



P2000AE

Security Management System

Metasys® System

Extended Architecture

Integration Option

P2000AE

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Metasys® System

Extended Architecture

Integration Option

Version 4.1 and higher, December, 2008

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INTRODUCTION

ABOUT THIS MANUAL

Use this document as a supplement to the P2000AE documentation. It details the information concerning the P2000AE Security Management System (SMS) integration with the building management components designed for the Metasys® system extended architecture.

For detailed information on the Metasys system extended architecture, please refer to the latest documentation provided by Johnson Controls, Inc.

NOTES

- *This document assumes that P2000 software is installed on a standalone server and not installed on a computer designated as the Site Director.*
 - *The Metasys screens used in this manual were taken from version 3.0, so depending on the Metasys software version you are using, the screen captures may differ.*
 - *"P2000AE" is also referred to as "P2000" throughout this manual.*
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MANUAL SUMMARY

- **Chapter 1: Introduction**, defines the key terms and conventions used throughout the manual, and provides an introduction to the P2000 SMS and Metasys system extended architecture integration.
- **Chapter 2: Configuration**, contains instructions on how configure the P2000 server for integration with the Metasys system extended architecture.
- **Chapter 3: Operations**, describes how to browse P2000 objects and issue commands using the Metasys system extended architecture Web interface.

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.

Maintenance Contracts

Several different programs are available from Premium Service to the Service Partner Agreement plan. For more information and a quotation call Maintenance Contract Administration at (800) 321-6469.

Qualification for Use

Users of the Metasys system extended architecture must complete appropriate training and obtain certification prior to using this option.

Note on Other Manufacturer's Documentation

Johnson Controls does not duplicate documentation of other equipment manufacturers. When necessary, as in some installation procedures, we provide documentation that supplements other manufacturer's documentation. When unpacking your equipment, **keep all original manufacturer documentation for future reference.**

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.



Warnings indicate that the possibility of personal injury exists if an action or actions are not performed exactly as stated.

KEY TERMS

ADS – Application and Data Server. Application server software that coordinates user access to multiple NAEs/NIEs and archives system data. The ADS is a Metasys server that consists of two components. The first component is the Application and Data Server software that supports the relational database management system Microsoft® SQL Server™ 2000 Desktop Engine (MSDE) for storing collected trend data, audit trail messages, and event messages. The second component is the Web server software that provides user interface access to data and routes commands to the Metasys system. This component may include the Site Director function.

ADX – extended Application and Data Server, ADS software with extended concurrent user access and a larger database. The extended Application and Data Server (ADX) supports the Microsoft® SQL Server™ 2000 software and requires a server computer platform. The ADX is a version of the ADS Metasys server that has extended capabilities for historical data archiving and extends the multi-user Web access capabilities of the system. The ADX supports the Microsoft SQL Server 2000 relational database management system for storing collected trend data, audit trail messages, and event messages. This relational database is also used to store configuration information for site security and trend studies and other features.

Crystal Reports™ – The use of Crystal Reports application allows you to transform data into interactive content, integrate it into Microsoft .NET Framework, Java®, and COM applications, and efficiently share it via portals, Microsoft Office documents, and wireless devices.

NAE – Network Automation Engine, Web-enabled, Ethernet-based supervisory controller that monitors and supervises networks of field-level building automation devices that typically control Heating, Ventilating, and Air Conditioning (HVAC) equipment, lighting, security, and building access. The NAE provides features including alarm and event management, trending, archiving, energy management, data exchange, scheduling, dial features, and password protection through its embedded Web-based User Interface (UI). Different models and options support various communications protocols including N2 Bus, BACnet®, and LONWORKS® network devices. This component may include the Site Director function.

NIE – Network Integration Engine, Web-enabled supervisory controller for integration of N1 Networks. The NIE is a specialized version of the NAE and is designed to provide for the migration of N1 networks into the Metasys system extended architecture. The NIE uses the same UI as the NAE, except that connectivity with LONWORKS, BACnet, and N2 networks is not available in the NIE.

SOAP – Simple Object Access Protocol, a lightweight protocol intended for exchanging structured information in a decentralized, distributed environment. SOAP uses XML technologies to define an extensible messaging framework, which provides a message construct that can be exchanged over a variety of underlying protocols. The framework has been designed to be independent of any particular programming model and other implementation specific semantics.

Web Service – Collections of functions that allow data exchange among different software applications over networks. Web services are invoked using a standard protocol such as SOAP, an Extensible Markup Language (XML)-based protocol. For example, the GetDeviceList Web method retrieves a list of all devices on the Metasys system extended architecture from the Site Director, without requiring Metasys system user interface access.

SOFTWARE INSTALLATION

Software Requirements

The P2000 SMS and Metasys system extended architecture integration requires the following software to be installed on the server:

- Operating system and database server as required for the P2000 system
- P2000 Prerequisites version 4.1 or higher, including Microsoft .NET library version 1.1
- Microsoft Internet Information Services (IIS) 6.0 or higher
- P2000 Software version 4.1 or higher
- P2000 Metasys System Extended Architecture Software

Once the required software has been installed, perform the following actions:

- Verify the clocks of the P2000 server and the Metasys ADS/ADX servers are synchronized (see “Clock Synchronization”).
- Verify you can ping the P2000 server by name from the Metasys ADS/ADX server.
- Verify that you can log on to the Metasys system extended architecture from a client computer. Refer to the Metasys system extended architecture documentation for assistance.

Clock Synchronization

The P2000 Metasys system extended architecture option requires clock synchronization between the P2000 server and the ADS/ADX server. P2000 and ADS/ADX servers that are not clock synchronized will have intermittent or no communications between them. If there are multiple network time servers on site, verify that both P2000 and ADS/ADX servers reference the same network time server.

For more information on modifying the computer clock or using a network time server to synchronize the computer’s clock, refer to the Microsoft Windows user documentation or online help.

Regional Time Zone Synchronization

The P2000 Metasys system extended architecture option also requires regional time zone synchronization between the P2000 server and the ADS/ADX server. For example, if the P2000 server's time zone is set to Pacific Time and the ADS/ADX server is set to Central Time, the servers will be unable to communicate. In this case, both servers should be changed to Pacific Time or Central Time.

For more information on modifying the server's time zone setting, refer to the Microsoft Windows user documentation or online help.

P2000 Metasys System Extended Architecture Software Installation

Important notes:

- Install the software on *the same* machine as the P2000 server.
- Install the software *after* the P2000 SCT software.



If you install the P2000 SCT software after installing the P2000 Metasys System Extended Architecture software, the P2000 Metasys System Extended Architecture software will not function. In addition, if you uninstall or reinstall the P2000 SCT software, you must reinstall the P2000 Metasys System Extended Architecture software.

You will need:

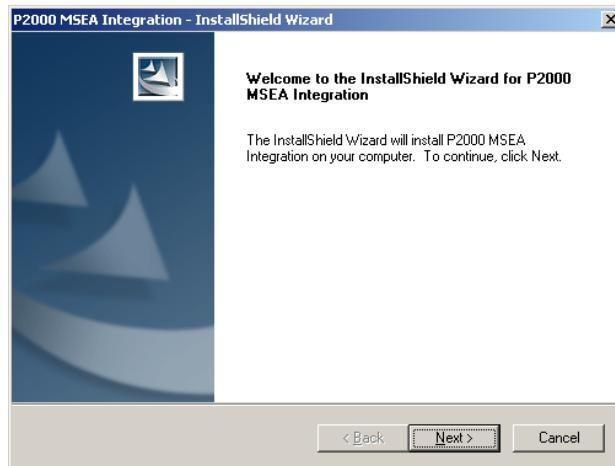
- P2000 Server Applications and Services CD
- **To Install the P2000 Metasys System Extended Architecture Software:**
1. Insert the CD.

The P2000 Setup Launcher window appears.

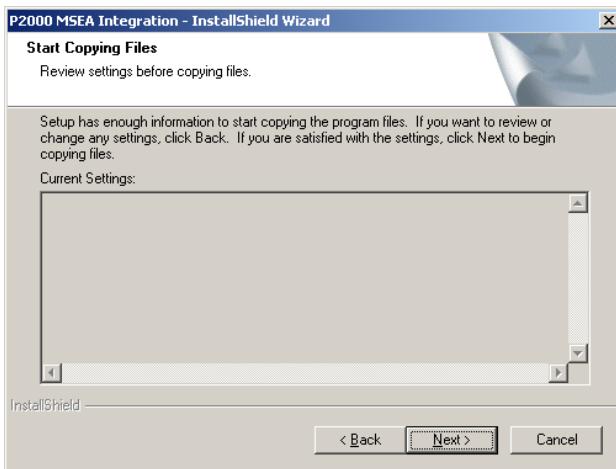


If this window does not appear, from Windows Explorer, double-click to run the **Setup.exe** file, located at the root level of the CD.

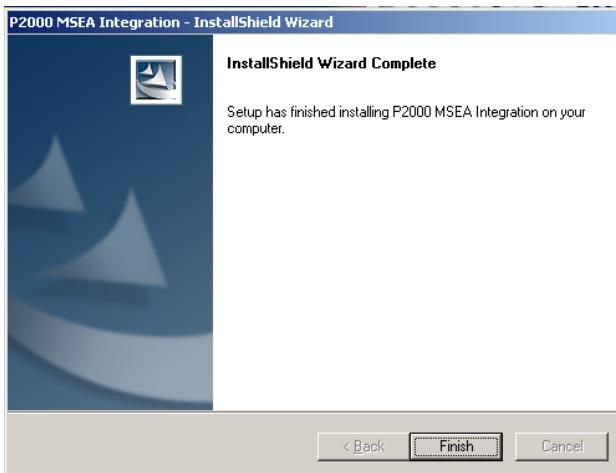
2. On the P2000 Setup Launcher window, click the **P2000 MSEA Interface** button.
3. The P2000 MSEA Integration Install Wizard starts. Click **Next**.



4. Click **Next** to begin copying the files.



5. When the process is complete, click **Finish**.



METASYS SYSTEM EXTENDED ARCHITECTURE INTEGRATION OVERVIEW

This option allows the P2000 system to be integrated with building management components designed for Metasys system extended architecture using Web Services technology. These Web Services are implemented on the Windows 2000/2003 platform using .NET technology. The integration provides the ability for objects in the P2000 security management system to be viewed from a single user interface, along with all other building systems controlled by the Metasys system extended architecture.

Through this integration, the P2000 system can expose *HostEngine* and *Panel* objects to the Metasys system extended architecture user interface, allowing clients to browse through the P2000 object tree with the purpose to read object attributes, change those object attributes which are "writable," and send commands to objects for readers and output points.

P2000 Objects Architecture

The objects exposed by the P2000 through the Metasys system extended architecture are organized into a hierarchical tree. A special kind of object, a *folder* object, is used to contain (or group) a number of objects of the same type. The root of the P2000 object tree is the folder object *P2000*.

The two top-level objects are exposed under *P2000* folder: *HostEngine* and *Panel* objects. *Panel* is a folder object. It contains multiple portal objects with multiple inputs and outputs.

NOTE

The P2000 Object architecture differs slightly according to the type of controller used (CK722 controllers versus legacy panels). Legacy panels consist of the following models: CK721-A, CK721, CK720, and CK705.

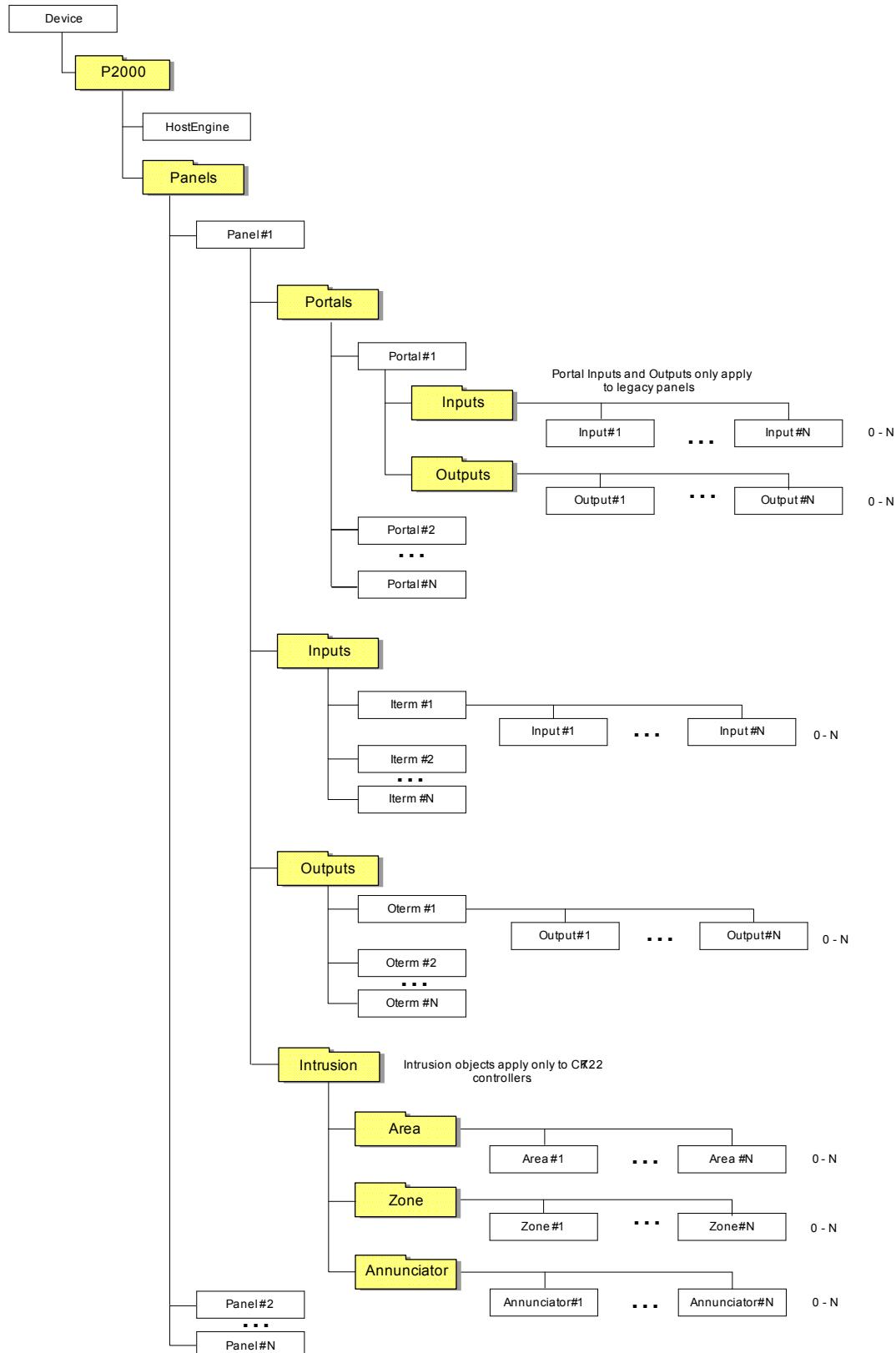


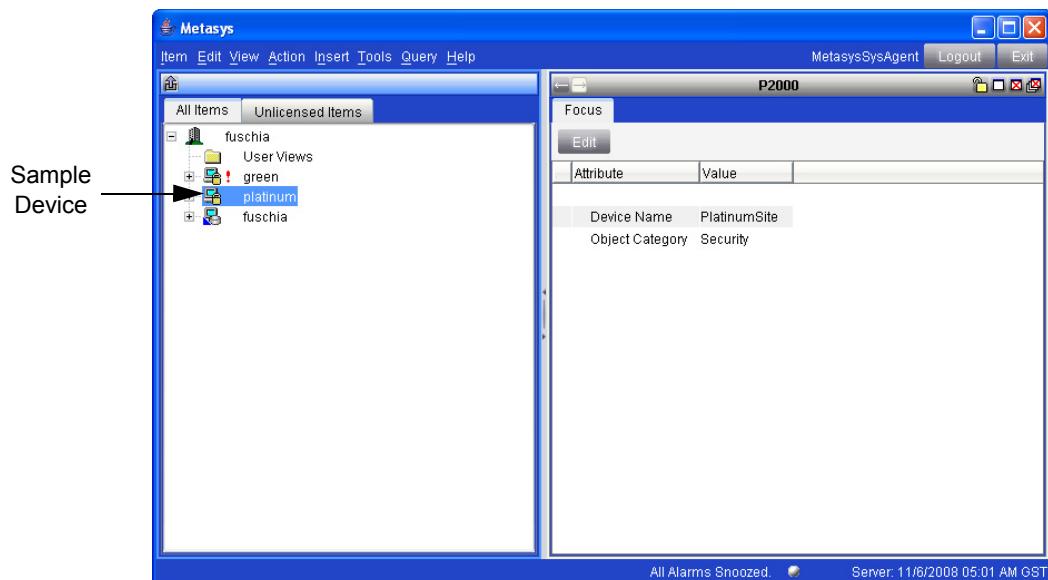
Figure 1-1: P2000 Object Architecture in Metasys System Extended Architecture

Following is the legend to the objects in Figure 1-1:

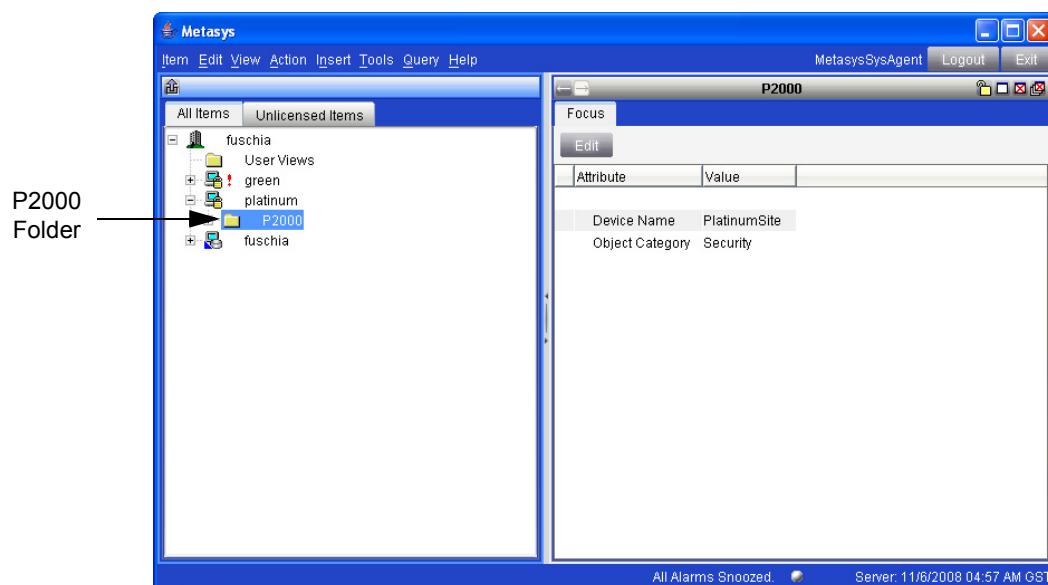
Device – A device, such as a P2000 server, registered to the Metasys system extended architecture.

Table 1-1: Device Attributes

Attribute	Description	Data Type	Options/Range
Site Name	Name of the P2000 site.	String	64
Object Category	Always set to Security category.	Enumeration	



P2000 – This folder contains all P2000 objects.



HostEngine – Each *P2000* object contains a single *HostEngine* object. All *HostEngine* attributes are shown in a single Focus object view. The exposed *HostEngine* attributes are read only.

