



NAE网络引擎的应用与调试

CoEE PRC

MSEA 培训内容

- MSEA 简述
 - NAE
 - 配置NAE
 - ADS & SCT 软件安装
 - SCT
 - NAE download/upload & Database backup
 - 配置ADS
 - NAE Graphic & GSL & AGA
-

名词解释

- MSEA
 - Metasys System Extended Architecture
 - ADS
 - Application and Data Servers
 - ADX
 - Extended Application and Data Servers
 - NAE
 - Network Automation Engine
 - NIE
 - Network Integration Engine
 - SCT
 - System Configuration Tool
-

MSEA 简述

□ MSEA

- MSEA是基于Web浏览器(Microsoft® Internet Explorer Version 6.0)为用户操作界面的Metasys系统。所有配置、调试、监视和控制的**操作**都可以通过Web浏览的用户操作界面来实现。
 - 每一个项目都包含一个或者多个Site站点。每一个Site都包含一个或多个Metasys设备(NAE、NIE等)。
 - 网络控制引擎NAE是内嵌基于Web的用户操作界面的网络控制器。(NAE55,NAE45,NAE35)
 - 网络综合引擎NIE可以通过以太网通讯来控制N1网络上存在的HVAC设备,如NCU设备。NIE85能集成大型的N1网络。但是NIE作为特殊设备不能连接N2open、LonWorks、BACnet设备。
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MSEA 简述

- MSEA提供了在线Online和离线Offline的系统配置方法。并且易于操作。SCT即作为离线的配置工具。
 - 数据管理服务器ADS/ADX安装于单独ADS的服务器，可以将多个Site集合起来，实现多NAE/NIE的统一。
 - ADS可实现对大量数据的处理。实现长期大量数据存储，如趋势图表数据、报警事件数据、操作记录数据、系统配置数据及大量的图形数据。作为Site Director提供了更加安全的网络通讯。
 - ADS提供了更灵活的系统导航，用户图形，提供了更加全面的报警信息管理，趋势分析及性能报告管理的功能。多用户可以同时以不同的权限来登陆ADS服务器对不同的系统进行管理。
 - ADS还可以实现对报警信息的实时打印输出。
 - ADS包含Email、短信息及传真的多媒体功能。
-

MSEA 简述

- ADX可以安装在两台电脑中。其中一台被称作 Web/Application server(User Interface), 另一台称作 Database server(Trend,Alarm/SQL2000 SW)。

Product	Application and Data Server (ADS)
Product Options	MS-ADS05U-0 (ADS software for up to 5 concurrent users. New Project software)
Recommended Computer Platform¹	2.8 GHz Pentium® 4 processor with 80 GB hard disk (2.0 GHz Pentium 4 processor with 40 GB hard disk minimum) 20 GB recommended free hard disk space available (600 MB minimum) CD-ROM drive
Memory¹	1 GB RAM recommended (512 MB RAM minimum)
Operating System	Microsoft Windows 2000 Professional with SP4 Web Server Software: Microsoft Internet Information Server (IIS) Version 5.0 or later Microsoft Windows XP Professional with SP1 or SP2 ² Web Server Software: Microsoft Internet Information Server (IIS) Version 5.1 or later
Web Browser	Microsoft Internet Explorer Version 6.0 or later. Java® Plug-in 1.3.1_15
Communication	Ethernet network interface card 10/100 Mbps (100 Mbps recommended)
Included Software	The ADS product includes the following software: <ul style="list-style-type: none"> • Metasys System Configuration Tool (SCT) software • Export Utility software • Microsoft SQL Server 2000 Desktop Engine (MSDE 2000) software • Microsoft .Net Framework Version 1.1 with SP1
Optional Hardware	Any network or local printer supported by the qualified Windows operating system

