the *Hardware Module Type* attribute is located, identified by **property id="3710"**.

```
<property id="3710" fileAssociated="0">
  <data>
```

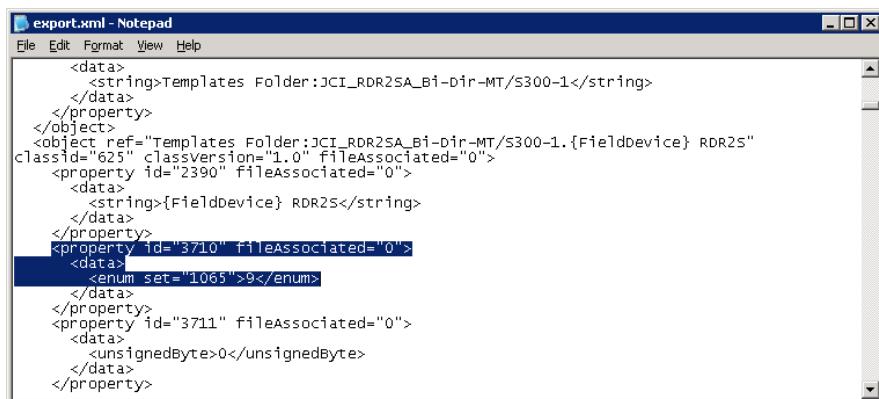
```
<enum set="1065">1</enum>
</data>
```

3. The number following the `<enum set="1065">` defines the hardware module type.

0 = Generic	6 = I16
1 = RDR2S	7 = KDM
2 = RDR2	8 = CK722
3 = IO8	9 = RDR2S-A
4 = SIO8	10 = RDR8S
5 = SI8	

4. Change the hardware module type accordingly in all places:

```
<property id="3710" fileAssociated="0">
<data>
<enum set="1065">9</enum>
</data>
```



5. In the previous example:

The RDR2S (`<enum set="1065">1</enum>`)
changed to

An RDR2SA (`<enum set="1065">9</enum>`)

6. From the menu bar, click **File>Save**.

Modifying the Connector Label Enum Set Attribute

Each hardware module has different connector labels. After changing the hardware module type, adjust all connector enumeration sets in the **export.xml** file.

► To adjust the connector enumeration sets:

1. Open the **export.xml** file with a text editor, such as Microsoft Notepad.

2. Determine the field point type associated with the *Connector Label EnumSet* attribute. Locate **classid="n"** (where **n** is a variable number) that appears prior to **<property id="3714">**.

```

<object ref="Templates
Folder:JCI_RDR2SA_Bi-Dir-MT/S300-1.{FieldDevice}
RDR2S.{Door1} Reader" classid="626"
classVersion="1.0" fileAssociated="0">
  <property id="2390" fileAssociated="0">
    <data>
      <string>{Door1} Reader</string>
    </data>
  </property>
  <property id="3713" fileAssociated="0">
    <data>
      <unsignedByte>2</unsignedByte>
    </data>
  </property>
  <property id="3714" fileAssociated="0">

```

3. Once you locate **classid="n"**, you can determine the field point type associated with the *Connector Label EnumSet* attribute:
- **S300 Reader Terminal** field points have **classid="626"**.
 - **Security Supervised Input** field points have **classid="323"**.
 - **Security Binary Output** field points have **classid="324"**.
4. Find all places where *Connector Label EnumSet* attribute is located, identified by **property id="3714"**.

```

<property id="3714" fileAssociated="0">
  <data>
    <enum set="800">1022</enum>
  </data>

```

The number following the **<enum set="800">** defines the connector enum set.

5. For **S300 Reader Terminal** field points, change the value accordingly:

1021 = Generic

1022 = RDR2S

1212 = RDR2S-A

1239 = RDR8S

1023 = RDR2

6. For **Security Supervised Input** field points, change the value accordingly:

1012 = Generic

1014 = IO8

1013 = RDR2S

1014 = SIO8

1209 = RDR2S-A	1014 = SI8
1237 = RDR8S	1015 = I16
1016 = CK722	

7. For **Security Binary Output** field points, change the value accordingly:

1017 = Generic	1020 = CK722
1018 = RDR2S	1019 = IO8
1211 = RDR2S-A	1019 = SIO8
1238 = RDR8S	

8. **Example:** To change from an RDR2S to an RDR2S-A, the following replacements need to be made:

- Change all `<enum set="800">1022</enum>` to
`<enum set="800">1212</enum>`
- Change all `<enum set="800">1013</enum>` to
`<enum set="800">1209</enum>`
- Change all `<enum set="800">1018</enum>` to
`<enum set="800">1211</enum>`

9. **Important:** The export.xml file also references the generic connector sets 1021, 1012 and 1017 under the *Connector* attribute identified by **property id="3715"**. There is no need to change these values.

```
<property id="3715" fileAssociated="0">
  <data>
    <enum set="1021">0</enum>
  </data>
```

10. From the menu bar, click **File>Save**.

Modifying the Number of Connectors Attribute (Optional)

Different hardware modules may have different numbers of connectors for each field point type.

For x-Templates these values are set to the default value of 100, which results in this information not being contained in the template. For hardware specific templates, you may want to adjust that information to the correct values, although it is not required to do so.

► **To modify the Number of Connectors attribute:**

1. Open the **export.xml** file with a text editor, such as Microsoft Notepad.
2. Find all places where the *Number of Connectors* attribute is located, identified by **property id="3713"**.

```
<property id="3713" fileAssociated="0">
  <data>
```

```

<unsignedByte>8</unsignedByte>
</data>
</property>
```

3. The number following the **<unsignedByte>** defines the number of connectors.
4. For **S300 Reader Terminal** field points (**classid="626"**), change the value accordingly:

100 = Generic
2 = RDR2S
2 = RDR2S-A
8 = RDR8S
2 = RDR2

5. For **Security Supervised Input** field points (**classid="323"**), change the value accordingly:

100 = Generic	8 = IO8
6 = RDR2S	8 = SIO8
23 = RDR2S-A	8 = SI8
35 = RDR8S	16 = I16
2 = CK722	

6. For **Security Binary Output** field points (**classid="324"**), change the value accordingly:

100 = Generic	1 = CK722
10 = RDR2S	8 = IO8
8 = RDR2S-A	8 = SIO8
32 = RDR8S	

7. If the block defining the *Number of Connectors* attribute is not contained in the **export.xml** file, paste it right before the block where the *Connector Label Enum Set* attribute is located, identified by **property id="3714"**.
8. From the menu bar, click **File>Save**.

Repacking the Template

After you save the **export.xml** file, restore the template's zip file with the updated information.

To perform the instructions in this section, you must have access to the P2000 server, and you will need to use WinZip or similar software capable of compressing files into a ZIP file.

► **To repack the template:**

1. From the P2000 server, access the following directory:
Local Disk\Documents and Settings\All Users\Application Data\Johnson Controls\Metasysoft III\DatabaseFiles
2. Select all of the following files (all of the following files should be highlighted):
 - export.xml
 - filedata.bin
 - PackageView.bin
 - <Name of Original Template>.gif
3. Use WinZip or similar software to add them to a ZIP file.
4. When saving the ZIP file, select to overwrite the original source file (e.g. JCI_RDR2SA_Bi_Dir-MT.zip).
5. Close the WinZip or similar software.

NOTE

*Make sure you use the original **filedata.bin** file. Also, do not rename any objects inside the **export.xml** file, as they will then be out of sync with the contents of the **filedata.bin** file, which affects the display of the template's logic diagram.*

Importing the New Template

Import the new template into the P2000 SCT database according to the instructions in "Importing Part of an Archive Database from a File" on page 4-4.

Verifying the Template

You can now inspect the template in the P2000 SCT to verify that all Hardware Modules, S300 Reader Terminals, Supervised Inputs, and Binary Outputs have been updated correctly.

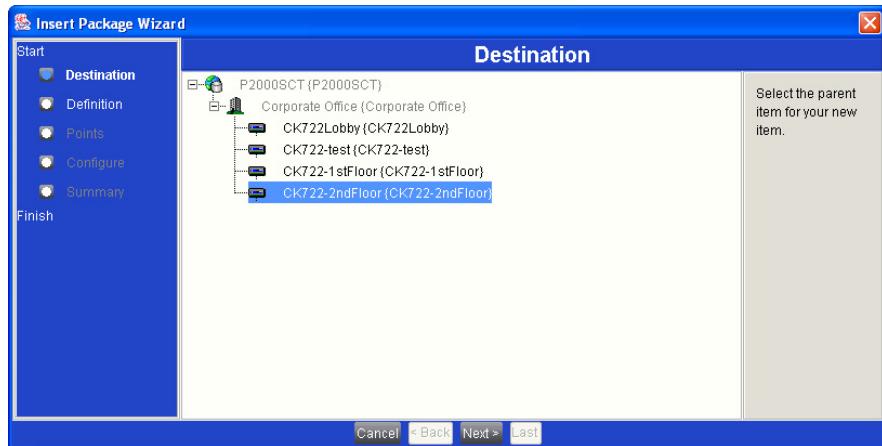
If desired, you can update the template's graphic file to include a new GIF file for the new template (e.g. JCI_RDR2SA_Bi-Dir-MT.gif). See "Package Graphics" on page 6-30 for more information.