Table 1-2: HostEngine Attributes

Attribute	Description	Data Type	Options/Range
Comms Server	Name of the P2000 site.	String	64
UTC Offset	Shows the offset to Universal Time. The value is obtained from .NET TimeZone class.	Integer	+12 to -12
Object Category	Always set to Security category.	Enumeration	

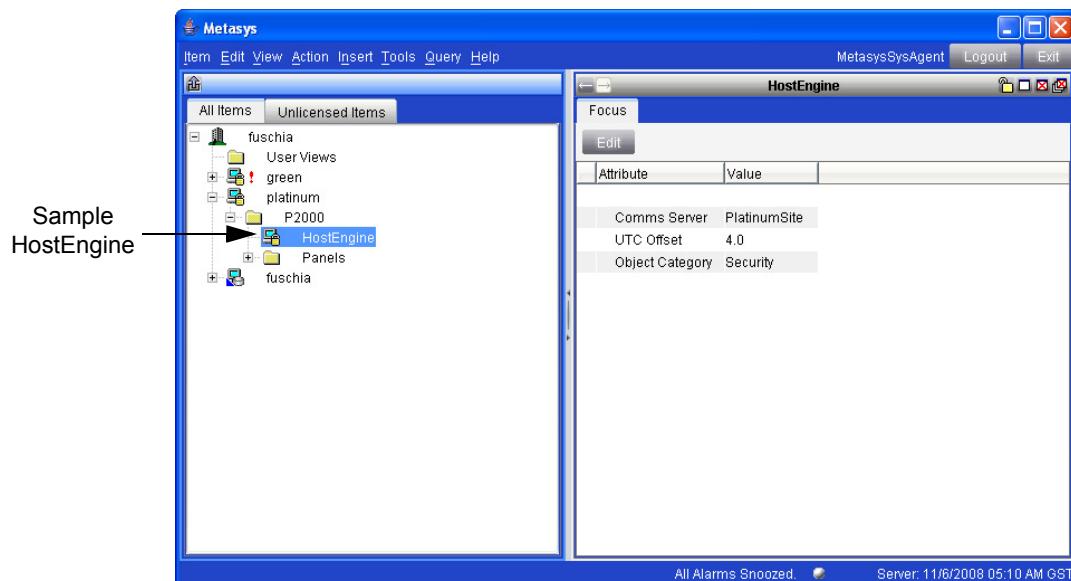
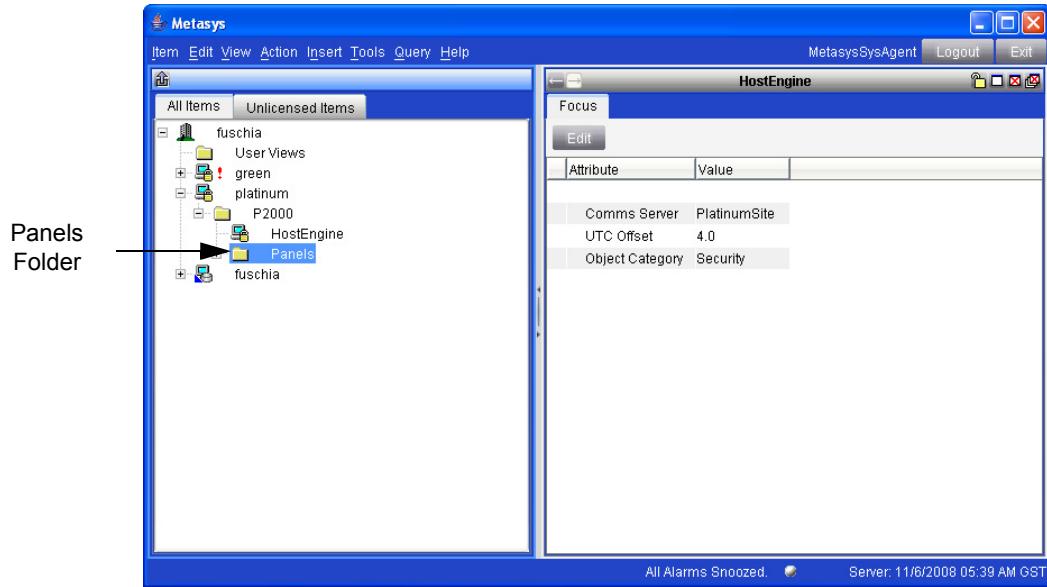


Table 1-3: HostEngine Commands

Command	Description
Unlock All Doors	Unlock all doors controlled by the P2000 host. There are no parameters. This command will set UnlockAllAttributes to true.
Lock All Doors	Lock all doors controlled by the P2000 host. There are no parameters.

Panels – This folder contains all *Panel* objects.



Panel – Panel objects are contained inside the **Panels** folder. All portal attributes are shown in a single Metasys system extended architecture “Focus” object view. The *Panel* object contains the following types of objects: *Portal*, *Input Point*, *Output Point*, and *Intrusion* objects.

NOTE

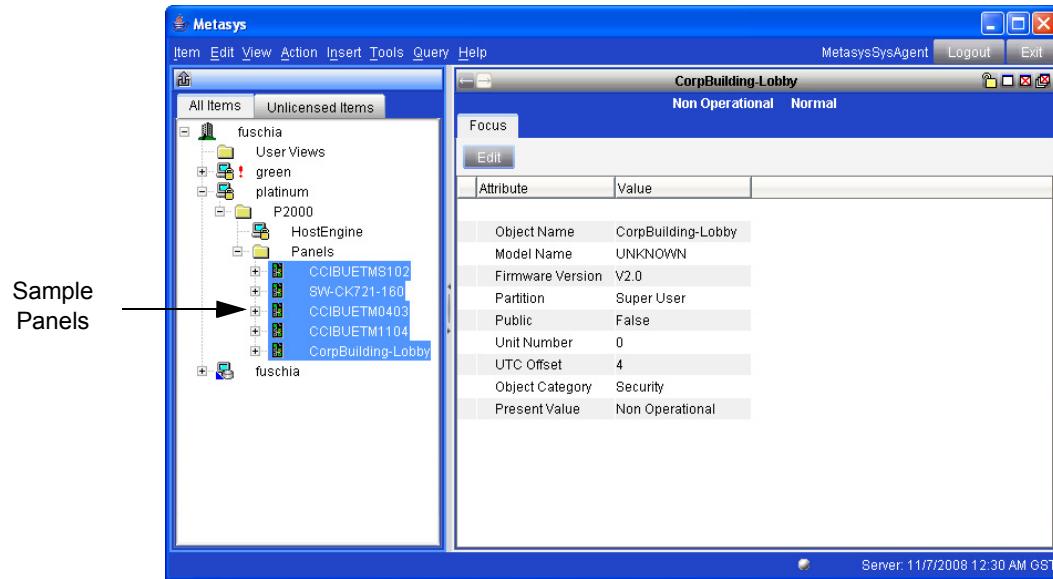
Intrusion objects are only associated with CK722 controllers.

Table 1-4: Panel Attributes

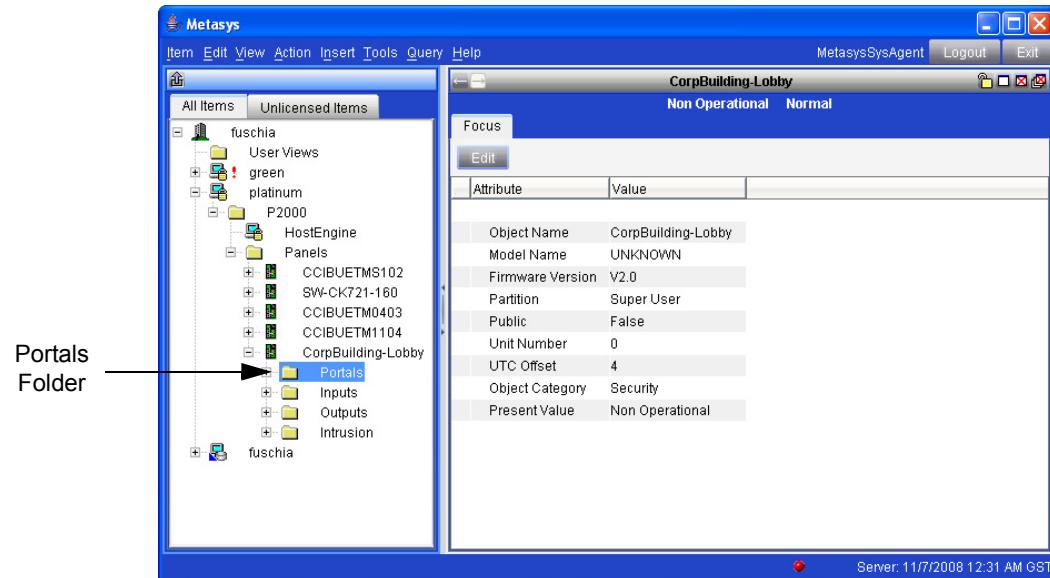
Attribute	Description	Data Type	Options/Range
Object Name	The name of the object (panel).	String	64
Model Name	Panel model name.	String	64
Firmware Version	Panel firmware version.	String	64
Partition	The partition to which the panel is assigned.	String	64
Public	Whether the panel is assigned public access (i.e. if it can be seen by all P2000 workstations)	Boolean	True or False
Unit Number	Panel unit number.	Unsigned	1-16
UTC Offset	Shows the offset to Universal Time.	Integer	+12 to -12
Object Category	Always set to Security category.	Enumeration	

Table 1-4: Panel Attributes

Attribute	Description	Data Type	Options/Range
Present Value	Current panel operational status.	Enumeration	Operational or Not-Operational



Portals – This folder contains the *Portal* objects associated with the parent panel.



Portal – A portal object associated with its parent panel. For CK722 controllers, each portal object represents an *S300 Reader Terminal* object.

Table 1-5: Portal Attributes

Attribute	Description	Data Type	Options/Range
Object Name	Name of the portal.	String	64
Present Value	Status of the portal.	Enumeration	Locked/Unlocked
Partition	The partition to which the portal is assigned.	String	64
Parent Panel	Name of the panel to which the portal is attached.	String	64
Terminal Index			
Object Category	Always set to Security category.	Enumeration	

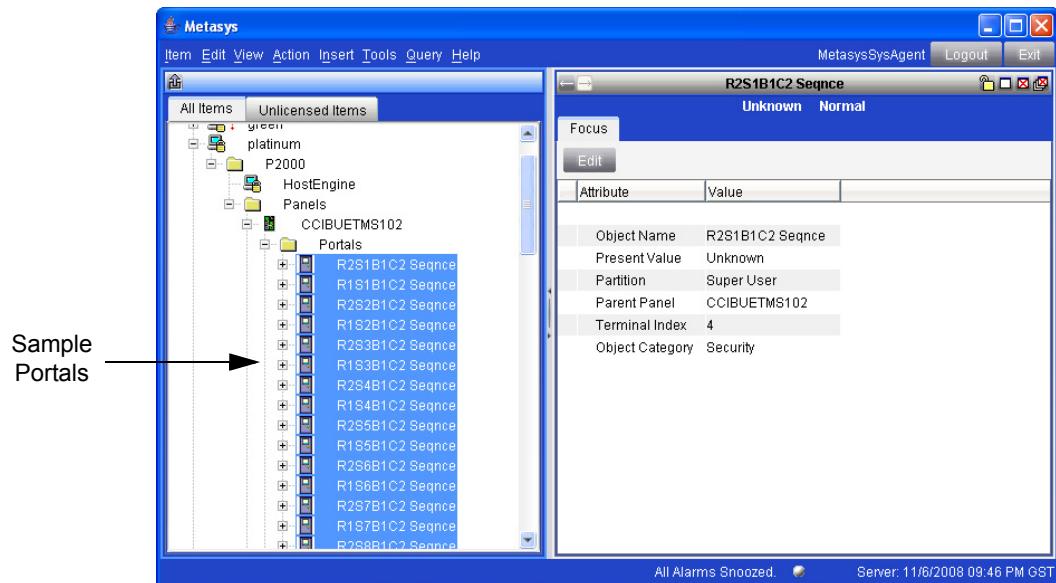
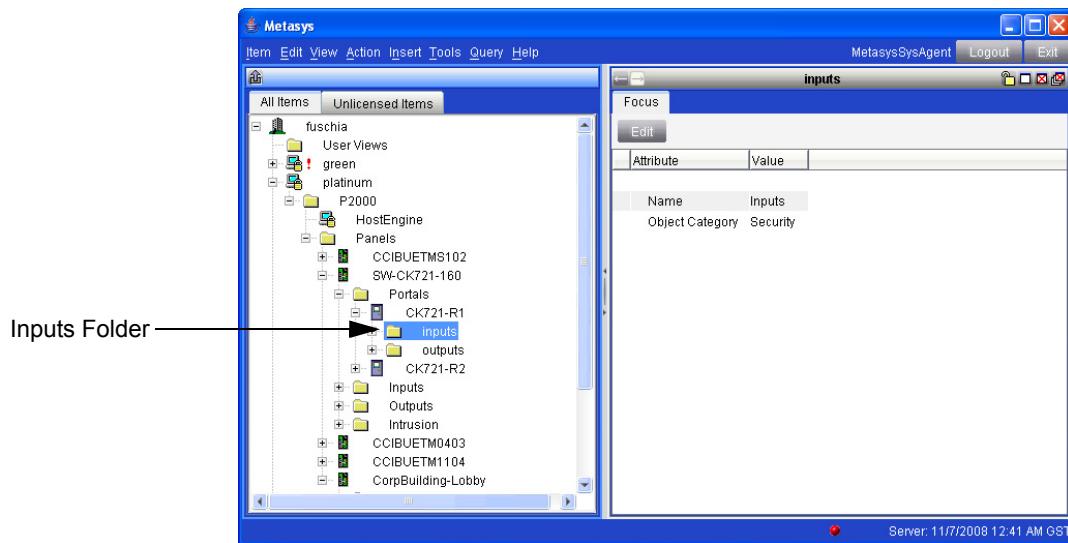


Table 1-6: Portal Commands

Command	Description
Unlock	Unlocks door (portal).
Door Timed Unlock	Unlocks door for at least n minutes.
Lock	Locks door.

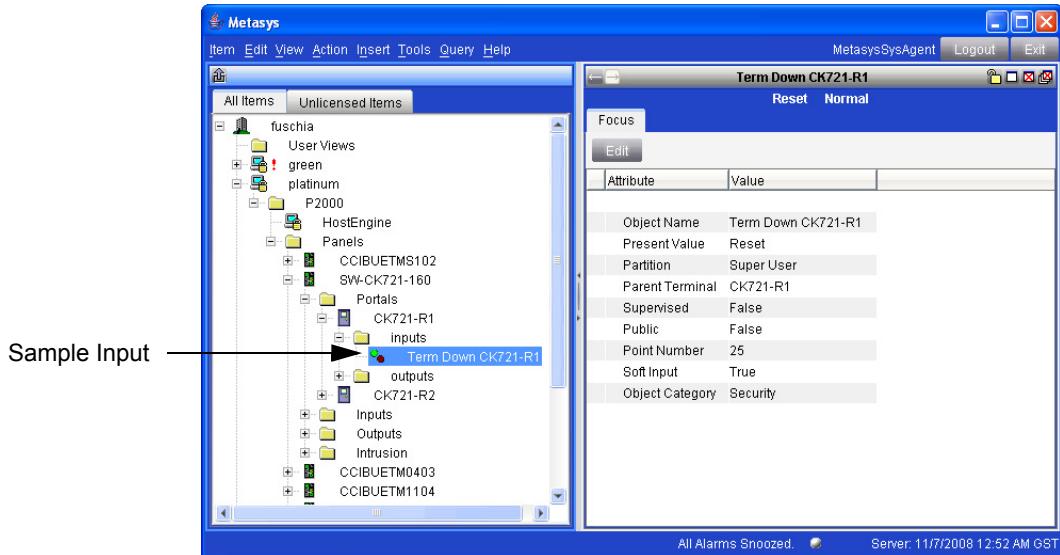
Inputs (via portal associated with legacy panel) – This folder contains all *Input Point* objects associated with their parent portal. For *Input Point* objects associated with a panel, see page 1-17.



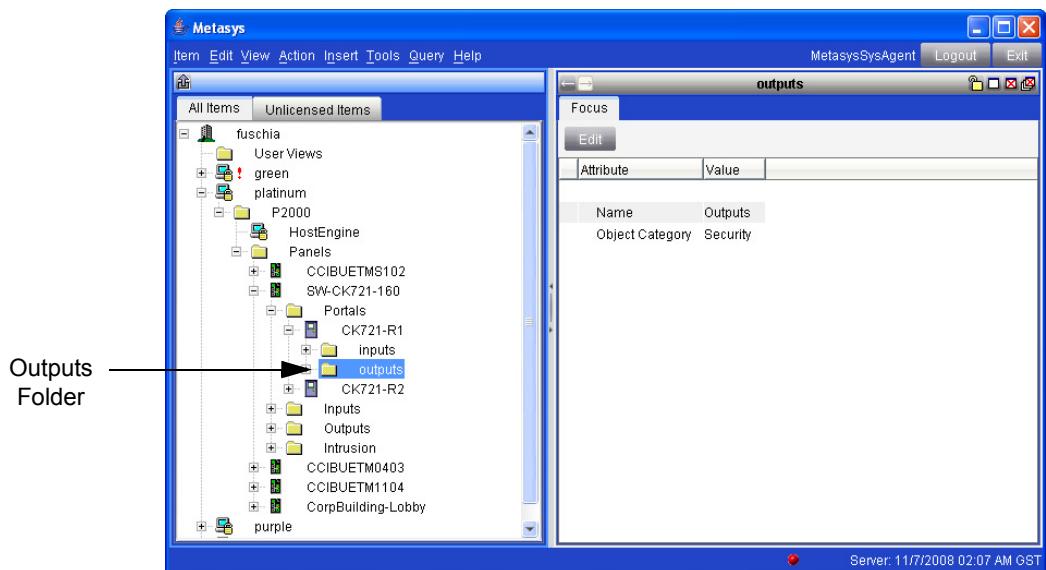
Input Point (via portal associated with legacy panel) – The *Input Point* objects are contained inside the **Inputs** folder. For *Input Point* objects associated with a panel, see page 1-17.

Table 1-7: Input Point Attributes

Attribute	Description	Data Type	Options/Range
Object Name	Name of the input point.	String	64
Present Value	Status of the input point.	Enumeration	Set, Reset, Open, Short, Unknown
Partition	The partition to which the input point is assigned.	String	64
Parent Terminal	Name of the terminal with which the input point is associated.	String	64
Supervised	Supervised type of input point.	Boolean	True or False
Public	If set to True , the input point is visible from other partitions.	Boolean	True or False
Point Number	Input point number.	Unsigned	1-25
Soft Input	Indicates whether input is a soft input point.	Boolean	True or False
Object Category	Always set to Security category.	Enumeration	



Outputs (via portal associated with legacy panel) – This folder contains all *Output Point* objects associated with their parent portal. For *Output Point* objects associated with a panel, see page 1-19.



Output Point (via portal associated with legacy panel) – The *Output Point* objects are contained inside the **Outputs** folder. For *Output Point* objects associated with a panel, see page 1-19.

Table 1-8: Output Point Attributes

Attribute	Description	Data Type	Options/Range
Object Name	Name of the output point.	String	64

Table 1-8: Output Point Attributes

Attribute	Description	Data Type	Options/Range
Present Value	Value of the output point.	Enumeration	Set (Active), Reset (Inactive)
Partition	The partition to which the output point is assigned.	String	64
Public	If set to True , the output point is visible from other partitions.	Boolean	True or False
Parent Terminal	Name of the terminal with which the output point is associated.	String	64
Point Number	Output point number.	Unsigned	1-25
Object Category	Always set to Security category.	Enumeration	

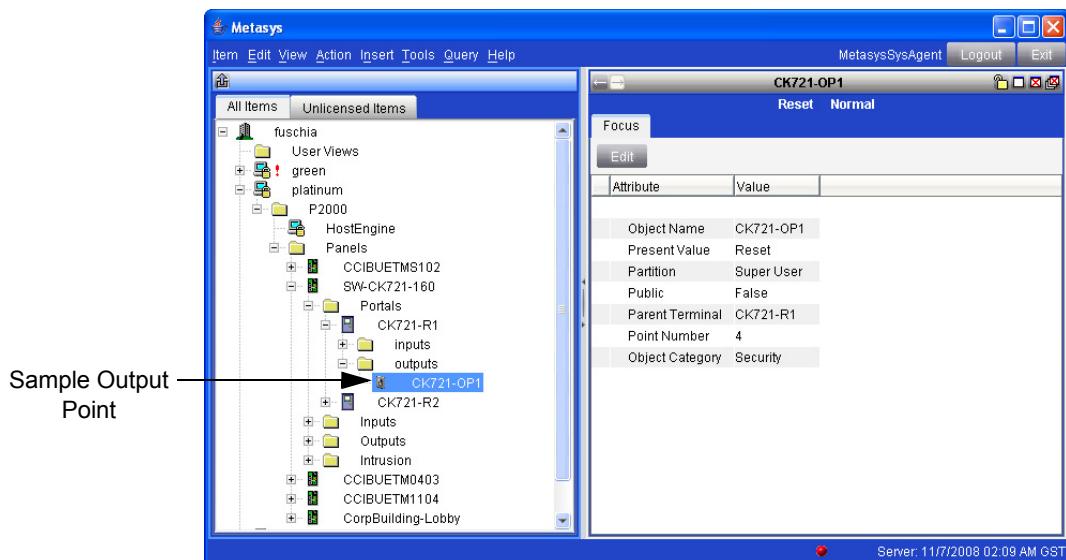
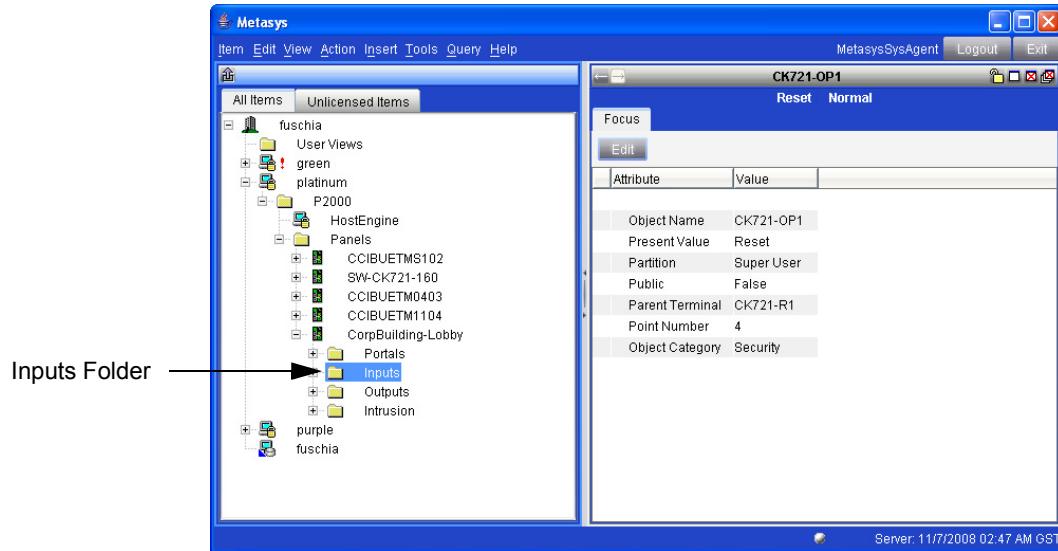


Table 1-9: Output Point Commands

Command	Description
Reset	Sets the relay to its default, non-energized state (Normally Open or Normally Closed, depending on how the relay is wired).
Set	Changes the relay to its energized state (open or closed, depending on how the relay is wired). If the relay is wired as Normally Open (NO), sending the Set command closes the relay contacts. If the relay is wired as Normally Closed (NC), sending the Set command opens the relay contacts.