MSEA 简述

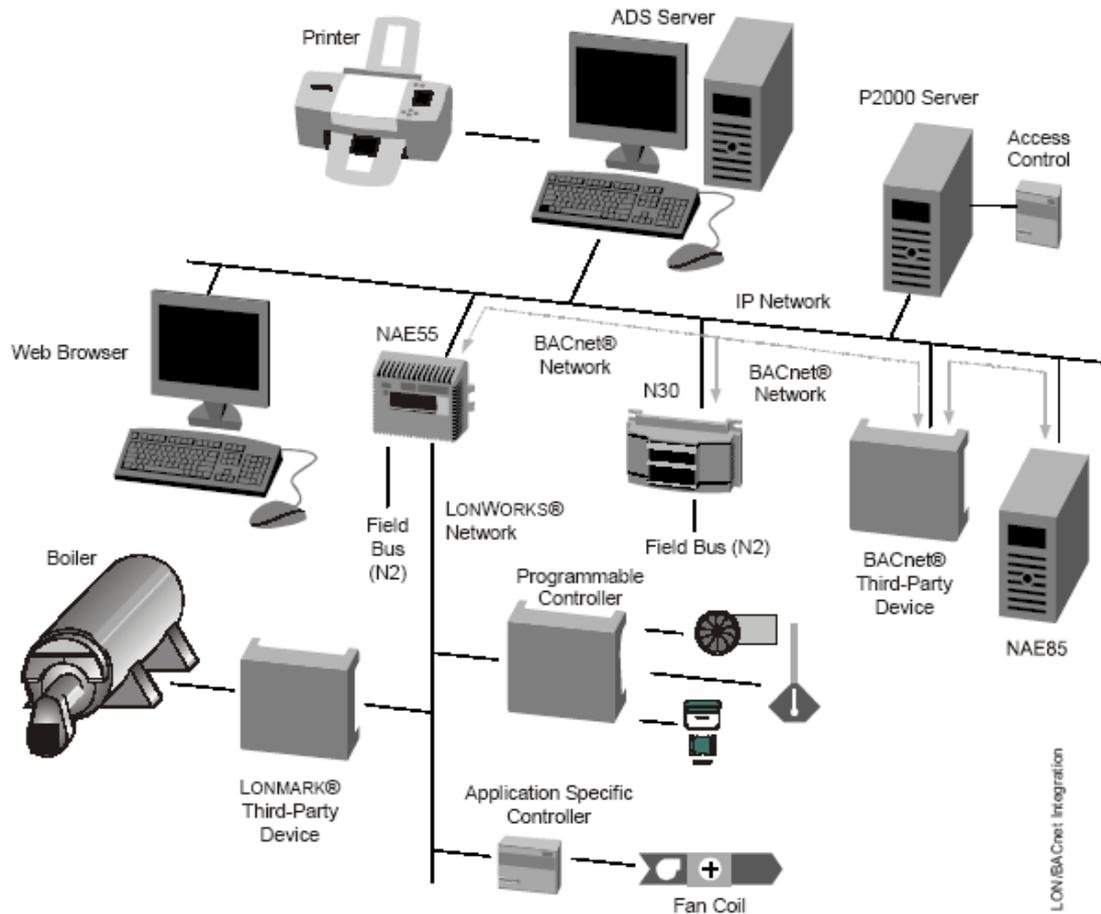


Figure 9: Metasys System BACnet and LONWORKS Integration

MSEA 简述

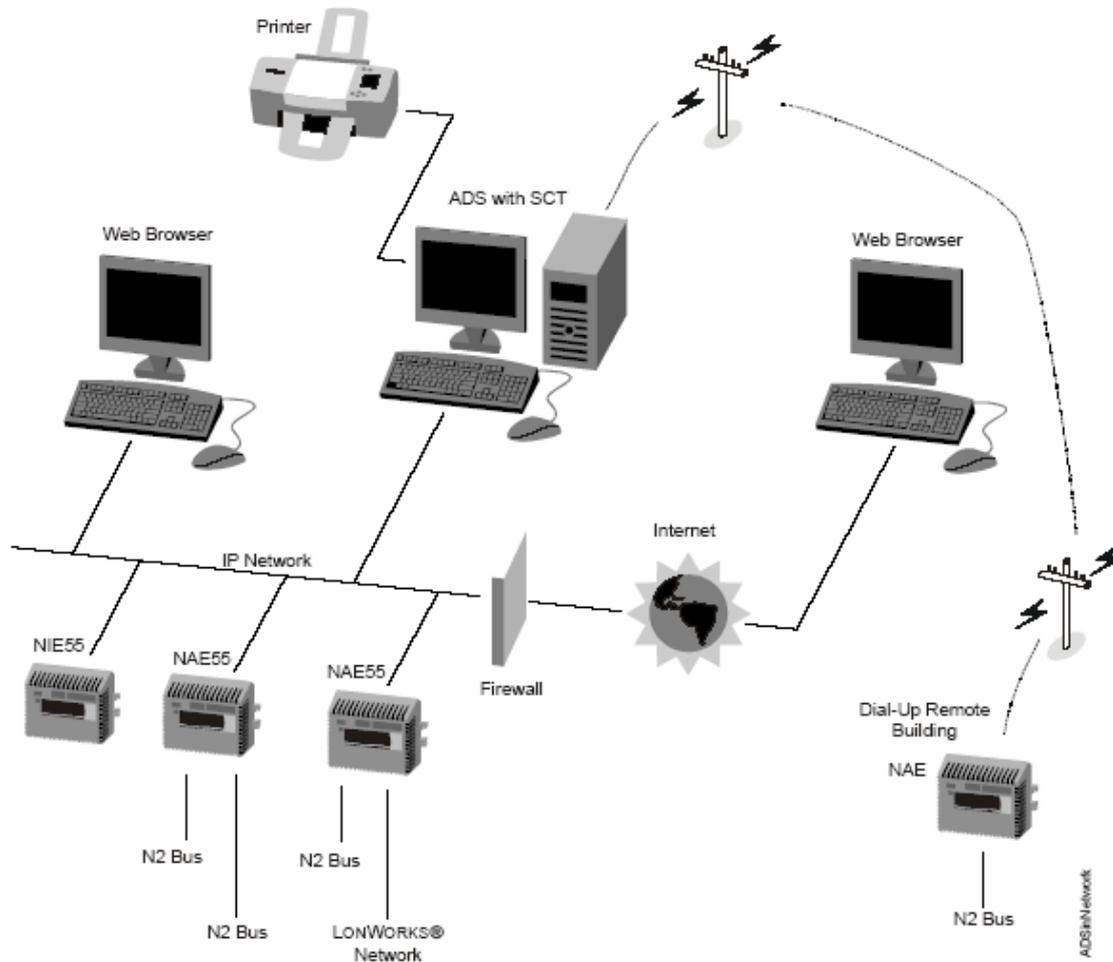


Figure 2: Metasys Network with an ADS

MSEA 简述

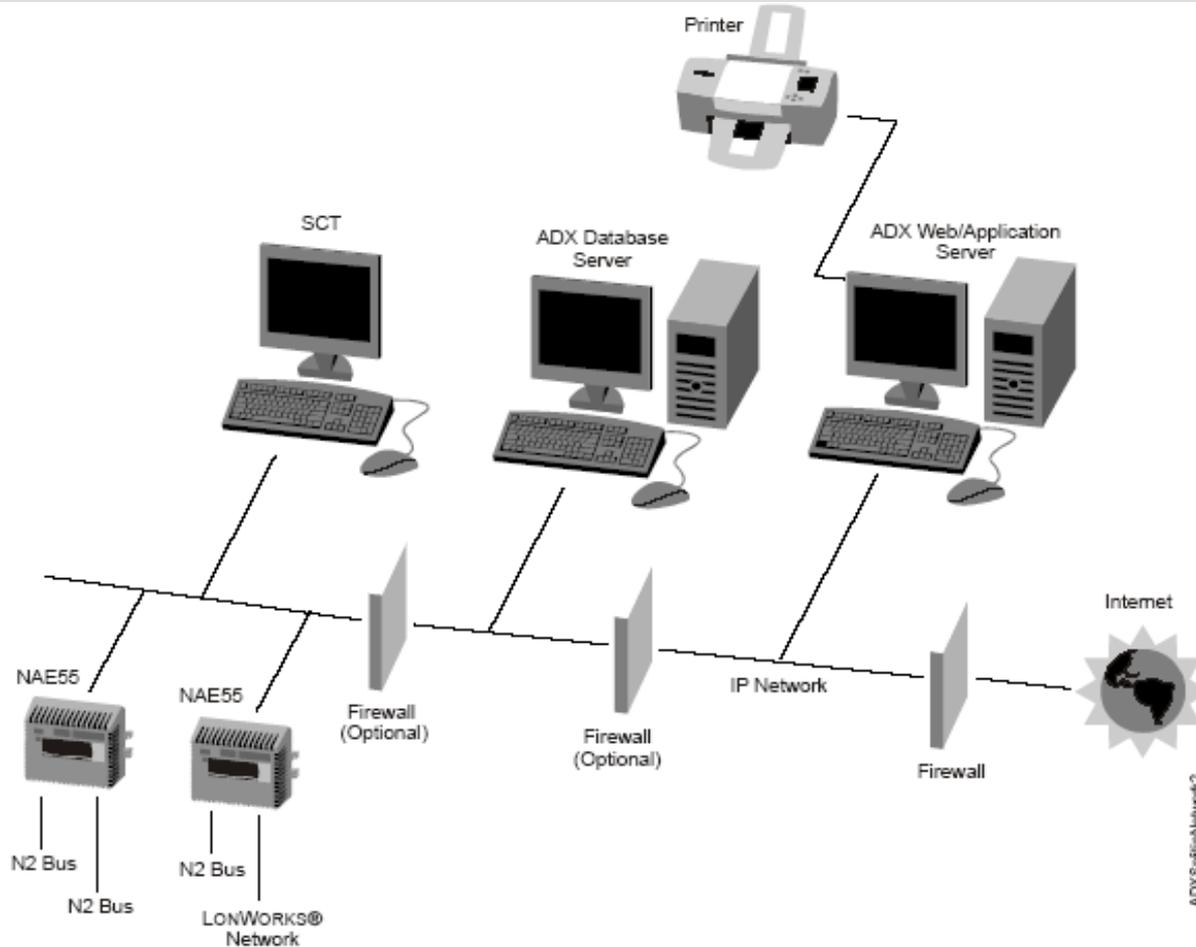


Figure 3: Metasys Network with an ADX in Split Configuration

NAE

- NCE25xx
- NAE35xx
- NAE45xx
- NAE55xx
- NAE85xx



Figure 2: NAE55xx



Figure 1: NAE45xx and NAE35xx

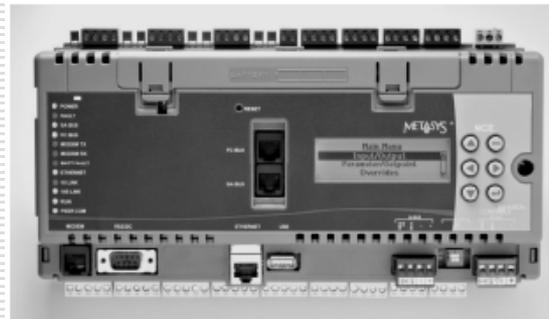


Figure 1: NCE25



Figure 3: NAE85 (Rack Mount)

NAE

Table 2: Comparison of Features for NAE Models (Part 1 of 2)

Feature	NAE85	NAE55	NAE45	NAE35
Number of N2 Trunks (Defined in UI)	None	2	1	1
Number of N2 Devices per Trunk	None	100	100	50
Number of Objects	25,000 ¹	5,000	2,500	2,500
Model with Internal Modem	No	Available	Available	Available
RS-232-C Serial Ports	None	2	1 or 2	1 or 2
USB Serial Ports	2 or 3	2	1	1
RS-485 Ports - N2 or Field Controller (FC)	None	2	1	1
Ethernet Port	2	1	1	1

Table 2: Comparison of Features for NAE Models (Part 2 of 2)