LOADING PACKAGES

When you load a package, you are loading an instance of a template to a CK722 Device object defined in the P2000 SCT. During the load process, you can edit object attributes if you have selected these attributes on the Package Attributes tab of the object definition. See “Package Attributes” on page 6-14. After the load is finished, you still have the option of editing the objects added to the CK722 Device object from the package.

► **To load a package:**

1. From the menu bar, select **Insert>Package**.
The Insert Package Wizard appears.
2. Select the CK722 Device object that will receive the package and click **Next**.



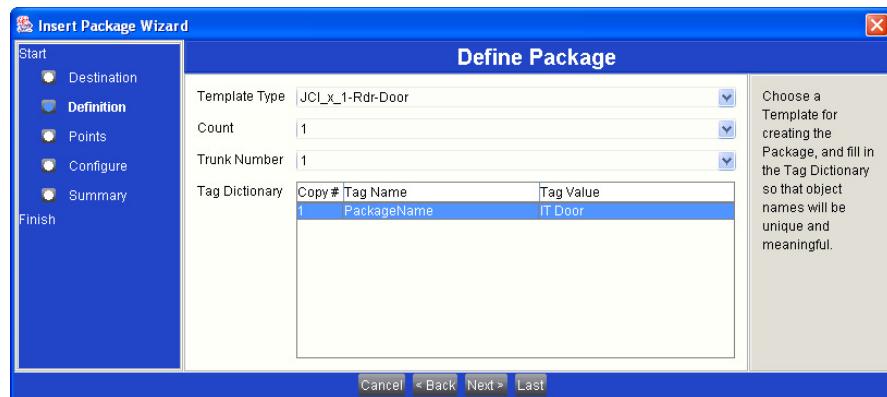
3. Define the package according to Table 6-5 and click **Next**.

Table 6-5: Insert Package Wizard

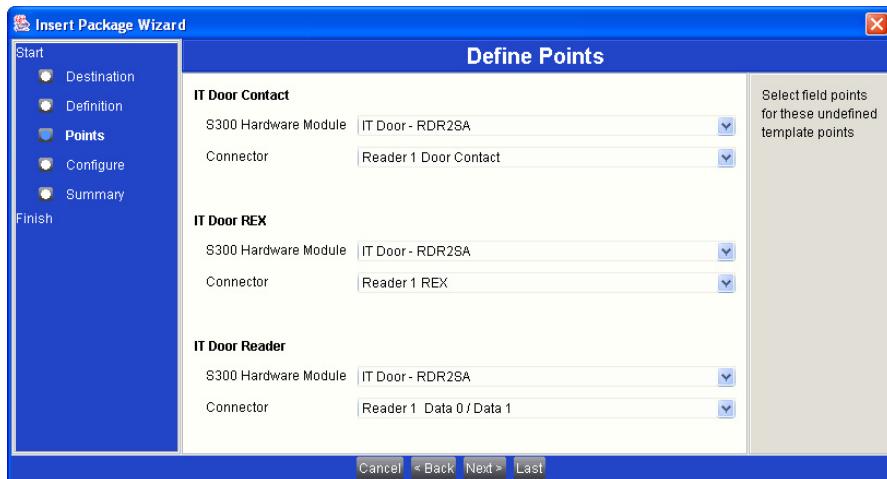
Field	Action/Purpose
Template Type	Select the template you wish to load as a package.
Count	Allows you to load multiple packages from the selected template. As you increase the count, the copies also increase in the Tag Dictionary table.
Trunk Number	Select the S300 communications trunk to which the package will be assigned.
Tag Dictionary	Enter the tag values for each package you are loading from the selected template. If any errors are detected in the values you assign, you will be notified on the right pane of the dialog.

NOTE

All tag values must conform to the object naming requirements described in “Object Names (Identifiers)” on page 5-2.



4. If the template includes a generic hardware module (see “Using a Generic Hardware Module in a Template” on page 6-18), on the Define Points screen, assign the **S300 Hardware Module** and **Connector** for each field point listed. Click **Next**.



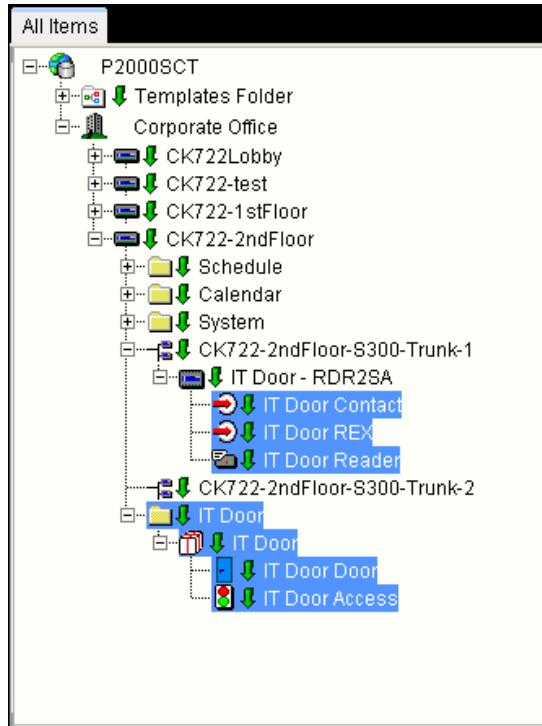
5. If you previously enabled any package attributes in the template (see “Package Attributes” on page 6-14), they appear on the Configure screen.



6. Edit any attributes, as necessary, and click **Next**.

7. Click **Finish** on the Summary screen.

The package and its contents will be added to the Navigation Tree.



NOTE

If the package includes field devices and field points, these will be placed in the integration object, such as an S300 Trunk object, of the selected CK722 Device object.

PACKAGE GRAPHICS

Templates, and subsequently packages, may contain a large number of objects. After a package is loaded, the P2000 SCT provides a user-friendly overview of the included objects and their functions by organizing the objects in a graphical display. The graphical display enables you to quickly see which objects are associated with a door and its components, and allows you to configure an object by double-clicking its graphical representation directly from the display.

Each JCI template includes a package graphic display, which can be modified using the Package View Editor tool. You can also create a new graphic display and assign it to a template built from scratch.

Figure 6-3 shows a package's graphics for a Card In / Card Out (CICO) door labeled "Sample".

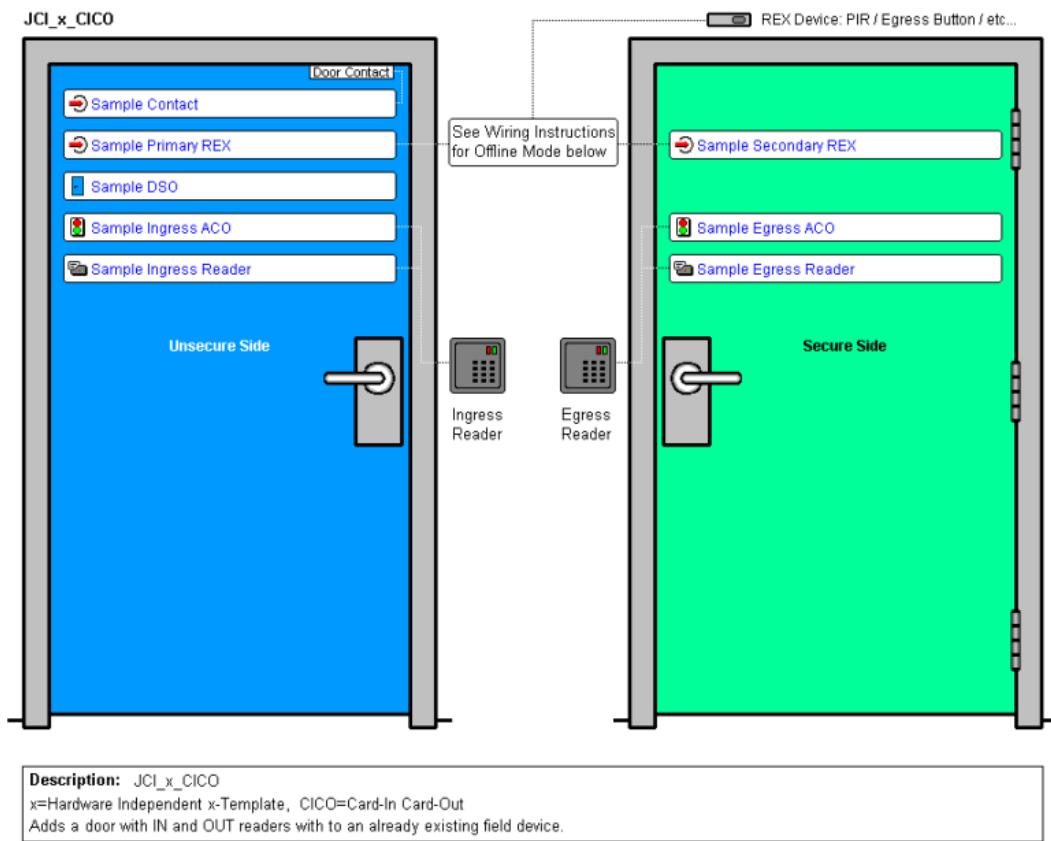
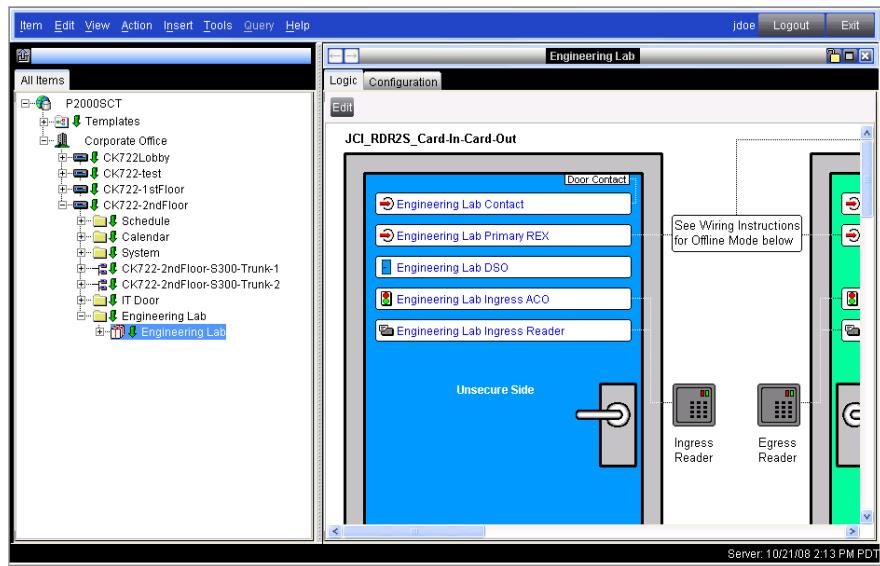