Inputs – This folder contains all *Input Terminal (Iterm)* objects associated with their parent panel.

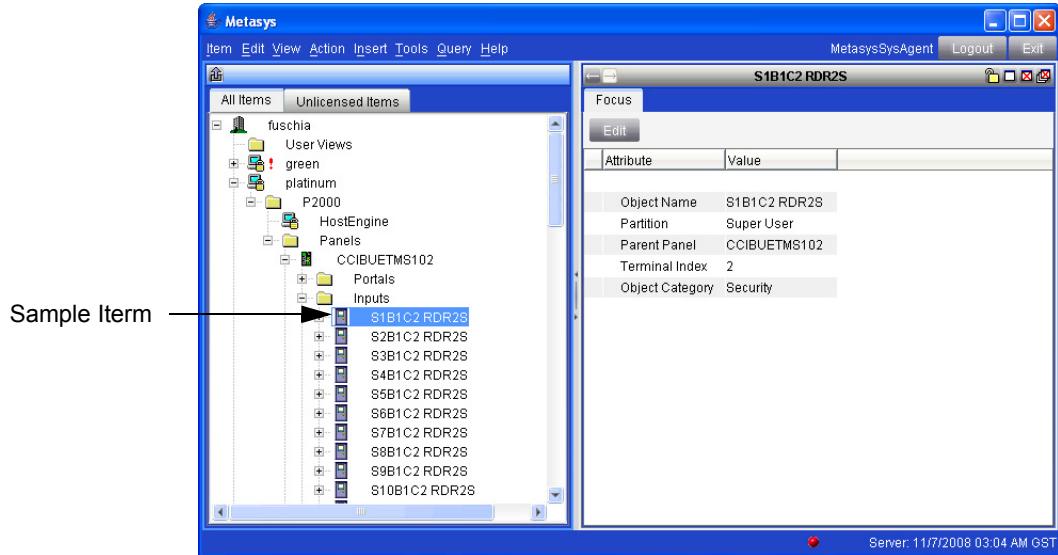


Iterm – This is an *Input Terminal* object. It supports existing P2000 terminals and contains multiple *Input Point* objects. *Iterm* objects contain *Input Point* objects associated with panels (not with portals).

For CK722 controllers, this object represents an S300 hardware module, such as the RDR2S-A, SI8, SIO8, etc., defined as an *S300 Hardware Module* object in the P2000 System Configuration Tool (SCT). Refer to the *P2000 System Configuration Tool (SCT) Manual* for more information.

Table 1-10: Iterm Attributes

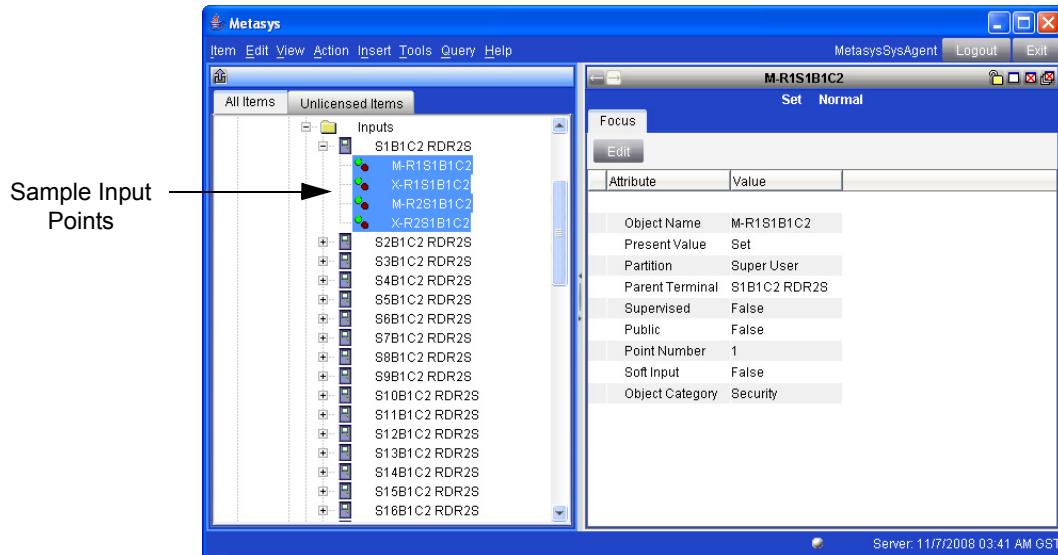
Attribute	Description	Data Type	Options/Range
Object Name	The name of the terminal.	String	64
Partition	The partition to which the input point is assigned.	String	64
Parent Panel	Name of the panel with which the input point is associated.	String	64
Terminal Index			
Object Category	Always set to Security category.	Enumeration	



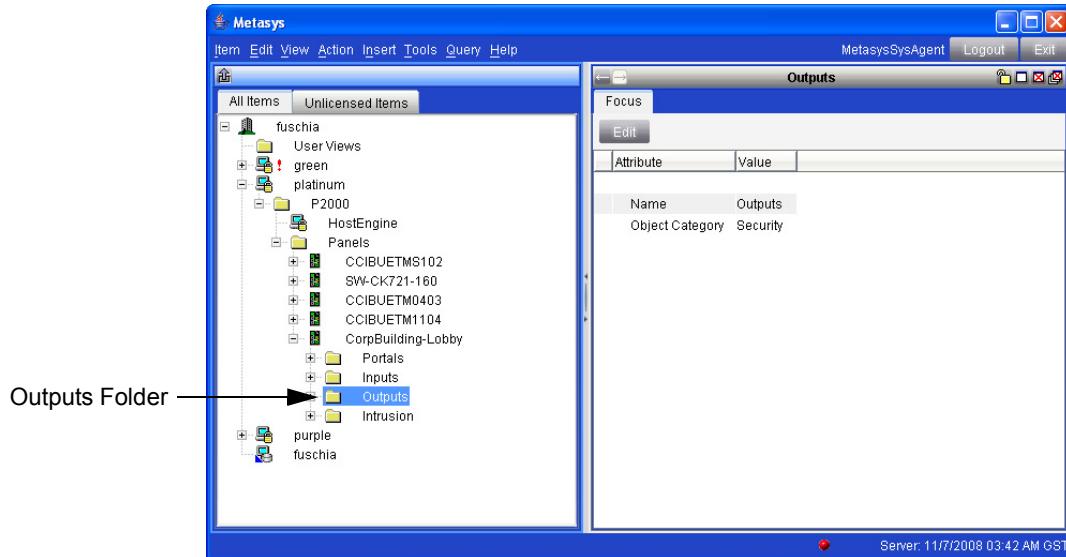
Input Point – *Input Point* objects associated with panels are listed under each associated *Input Terminal (Iterm)* object.

For CK722 controllers, this object represents a *Security Supervised Input* object defined in the P2000 System Configuration Tool (SCT). Refer to the *P2000 System Configuration Tool (SCT) Manual* for more information.

For information on Input Point attributes, see Table 1-7 on page 1-15.



Outputs – This folder contains all *Output Terminal (Oterm)* objects associated with their parent panel.

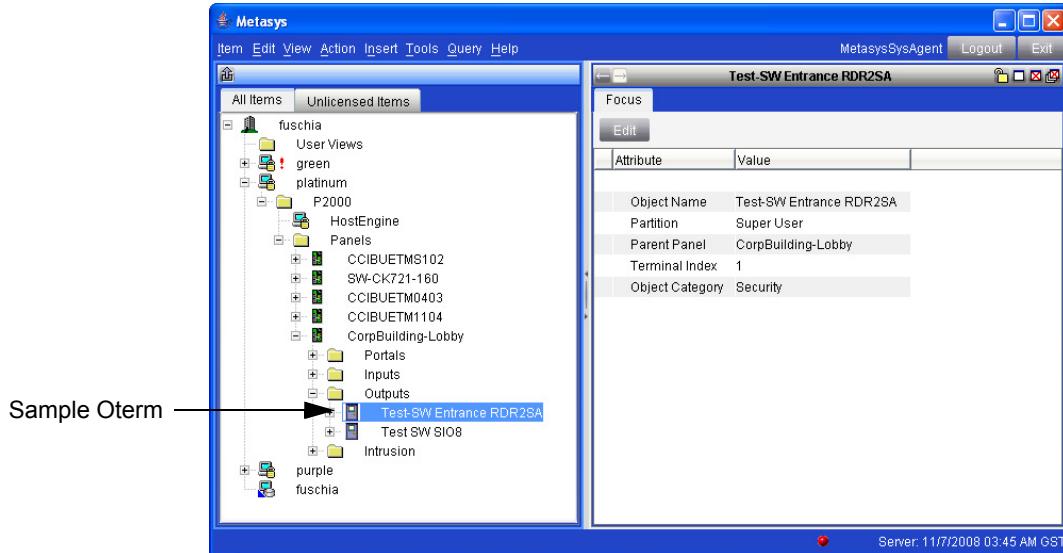


Oterm – This is an *Output Terminal* object. It supports existing P2000 terminals and contains multiple *Output Point* objects. *Oterm* objects contain *Output Point* objects associated with panels (not with portals).

For CK722 controllers, this object represents an S300 hardware module, such as the RDR2S-A, SIO8, etc., defined as an *S300 Hardware Module* object in the P2000 System Configuration Tool (SCT). Refer to the *P2000 System Configuration Tool (SCT) Manual* for more information.

Table 1-11: Oterm Attributes

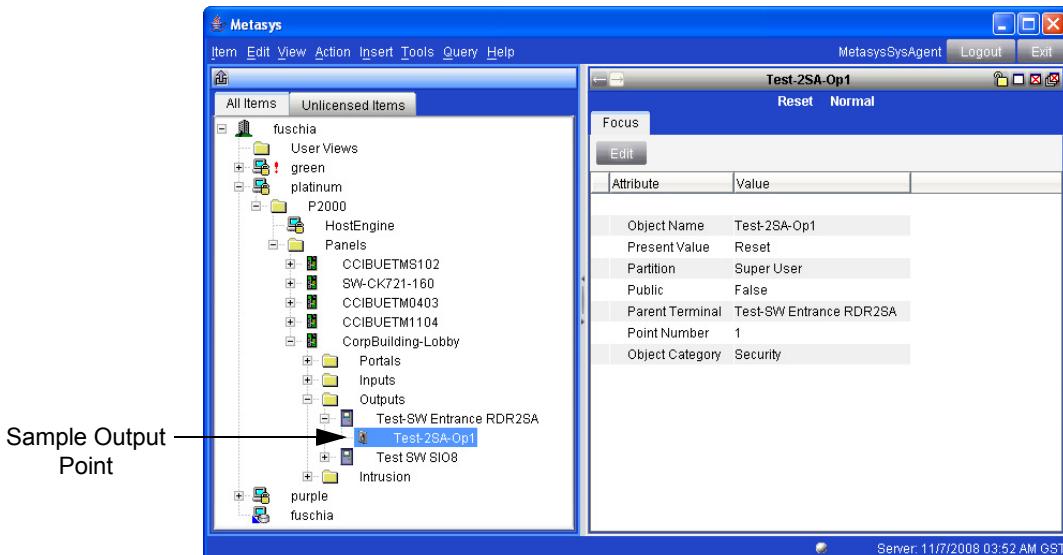
Attribute	Description	Data Type	Options/Range
Object Name	The name of the terminal.	String	64
Partition	The partition to which the output point is assigned.	String	64
Parent Panel	Name of the panel with which the output point is associated.	String	64
Terminal Index			
Object Category	Always set to Security category.	Enumeration	



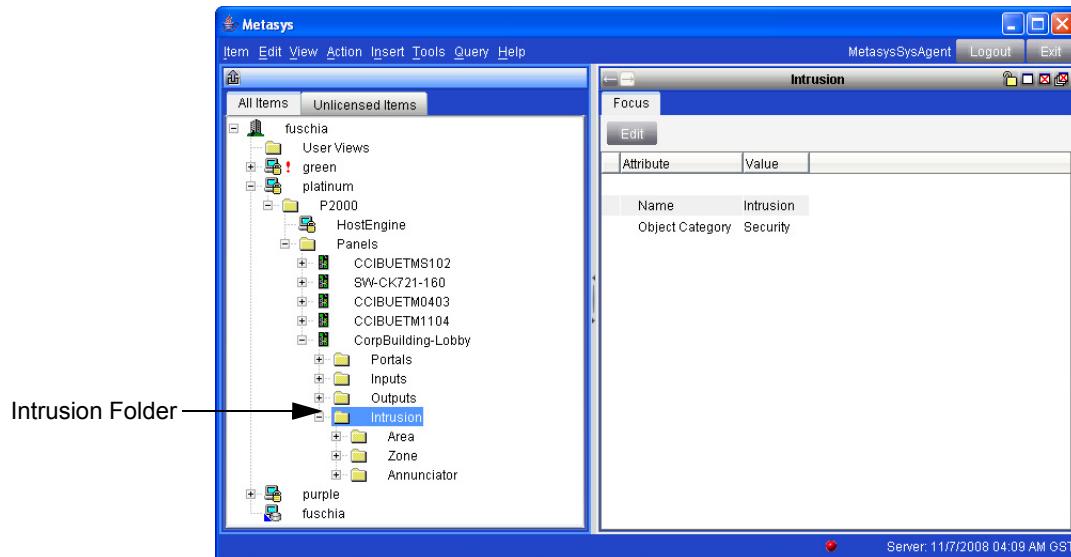
Output Point – Output Point objects associated with panels are listed under each associated *Output Terminal (Oterm)* object.

For CK722 controllers, this object represents a *Security Binary Output* object defined in the P2000 System Configuration Tool (SCT). Refer to the *P2000 System Configuration Tool (SCT) Manual* for more information.

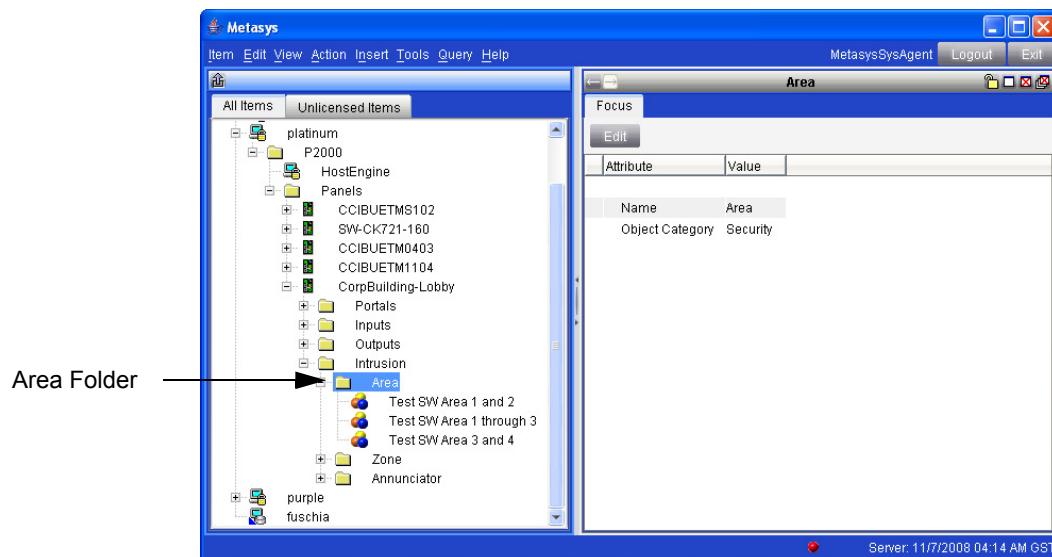
For information on Output Point attributes, see Table 1-8 on page 1-16. For information on Output Point commands, see Table 1-9 on page 1-17.



Intrusion (CK722 Controllers Only) – This folder is the parent folder of the **Area**, **Zone**, and **Annunciator** subfolders, which contain respectively the *Intrusion Area* objects, *Intrusion Zone* objects, and *Intrusion Annunciator* objects associated with their parent controller.



Area (CK722 Controllers Only) – This folder contains all *Intrusion Area* objects associated with their parent controller.



Intrusion Area (CK722 Controllers Only) – These objects enable you to arm or disarm an intrusion area controlled by its associated CK722 controller.

Table I-12: *Intrusion Area Attributes*

Attribute	Description	Data Type	Options/Range
Object Name	The name of the <i>Intrusion Area</i> object.	String	64
Present Value	Value of the <i>Intrusion Area</i> object.	Enumeration	Arm/Disarm
Partition	The partition to which the object is assigned.	String	64

Table 1-12: Intrusion Area Attributes

Attribute	Description	Data Type	Options/Range
Public	If set to True , the <i>Intrusion Area</i> object is visible from other partitions.	Boolean	True or False
Object Category	Always set to Security category.	Enumeration	

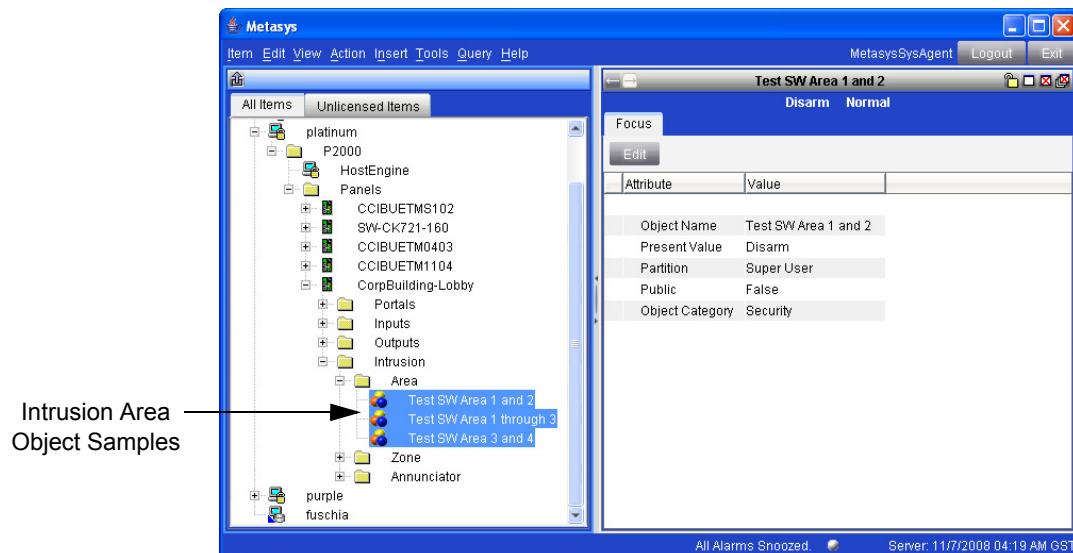
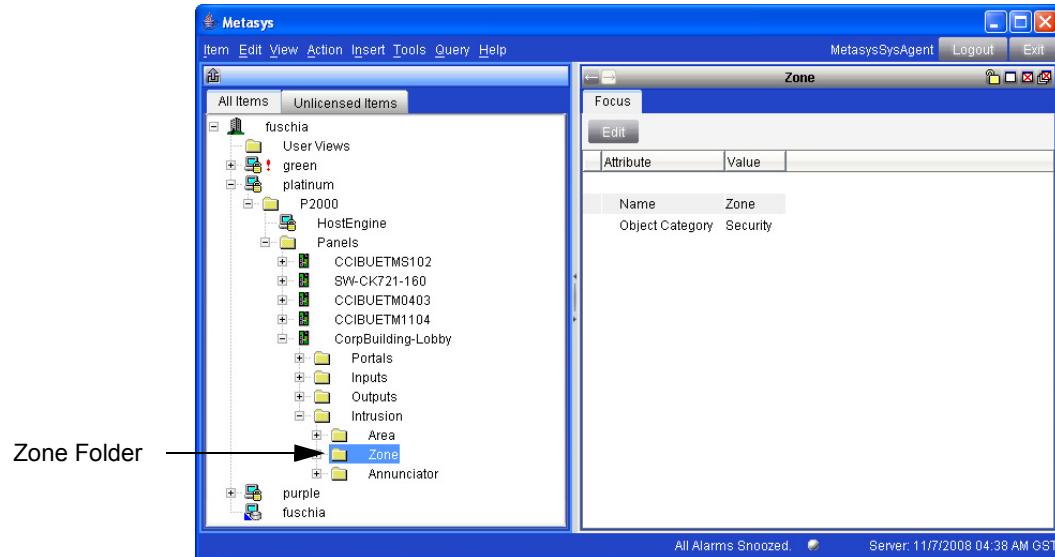


Table 1-13: Intrusion Area Commands

Command	Description
Arm	Arms the <i>Intrusion Zone</i> objects associated with the selected <i>Intrusion Area</i> object. Refer to the <i>Intrusion Area Object Manual</i> for more information.
Disarm	Disarms the <i>Intrusion Zone</i> objects associated with the selected <i>Intrusion Area</i> object. Refer to the <i>Intrusion Area Object Manual</i> for more information.