Feature	NAE85	NAE55	NAE45	NAE35
LONWORKS Network Support (Number of Devices)	No	Available (255)	Available (127)	Available (64)
Smoke Control Applications	No	Available	No	No
N2 Tunneling Over Ethernet Applications	No	Available	No	No

1. Standard is 10,000 objects; 15,000 object upgrade available

NCE25xx

- NCE25可接33个板载I/O点
 - 10 Universal Inputs
 - 8 Binary Inputs,
 - 4 Analog Outputs,
 - 7 Binary Outputs,
 - 4 Configurable Outputs
-

NCE25xx

Table 2: NCE Model Ordering Information

Product Code Number	Description
MS-NCE25xx-xxx (Base features on each NCE25)	Each NCE25 Series model requires a 24 VAC power supply and includes one RS-232-C serial port, one USB serial port, one Ethernet port, and an MS-BAT1020-0 Data Protection Battery. Each NCE25 Series model supports 33 hardwire Input/Output points.
MS-NCE2510-0	Supports one N2 Bus trunk with up to 32 N2 devices.
MS-NCE2511-0	Supports one N2 Bus trunk with up to 32 N2 devices. Includes an internal modem.
MS-NCE2516-0	Supports one N2 Bus trunk with up to 32 N2 devices. Includes an integral display.
MS-NCE2517-0	Supports one N2 Bus trunk with up to 32 N2 devices. Includes an integral display and internal modem.
MS-NCE2520-0	Supports one LonWorks network trunk with up to 32 LonWorks devices.
MS-NCE2521-0	Supports one LonWorks network trunk with up to 32 LonWorks devices. Includes an internal modem.
MS-NCE2526-0	Supports one LonWorks network trunk with up to 32 LonWorks devices. Includes an integral display.
MS-NCE2527-0	Supports one LonWorks network trunk with up to 32 LonWorks devices. Includes an integral display and an internal modem.
MS-NCE2560-0	Supports one FC Bus trunk with up to 32 MS/TP devices.
MS-NCE2561-0	Supports one FC Bus trunk with up to 32 MS/TP devices. Includes an internal modem.
MS-NCE2566-0	Supports one FC Bus trunk with up to 32 MS/TP devices. Includes an integral display.
MS-NCE2567-0	Supports one FC Bus trunk with up to 32 MS/TP devices. Includes an integral display and an internal modem.

NAE35xx

Product Code Number ¹	Description
MS-NAE35xx-xxx (Base features of each NAE35)	NAE35 Network Automation Engines: Requires a 24 VAC power supply. Each model includes one RS-232-C serial port, one USB serial port, one Ethernet port, and an MS-BAT1020-0 Data Protection Battery.
MS-NAE3510-1	Supports one N2 trunk (RS-485 port), includes an additional RS-232-C serial port for optional external modem. Up to 50 devices are supported on the N2 trunk.
MS-NAE3511-1	Supports one N2 trunk (RS-485 port), includes an internal modem. Up to 50 devices are supported on the N2 trunk.
MS-NAE3514-1	Supports one N2 trunk (RS-485 port), features Basic Access support, and includes an additional RS-232-C serial port for optional external modem. Up to 50 devices are supported on the N2 trunk.
MS-NAE3515-1	Supports one N2 trunk (RS-485 port), features Basic Access support, and includes an internal modem. Up to 50 devices are supported on the N2 trunk.
MS-NAE3520-1	Includes a LONWORKS port and supports one LONWORKS trunk, includes an additional RS-232-C serial port for optional external modem. Up to 64 devices are supported on the LONWORKS port.
MS-NAE3521-1	Includes a LONWORKS port and supports one LONWORKS trunk, includes an internal modem. Up to 64 devices are supported on the LONWORKS port.
MS-NAE3524-1	Includes a LONWORKS port and supports one LONWORKS trunk, features Basic Access support, and includes an additional RS-232-C serial port for optional external modem. Up to 64 devices are supported on the LONWORKS port.
MS-NAE3525-1	Includes a LONWORKS port and supports one LONWORKS trunk, features Basic Access support, and includes an internal modem. Up to 64 devices are supported on the LONWORKS port.

NAE45xx

Product Code Number ¹	Description
MS-NAE45xx-1xx (Base features of each NAE45)	NAE45 Network Automation Engines: Requires a 24 VAC power supply. Each model includes one RS-232-C serial port, one USB serial port, one Ethernet port, and an MS-BAT1020-0 Data Protection Battery.
MS-NAE4510-1	Supports one N2 trunk (RS-485 port), includes an additional RS-232-C serial port for optional external modem. Up to 100 devices are supported on the N2 trunk.
MS-NAE4511-1	Supports one N2 trunk (RS-485 port), includes an internal modem. Up to 100 devices are supported on the N2 trunk.
MS-NAE4520-1	Includes a LONWORKS port and supports one LONWORKS trunk, includes an additional RS-232-C serial port for optional external modem. Up to 127 devices are supported on the LONWORKS port.
MS-NAE4521-1	Includes a LONWORKS port and supports one LONWORKS trunk, includes an internal modem. Up to 127 devices are supported on the LONWORKS port.

NAE55xx

Product Code Number ¹	Description
MS-NAE55xx-xxx (Base features of each NAE55)	NAE55 Network Automation Engines: Requires a 24 VAC power supply. Each model includes two RS-232-C serial ports, two USB serial ports, two RS-485 ports, one Ethernet port, and one MS-BAT1010-0 Data Protection Battery. Up to 100 devices are supported on each N2 trunk.
MS-NAE5510-0	Supports two N2 trunks simultaneously.
MS-NAE5510-0U	Supports two N2 trunks simultaneously. Note: This is the only NAE model UL 864 Listed for smoke control applications.
MS-NAE5511-0	Supports two N2 trunks simultaneously, includes an internal modem.
MS-NAE5512-0	Supports two N2 trunks simultaneously and the N2 Tunneling feature.
MS-NAE5513-0	Supports two N2 trunks simultaneously and the N2 Tunneling feature, includes an internal modem.
MS-NAE5520-0	Includes a LONWORKS port and supports two N2 trunks and a LONWORKS trunk simultaneously. Up to 255 devices are supported on the LONWORKS port.
MS-NAE5521-0	Includes a LONWORKS port and supports two N2 trunks and a LONWORKS trunk simultaneously; also includes an internal modem. Up to 255 devices are supported on the LONWORKS port.
MS-NAETUNL-8	NAE55 software image for converting an NAE55 to an NAE5512-0 or NAE5513-0 model

NAE85xx

- NAE85不支持：
 - • N2 networks
 - • LONWORKS networks
 - • dial-out to an ADS/ADX
 - • device Reset command in the Metasys system UI
 - • upgrade using the NAE/NIE Update Tool

Product Code Number ¹	Description
MS-NAE85xx-xxx (Base features of each NAE85)	NAE85 Network Automation Engine: Supports up to 25,000 objects ²
MS-NAE8500-0	NAE85 model with 1U chassis
MS-NAE8500-1	NAE85 model with tower chassis