Figure 6-3: Package Graphics Example

The graphics consists of two items: a background image and a set of clickable hyperlinks to the objects. Double-clicking the blue hyperlink text inside the white object boxes enables you to see and modify the objects' attributes.

► **To display a package's graphics:**

1. From a P2000 server or workstation, double-click the package icon representing the package you wish to view.
 The graphics for the selected package appear on the Logic tab.

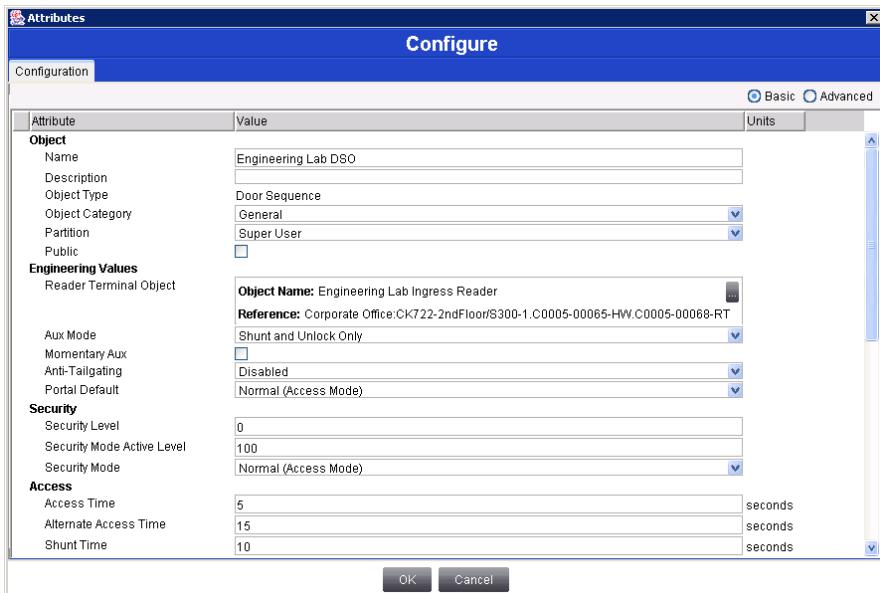


2. If the graphics are larger than the space provided on the Logic tab, use the left-right and top-bottom scroll bars to view the hidden portion of the graphics.

► **To modify the attributes of an object from the graphical display:**

1. Double-click the blue hyperlink text inside the white object box of the object you wish to edit.

The Configure screen appears (Configure screen for Door Sequence object shown).



2. Modify the desired attribute(s) and click **OK**.

Using the Package View Editor

The Package View Editor allows you to define and modify the graphics for any package or template in the P2000 SCT database.

NOTE

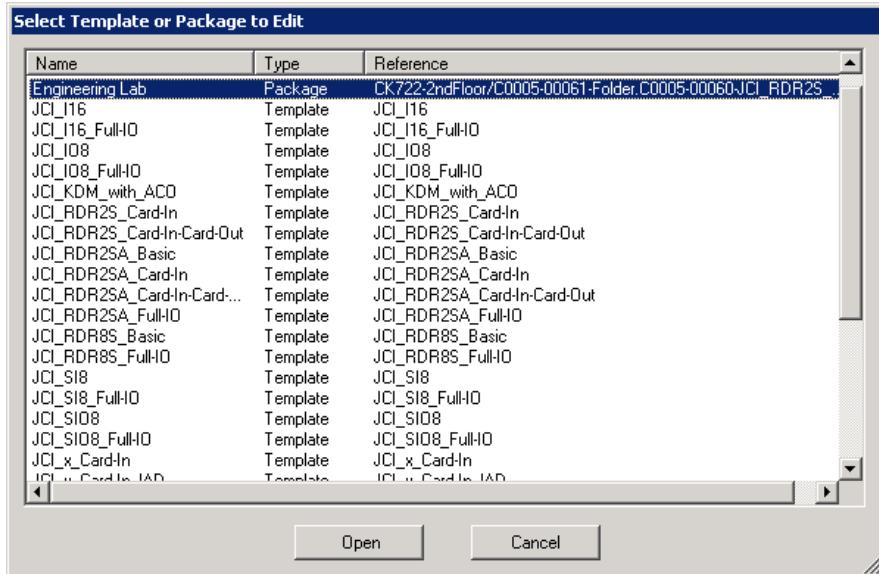
The Package View Editor can only be accessed from a P2000 server or workstation.

► **To launch the Package View Editor and edit an existing template or package graphic display:**

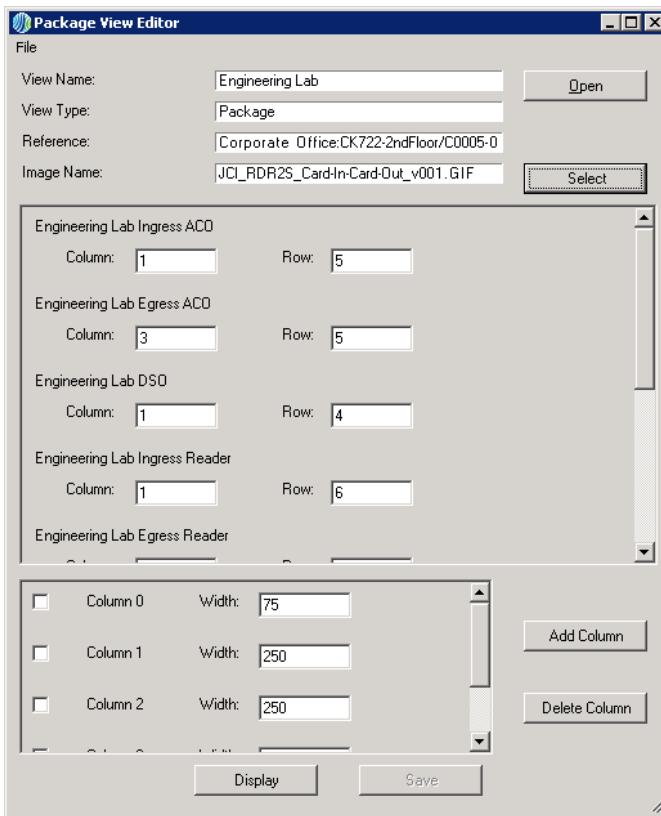
1. From the P2000 server or workstation, from the task bar, select **Start>Programs>Johnson Controls>P2000 SCT>Package View Editor**.
The Package View Editor window appears.
2. Click **Open**.
3. Select the template or package you wish to edit.

NOTE

Only those templates which have been created or imported into the P2000 SCT database can be selected for modification.



4. Click **Open**. The selected template or package graphic definitions appear on the Package View Editor window.



5. To assign or change the graphic display's background image, see "Background Images" on page 6-36.
6. In the center section of the window, assign a column number and row number for each object listed.
The column number corresponds to the columns defined in the lower section of the window. See "Column Positioning and Spacing" on page 6-36 for more information.
The row number determines in which row the object box will be placed, starting from the top of the screen with Row 1. See "Object Box Specifications" on page 6-38 for more information.
7. Add, edit, or delete columns, as necessary, using the fields in the lower area of the window. See "Column Positioning and Spacing" on page 6-36 for more information.
8. Click **Save** to save your changes.