Zone (CK722 Controllers Only) – This folder contains all *Intrusion Zone* objects associated with their parent controller.



Intrusion Zone (CK722 Controllers Only) – These objects enable you to bypass or activate an intrusion zone controlled by its associated CK722 controller.

Table 1-14: *Intrusion Zone Attributes*

Attribute	Description	Data Type	Options/Range
Object Name	The name of the <i>Intrusion Zone</i> object.	String	64
Present Value	Value of the <i>Intrusion Zone</i> object.	Enumeration	Bypassed/ Activated
Partition	The partition to which the object is assigned.	String	64
Public	If set to True , the <i>Intrusion Zone</i> object is visible from other partitions.	Boolean	True or False
Object Category	Always set to Security category.	Enumeration	

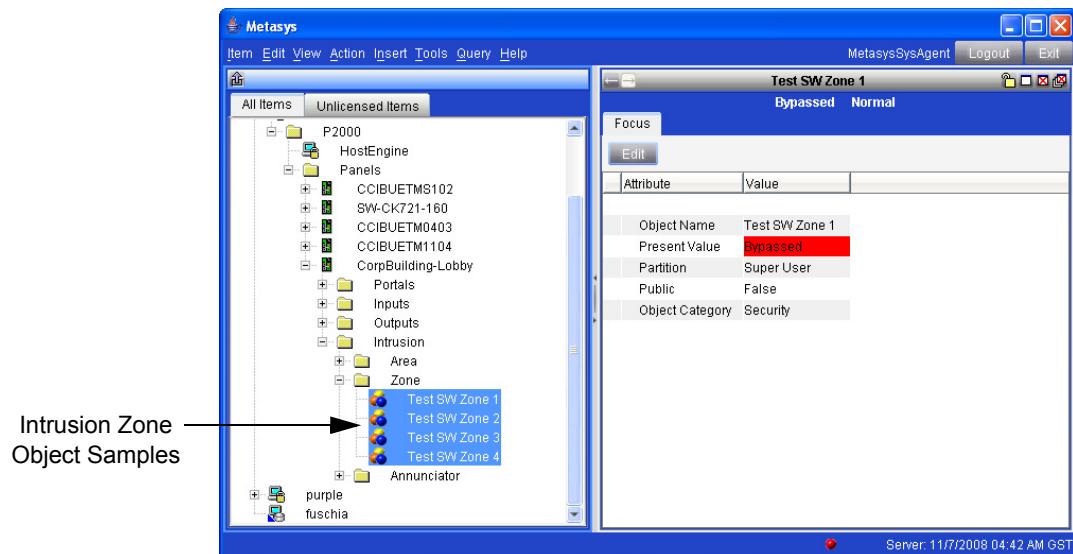
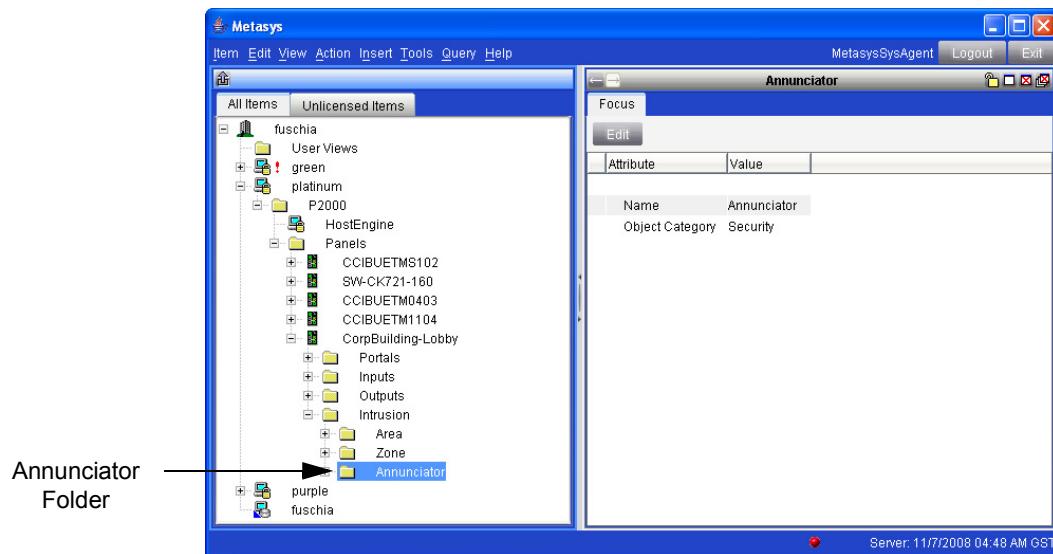


Table 1-15: Intrusion Zone Commands

Command	Description
Bypass	Bypasses the selected <i>Intrusion Zone</i> object. Refer to the <i>Intrusion Zone Object Manual</i> for more information.
Activate	Activates the selected <i>Intrusion Zone</i> object. Refer to the <i>Intrusion Zone Object Manual</i> for more information.

Annunciator (CK722 Controllers Only) – This folder contains all *Intrusion Annunciator* objects associated with their parent controller.



Intrusion Announcer (CK722 Controllers Only) – These objects enable you to silence an intrusion annunciator controlled by its associated CK722 controller.

Table 1-16: Intrusion Announcer Attributes

Attribute	Description	Data Type	Options/Range
Object Name	The name of the <i>Intrusion Announcer</i> object.	String	64
Present Value	Value of the <i>Intrusion Announcer</i> object.	Enumeration	Inactive/Active
Partition	The partition to which the object is assigned.	String	64
Public	If set to True , the <i>Intrusion Announcer</i> object is visible from other partitions.	Boolean	True or False
Object Category	Always set to Security category.	Enumeration	

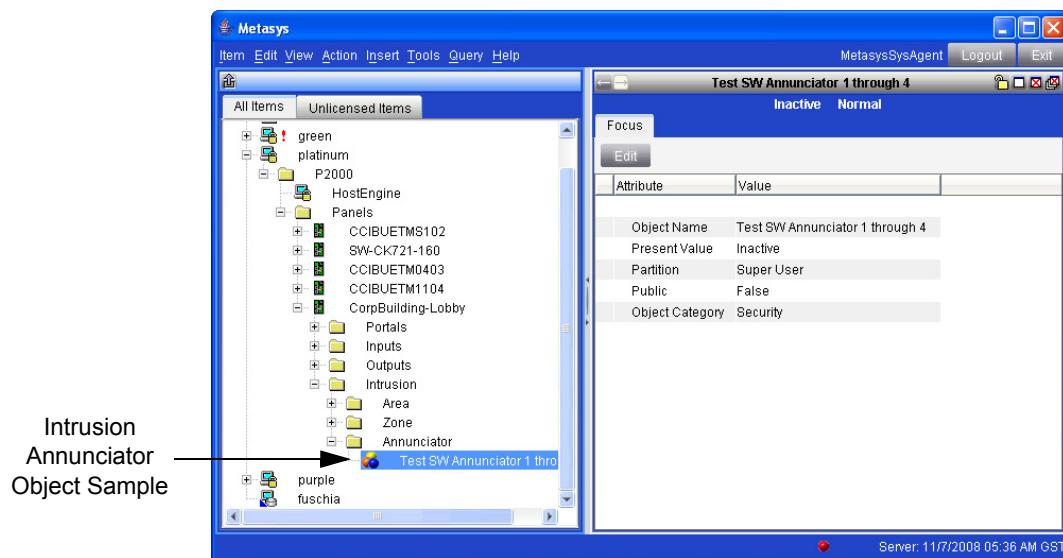


Table 1-17: Intrusion Announcer Command

Command	Description
Silence	Silences the annunciator associated with the selected <i>Intrusion Announcer</i> object. Refer to the <i>Intrusion Announcer Object Manual</i> for more information.

CONFIGURATION

This chapter describes how to prepare the P2000 server for integration with the Metasys system extended architecture. P2000 prerequisites and software must be installed on the P2000 server before continuing with the following instructions. Refer to the *P2000 Server/Workstation Software Installation Manual* for assistance.

REGISTERING THE P2000 SERVER WITH A SITE DIRECTOR

To expose P2000 objects to the Metasys system extended architecture, you must register the P2000 server with a Metasys Site Director (ADS/ADX server or NAE controller) by adding an MSEA Registration definition on the P2000 host software's System Configuration window. P2000 enables you to create multiple MSEA Registration definitions, so you can register the P2000 server with multiple Site Directors (see Figure 2-1).

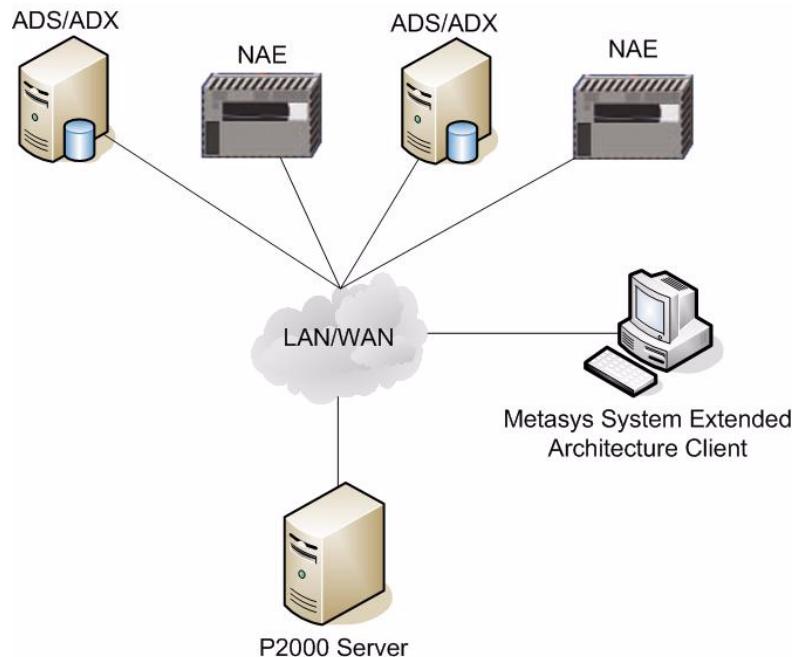


Figure 2-1: Registering the P2000 Server with Multiple Site Directors



If a NAE controller is used as the Site Director, the controller can only receive four events per second from the P2000 server. If more than four events are received per second, the NAE may erroneously indicate the P2000 server as offline.

In addition, you may register certain partitions with a particular Site Director, so that only those P2000 objects associated with the selected partition(s) are visible from the Metasys system extended architecture (see Figure 2-2).

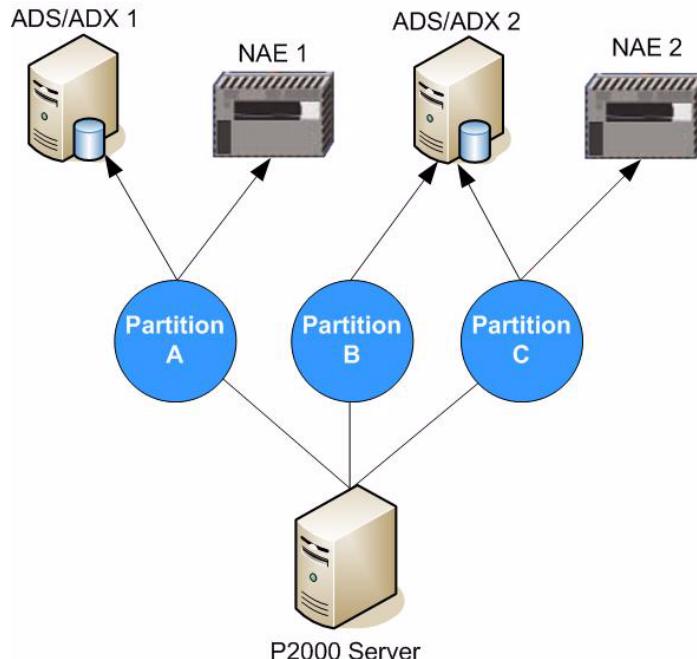


Figure 2-2: Registering P2000 Partitions with Multiple Site Directors

In the example in Figure 2-2:

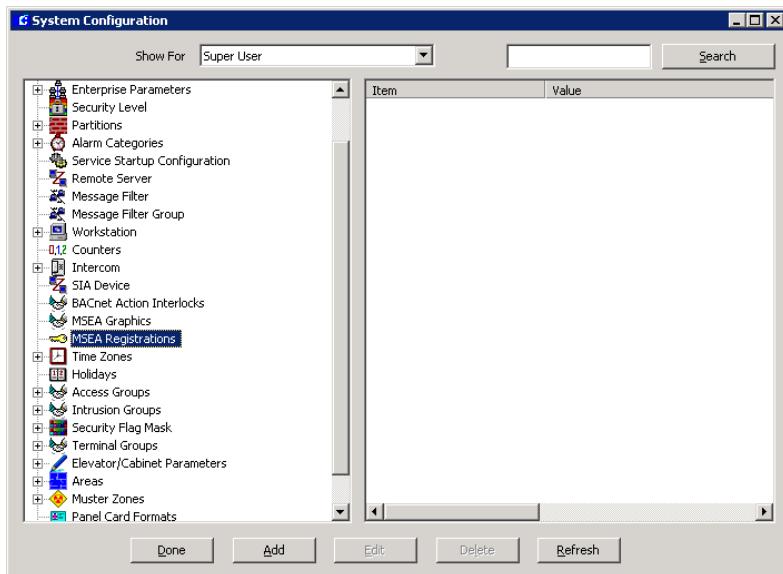
- The P2000 objects associated with **Partition A** will only be visible from ADS/ADX 1 and NAE 1.
- The P2000 objects associated with **Partition B** will only be visible from ADS/ADX 2.
- The P2000 objects associated with **Partition C** will only be visible from ADS/ADX 2 and NAE 2.

► **To register a P2000 server with one or more Site Directors:**

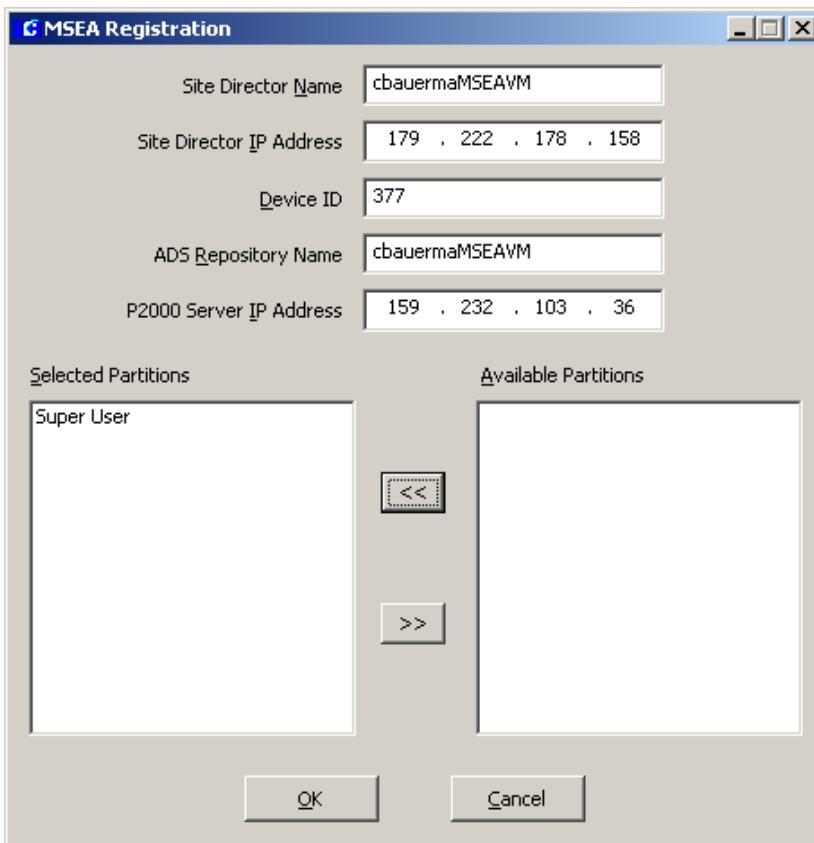
1. Using the P2000 host software, from the menu bar, select **Config>System**, or click the **System Configuration** button on the toolbar (indicated by a wrench icon).

The System Configuration window appears.

2. In the left pane, select **MSEA Registrations**.



3. Click **Add**. The MSEA Registration dialog box appears.
4. Enter the appropriate information according to your site requirements.



See Table 2-1 for a description of the MESA Registration fields.

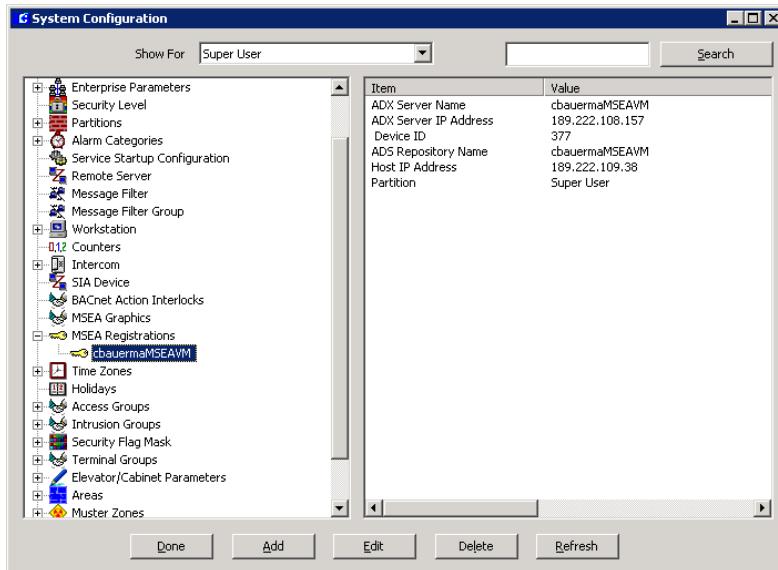
Table 2-1: MSEA Registration Field Definitions

Field	Description
Site Director Name	Enter the name of the server where the Site Director is installed (the server name of the ADS/ADX or the name of the NAE).
Site Director IP Address	Enter the IP address of the server where the Site Director is installed (the IP address of the ADS/ADX or the NAE).
Device ID	If the P2000 system interfaces with Metasys system extended architecture Release 2.1 or earlier, enter 185 . For later releases of Metasys, enter 377 or contact Johnson Controls® Technical Support for the Device ID used on the version of Metasys you are currently running.
ADS Repository Name	Enter the computer name of the Metasys ADS Repository ¹ .
P2000 Server IP Address	Enter the IP address of the P2000 server.
Selected/Available Partitions	Select the partition(s) you wish to register with the Metasys Site Director. To assign partitions, simply select one or more in the Available Partitions box and click the left arrow button to move them to the Selected Partitions box. To remove partitions, select one or more in the Selected Partitions box and click the right arrow button to move them to the Available Partitions box.

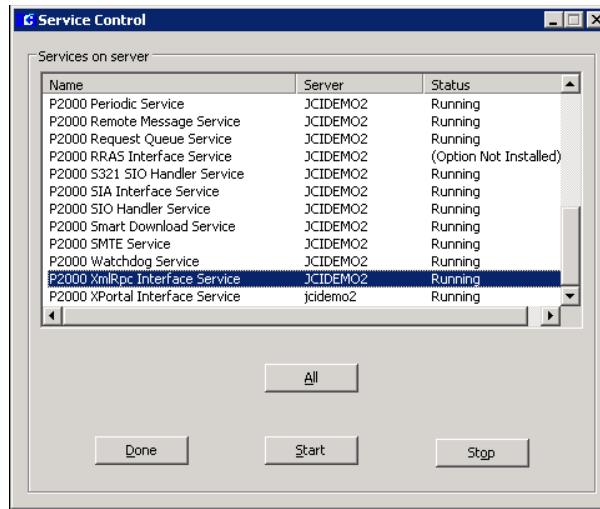
1. The ADS Repository stores messages forwarded by the P2000 system; however, an NAE device used as a Site Director cannot store these messages. If you have an NAE defined as a Site Director, to view messages forwarded from the P2000 system, you must define a valid ADS Repository name for the NAE device. See “Message Forwarding” on page 3-24 for more information.

5. Click **OK**.

The newly created MSEA Registration appears under MSEA Registrations in the left pane of the System Configuration window.



6. Repeat steps 1-5 for each Site Director with which you wish to register the P2000 server.
7. Click **Done** to close the System Configuration window.
8. From the P2000 Main menu, select **System>Service Control**. You may be prompted for a password. The Service Control dialog box opens.
9. Select the **P2000 XmlRpc Interface Service**.



10. Click **Stop**. Wait until the status is **Stopped**.
11. Click **Start**. The status should change to **Running**.
12. Click **Done**.
13. Continue with the instructions in “Creating a Metasys Integration Account” on page 2-6.