多NAE系统

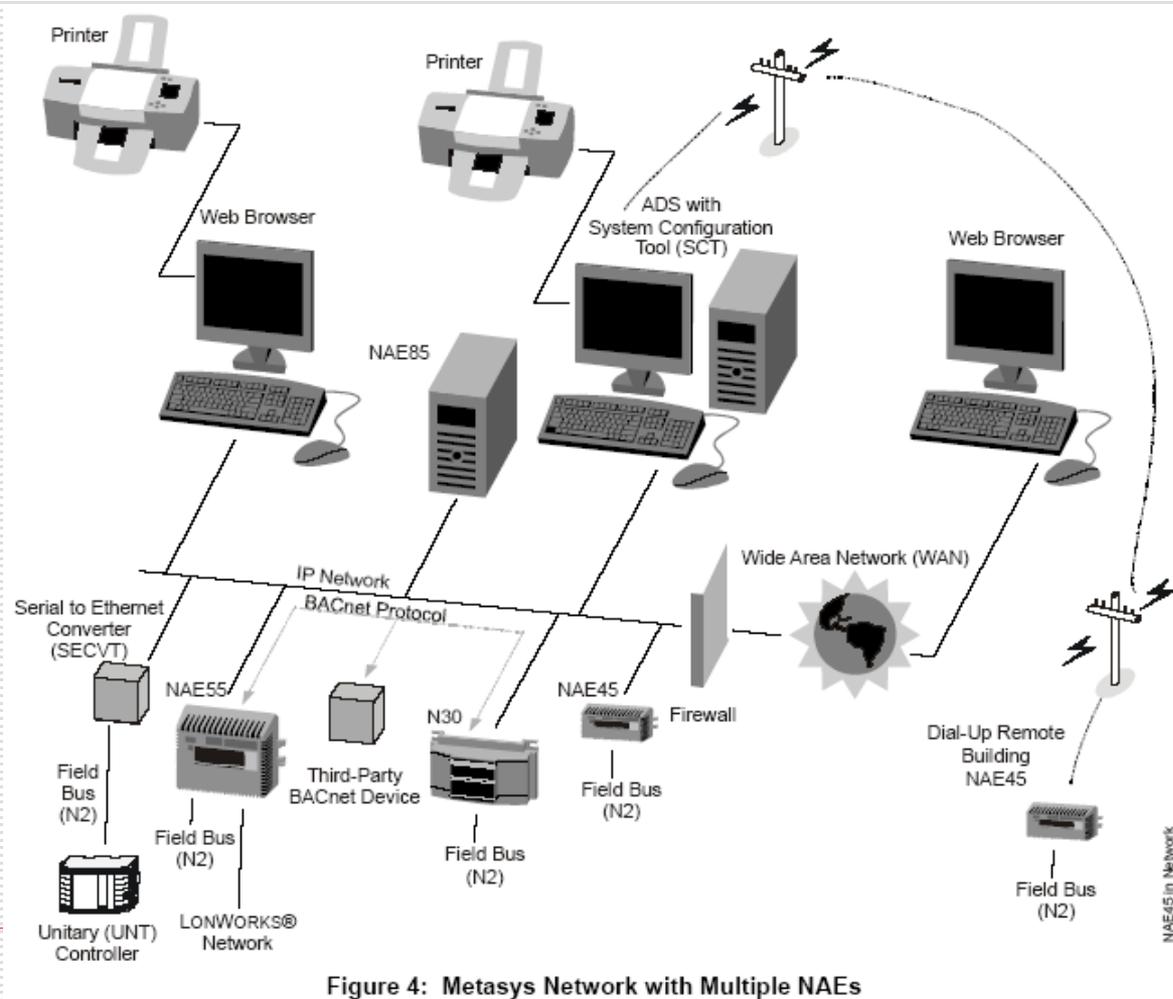
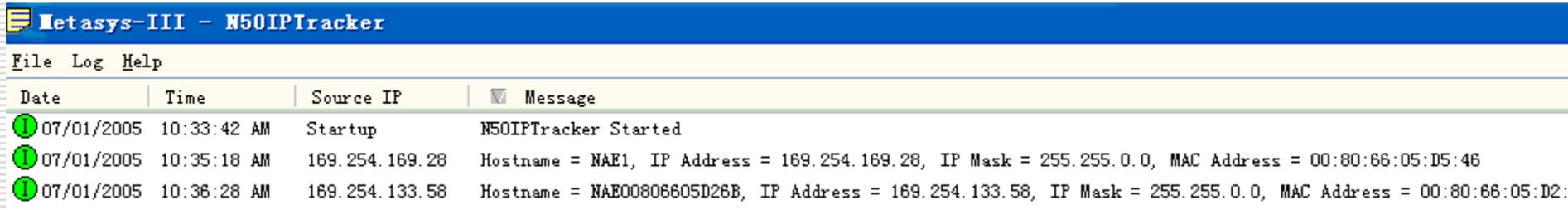


Figure 4: Metasys Network with Multiple NAEs

配置NAE55步骤

- 首先确定NAE的IP地址
- NAE IP Tracker
- 获取NAE IP地址的方法
 - 确保NAE与PC在同一局域网（可以是不同网段）
 - 运行软件NAE IP Tracker
 - 将NAE电源断开（包括电池电源也要断开）
 - 将NAE接通电源，NAE重启
 - NAE重启完毕后，IP Tracker中返回NAE的地址及其他信息。



Metasys-III - N50IPTracker

File Log Help

Date	Time	Source IP	Message
07/01/2005	10:33:42 AM	Startup	N50IPTracker Started
07/01/2005	10:35:18 AM	169.254.169.28	Hostname = NAE1, IP Address = 169.254.169.28, IP Mask = 255.255.0.0, MAC Address = 00:80:66:05:D5:46
07/01/2005	10:36:28 AM	169.254.133.58	Hostname = NAE00806605D26B, IP Address = 169.254.133.58, IP Mask = 255.255.0.0, MAC Address = 00:80:66:05:D2:...

配置NAE55步骤

- 安装Java插件(Java Plug-in 1.5.0_04)
 - Mac Address & Neuron ID
 - 通过NAE的IP登录
 - 启动Microsoft IE浏览器
 - 输入系统网页的网络地址，然后按Enter键
地址的格式是：<http://x.x.x.x/metasyssysagent>
 - 用户名：metasyssysagent
 - 密码：XMG3-Rel.1
-

配置NAE55步骤

- 查看NAE版本
 - 更改Site时区
 - 更新时间、日期
 - 更改NAE的名称
 - 更改NAE的IP地址
 - 自动退出NAE UI，NAE自动重启
 - NAE重启完毕，以新的NAE名称或IP登录NAE
-

ADS&SCT 软件安装

□ 硬件环境

Technical Specifications

System Configuration Tool	
Product Code	MS-SCTSWO-0
Recommended Computer Platform ¹	2.8 GHz Pentium® 4 processor with 80 GB hard disk (2.0 GHz Pentium 4 processor with 40 GB hard disk minimum) 20 GB recommended free hard disk space available (600 MB minimum) CD-ROM drive
Memory	1 GB RAM recommended (512 MB RAM minimum)
Operating System (OS)	Microsoft® Windows® 2000 Professional with Service Pack (SP) 4 Microsoft Windows 2000 Server or Windows 2000 Advanced Server with SP4 Microsoft Windows Server 2003 (Standard or Enterprise) with SP1 ^{2, 3} Web Server Software: Microsoft Internet Information Server (IIS) Version 5.0 or later ⁴ Microsoft Windows XP Professional with SP1 ⁵ or SP2 Web Server Software: Microsoft Internet Information Server (IIS) Version 5.1 or later
Web Browser	Microsoft Internet Explorer Version 6.0 or later Java® Plug-in 1.5.0_04
Communication	Ethernet network interface card 10/100 Mbps (100 Mbps network recommended)
Optional Software Packaging	Metasys System Configuration Tool (SCT) software is included with the ADS/ADX product.

1. Our suggested minimum hardware configurations are only suggestions and are not meant to imply that older or slower machines are not usable. For more information about hardware configurations and their implications, refer to the Hardware Requirement section of the *Network and Information Technology Considerations Technical Bulletin (LIT-1201578)*.
2. Windows Server 2003 OS R2 has been released; however, at this time we support only Windows Server 2003 OS with SP1. If you are currently running Windows Server 2003 OS with SP1, you do not need to upgrade at this time. If you have not yet purchased Windows Server 2003 OS, you may purchase Windows Server 2003 OS R2 through your regular channels. The Windows Server 2003 R2 installation includes Windows Server 2003 OS SP1 and optional components. Install only Windows Server 2003 OS SP1. Do not install any of the optional R2 components.
3. Refer to the *Network and Information Technology Considerations (IT) Technical Bulletin (LIT-1201578)* for special settings required to make this operating system work with an Extended Application and Data Server (ADX).
4. For the split ADX configuration, install the ADX software and Internet Information Server (IIS) on the Web/Application server computer only.
5. If your Windows XP Professional computer includes SP2, refer to the *Network and Information Technology (IT) Considerations Technical Bulletin (LIT-1201578)* for special settings required to make this operating system work with an SCT.