NOTE

If you edited a template's graphics, we recommend exporting that template so that its ZIP file is synchronized with the changes made to the P2000 SCT database. You may overwrite an existing ZIP file or assign a unique name to create a new template ZIP file. See "Exporting Part of the Archive Database to a File" on page 4-3 for details on exporting a template.

Package View Editor Field Definitions

This section describes the fields and functions of the Package View Editor window. Refer to this section when modifying template or package graphics.

View Name – Displays the name of the template or package selected with the **Open** button.

View Type – Indicates whether you selected a template or package to edit.

Reference – Displays the item reference of the template or package. The item reference is a fixed name used internally by the system.

Image Name – Displays the file name of the background image (GIF or JPG) used with the selected template or package. See “Background Images” on page 6-36 for more information.

Open – Allows you to select a package or template from the P2000 SCT database.

Select – Allows you to select a background image to be used with the currently selected package or template.

Object Positioning Sections – Allows to define the position of each object on the canvas through zero-based row and column coordinates. See “Column Positioning and Spacing” on page 6-36 and “Object Box Specifications” on page 6-38 for more information.

Add Column – Allows you to add a column to the package graphics display. See “Column Positioning and Spacing” on page 6-36 for more information.

Delete Column – Allows you to delete a column from the package graphics display. See “Column Positioning and Spacing” on page 6-36 for more information.

Display – Allows to preview the graphic with the object names filled in.

Save – Saves any changes made to the package or template graphics.

File Menu Options

The **File** menu at the top of the Package View Editor window has the following options:

Change Database – This option is currently not supported.

Update – This option is currently not supported.

Delete View – Allows you to delete a package or template from the Select Template or Package to Edit dialog box, which is visible when clicking the **Open** button on the Package View Editor window. Selecting this option does *not* delete the package or template from the P2000 SCT database.

Background Images

Each JCI template includes an associated image file used as the background. The background image can be in either GIF or JPG format. New background images can be created in the field with any graphics program that supports these formats.

The background images provided with the P2000 SCT are in GIF format and have a size of 1000 pixels x 1000 pixels.

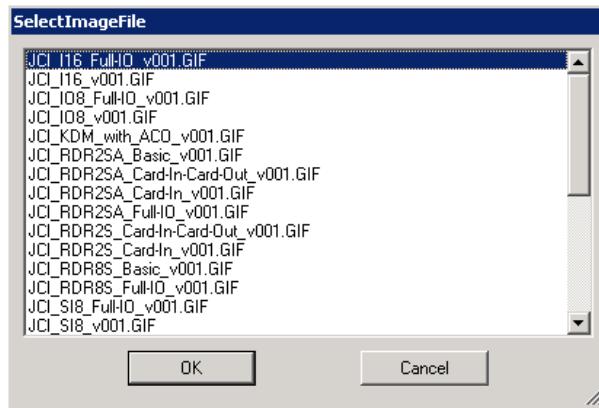
All background images are stored in the following directory:

<Local Disk>\Documents and Settings\All Users\Application Data\Johnson Controls\MetasysIII\DatabaseFiles\Images

If you have created a new background image, you must copy the image and paste it into the **Images** directory before you can assign it to a template or package.

► **To change the background image of a template or package graphic display:**

1. Launch the Package View Editor and select the template or package you wish to modify. See “Using the Package View Editor” on page 6-33.
2. Click the **Select** button. The SelectImageFile dialog box appears.



3. Select the background image file.
4. Click **OK**.

Column Positioning and Spacing

The position and spacing of columns and rows determine where object boxes appear over the graphic display’s background image. Although row positioning and spacing is pre-defined (34 pixels in height) and not editable (see “Object Box Specifications” on page 6-38), you can define the position and spacing of columns to place object boxes in a desired location.

A column width of 250 pixels is large enough to display typical object names. Object names that exceed a column width are truncated; however, their hyperlinks remain fully functional.

The JCI Standard Door Templates organize their objects in five columns: Columns 1 and 3 are used for objects, and Columns 0, 2, and 4 are used as horizontal spacers. For example, the JCI_x_CICO package graphic has the following default column settings:

- Column 0 = 75 pixels wide
- Column 1 = 250 pixels wide
- Column 2 = 250 pixels wide
- Column 3 = 250 pixels wide
- Column 4 = 175 pixels wide.

See Figure 6-4.

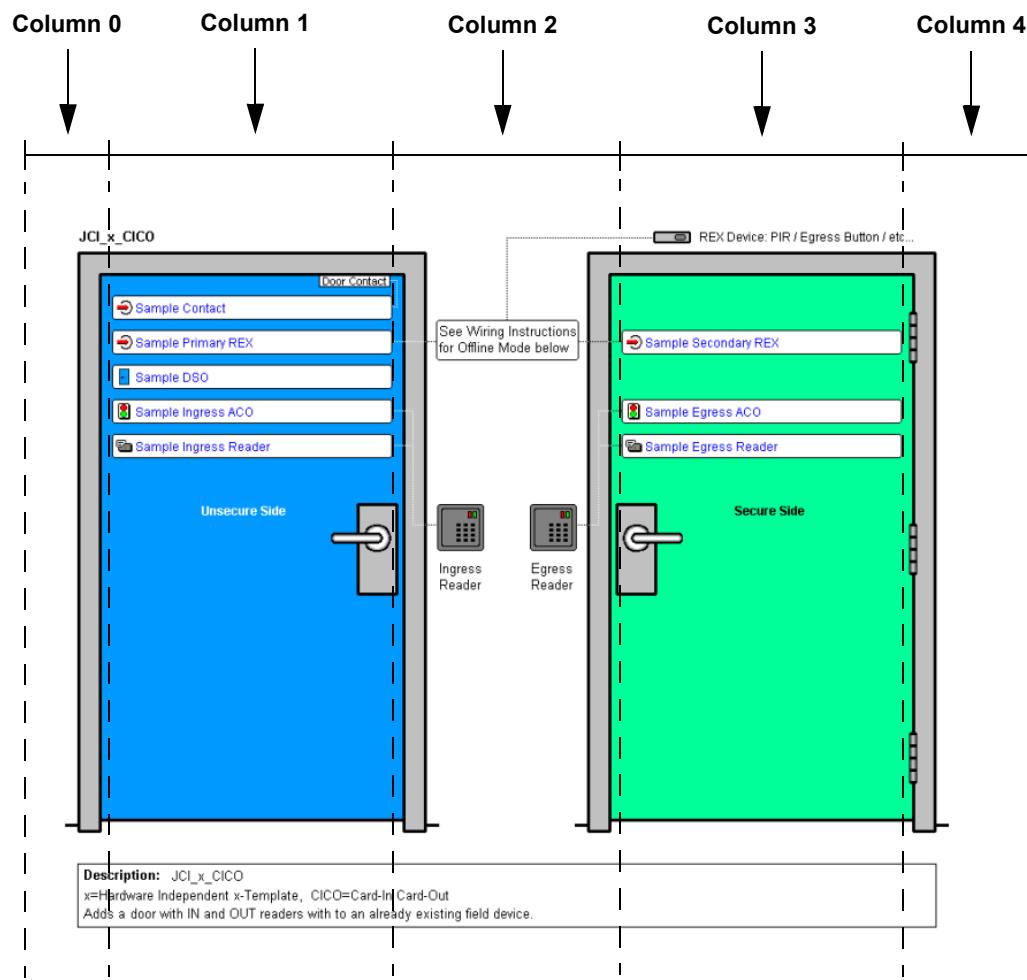


Figure 6-4: Column Positioning and Spacing Example

Column spacing can be adjusted by modifying the **Width** value in the lower section of the Package View Editor window and clicking **Save**. You may also add or delete columns, as needed.

► **To add a column:**

1. On the Package View Editor window, click **Add Column**.
The new column appears with the next higher number in the sequence and has a default width of 250 pixels.
2. Modify the column width, if necessary.
3. Click **Save**.

► **To delete a column:**

1. Select the check box next to the column number you wish to delete.
2. Click **Delete Column**.
3. Click **Save**.

Object Box Specifications

Even though you are free to define where and how to display the object hyperlinks, it is useful to know the placement of the object hyperlinks in the JCI Standard Door templates. Figure 6-5 shows the spacing, in pixels, of each object box as they appear in the JCI Standard Door templates.