CREATING A METASYS INTEGRATION ACCOUNT

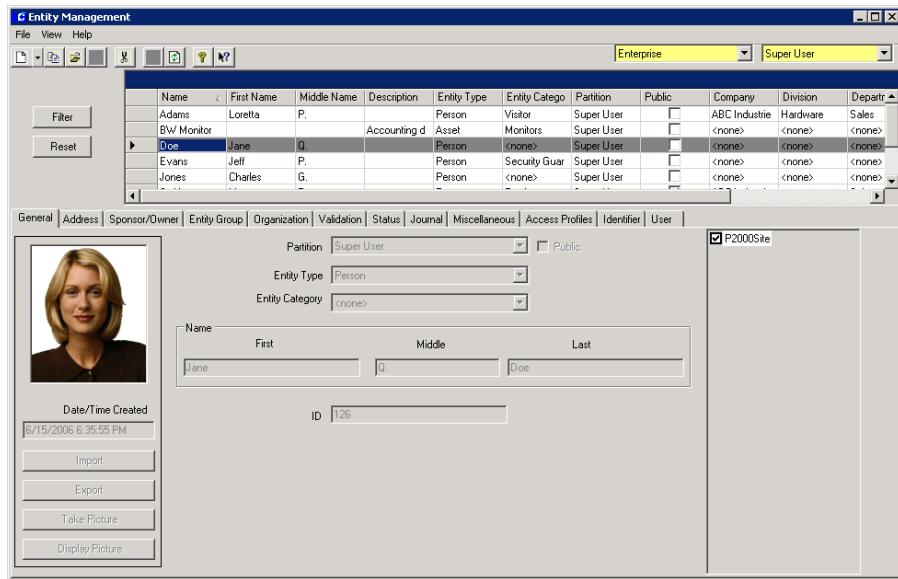
The next step in the configuration process is creating a special user account specifically for integrating the P2000 security management system with Metasys System Extended Architecture. This is accomplished using the P2000 host's Entity Management feature.

A user account is assigned to an entity record, so you may create a new entity record and then create a new user account to assign to the record, or you may create a new user account for an existing entity record.

► **To create a Metasys integration account:**

1. From the P2000 host software, select **Access>Entity Management** from the menu bar.

The Entity Management window appears.

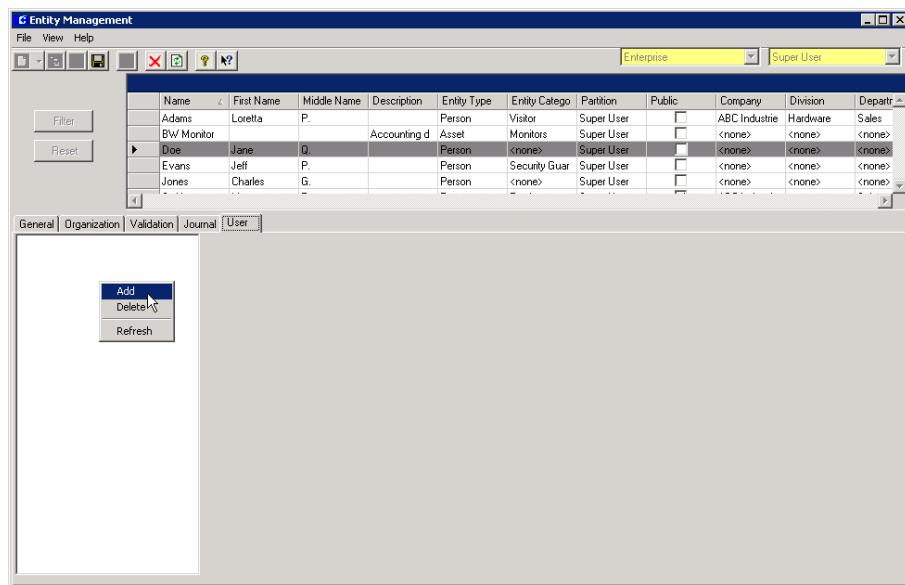


2. Create an entity record, or select an existing record from the table and click **Edit**.

Refer to the *P2000AE Software User Manual* for instructions on creating an entity record.

3. Click the **User** tab.

4. Right-click over the white space and click **Add** on the pop-up menu.



5. On the **General** tab (under the User tab), enter the following **User Name**:
MSEAInterface

NOTE

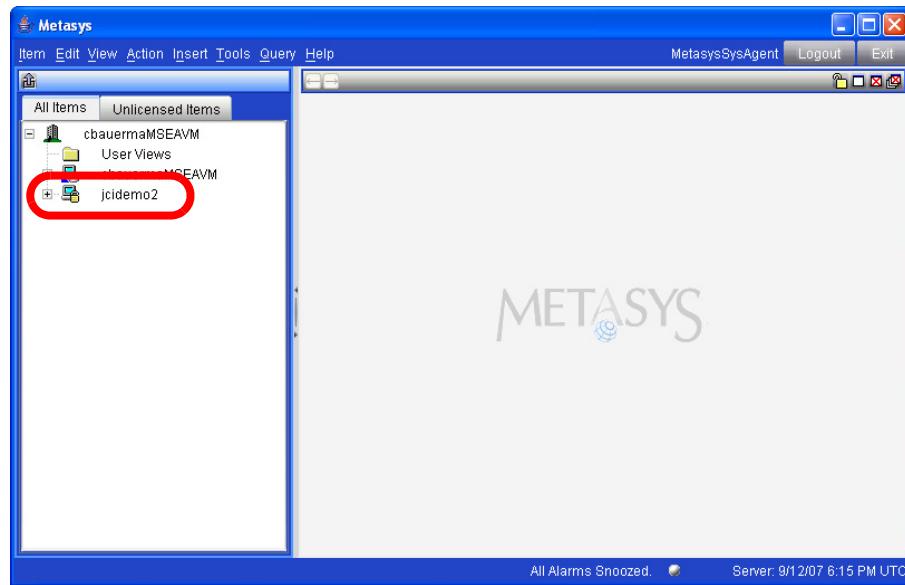
You must enter this name exactly as shown. There is no space between MSEA and Interface, and you must use the letter case as shown.

6. Enter a **Password**.

This password is *not* used to access the Metasys System Extended Architecture user interface – it is specific to P2000.

7. Enter the same password into the **Confirmed Password** text box.
8. Select the **User Roles** tab and move the **Super User** role to the **Selected** box.
9. Select the **Partitions** tab and move the **Super User** role to the **Selected** box.
10. Click **Save**.

The P2000 should now appear as a device in the Metasys system extended architecture user interface for the associated Site Director. See “Chapter 3: Operations” for information on launching and logging into the Metasys system extended architecture user interface.



OPERATIONS

This chapter describes step-by-step procedures for accessing the Metasys system extended architecture Web Interface and using it to browse P2000 objects and issue commands.

GETTING STARTED

This section describes how to launch the Metasys system extended architecture Web Interface and view the objects associated with the P2000 server.

► **To launch the Metasys system extended architecture Web Interface:**

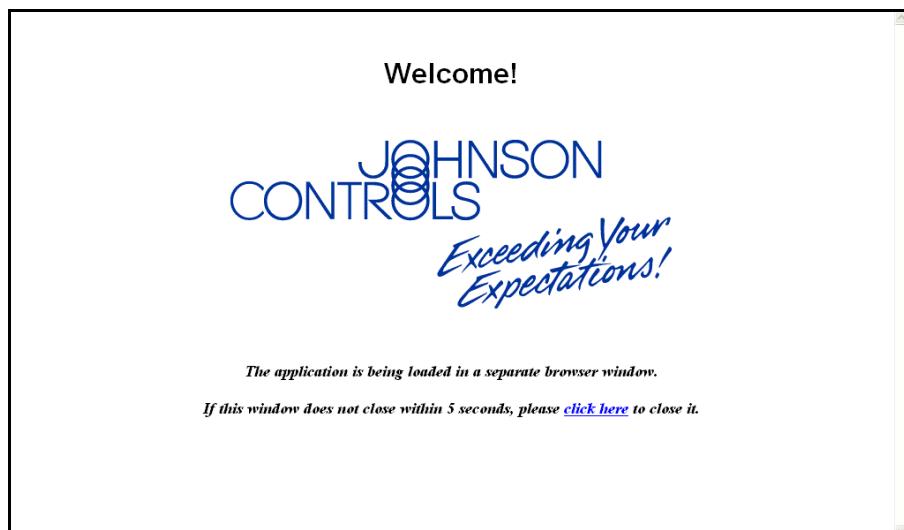
1. Open a browser instance and enter the following URL:

`http://IP Address of Metasys ADS or ADX Server/metasys`

Example: `http://10.0.0.1/metasys`

In the previous example, 10.0.0.1 is the IP address of the Metasys ADS/ADX server.

The Welcome screen appears.



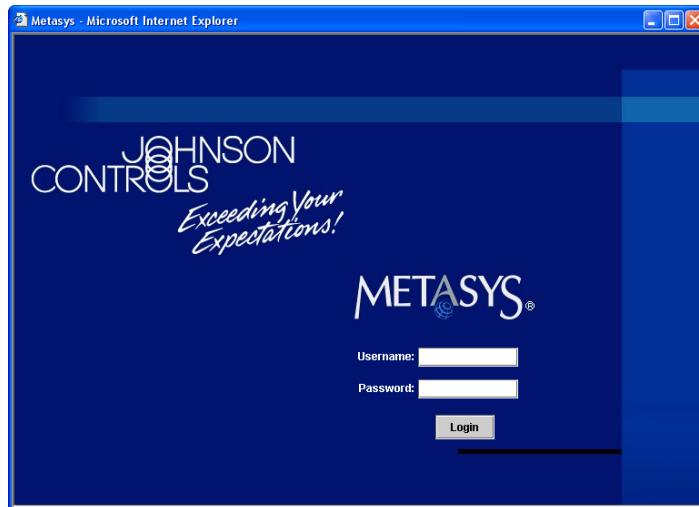
NOTE

You may be required to install the Java Runtime Environment in order to access the Metasys system extended architecture Web interface via your browser. If asked whether to replace an existing version of Java, select **No**.

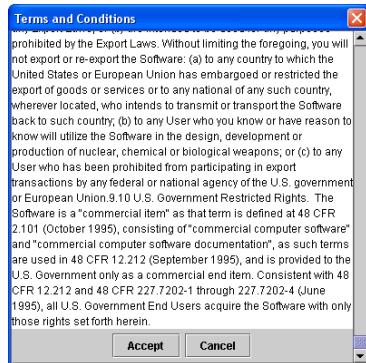
The Java Plug-in Security Warning screen appears.



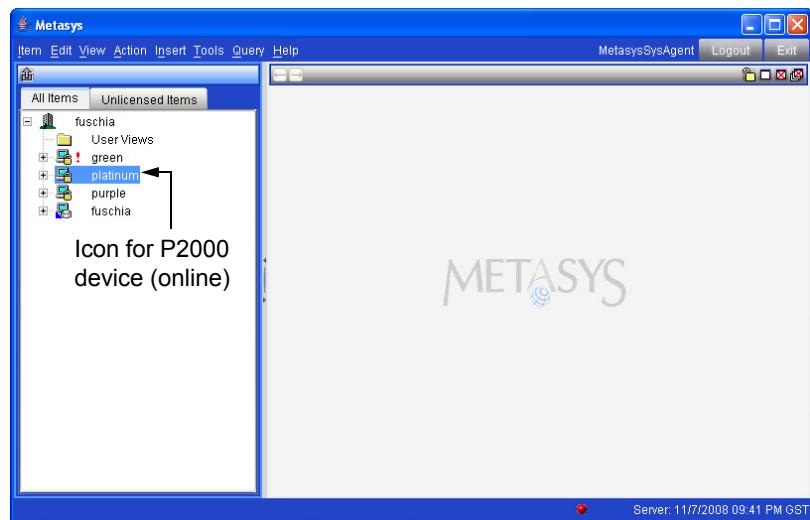
2. Select the **Always trust content from this publisher** check box.
3. Click **Run**.
4. Enter the Username and Password and click **Login**.



5. If you receive the Terms and Conditions dialog, read the materials, scroll down to the bottom of the page and click **Accept**.

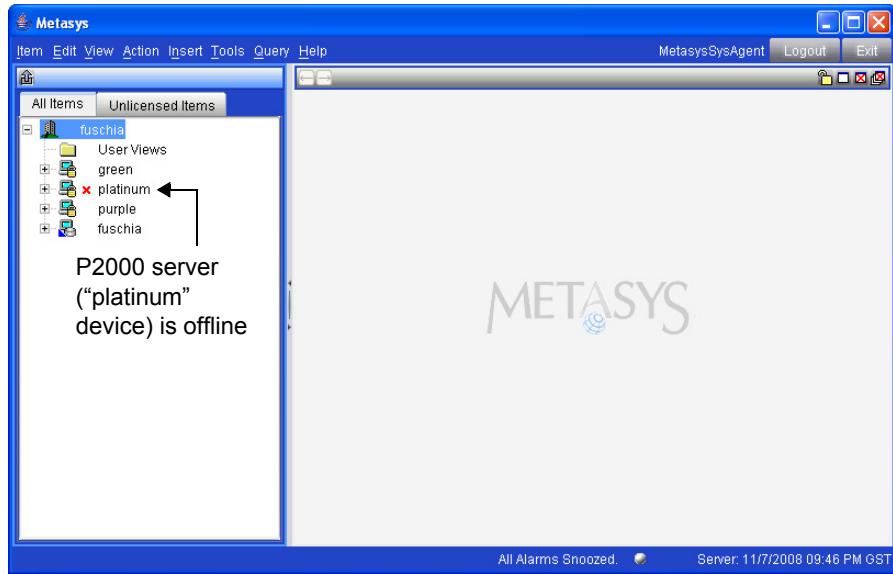


6. Notice the P2000 device icon, here named “platinum.” In the following figure, the device is online.



➤ **To monitor changes in P2000 server online status:**

1. If the P2000 server status changes, notice the P2000 device icon change in the Metasys system extended architecture navigation tree. In addition, when a Metasys Alarm occurs, a separate Alarms Window launches to display the alarm.



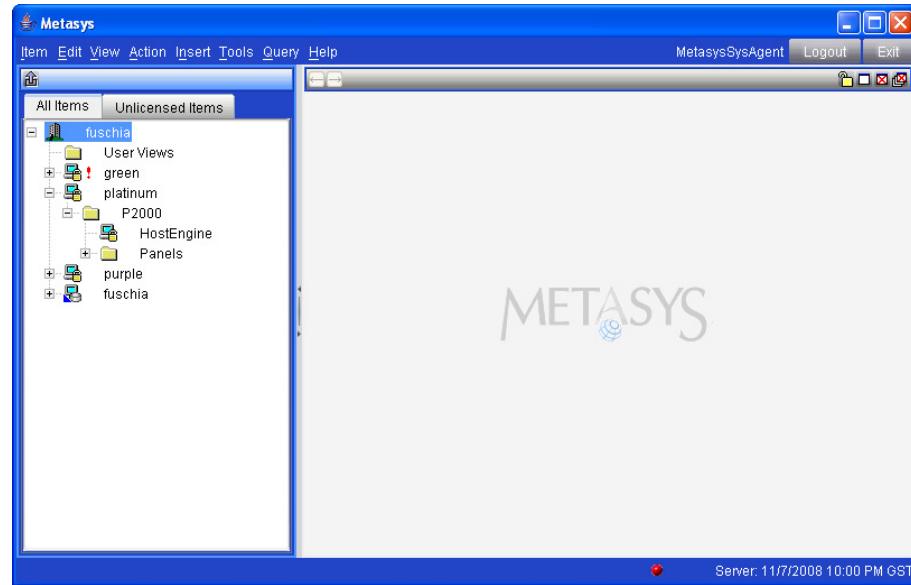
2. To acknowledge the alarm, click **Ack**.
3. Similarly, once the status of the P2000 server changes to online, the device icon changes in the Metasys system extended architecture navigation tree (the red “x” disappears). In addition, the Metasys Alarm occurs due to the status change, and a window is launched to display it.

For more information on how to use the Alarms Window, refer to the Metasys System Help.

➤ **To browse P2000 objects using the Metasys system extended architecture Web Interface:**

1. Access the Metasys system extended architecture Web Interface as described on page 3-1.
2. Click to expand the P2000 device.
3. Click to expand **P2000** and verify the presence of the following: **HostEngine** and **Panels**.

Optionally, you can select **View>Extended Labels** from the main menu to display, in curly brackets, additional information about each P2000 object.



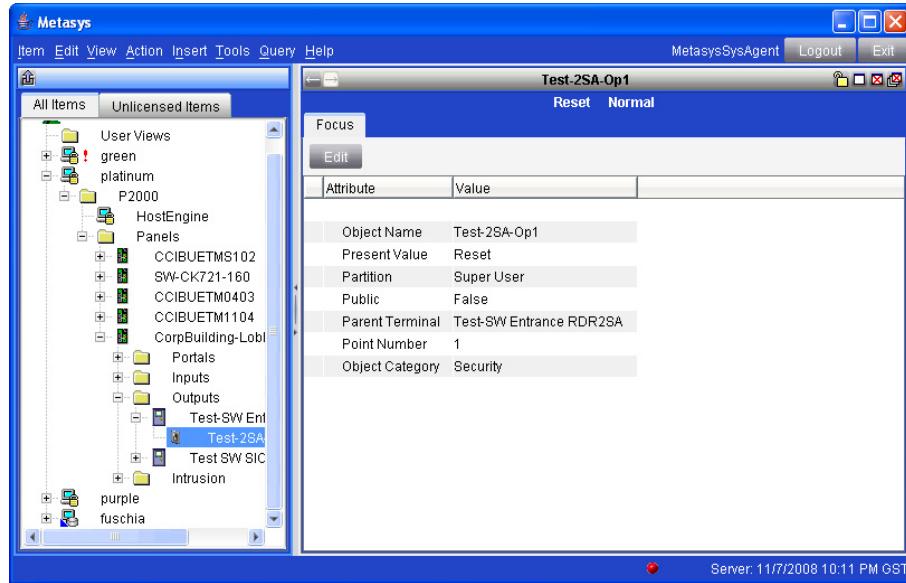
4. Expand the **Panel** item to view the details.
5. To reflect the latest changes in P2000, select **Action>Refresh All Tabs** on the menu bar.

OUTPUT POINT CONTROL

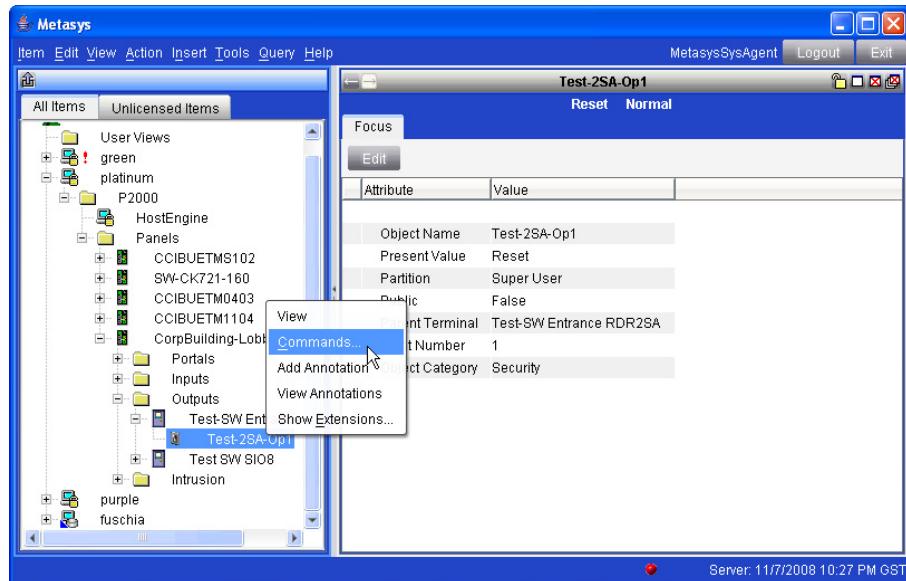
This section describes how to control P2000 output points using the Metasys system extended architecture Web Interface.

➤ **To activate a P2000 output point:**

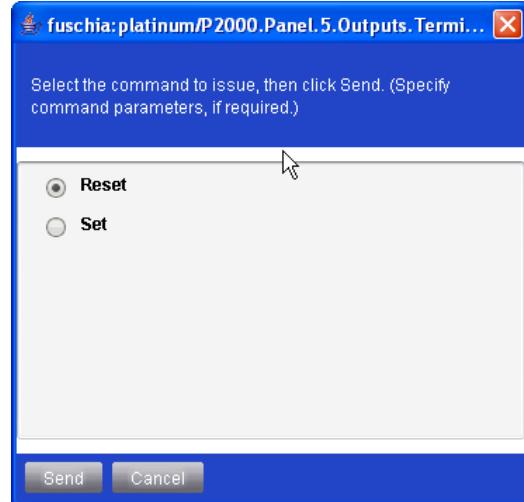
1. Using the Metasys system extended architecture Web Interface, expand the tree to the P2000 output point and double-click its icon. In the following example, the output point is in the **Reset** state.