ADS&SCT 软件安装

□ 软件需求

OS and Required Components	Location
Windows 2000 Professional OS (ADS, SCT)	
Internet Explorer Version 6.0 or later	http://www.microsoft.com/windows/ie/downloads/default.mspx ²
IIS Version 5.0	Windows OS Control Panel > Add/Remove Programs, requires Windows 2000 Professional OS files
SP4	http://www.microsoft.com/windows2000/downloads/servicepacks/sp4/default.asp ²
.NET Framework Version 1.1 with SP1	ADS-ADX-SCT CD > OEM > Microsoft > dotNet framework > dotnet_v1.1
MSDE 2000 with SP4	ADS-ADX-SCT CD > OEM > Microsoft > MSDE2000_SP4
Java JRE 1.5.0_04	ADS-ADX-SCT CD > OEM > Sun > jre1.5.0_04 or http://cgproducts.johnsoncontrols.com/fire/fire-1_5_0_04-windows-i586-p.exe
Windows XP Professional (ADS, SCT)	
Internet Explorer Version 6.0 or later	http://www.microsoft.com/windows/ie/downloads/default.mspx ²
IIS Version 5.1	Windows OS Control Panel > Add/Remove Programs, Windows Components, requires Windows XP Professional OS files
SP1 or SP2 ⁶	SP1: http://www.microsoft.com/windowsxp/downloads/updates/sp1/default.mspx ² SP2: http://www.microsoft.com/windowsxp/sp2/default.mspx ²
.NET Framework Version 1.1 with SP1	ADS-ADX-SCT CD > OEM > Microsoft > dotNet framework > dotnet_v1.1
MSDE 2000 with SP4	ADS-ADX-SCT CD > OEM > Microsoft > MSDE2000_SP
Java JRE 1.5.0_04	ADS-ADX-SCT CD > OEM > Sun > jre1.5.0_04 or http://cgproducts.johnsoncontrols.com/fire/jre-1_5_0_04-windows-i586-p.exe

ADS&SCT 软件安装

□ 系统要求

■ Internet 信息服务(IIS) (version 5.1)

版本: C:\WINDOWS\SYSTEM32\INETSrv\ inetinfo.exe 右键/属性

安装: 控制面板\添加删除程序\Windows组件

■ 文件夹选项中要求显示所有隐藏文件及文件夹

■ 本地连接中要求网络的文件和打印机共享

□ 安装OEM软件

■ dotNet framework

■ MSDE2000_SP3(在运行中安装并添加后缀字符串)

查看版本: 控制面板/添加删除程序 (8.00.2039.0以上)

安装: 开始\运行\浏览\打开

C:\MSDE2000_SP4\setup.exe + 空格 + SAPWD=MetasysPW

DISABLENETWORKPROTOCOLS=0 SECURITYMODE=SQL

■ 安装Java插件(Jre1.5.0_04)

□ 安装SCT 2.1

□ 安装ADS 2.1

SCT的登录和注销

□ 登录

- 通过桌面上的快捷方式进入Metasys SCT
- 或打开IE浏览器，在地址栏输入：<http://SiteDirector设备名或IP地址/metasys>。
- Username: 输入用户名及Password: 输入密码
- 点击Login，您即可访问Metasys用户界面。用户名和密码决定了您要进入的系统和功能。

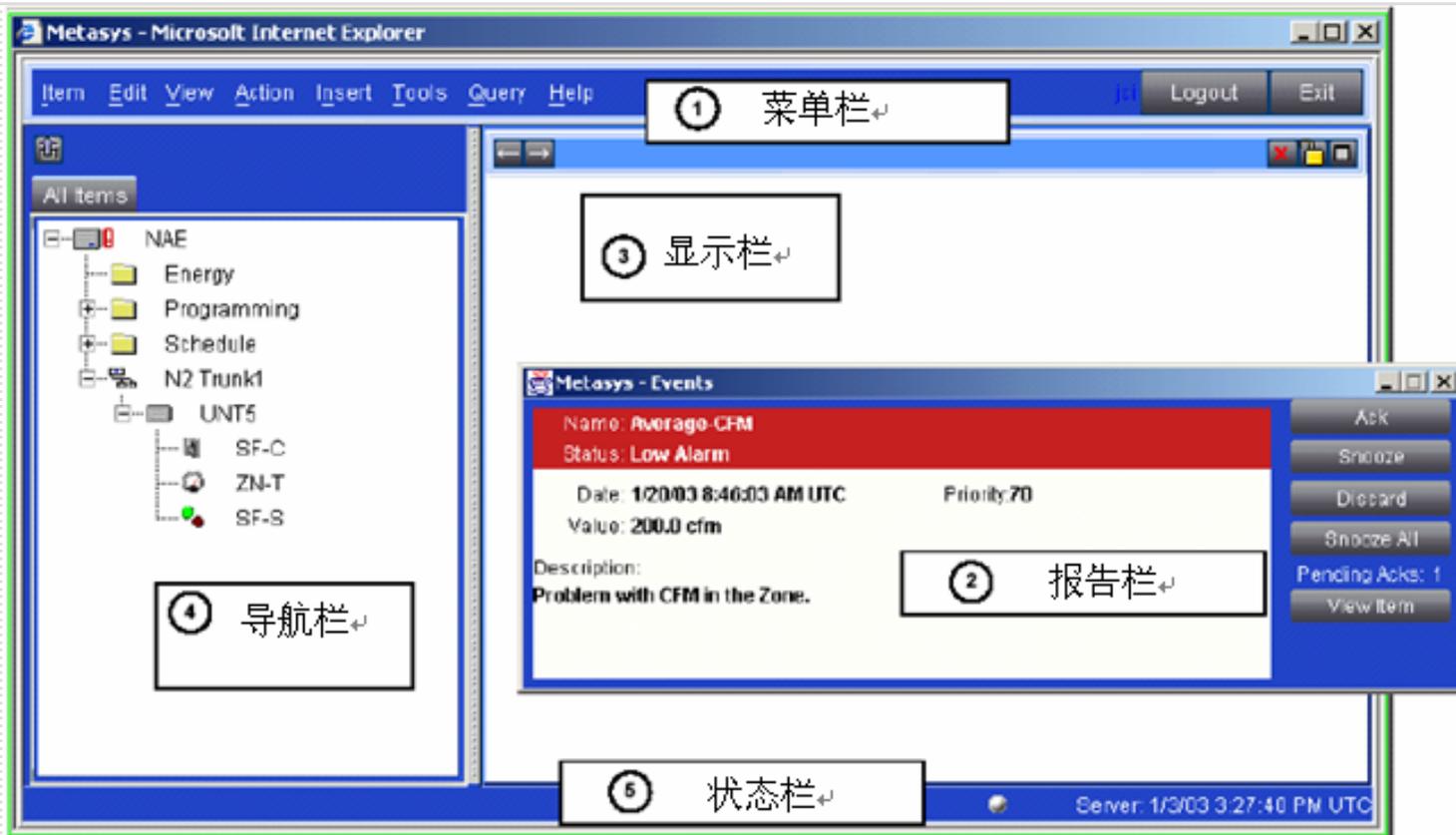
□ 注销

- 超时不活动注销特性将在预定义的不活动时间到后自动注销Metasys系统。此时，系统将关闭所有打开的数据库、丢弃未保存的修改和视图设置并注销当前用户。
- 如果系统配置了超时注销，系统将在停止活动一段时间后自动注销。

□ 退出

SCT的登录和注销

- 进入Metasys SCT



导航区

- 导航区可显示多个导航树，其中All Items导航树是在系统配置期间生成的，提供系统的网络布局信息。可添加更多的导航树以便查看系统的特殊部分。
- 点击  按钮可分解导航区
- 导航树中的项目有相对应的符号，状态符号用于指示每个项目的状态。