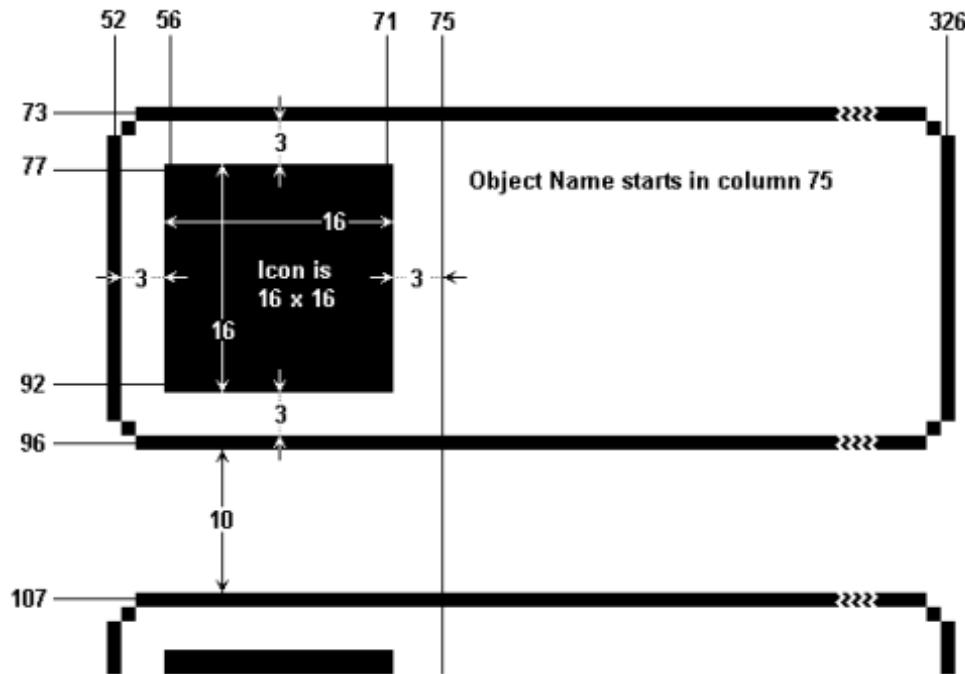


Figure 6-5: Object Box Spacing Specifications

The object boxes are vertically spaced 34 pixels apart (from the top of the one object box to the top of the next object box in the same column). Figure 6-6 shows the row number and the vertical pixel position of the top line of an object box (e.g. an object hyperlink in row number 2 should have its box's top line at position 73, an object hyperlink in row number 3 should have its box's top line at position 107).

Table 6-6: Row Position Specification

Row No.	Pixel	Row No.	Pixel	Row No.	Pixel
0	5	10	345	20	685
1	39	11	379	21	719
2	73	12	413	22	753
3	107	13	447	23	787
4	141	14	481	24	821
5	175	15	515	25	855
6	209	16	549	26	889
7	243	17	583	27	923
8	277	18	617	28	957
9	311	19	651		

DATABASE DOWNLOAD/SYNCHRONIZATION

INTRODUCTION

The P2000 SCT enables you to download or synchronize the archive (configuration) database using the database Load Wizard. This wizard uses the ActionQ (ActionQueue) to initiate and monitor the load process.

Access the Load Wizard by selecting **Tools>Load Archive** from the menu bar. The Load Wizard collects information necessary to perform the load such as load type, controller names, and load time. Once you complete the wizard, the load commands are added to the ActionQ. The ActionQ initiates and monitors the load.

There are three types of loads:

- Download
- Synchronize
- Update P2000 Host Only

For more information on the ActionQ, see page 7-7.

DATABASE DOWNLOAD

The Load Wizard's **Download** option downloads (copies) the archive database from the P2000 SCT and overwrites the database of each selected CK722 controller. The download function also updates the P2000 host software with the changes made to the P2000 SCT.



Use the **Download** feature only when downloading the archive database to a new CK722 controller for the first time. Do not use the Download feature on an already operational controller, as it will cause the controller to reset and will result in the loss of operational data. After performing a full initial download, use the **Synchronize** loading feature for all updates thereafter. The Synchronize feature downloads only the changes made to the SCT, instead of downloading the entire database. Also, the Synchronize feature does not interrupt the operation of the controller.

Figure 7-1 and Table 7-1 describe the download process.

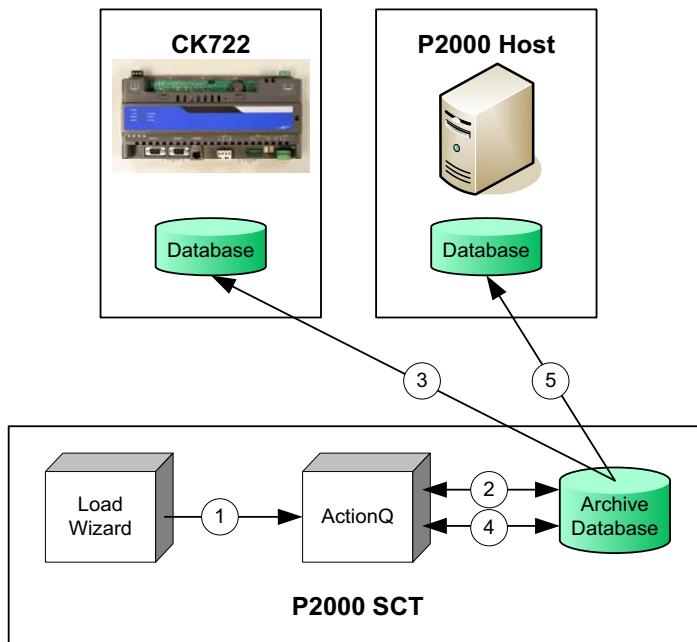


Figure 7-1: Download Process

Table 7-1: Download Process

Number	Process Description
1	<ul style="list-style-type: none"> After configuring a download in the Load Wizard, the Load Wizard sends the download command to the ActionQ in the P2000 SCT.
2	<ul style="list-style-type: none"> The ActionQ locks the Archive Database for the selected controller(s) in the P2000 SCT. See “Database Locking” on page 7-5. The ActionQ begins the download process at the time defined for the download.
3	<ul style="list-style-type: none"> The ActionQ transfers the P2000 SCT Archive Database file to the CK722 database.
4	<ul style="list-style-type: none"> The ActionQ unlocks the Archive Database for the selected controller(s) in the P2000 SCT. The ActionQ displays the final status of the download.
5	<ul style="list-style-type: none"> The ActionQ transfers the updated P2000 SCT data to the P2000 host database.

NOTE

If the **Update P2000 Only** check box is enabled, the system will not download the archive database to CK722 controllers. See “Update P2000 Only” on page 7-4 for more information on this download option.

Object References to Objects in Other Controllers

When downloading to a CK722 controller an object that references an object in a different controller, the P2000 host must be “aware” of the CK722 controller being referenced or the download will fail. That is, the controller being referenced must be downloaded to the P2000 host first. Then the controller with the object that references an object in a different CK722 controller must be downloaded afterwards.

For example, imagine your P2000 SCT archive database consists of objects for two CK722 controllers: Controller 1 and Controller 2. Neither controller has been downloaded from the P2000 SCT, so the P2000 host has not received data about these two controllers. Controller 1 has an Intrusion Area object (“A”) that references the Intrusion Area object (“B”) in Controller 2. If you attempt to download Controller 1, the download will fail, since the P2000 host does not know about Controller 2, which is being referenced by an object in Controller 1. See Figure 7-2.

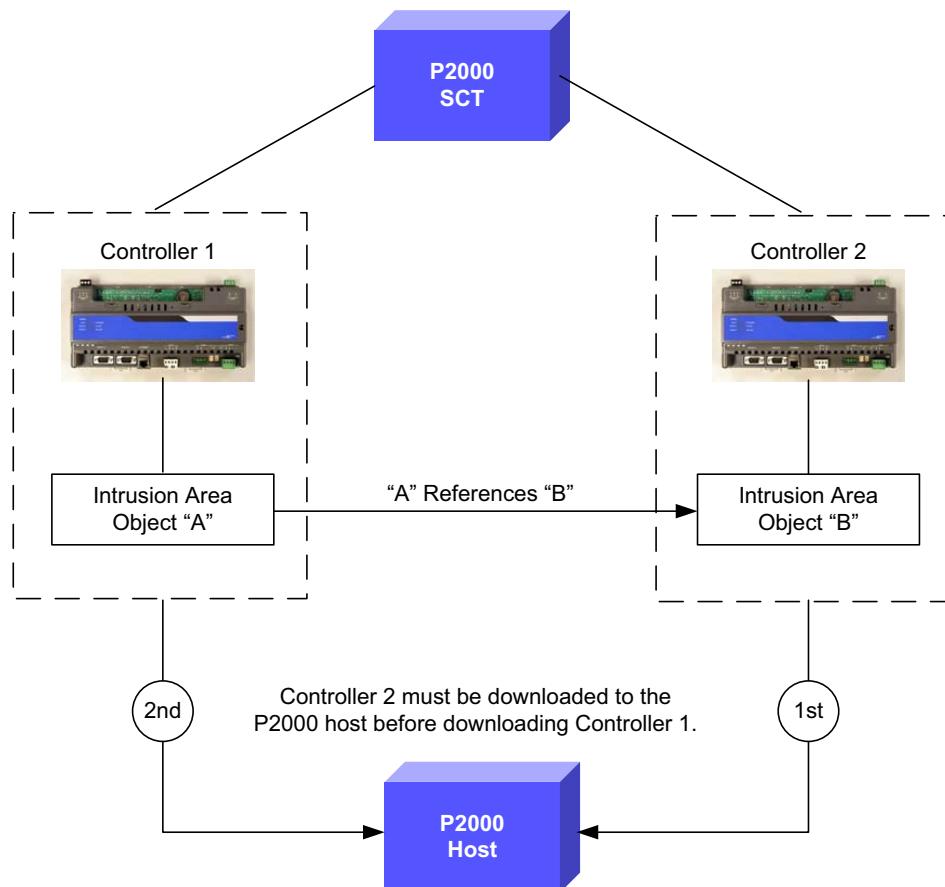


Figure 7-2: External Object References

UPDATE P2000 ONLY

The Update P2000 Only download option provides a way to update the P2000 server without downloading the archive database to CK722 controllers.