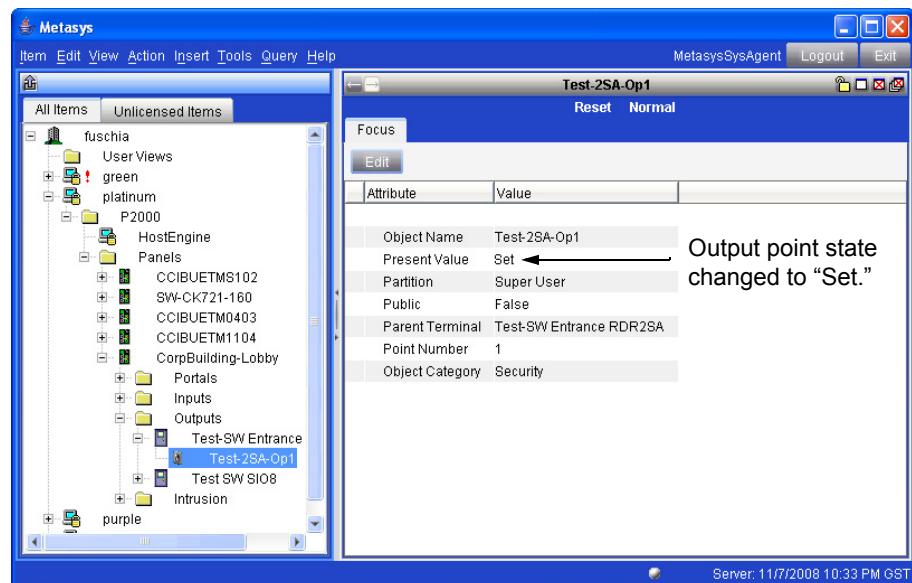
2. Right-click the output point icon and select **Commands**.



3. Select the appropriate radio button (in the example below **Set** is selected to change the state from Reset to Set). Click **Send**.



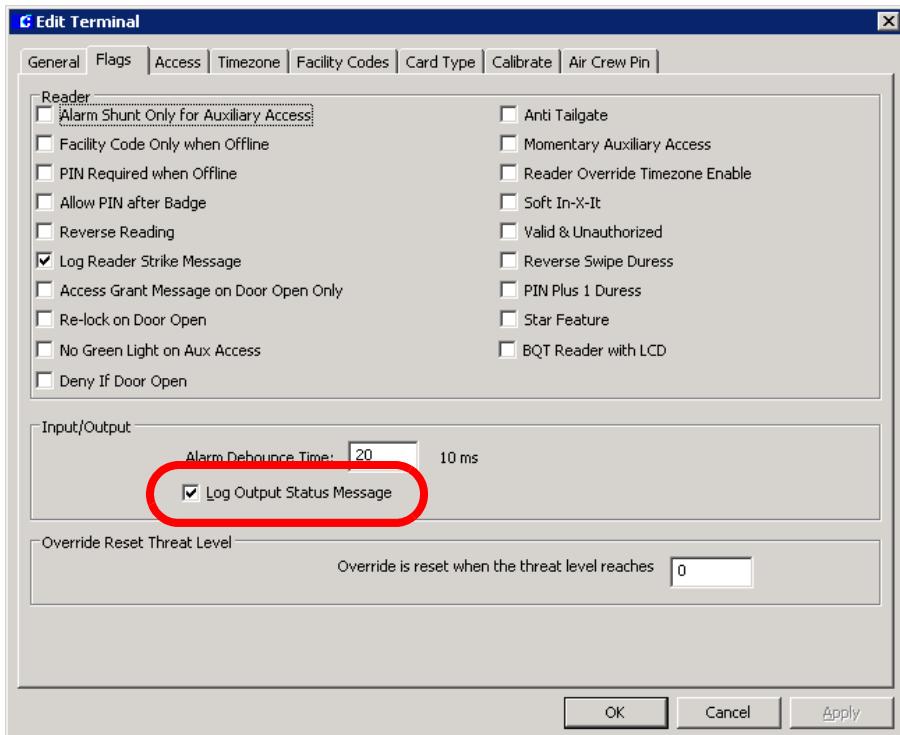
4. On the Metasys system extended architecture main window, select **Action>Refresh All Tabs** from the menu bar.
5. Verify that the state of the output point has changed.



NOTE

If the output's status does not change after sending the command:

- **Legacy Panels:** Verify that the **Log Output Status Message** check box is selected for the output's associated terminal in P2000 (Edit Terminal window>Flags tab).



- **CK722 Controllers:** Verify that the **Security Binary Output** object's **Notification Class** attribute is set to **1**. Refer to the **P2000 System Configuration Tool (SCT) Manual** for more information.

➤ **To deactivate an output point:**

1. Using the Metasys system extended architecture Web Interface, expand the tree to the P2000 output point and double-click its icon.
2. Right click the output point icon and select **Command**.
3. Select the **Reset** radio button and click **Send**.
4. In the Metasys system extended architecture main window, select **Action>Refresh All Tabs** from the menu bar.
5. Verify that the state of the output point has changed.

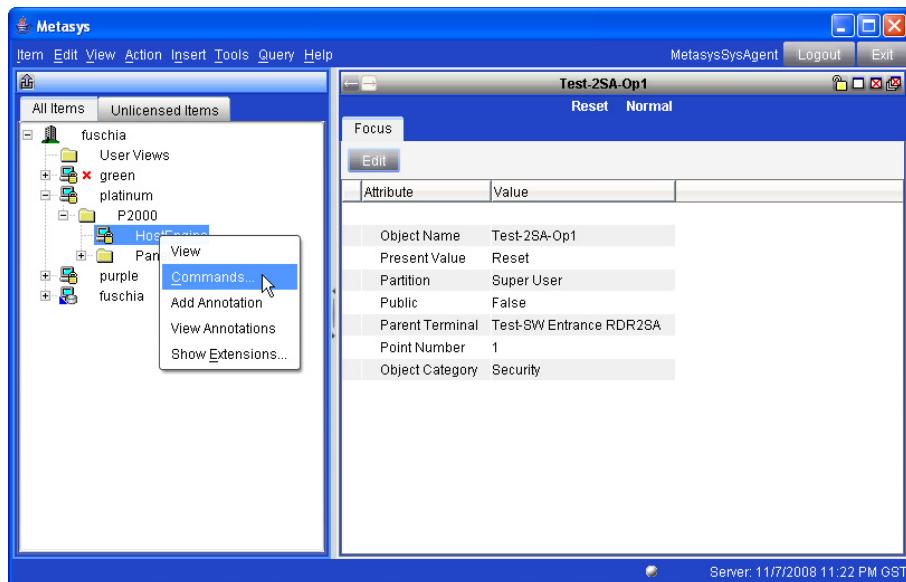
Door Control

The following P2000 door commands can be sent from the Metasys system extended architecture Web Interface:

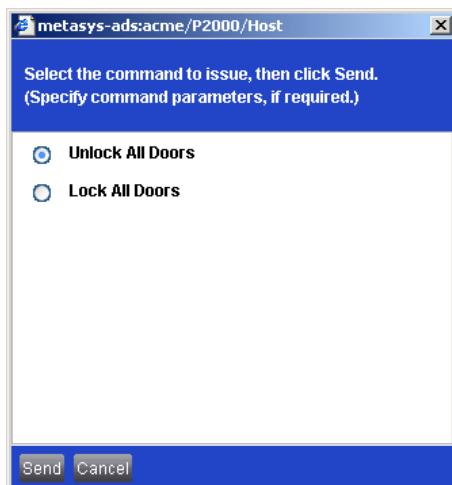
- Unlock or lock **all** doors under the *HostEngine* object.
- Unlock or lock a specific door under the *Portals* object.

➤ **To send a command to unlock or lock all doors under the *HostEngine* object:**

1. Using the Metasys system extended architecture Web Interface, expand the navigation tree to view the **HostEngine** icon.
2. Right-click the HostEngine icon and select **Commands**.



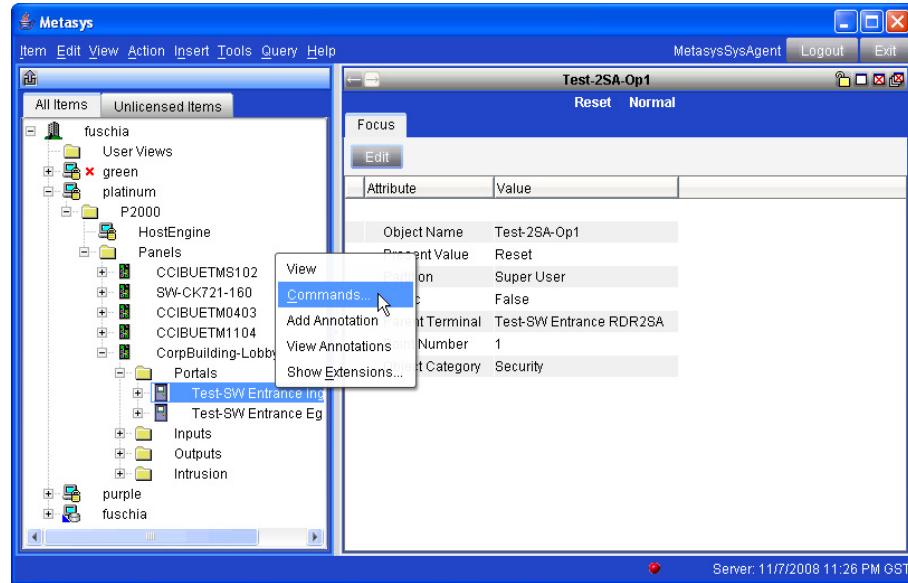
3. On the Commands page, select the **Unlock All Doors** or **Lock All Doors** radio button.



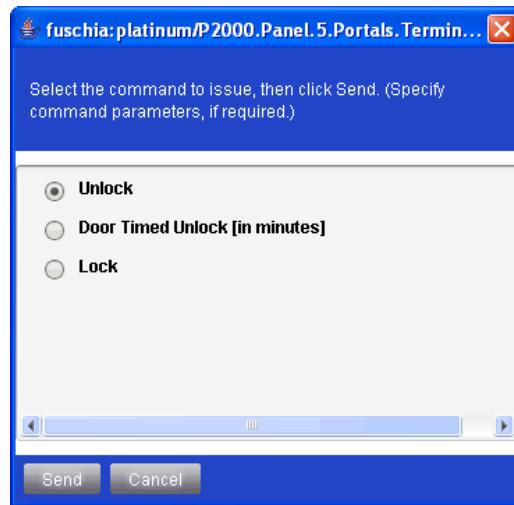
- Click **Send** to issue the command to the P2000 system.

➤ **To send a command to unlock or lock door a specific door under the *Portals* object:**

- Using the Metasys system extended architecture Web Interface, expand the navigation tree to view the **Portals** icon.
- Under **Portals** right-click a reader terminal icon and select **Commands**.



- On the Commands page, select the **Unlock All Doors**, **Door Timed Unlock (in minutes)**, or **Lock All Doors** radio button.



- If you select the **Door Timed Unlock (in minutes)** option, in the **Value** field, enter the number of minutes the system will delay before unlocking the selected door.
- Click **Send** to issue the command to the P2000 system.

INTRUSION COMMAND AND CONTROL (CK722 CONTROLLERS ONLY)

This section describes how to control P2000 Intrusion objects using the Metasys system extended architecture Web Interface. The following commands are available for each respective Intrusion object:

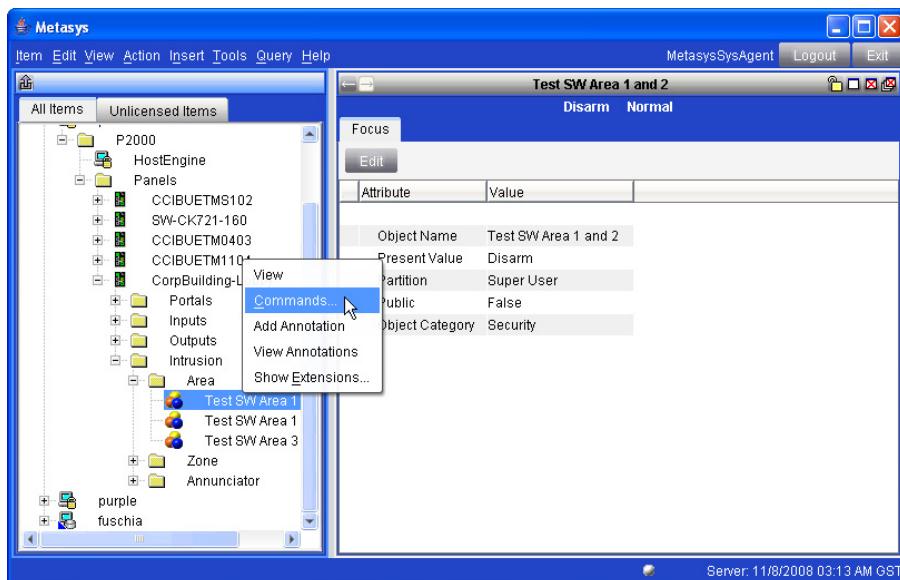
- **Arm or Disarm** commands for *Intrusion Area* objects
- **Bypass or Activate** commands for *Intrusion Zone* objects
- **Silence** command for *Intrusion Annunciator* objects

NOTE

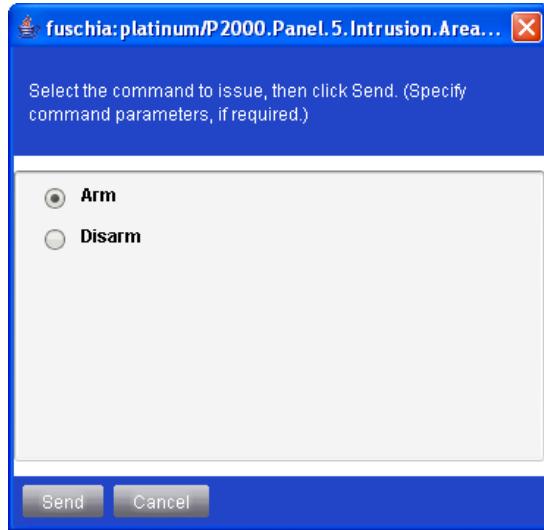
Intrusion objects are not available with legacy panels.

➤ To arm or disarm an *Intrusion Area* object:

1. Using the Metasys system extended architecture Web Interface, expand the navigation tree to view the **Area** icon.
2. Under **Area**, right-click an *Intrusion Area* object icon and select **Commands**.



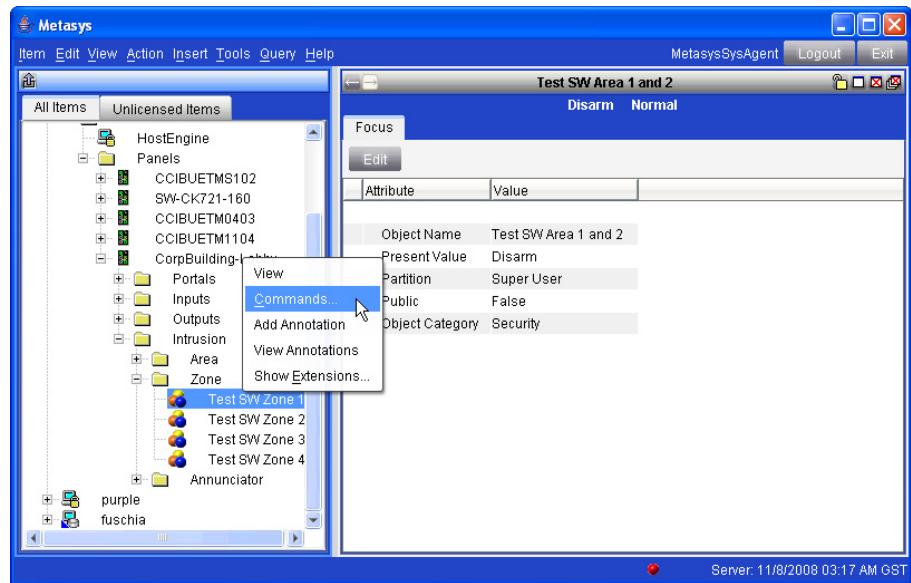
3. On the Commands page, select the **Arm** or **Disarm** radio button.



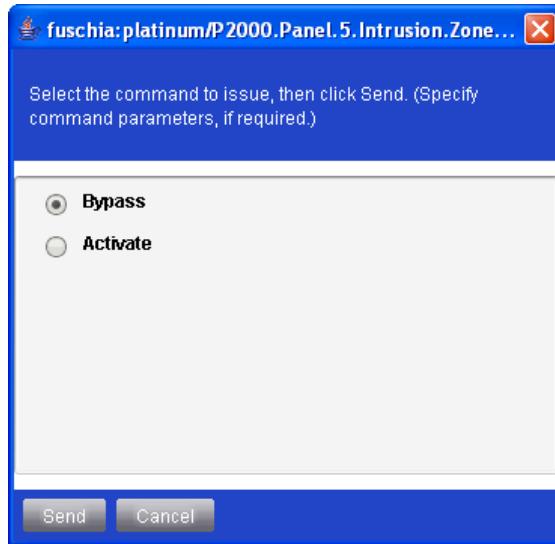
4. Click **Send** to issue the command to the P2000 system.

➤ **To bypass or activate an *Intrusion Zone* object:**

1. Using the Metasys system extended architecture Web Interface, expand the navigation tree to view the **Zone** icon.
2. Under **Zone**, right-click an *Intrusion Zone* object icon and select **Commands**.



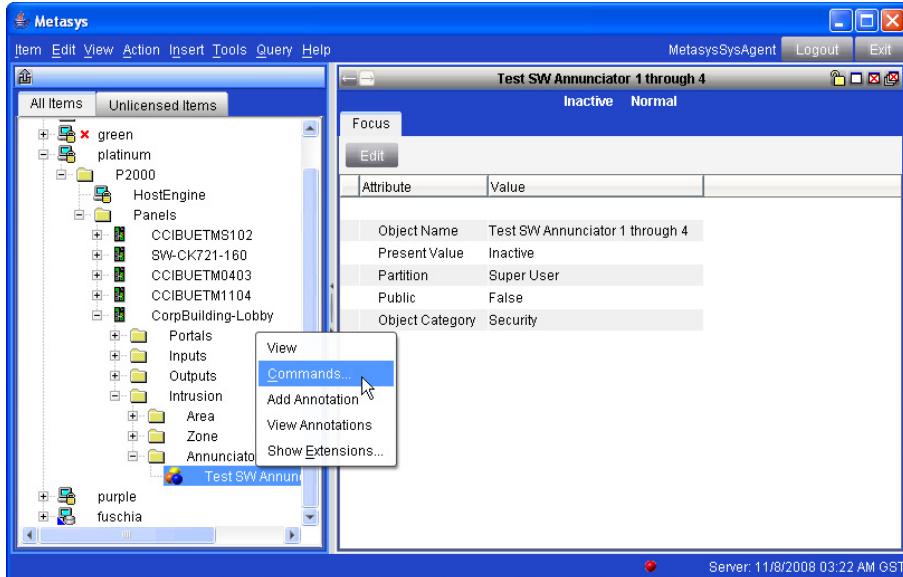
3. On the Commands page, select the **Bypass** or **Activate** radio button.



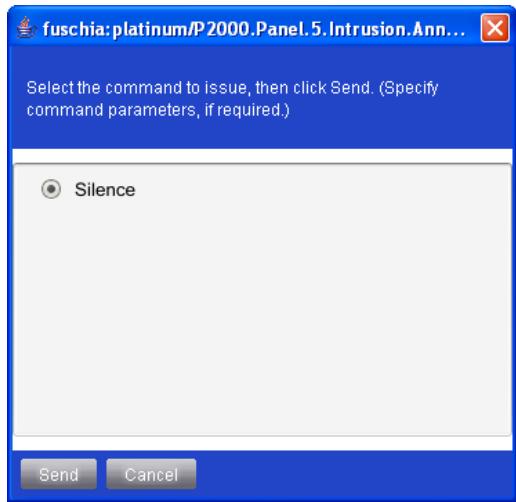
4. Click **Send** to issue the command to the P2000 system.

➤ **To Silence an *Intrusion Annunciator* object:**

1. Using the Metasys system extended architecture Web Interface, expand the navigation tree to view the **Annunciator** icon.
2. Under **Annunciator**, right-click an *Intrusion Annunciator* object icon and select **Commands**.



3. On the Commands page, select the **Silence** radio button to silence the annunciator.



4. Click **Send** to issue the command to the P2000 system.

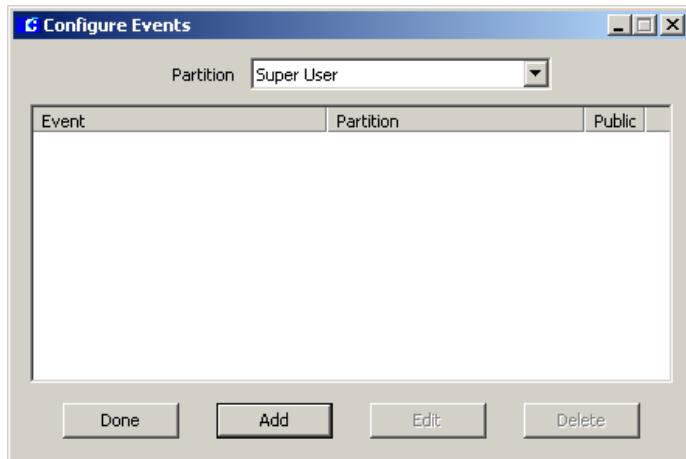
INTERLOCKS

This section describes how to define interlocks between events generated on the P2000 system and actions that need to be executed on the Metasys system extended architecture. For example, the Metasys server can be programmed to turn on lights in a room and/or change a room's temperature when a entity presents his/her identifier at a specific reader.