状态指示符	指示符说明	状态
	红色感叹号	报警：该项目或子项目进入报警状态。
	蓝色感叹号	警告：该项目或子项目进入警告状态。
	红色的X	离线：设备进入离线状态 注意：如果现场设备的Disable Automatic Alarming属性设为True，则现场设备即使在脱机状态下不显示红色的X。
	蓝色的X	通信错误：无法读取项目状态——检索项目当前状态时出错。
	绿色箭头	项目被最近一次下载到引擎后又被修改。
	红色感叹号+红色问号	不可靠的报警：该项目或子项目可能已进入报警状态——报警处在不可靠的状态中。
	蓝色三角形	本地Site Director：表示该设备是本地的Site Director

显示区

显示窗口中的按钮

Metasys

Item Edit View Action Insert Tools Query Help MetasysSysAgent Logout Exit

Site

Normal

Site View

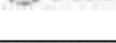
Edit

Basic Advanced

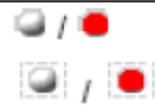
Attribute	Value
Object	
Name	Site
Description	
ObjectType	Site
Object Category	General
Site Director	NAE-01
Engineering Values	
Default ADS Repository	0.0.0.0
Default ADS Connection Type	LAN
Default ADS Priority Threshold	255
Default ADS Delivery Time	12:15 AM (HH:MM AM/PM)
Dynamic Broadcast Management	True
Max Missed Check-ins	2
Time	

Server: 08-2-28 上午3:32 CST

显示区

编号	按钮	说明
A		允许您编辑所示项目的属性。选择Save按钮可保存修改。
B		显示这个窗口中以前显示过的内容。每个窗口最多可显示5个历史项目。
C		显示已保存的下一个窗口中的内容。
D		锁定选中的显示窗口（防止被其他拖拽来的项目覆盖）。您可调整被锁定窗口的大小。这个按钮允许您在锁定与解锁之间切换。
E		最大化活动窗口的大小，在整个显示区中全屏显示它。点击下面的恢复按钮可恢复其他窗口的显示。
		将窗口恢复到最初大小和位置。
F		关闭显示窗口中当前显示的视图。
G		关闭显示窗口中的所有视图（包括历史视图）。
H		显示关于所示项目的常用信息。
I		显示系统提供的、与所示项目相关的全部信息。

状态区

图标/文本	说明
	当Metasys软件与ADS/ADX/引擎之间收发数据时，这个图标将会出现。
	当系统提供关于Metasys系统用户界面的诊断信息时，这个图标将会出现。点击这个图标，将会弹出用户界面诊断（User Interface Diagnostics）窗口。
	如果没有报警事件，图标将为白色。如果有报警事件，图标为红色并闪烁。点击图标，报警窗口弹出并在最前面显示。禁止弹出报警窗口，图标将被虚线框圈起。点击图标，弹出报警窗口选项将被重新启用，一有报警系统会自动弹出报警窗口。
Time Zone/Date/Time	用户界面的状态栏显示当前设备的日期、时间和时区。

SCT-创建数据库

- 创建新的存档数据库
 - 添加Site，并为Site命名
 - 设置时区
 - 添加控制器(NAE或NIE)
 - 为NAE命名
 - 设置NAE的IP地址
 - 简单数据库创建完毕
-