Use the **Update to P2000 Only** feature only if you wish to configure the P2000 SCT and update the P2000 server with the archive database information AND the CK722 controller hardware has not been installed. Once the hardware is installed, perform a full download to the controller and the P2000 server, so that the controller and P2000 server are in sync. If you use the Update to P2000 Only option after the controller has received the archive database information, the P2000 server and CK722 controller will be out-of-sync. After performing a full initial download, use the **Synchronize** loading feature for all updates thereafter. See “Database Synchronization” on page 7-4.

DATABASE SYNCHRONIZATION

The Load Wizard’s **Synchronize** option synchronizes a CK722 database with the P2000 SCT archive database. The CK722 database and the P2000 SCT archive database will match after you run the Synchronize option.

NOTE

Once the archive database has been downloaded to a CK722 controller, use the Synchronize option thereafter to update the CK722 controller with changes made to the P2000 SCT archive configuration. See “Database Download” on page 7-1 for more information.

Figure 7-3 and Table 7-2 describe the synchronization process.

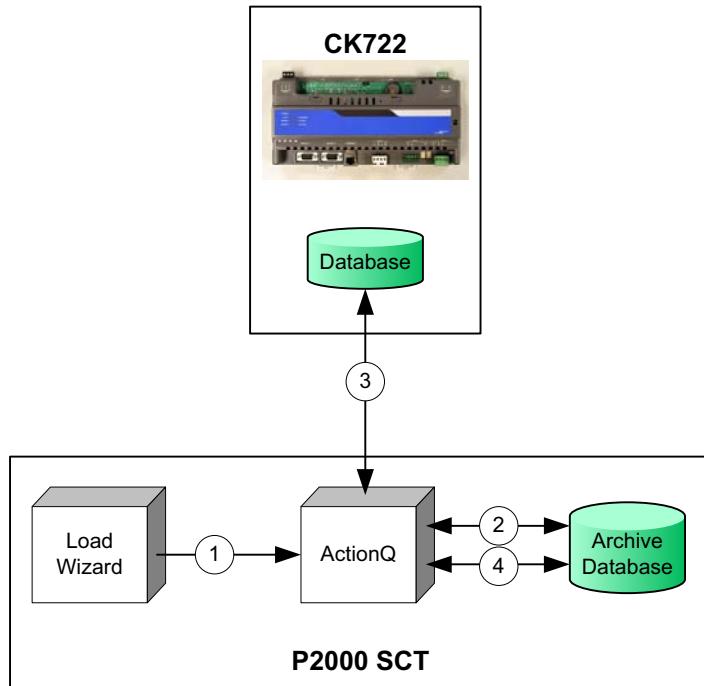


Figure 7-3: Synchronization Process

Table 7-2: Synchronization Process

Number	Process Description
1	<ul style="list-style-type: none"> After configuring a synchronization load in the Load Wizard, the Load Wizard sends the synchronization command to the ActionQ in the P2000 SCT.
2	<ul style="list-style-type: none"> The ActionQ locks the Archive Database for the selected controller(s) in the P2000 SCT. See "Database Locking" on page 7-5.
3, 4	<ul style="list-style-type: none"> The ActionQ downloads the changes from the P2000 SCT to the CK722 database. However, the CK722 applies the changes from the new file to the database. The ActionQ unlocks the Archive Database for the selected controller(s) in the P2000 SCT. The ActionQ displays the final status of the synchronization.

DATABASE LOCKING

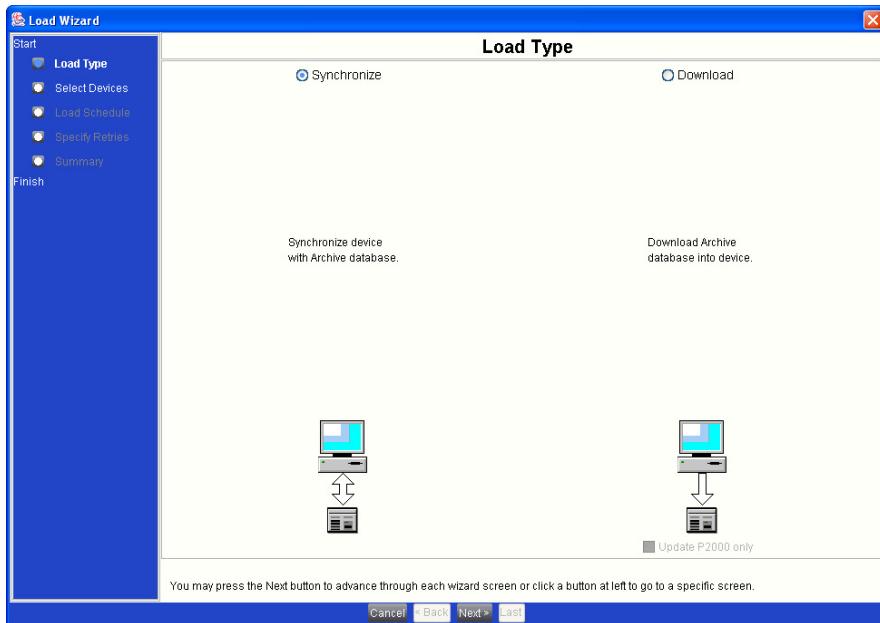
After scheduling a load, the archive database for that device is locked in the P2000 SCT until the load for that device has been completed or is deleted. Only the device being loaded is locked. You can still access devices that have no scheduled loads.

If you need to modify the archive database in the P2000 SCT for a device with a scheduled load (locked device), you can still delete the load to clear the lock. After making your modifications, you can schedule the load again.

DOWNLOADING OR SYNCHRONIZING A DATABASE

► To download or synchronize a database:

- From the menu bar, select **Tools>Load Archive**. The Load Wizard appears.



See “Wizards” on page 3-5 for help on using wizards.

- Follow the wizard instructions.

See Table 7-3 for tips. The ActionQ appears after clicking **Finish** on the Summary screen of the load wizard. See “ActionQ” on page 7-7 for information on monitoring the load.

Table 7-3: Load Wizard Tips

Wizard Screen	Tips
Load Type	<ul style="list-style-type: none"> Select the radio button for the type of load: Synchronize or Download. If you wish to update the P2000 host only, select the Update P2000 Only check box. If you select the Download radio button and click Next, a warning message appears. Click OK to continue to the Select Devices screen or click Cancel to select a different load option.
Select Devices	<ul style="list-style-type: none"> Select one or more devices to synchronize or download. Use the <Ctrl> or <Shift> keys to select multiple items.

Table 7-3: Load Wizard Tips

Wizard Screen	Tips
Device Change	<ul style="list-style-type: none"> Appears only in the Download Wizard when only one CK722 controller is selected for download. To change the name of a device during the download, click Use this option to rename a device via download and enter the existing name of the device in the text box. The new name will be taken from the archive. To change the address of a device during the download, click Use this option to change a device address via download and enter the existing address of the device in the text box. The new address will be taken from the archive.
Load Schedule	<ul style="list-style-type: none"> Select either the Synchronize now (or Download now) or Schedule synchronize (or Schedule download) radio button. If you select Schedule synchronize (or Schedule download), a date and time selector appears. Note: If you schedule multiple loads to begin at the same time, some loads may not begin at the specified time because they are waiting for other loads to complete. You cannot define a load order for devices scheduled together. If you must load a certain device first, schedule that device separately with an earlier load time.
Specify Retries	<ul style="list-style-type: none"> Enter the number of times you want to retry the load if communication failure occurs.
Summary	<ul style="list-style-type: none"> View the final information for the load and click Finish.

ACTIONQ

The ActionQ (Queue) receives download or synchronize commands, allows you to modify and monitor the commands, and performs scheduled command executions. You can access the ActionQ from the **View** menu.

For more information on the load process, see “Database Download/Synchronization” on page 7-1.