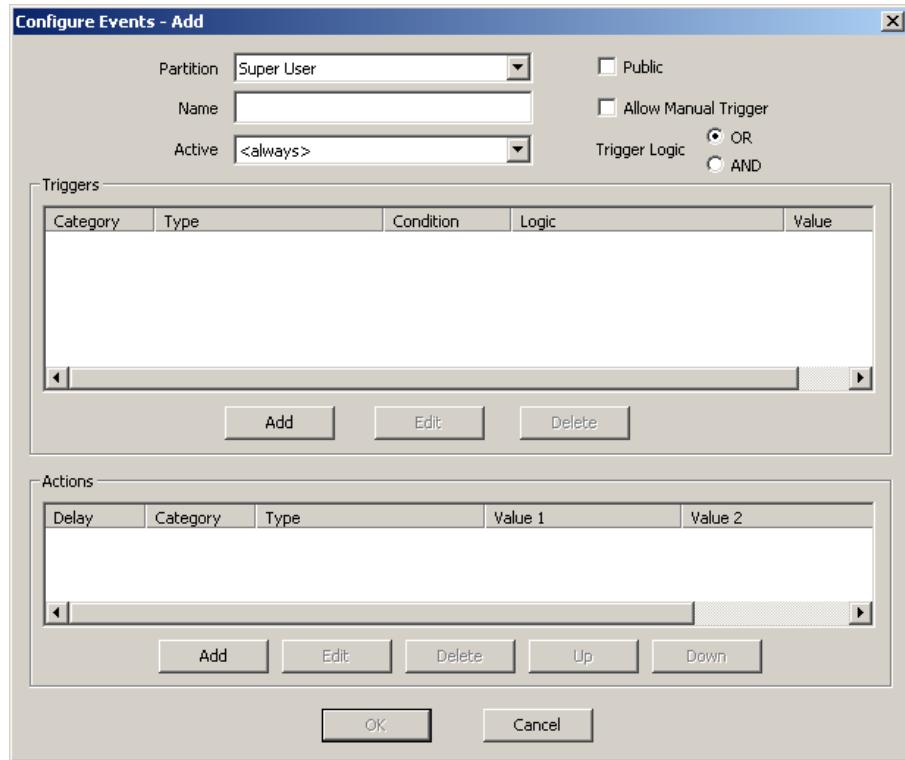
Interlocks are unidirectional from P2000 to the Metasys system extended architecture. For detailed information on configuring triggers and actions, refer to the *P2000 Software User Manual*.

➤ **To configure an interlocking event:**

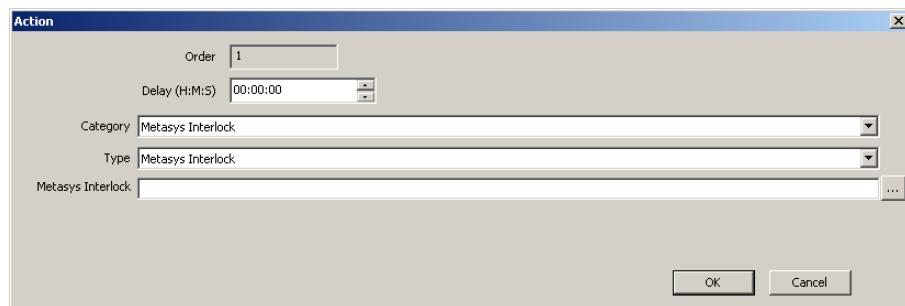
1. In P2000, select **Events>Configure Events** from the menu bar. The Configure Events dialog box appears.



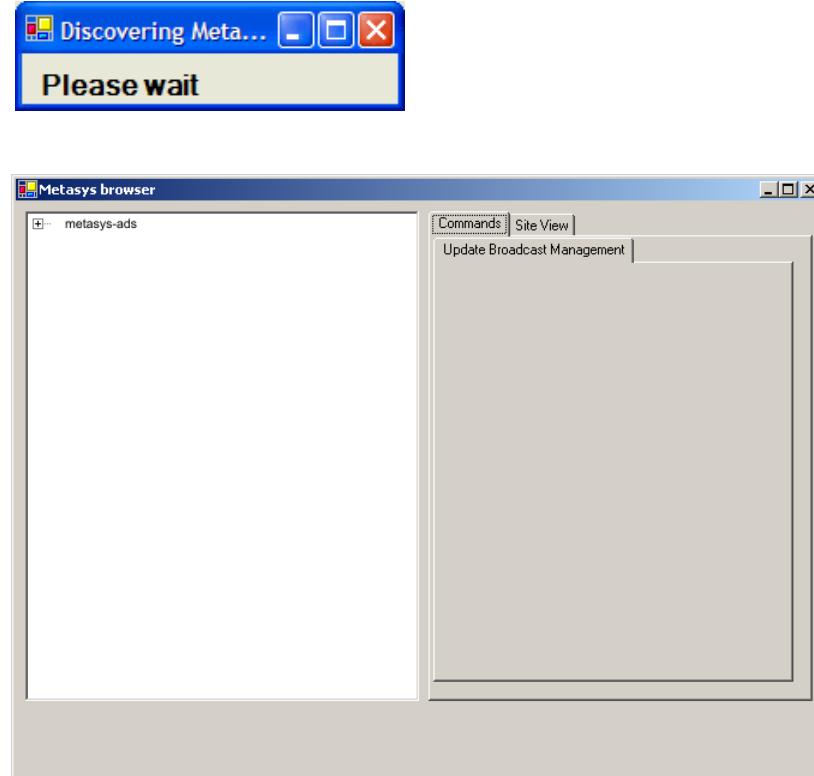
2. Click **Add**. The Configure Events - Add dialog appears.



3. Enter an event name in the **Name** field.
4. Add a trigger. For detailed information on adding triggers, refer to the *P2000AE Software User Manual*.
5. In the Actions area, click the **Add** button. The Action dialog box appears.
6. From the Category field, select **Metasys Interlock**. The value in the Type field will automatically change to Metasys Interlock.



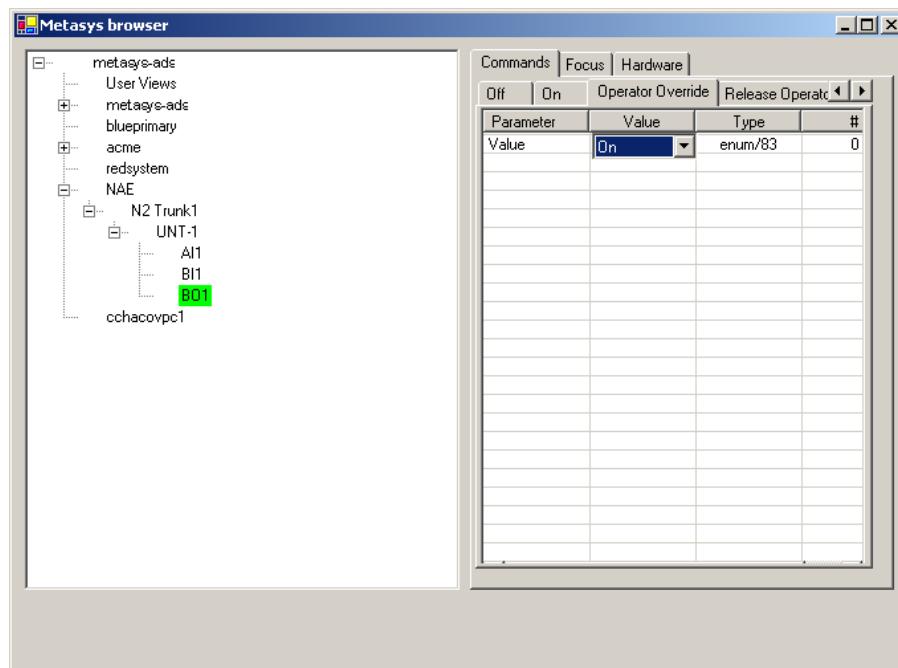
7. At the end of the **Metasys Interlock** field, click the **Browse** button (...). Wait for the Metasys browser window to launch.



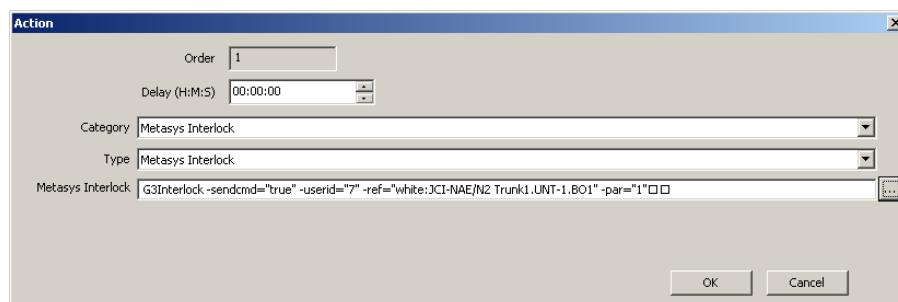
When the Metasys browser window appears, the Metasys server is displayed in the left window pane. As the screen capture above displays, “metasys-ads” is the name of the Metasys server. This window enables you to define a command string, or action, that will occur if the P2000 is triggered accordingly. For example, the Metasys server can be programmed to turn on lights to a room (action) when a card is swiped at a specific reader (trigger).

8. Select the action target from the Metasys server tree. The tabs on the right window pane will differ, depending on the target selected.

9. Change the values from the tabs to define the action. In some cases, you will have to double-click inside the grey area under the tab captions to change the value.

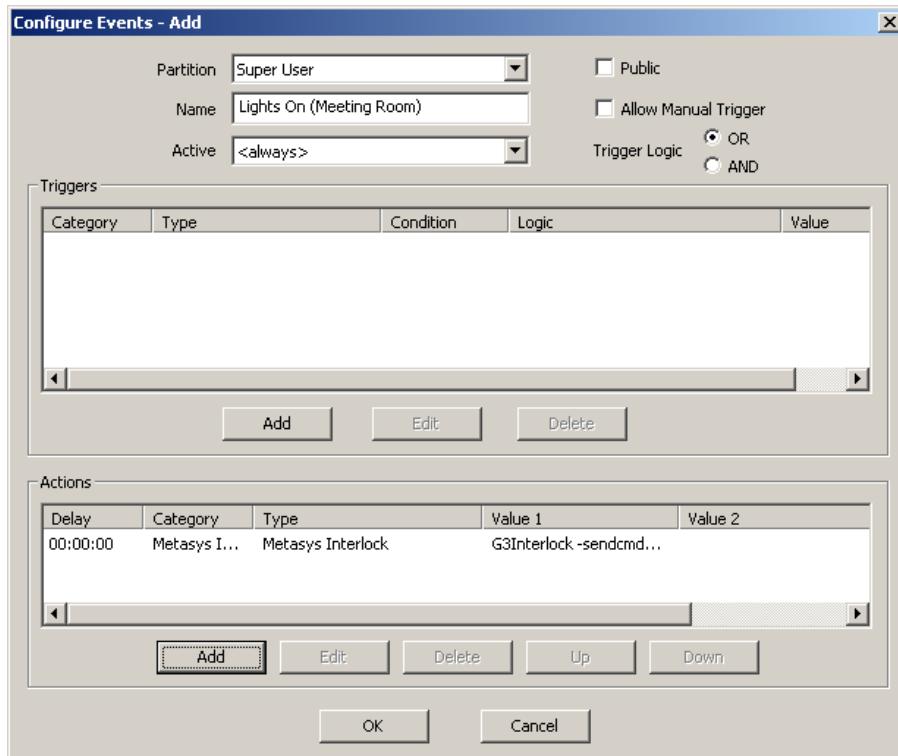


10. Close the **Metasys browser** window.
11. Verify that the command string has been added to the **Metasys Interlock** field on the Action dialog box.



12. Click **OK**.

13. The action will appear in the **Actions** area on the Configure Events - Add dialog box.



NOTE

For more detailed information on configuring triggers and actions, refer to the P2000AE Software User Manual.

ALARM AND EVENT MANAGEMENT

This section describes how to use the Metasys system extended architecture Web Interface to view and acknowledge alarms generated on the P2000 system, which are displayed in the Metasys Event Viewer.

For more information on the Metasys Event Viewer, refer to the “Alarm and Event Management” section of the Metasys System Help.

Overview

The Metasys system extended architecture User Interface can receive P2000 alarms and events for the registered P2000 device. You can acknowledge, snooze, or discard a P2000 alarm using the Metasys system extended architecture User Interface. Filtered P2000 events are mapped to Metasys system extended

architecture events and forwarded to the Metasys system extended architecture ADS Event Repository (see “Message Forwarding” on page 3-24). The following P2000 events can be mapped and forwarded:

- RTLData (History Transaction)
- Alarms

Limitations

- This P2000 Metasys system extended architecture Alarm Integration implementation supports only Panel Input Point alarm types.
- The P2000 message forwarding to the Metasys system extended architecture ADS Event Repository is limited to RTLData and Alarm messages.

Alarm and Event Forwarding

P2000 RTLData and Alarm messages may be forwarded to the Metasys ADS Event Repository as Metasys system extended architecture events. P2000 RMS (Remote Message Service) forwards messages based on the configured Message Filter. See “Message Forwarding” on page 3-24.

Managing P2000 Alarms from the Metasys System Extended Architecture

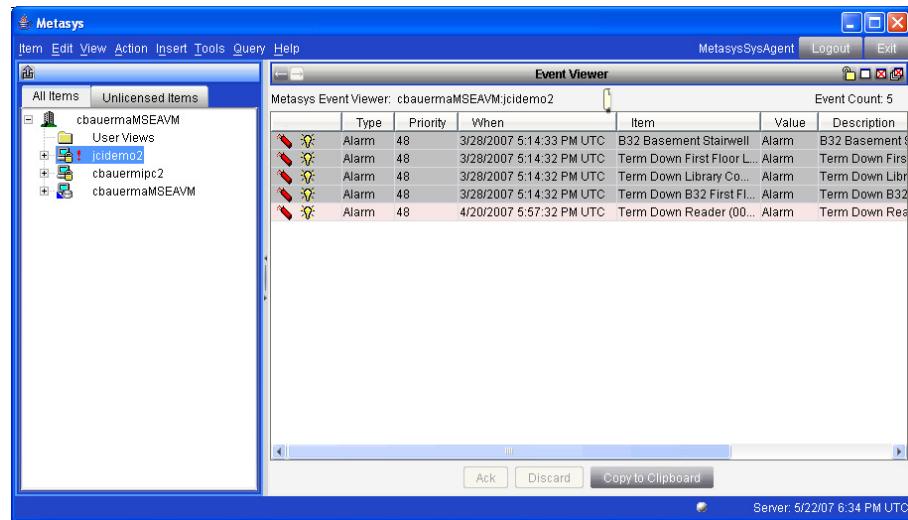
This section describes how to do the following actions from the Metasys system extended architecture user interface:

- View P2000 alarms (see page 3-19)
- View a graphic reference associated with a P2000 alarm (see page 3-20)
- Acknowledge a P2000 alarm (see page 3-22)
- Discard a P2000 alarm (see page 3-22)

➤ To view the P2000 alarms:

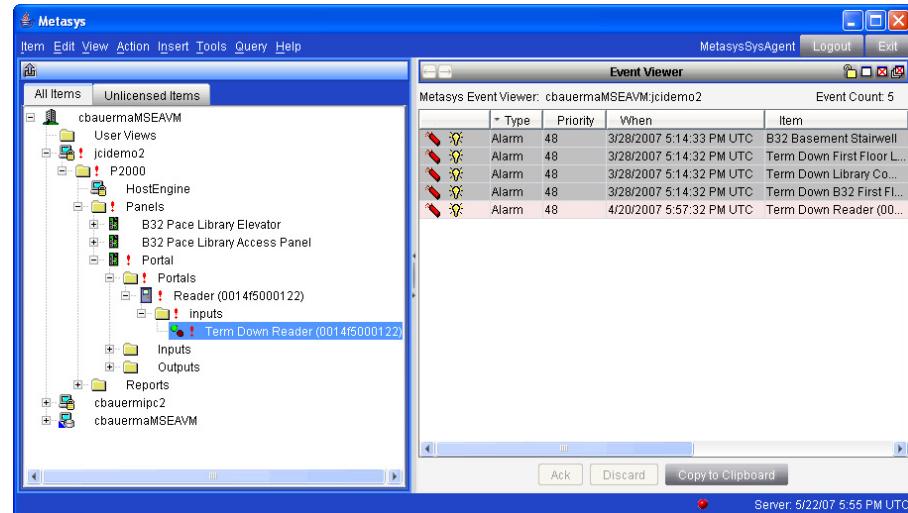
1. In the left pane, select a P2000 device from which you wish to view alarms.
2. From the menu bar, select **Event Viewer**.

The alarms from the selected P2000 device appear in the right pane.



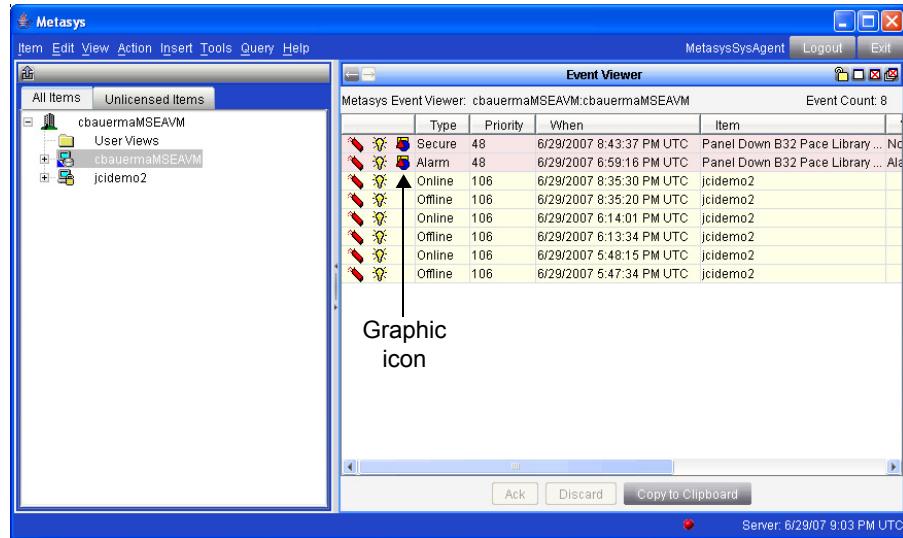
NOTE

Alarms can also be pinpointed by following the red exclamation marks in the left pane to the point of alarm.



► To view a graphic reference associated with a P2000 alarm:

1. In the Event Viewer, select an alarm.



- Double-click the graphic icon in the left-hand column of the selected alarm.

The graphic associated with the alarm appears in the available display frame. This graphic can also be viewed on the Metasys – Events window by clicking the **View Graphic** button. Refer to the *Metasys System Help* for more information.

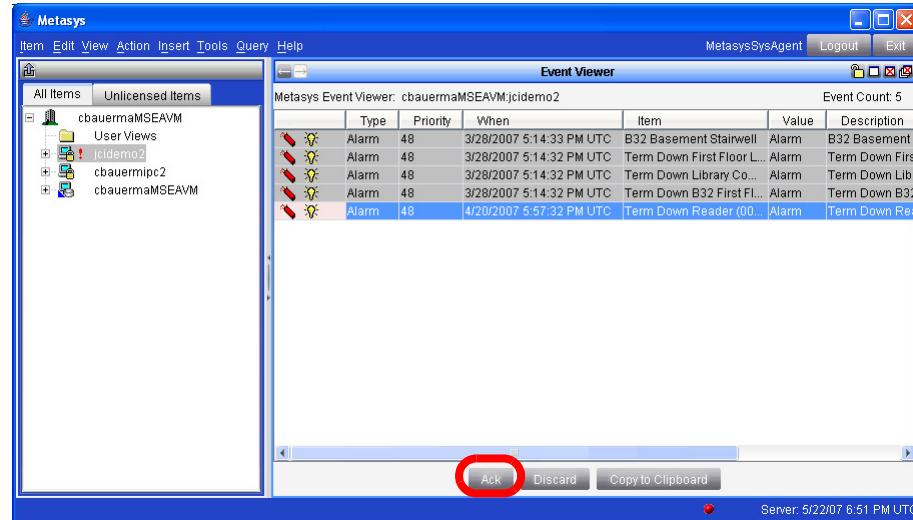


NOTE

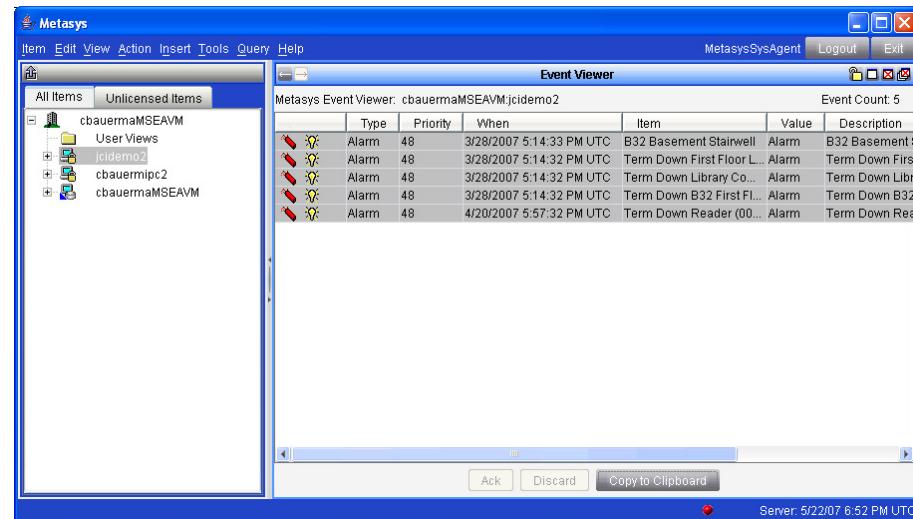
For information on configuring a graphic reference for a P2000 alarm, refer to the P2000AE Software User Manual.