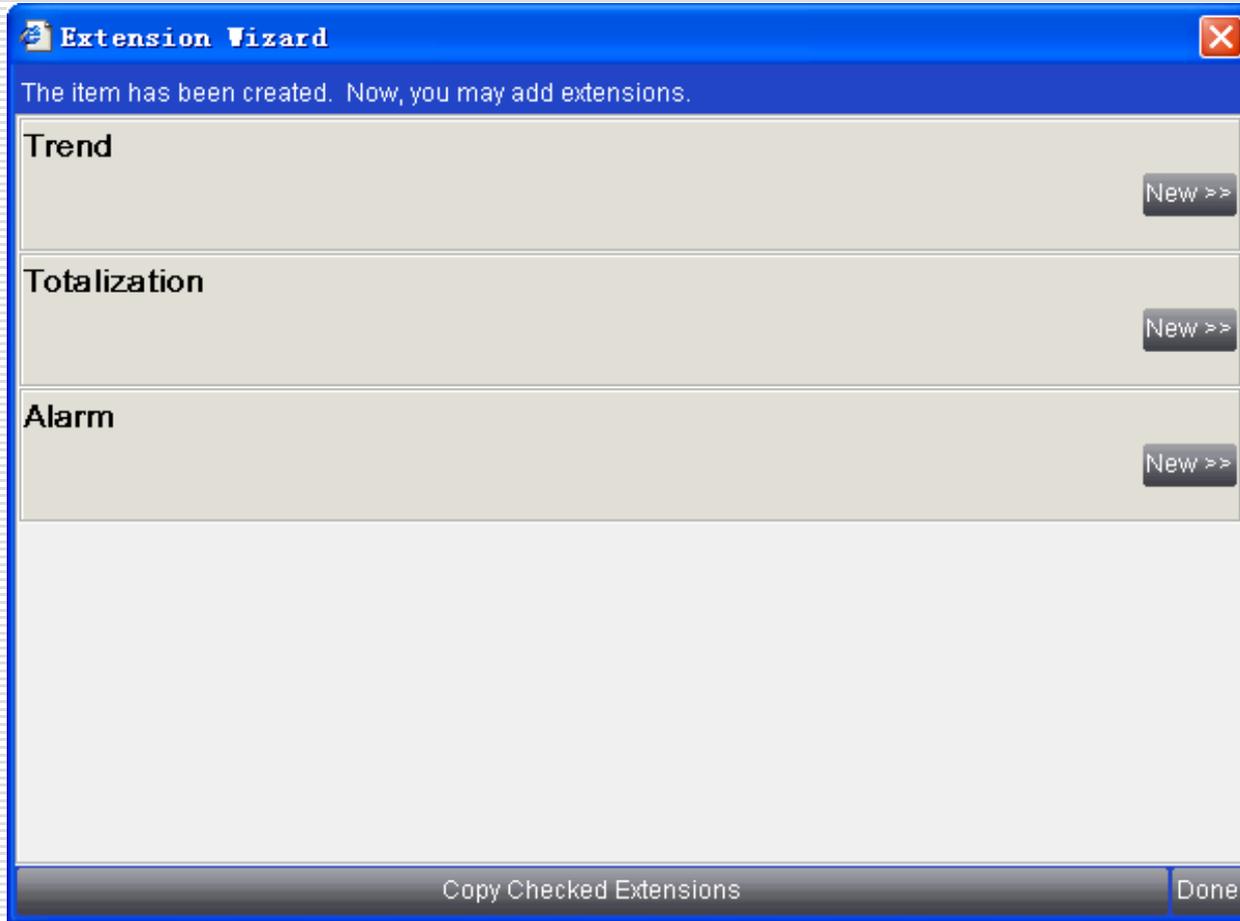
SCT-完善数据库

□ 完善数据库

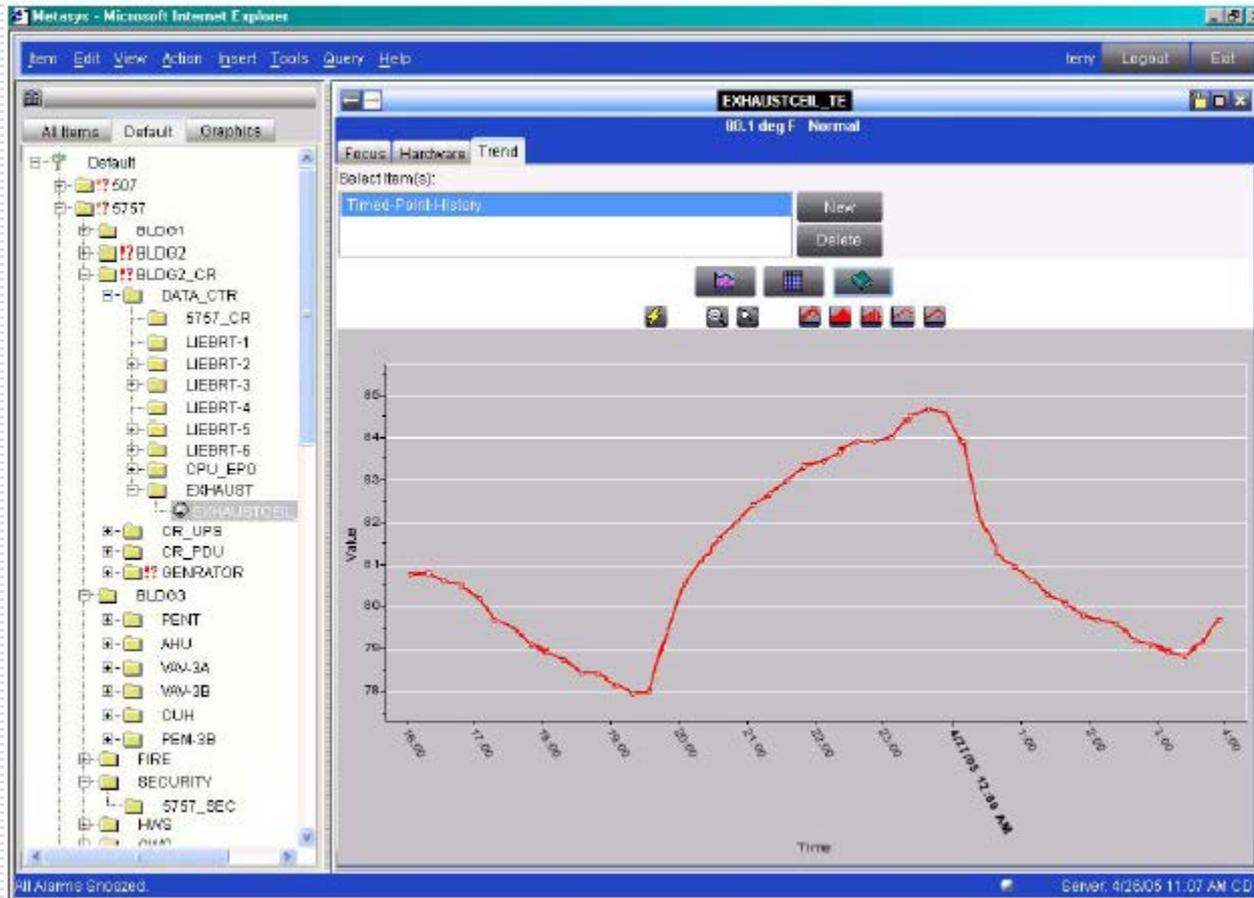
- 添加 N2 Trunk
 - 添加 FX设备(N2)
 - 添加 FX的I/O点