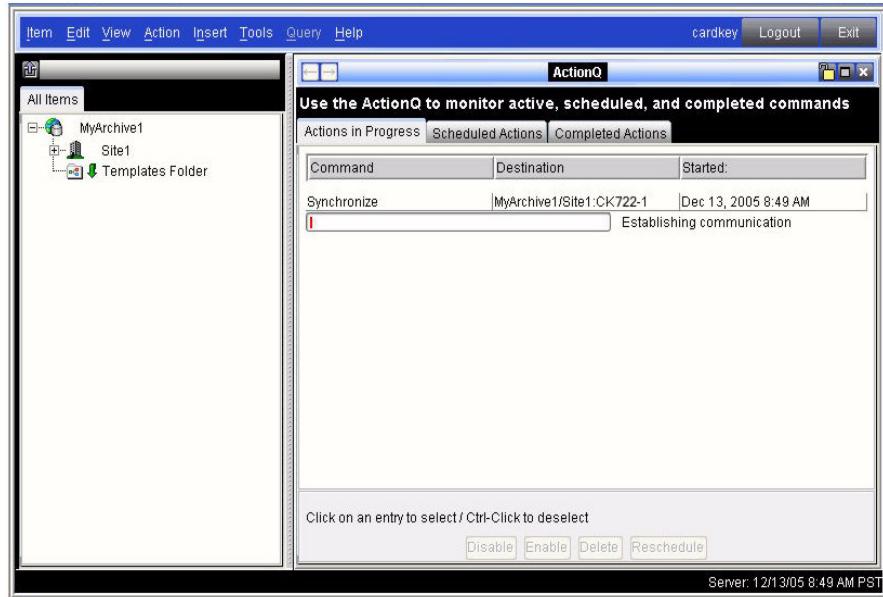
ActionQ Operation

The ActionQ shows the status of load commands and allows you to monitor, enable, disable, delete, or reschedule them. See “ActionQ Interface” on page 7-8 for more information. The ActionQ receives a load command from the Load Wizard and executes the command based on the date, time, and other specified parameters.

The order of operation is as follows:

1. The ActionQ receives a load command from the Load Wizard.
2. The ActionQ initiates the command (for example, starts the load process).

3. The ActionQ interface displays the progress and final status of the load command.



The final status remains on the ActionQ screen until you delete it or it is automatically deleted after a user-defined number of days (1-30).

At this time, the ActionQ only supports download, synchronization, and update P2000 only commands from the Load Wizard.

ActionQ Interface

The ActionQ contains three main screens/dialogs.

Table 7-4: ActionQ Screens

Screen	Description
ActionQ	<p>Allows you to view active, scheduled, and completed load commands. This screen is the main screen of the ActionQ interface and has three tabs:</p> <ul style="list-style-type: none"> • Actions in Progress – Allows you to monitor, enable, disable, delete, and reschedule load commands that are in progress or pending. • Scheduled Actions – Allows you to view, enable/disable, delete, and reschedule upcoming scheduled commands. • Completed Actions – Allows you to view the status of completed or failed commands, reschedule commands, and clear them from the screen. <p>Note: A command is pending when it has not been issued because the recipient device is busy as a result of too many incoming commands.</p> <p>Note: Once a command is issued, it may be complete before a command to disable, delete, or reschedule reaches it.</p>

Table 7-4: ActionQ Screens

Screen	Description
ActionQ Reschedule a Command Dialog	<ul style="list-style-type: none"> Appears after clicking the Reschedule button from the Action in Progress, Scheduled Actions, or Completed Actions tabs of the ActionQ main screen. Allows you to modify the scheduled start date and time of a command. <p>Note: If you schedule multiple commands to occur at the same time, not all commands may begin at the specified time because they are waiting for other commands to complete.</p>
ActionQ View Status Dialog	<ul style="list-style-type: none"> Appears after clicking the View Status button from the Completed Actions tab of the ActionQ main screen. Allows you to view the completion information of a command, such as destination, start time, end time, final status, error status, and any additional information.

Using the ActionQ

► **To launch the ActionQ interface:**

The ActionQ automatically launches after the Load Wizard completes.

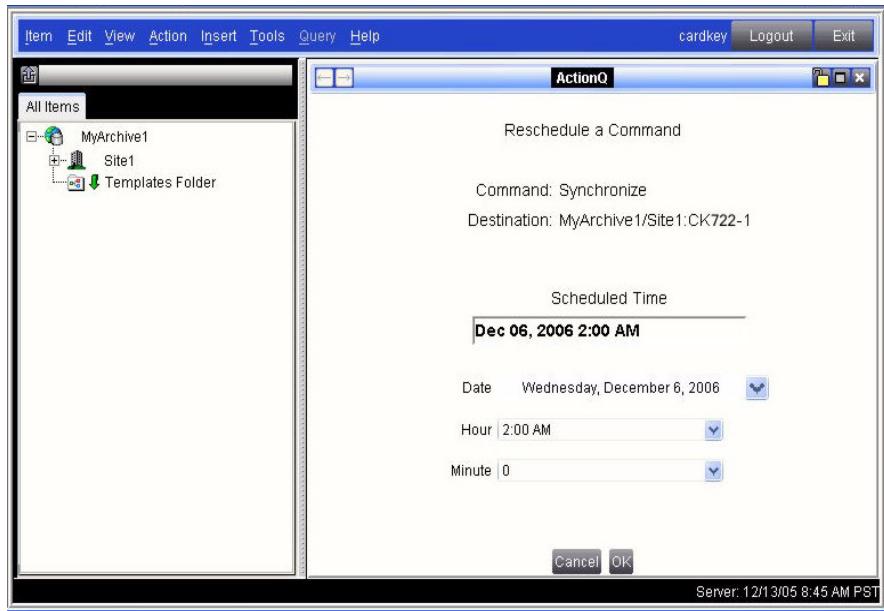
- From the menu bar, select **View>ActionQ**.

► **To enable/disable a command:**

- Launch the ActionQ and select either the **Actions in Progress** tab or the **Scheduled Actions** tab.
- Click on the command.
- Click **Enable** or **Disable**.

► **To reschedule a command:**

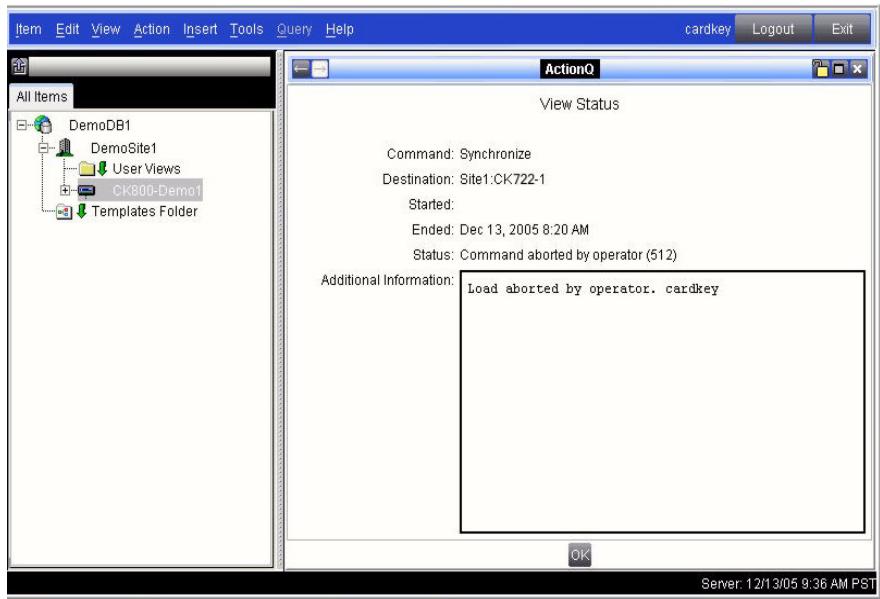
- Launch the ActionQ and select a tab.
- Click on the command.
- Click **Reschedule**. The ActionQ Reschedule a Command dialog appears.



4. Modify the date and time using the drop-down menus.
5. Click **OK**.

► **To view the status of a command:**

1. Launch the ActionQ and select the **Completed Actions** tab.
2. Click on the command.
3. Click **View Status**. The ActionQ View Status dialog appears.



4. Click **OK** to return to the ActionQ screen.

► **To delete a command:**

1. Launch the ActionQ and select a tab.
2. Click on the command.
3. Click **Delete**.

► **To automatically delete completed commands:**

1. Launch the ActionQ and select the **Completed Actions** tab.
2. Enter the desired amount of days in the **Number of days after which entries will be automatically deleted (1-30)** text box.

ACRONYMS AND TRADEMARKS

ACRONYMS

Number A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Table A-1: Acronym Finder

Number	
A	
ACO	Access Control object
ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers
B	
BACnet	Building Automation and Control Network
BBMD	BACnet Broadcast Management Device
C	
D	
DNS	Domain Name System
DSO	Door Sequence object
DTS	Device Time Server
E	
F	
G	
H	
I	
I/O	Input/Output(s)
IP	Internet Protocol
J	
K	
KDM	Keypad / Display Module

Table A-1: Acronym Finder

L	
LAN	Local Area Network
M	
MCE	Metasys Control Engine
N	
O	
P	
PC	Personal Computer
Q	
R	
S	
SCT	System Configuration Tool
SI/O	Supervised Input/Output
SMS	Security Management System
STS	Site Time Server
T	
U	
UI	User Interface
URL	Uniform Resource Locator
USPTO	United States Patent and Trademark Office
UTC	Universal Time Coordinated
V	
W	
WAN	Wide Area Network
X	
Y	
Z	

TRADEMARKS

Table A-2: Trademarks

Terms	®	TM	Owner
ASHRAE	®		ASHRAE
BACnet	®		ASHRAE
Google	®		Google
Java		TM	Sun Microsystems
Metasys	®		Johnson Controls, Inc.
Microsoft	®		Microsoft Corporation
Windows	®		Microsoft Corporation
Yahoo	®		Yahoo, Inc.

All other marks herein are the marks of their respective owners.