► To acknowledge a P2000 alarm:

1. In the Event Viewer, select the alarm to be acknowledged and click the Ack button.



2. Notice that the acknowledged alarm is now grayed out.



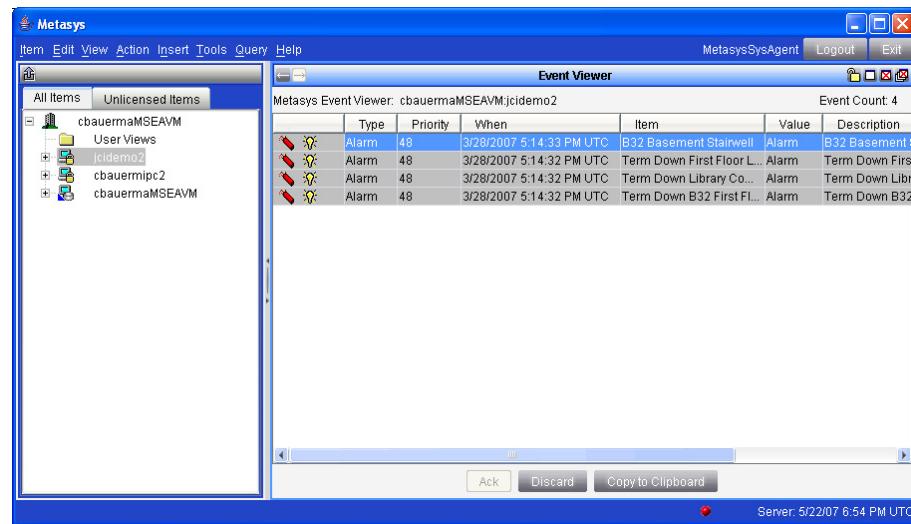
► To discard a P2000 alarm:

Once an alarm type changes to **Secure** and has been acknowledged, the alarm can be discarded.

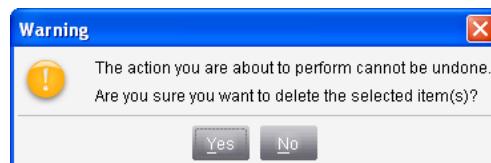
NOTE

All P2000 alarms, even if discarded in Metasys, are reflected in the P2000 audit trail. Also, discarding P2000 alarms in Metasys changes their status to Complete in the P2000 Alarm Monitor.

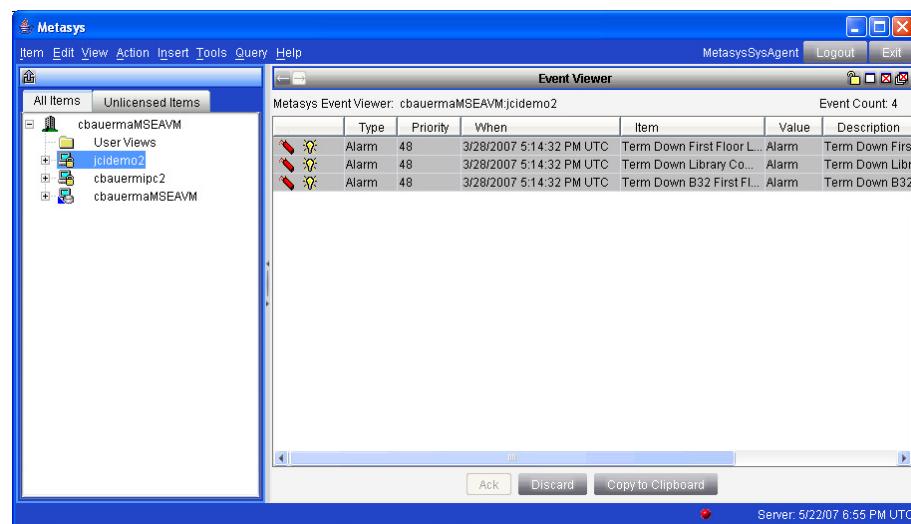
1. Select the alarm to be discarded and click the **Discard** button.



2. Click **Yes** to the warning message.



3. Verify that the alarm is now discarded.



Message Forwarding

This feature enables you to view forwarded messages from the P2000 SMS in the Metasys ADS Repository according to the message filters defined in the P2000 software.

NOTE

The ADS Repository stores messages forwarded by the P2000 system; however, an NAE device used as a Site Director cannot store these messages. If you have an NAE defined as a Site Director, to view messages forwarded from the P2000 system, you must define a valid ADS Repository name for the NAE device.

Message forwarding also enables the Alarm pop-up window to appear on the Metasys Web Interface when a P2000 alarm is generated. For this window to appear during an alarm, the system must be configured to forward messages to the ADS Repository.

NOTE

Forwarding messages to the ADS/ADX server from the P2000 server requires sufficient archiving storage on the ADS/ADX server. The current limit of 100,000 messages can be reached in one week (7 working days) if the message throughput rate exceeds 10 messages per minute. Exceeding the limit might cause the ADS/ADX server to become unstable. Accordingly, adjust the configured rate via proper filtering to ensure that the ADS limit is not reached before a regular ADS/ADX maintenance activity is performed.

For more information on message forwarding, refer to the “Alarm and Event Management” section of the Metasys System Help.

Configuring P2000 for Message Forwarding to the ADS Repository

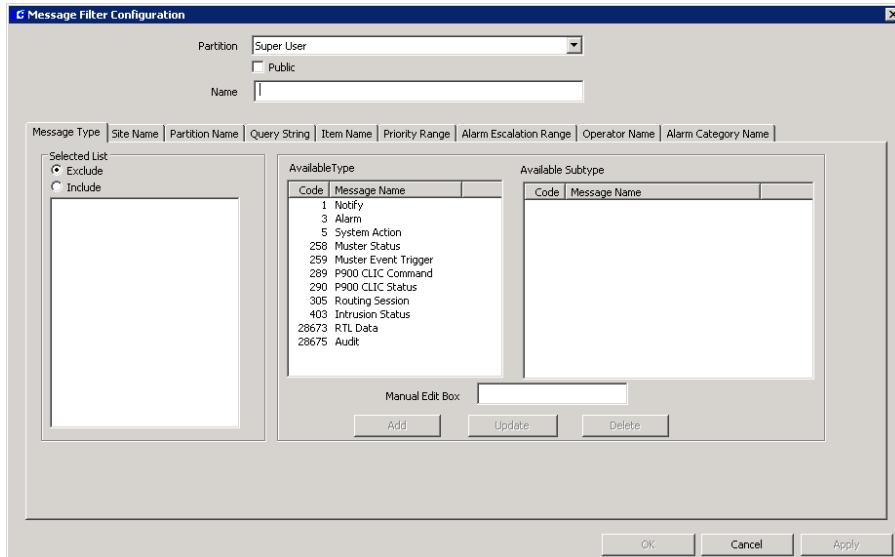
Forwarding messages to the ADS Repository requires the following configuration:

- ADS message filter and message filter group defined in the P2000 software
- ADS Remote Server defined in P2000 with the transmit filter for ADS enabled

➤ To configure an ADS message filter in P2000:

1. From the P2000 Main menu, select **Config>System**. The System Configuration window appears.

2. Select the **Message Filter** icon and click **Add**. The Message Filter Configuration dialog box appears.



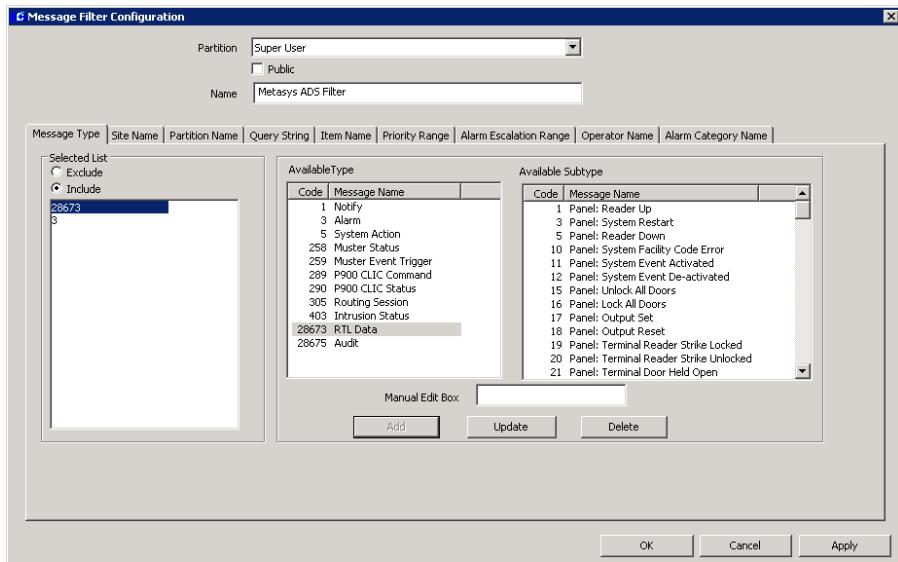
3. Enter a descriptive **Name** for this message filter (for example, Metasys ADS Filter).
4. You may include or exclude messages to be forwarded by adding and/or removing message types and subtypes to and from the **Selected List** box.

NOTE

*By default, all messages are forwarded to the ADS Repository. If you **include** one or more message types or subtypes in the Selected List box, all other message types and subtypes not listed in the Include list will be excluded (that is, they will not be forwarded). Conversely, if you **exclude** one or more message types or subtypes, all other message types and subtypes not listed in the Exclude list will be included (that is, they will be forwarded).*

NOTE

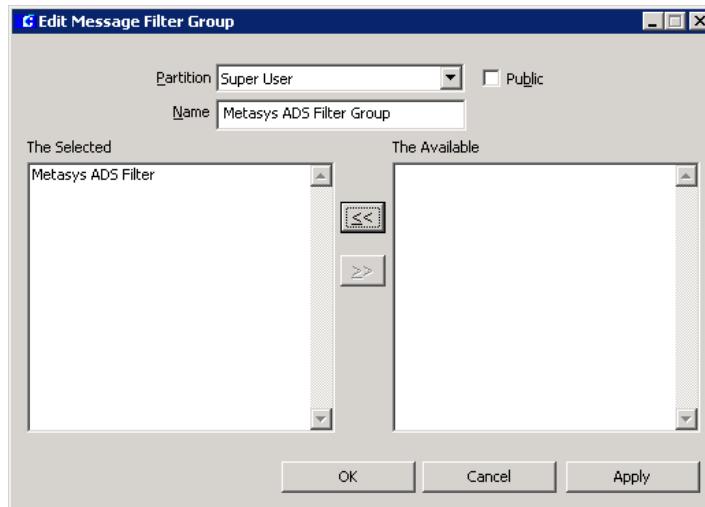
For more detailed information on configuring a message filter, refer to the P2000AE Software User Manual.



- Click **OK** to save the message filter and return to the System Configuration window.

➤ **To configure an ADS message filter group in P2000:**

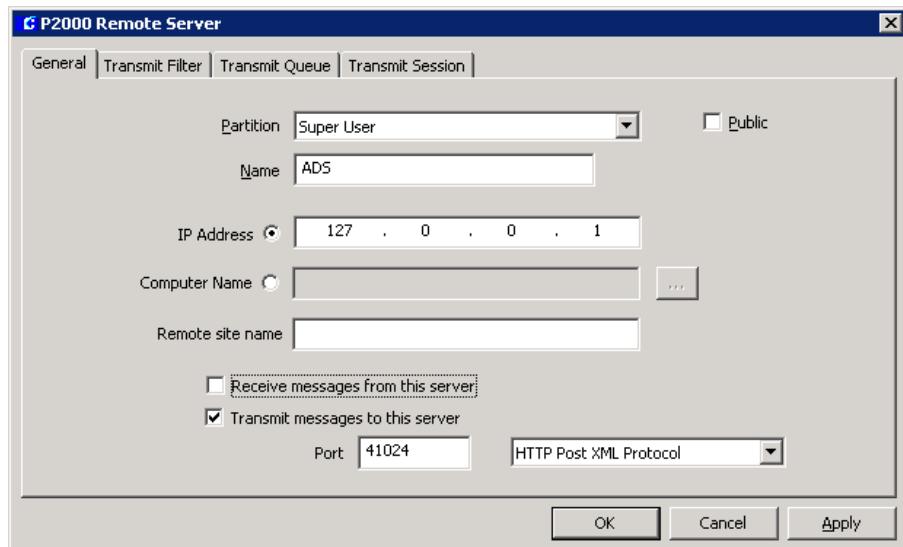
- From the P2000 Main menu, select **Config>System**. The System Configuration window appears.
- Select the **Message Filter Group** icon and click **Add**. The Edit Message Filter Group dialog box appears.
- Enter a descriptive **Name** for this message filter group (for example, Metasys ADS Filter Group).
- The newly created ADS message filter should appear in The Available box. Select it and click the left arrow button to move the item to The Selected box.



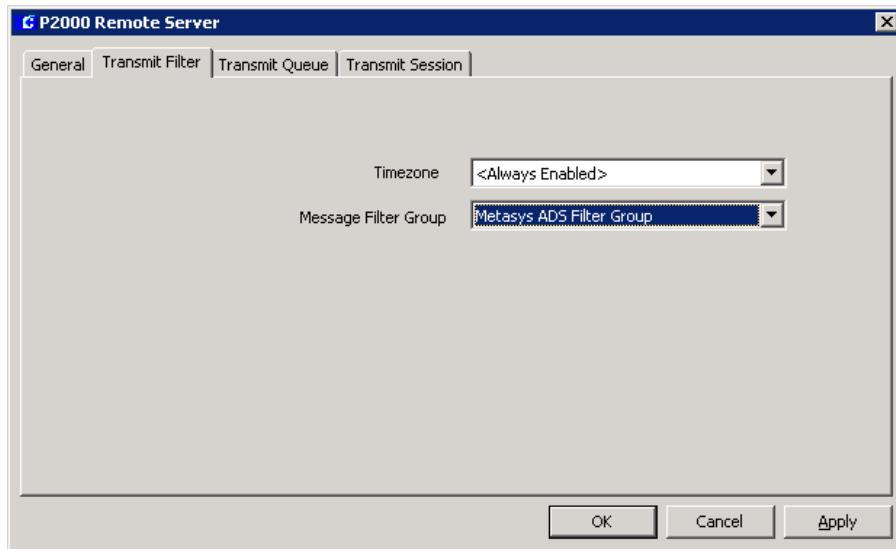
5. Click **OK** to save the message filter group and return to the System Configuration window.

► **To define an ADS remote server in P2000:**

1. From the P2000 Main menu, select **Config>System**. The System Configuration window appears.
2. Select the **Remote Server** icon and click **Add**. The P2000 Remote Server dialog box appears.
3. Select the **General** tab.
4. Enter a **Name** for the remote server (for example, ADS).
5. Select the IP Address radio button and enter the following address:
127.0.0.1
6. Select the **Transmit messages to this server** check box.



7. In the **Port** field, enter the port number assigned to the **P2000 G3 Interface Command Port** (default = 41024).
To verify the current port number assigned to the P2000 G3 Interface Command Port, in the left pane of the System Configuration window, select **Site Parameters** and click **Edit**. On the Edit Site Parameters window, select the **Port Configuration** tab.
8. In the drop-down list next to the **Port** field, select **HTTP Post XML Protocol**.
9. Click **Apply**.
10. Select the **Transmit Filter** tab.
11. Select the newly created **Message Filter Group** (for example, Metasys ADS Filter Group).

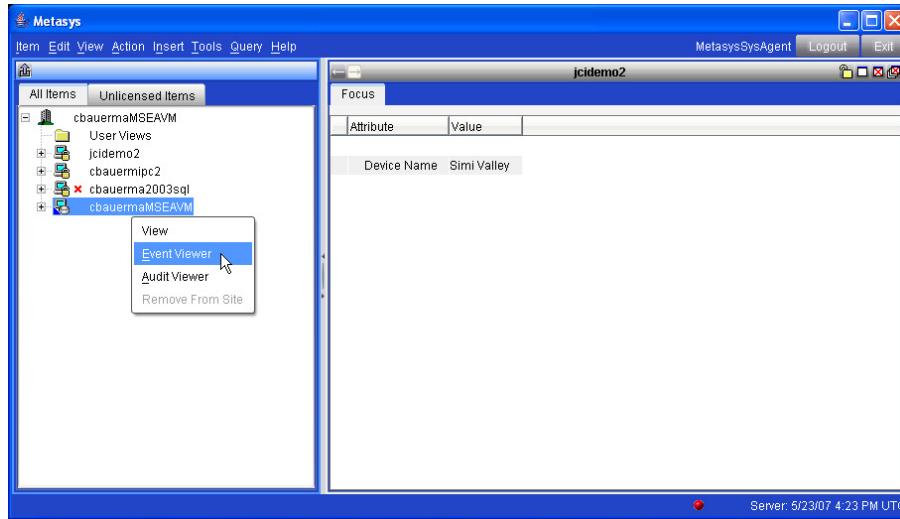


12. Click **OK**.

Viewing Forwarded Messages from P2000 in the Metasys ADS Repository

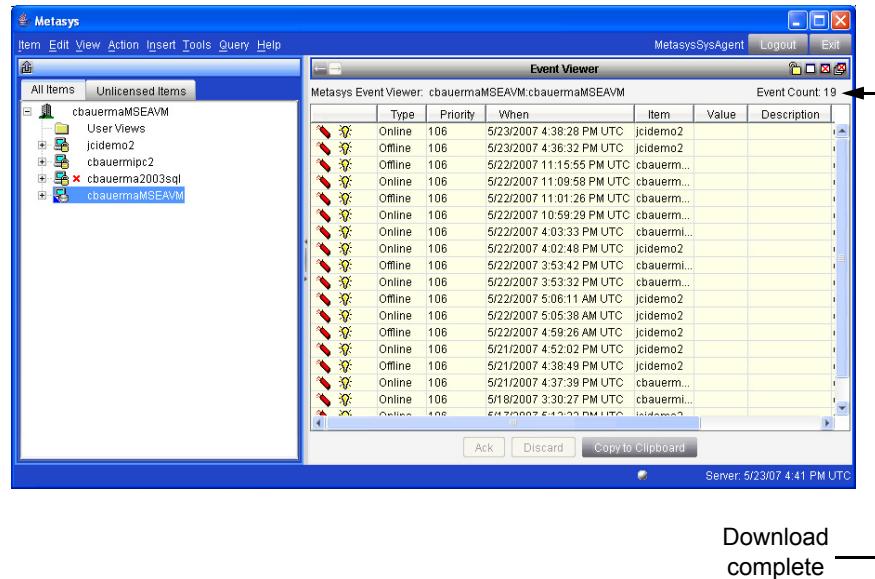
➤ **To view forwarded messages from P2000 in the Metasys ADS Repository:**

1. In the Metasys system extended architecture Web Interface, right-click on the icon representing the Metasys ADS and select **Event Viewer**.



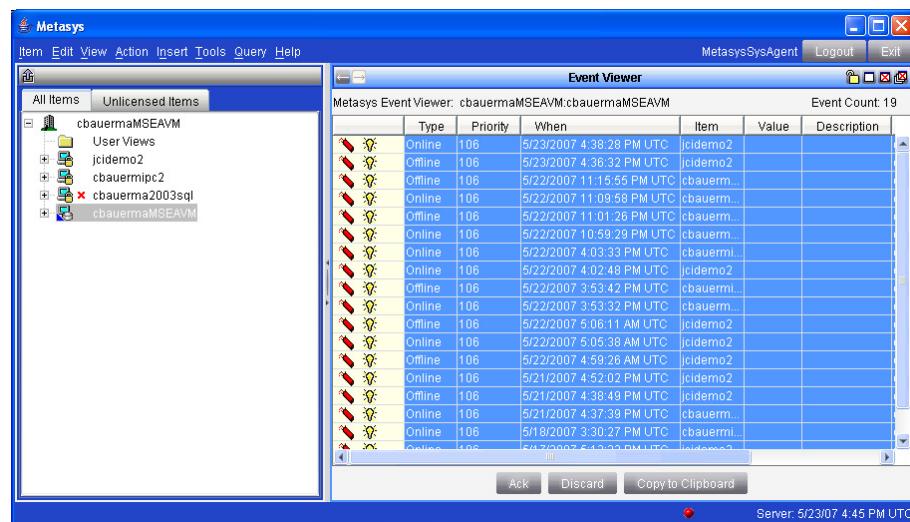
2. Wait while the messages are being downloaded. This is indicated by the **Unshown Events** number.

- When the download is complete, the **Event Count** appears.



➤ To discard forwarded messages:

- In the Metasys system extended architecture Web Interface Event Viewer, select items to be discarded.



- Click the **Discard** button.
- Click **Yes** to the warning message.



4. Verify that the selected messages are now discarded.