TROUBLESHOOTING

START-UP ISSUES

Table B-1: Start-up Issues

Issue	Reason	Solution
Unable to access the P2000 SCT Login screen.	P2000 SCT may not be installed on the P2000 server.	Check Microsoft® Windows® Add/Remove Programs on the P2000 server and verify that P2000 SCT has been installed.
	If accessing the P2000 SCT from a client, the client may not have access to the P2000 server over the network.	<ul style="list-style-type: none"> Verify that both the P2000 server and client have valid IP addresses. Verify that you can ping the P2000 server from the client computer.
	The computer from which you are running the P2000 SCT may have a pop-up blocker that prevents the Login screen from opening.	Disable pop-up blockers or configure them to allow all pop-ups from the P2000 server. See "Allowing Pop-ups from P2000 Server (P2000 Server and Workstation)" on page 1-11.
	Java may be preventing the launch of SCT.	From the Microsoft Control Panel, double-click the Java icon. On the Java Control Panel window, select the General tab. In the Temporary Internet Files box, click Delete Files .
During application launch, a content blocked security message appears or the Welcome screen hangs.	Microsoft Internet Explorer's security settings do not allow you to access the P2000 SCT, as it considers the application an untrusted site.	Disable the P2000 server's Internet Explorer Enhanced Security Configuration setting. See page 1-10.
Unable to log in from the Login screen.	Your username and password may not be valid.	Verify your username and password.
	The user role assigned to your user account may not allow you to launch the P2000 SCT (i.e. you may not have permission).	Verify whether the user role assigned to your account allows you to launch the P2000 SCT.

CONFIGURATION ISSUES

Table B-2: Configuration Issues

Issue	Reason	Solution
The following message appears when typing the object name in the Insert Object wizard: This identifier is already in use.	An object with the same item reference already exists in the P2000 SCT archive database.	Assign a different name.
The following message appears after clicking Finish on the Insert Object wizard: Error Creating Object: Site:ControllerName/ObjectName with error code: Object Already Exists	The name you entered is in use somewhere in the P2000 system. Names must be unique across both the P2000 SCT and P2000 host software. In some instances, this problem occurs when changes to the P2000 SCT archive, such as an object deletion, are not downloaded to or synchronized with the host. If you delete an object and do not download this change to either the P2000 host or to the CK722 controller, the P2000 SCT does not consider the object fully deleted.	Assign a different name OR Download or synchronize the P2000 SCT database to/with the P2000 host and attempt to insert the object with the desired name. Whenever deleting an object, download or synchronize the P2000 SCT archive database to/with the P2000 host software. Refer to “Database Download/Synchronization” on page 7-1 for more information on the different download options.
The following message appears when pasting an object: The selected destination for the paste operation is not valid.	You have attempted to cut and paste a CK722 Device object. OR You have selected the wrong parent object under which to paste the copied object. For example, you will receive this message if you attempt to paste an Access Control object under an S300 Trunk object.	Select a parent object that accepts the copied object. OR Use the template and package feature to duplicate objects and assign them to a CK722 Device object. See “Templates and Packages” on page 6-1.
The following message appears when pasting an object: Paste Failed! Name of Object, or one of its children, already in use by another object of same type within the site.	You have attempted to copy and paste a parent object (e.g. Schedule folder) that contains child objects (e.g. Schedule objects) into the site. This causes an immediate error, since the pasted child objects would have duplicate names.	Insert a new parent object and then copy and paste each child object one at a time. OR Use the template and package feature to insert multiple objects. See “Templates and Packages” on page 6-1.

Table B-2: Configuration Issues

Issue	Reason	Solution
The following message appears when editing an object: The following fields are invalid: <Field>	The attribute data for the field(s) listed is invalid. For example, if you do not enter a value for a field that is highlighted in red (i.e. a required field), you will receive the error message when you attempt to save the object.	Verify that each listed field has valid data.

LOAD ARCHIVE ISSUES

Table B-3: Load Archive Issues

Issue	Reason	Solution
Archive database download or synchronization fails with Communication Error (521) and the following status: Unable to communicate with device via name or address - Device Name: Site Name:Device Name.	This error may be caused by one of the following issues: <ul style="list-style-type: none"> The CK722 Device name or IP address does not match that of the CK722 controller. Something in the archive database recently downloaded to or synchronized with the controller is causing the error. The P2000 Object Engine Service or Metasys III Action Queue Service is not running. The controller is not operational. 	Perform the following actions, one at a time. After each action, check whether the problem is resolved. <ul style="list-style-type: none"> Verify the correct name and IP address of the controller. Change the name and/or IP address of the controller using the Device Change screen of the Load Archive wizard. Start any services that are not running. Cycle power to the controller. If you still receive the error, continue with the following actions: <ol style="list-style-type: none"> Stop the P2000Object Engine Service. Stop the Metasys III Action Queue Service. Restart the P2000Object Engine Service. Restart the Metasys III Action Queue Service. Cycle power to the controller. Contact Technical Support for assistance. See "Technical Support" on page 1-2.

Table B-3: Load Archive Issues

Issue	Reason	Solution
<p>Archive database download or synchronization fails with General Database error(1020) and the following status:</p> <p>Error building download files forArchiveName//SiteName:DeviceName: Invalid Class Data (9903)</p> <p>Error for object: <i>SiteName:DeviceNameAug4-1/DSO_AUG9_NEW1; ; P2000 details: -</i> <i>JCI.P2000.Utility.Exceptions.P2000Exception: Distributed transaction completed. Either enlist this session in a new transaction or the NULL transaction. ---></i> <i>System.Data.SqlClient.SqlException: Distributed transaction completed. Either enlist this session in a new transaction or the NULL transaction.</i></p>	<p>There was a Microsoft® SQL database conflict and your request timed out before it could be completed.</p>	<p>Contact Technical Support for assistance. See “Technical Support” on page 1-2.</p>
<p>Archive database download or synchronization fails with General Database error(1020) and the following status:</p> <p>Error building download files forArchiveName//SiteName:DeviceName: Invalid Class Data (9903)</p> <p>Error for object: <i>SiteName:DeviceName/Schedule.Schedule Name; , P2000 Details:</i> <i>JCI.P2000.BusinessLogic.Properties.TimeZoneGuidReferenceProperty () -- Value 'Schedule Value' is not a possible value.</i></p>	<p>A P2000 time zone that was selected in a Schedule object (<i>Time Zone</i> attribute) has been deleted from the P2000 host software.</p>	<p>Select a different P2000 time zone in the Schedule object and then perform a database synchronization.</p>
<p>Unable to save an object. The following message appears:</p> <p>Status code: The device is locked due to a pending archive load (1099).</p>	<p>You are attempting to save an object while the P2000 SCT is loading an archive database.</p>	<p>Wait for the load to finish before attempting to save the object. The total time for the load to finish will vary, depending on the network speed and the number of controllers being updated.</p>

TEMPLATE CREATION ISSUES

Table B-4: Template Creation Issues

Issue	Reason	Solution
Unable to insert an object into a template using the Insert menu option.	Many objects can only be inserted into a template using the template's Object Palette on the Logic tab. See page 6-10.	Open the template and select the Logic tab. Insert objects into the template using the Object Palette.
On the Insert Template Wizard, when adding an S300 Reader Terminal object, I am unable to select parent hardware.	Certain hardware objects, like the S300 Reader Terminal object, require you to select a device as its parent hardware, such as the CK722 Device object. However, you cannot add a CK722 Device object using the Insert Template Wizard for use as the parent hardware.	When creating a template for the first time, you must finish the wizard without having added devices that require you to select a device as its parent hardware. Then, using the Insert menu, insert a CK722 Device object and S300 Trunk object into the site. Finally, open and edit the template, adding any remaining objects and attaching them to their parent devices in the site.
The following message appears after clicking OK on an object's Attributes screen: Connector is already in use, please specify a different value.	The connector assigned to the object has already been assigned in another object associated with the same S300 Hardware Module object. For example, you cannot assign connector IN01 to two different Security Supervised Input objects that are linked to the same S300 Hardware Module object.	Select a connector not currently assigned to an object associated with the same S300 Hardware Module object.
The following message appears after clicking OK on an object's Attributes screen: Object reference "Object Name" is already in use, please specify a different value.	The name assigned to the object is a duplicate of a name already used within the template.	Assign a different name to the object.

GENERAL ISSUES

Table B-5: General Issues

Issue	Reason	Solution
Unable to locate the file I wish to import.	The file has not been copied to the proper directory.	Copy the desired file into the following directory on the computer running the P2000 SCT: <i>Local Disk:\Documents and Settings\All Users\Application Data\Johnson Controls\MetasysIII\DatabaseFiles</i>
After restoring the archive database, many of my previous changes to the database were lost.	Changes may have been made to the archive database since the database was backed up using the Tools>Database>Create Backup option.	To help prevent this problem in the future, back up the database more frequently (e.g. every time the database is modified instead of relying on a periodic backup). See “Backing Up and Restoring the Archive Database” on page 4-5.
The following message appears when saving an object or template: Error Creating Object: Acked Transitions with Error Code: Operational Problem	The message indicates database access issues.	Contact Technical Support for assistance. See “Technical Support” on page 1-2.

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