 - 添加 LON Trunk
 - 添加 FX设备(Lon)
 - 添加 FX的I/O点
 - Commission with MCL Tools
-

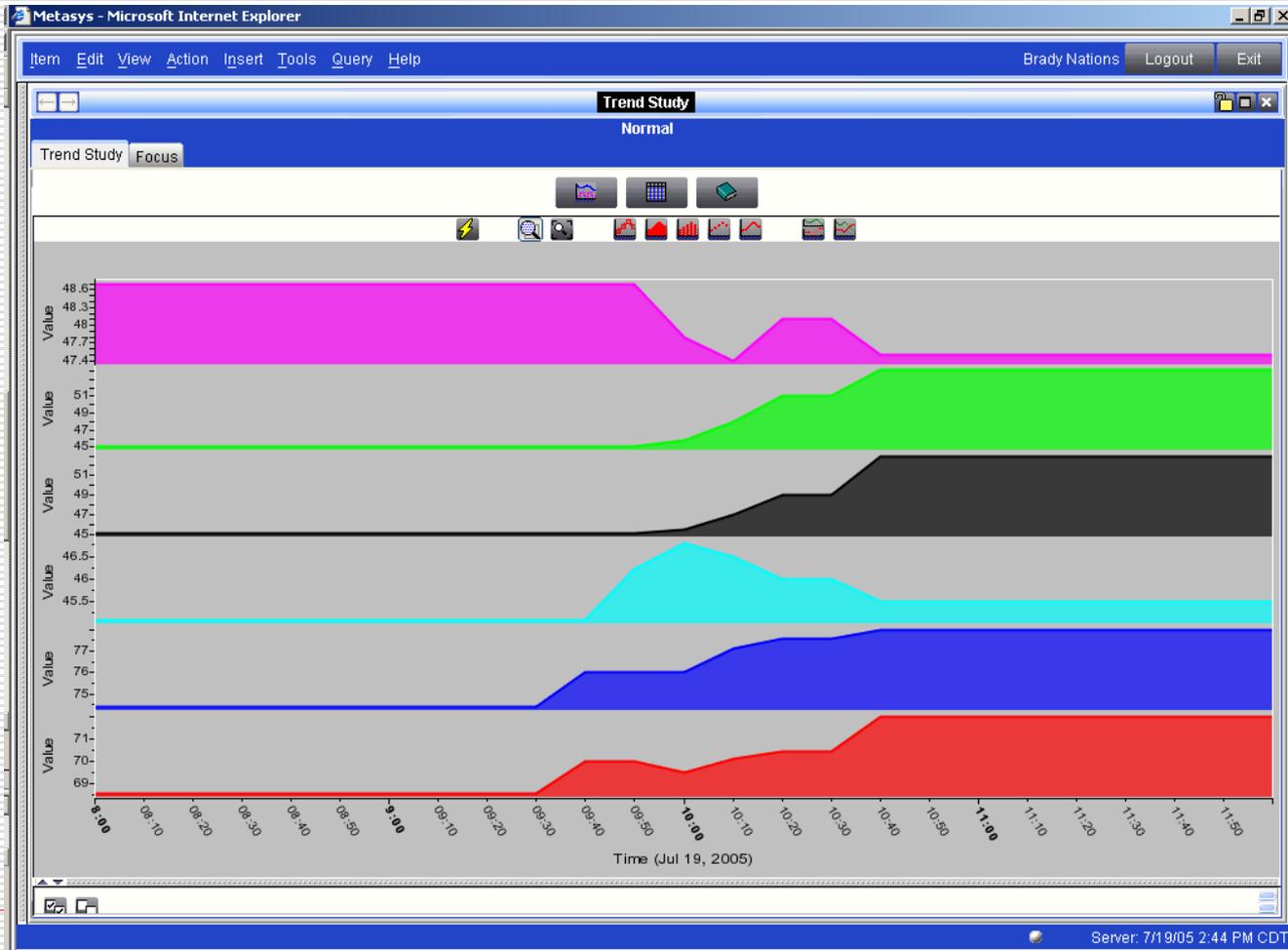
SCT-趋势图、统计、报警



SCT-Trend & Trend Study



Trend Study



SCT-Alarm

对象名称 ↵

报警状态 ↵

缺省的优先级 (值越小优先级越高) ↵

对象发生警报时的日期和价值 ↵

报警信息内容 ↵

按钮说明: ↵

Acknowledge the alarm (确认警报) ↵

Snooze the alarm (设定警报信息5分钟消失- 可以改变设定时间.) ↵

Discard the alarm (删除警报) ↵

Snooze All messages in the queue (将所有信息均设定为定时消除) ↵

Pending Acks: = 未处理的警报信息数量 ↵

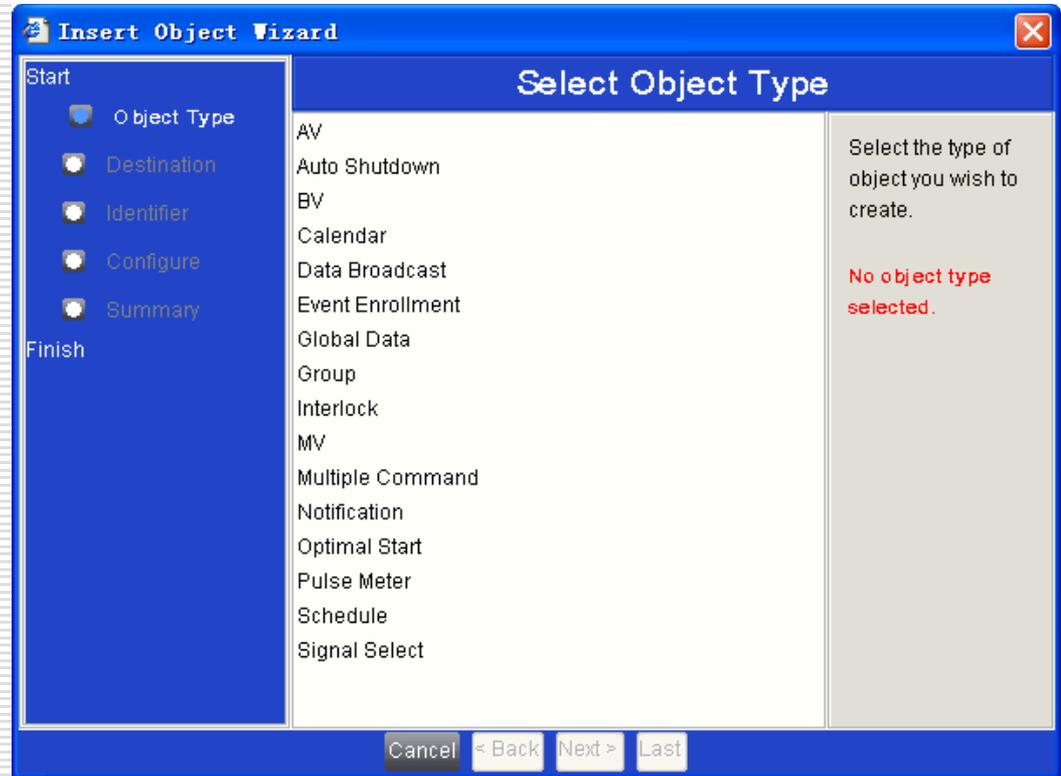
Item - 在显示栏中的分析对象。 ↵

SCT-点位优先级控制

Feature	(Priority Number)	
Manual Life Safety	1	Highest Priority level
Auto Life Safety	2	
Priority 3	3	
Priority 4	4	
Critical Equipment	5	
Minimum On Off	6	
Heavy Equip Delay	7	
Operator Override	8	
Priority 9	9	
Priority 10	10	
Demand Limiting	11	
Priority 12	12	
Load Rolling	13	
Priority 14	14	
Scheduling	15	
Default	16	Lowest Priority level

SCT-Object

- AV
- BV
- MV
- Interlock
- Schedule



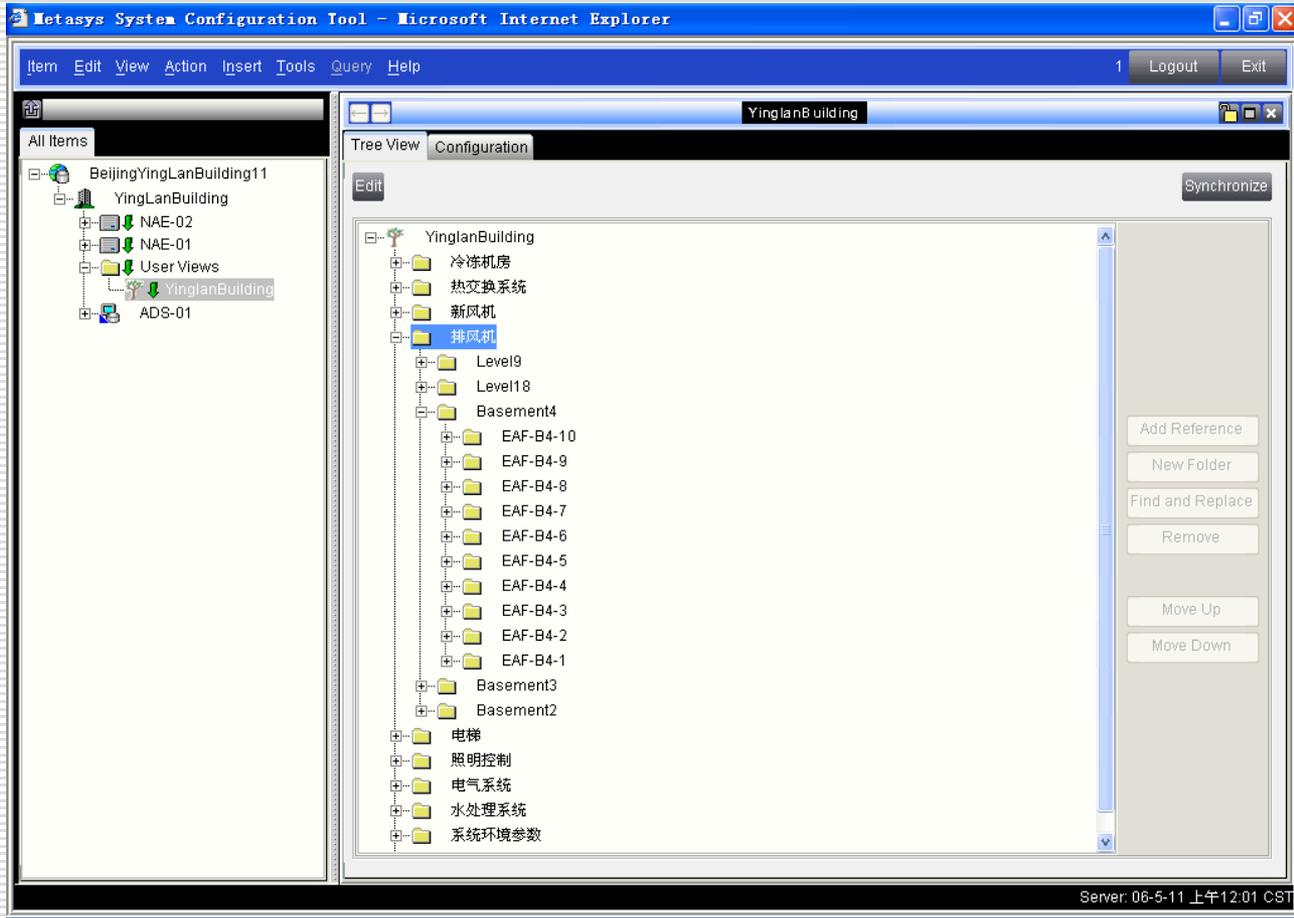
SCT-LCT编程(Control System)

The screenshot displays the Metasys System Configuration Tool interface. On the left, a tree view shows the project structure under 'BeijingYingLanBuilding11', including 'YingLanBuilding', 'NAE-01', 'N2 Trunk 1', 'N2 Trunk 2', 'Energy', 'Programming', 'ChillerProgram', 'PLC', 'D-Command', 'Pump-status', 'valve control', 'BPV-PID-C', 'CT-IOPN', 'CTandChiller', 'CHWCMD', 'New chiller SYS', 'SWTank', 'Schedule', 'User Views', and 'ADS-01'. The main window shows the 'Logic Configuration' for 'CTandChiller'. It features a toolbar with icons for Edit, Undo, Redo, Copy, Paste, and other functions, along with a zoom level of 210.94%. The logic diagram consists of four rows of blocks connected by lines:

- Row 1: 'C-CALL Present Value Input Ref REL' on the left, connected to 'C-CALL Present Value Output Ref' on the right. A label '@8' is placed between the connection lines.
- Row 2: 'RESET Present Value Input Ref REL' on the left, connected to 'RESET Present Value Output Ref' on the right. A label '@8' is placed between the connection lines.
- Row 3: 'STAGE Present Value Input Ref REL' on the left, connected to 'STAGE Present Value Output Ref' on the right. A label '@8' is placed between the connection lines.
- Row 4: 'WP-T2 Present Value Input Ref REL' on the left, connected to 'CCWR-T Present Value Output Ref' on the right. A label '@8' is placed between the connection lines.

The bottom status bar shows the server time: 'Server: 06-5-10 下午11:52 CST'.

SCT-User View



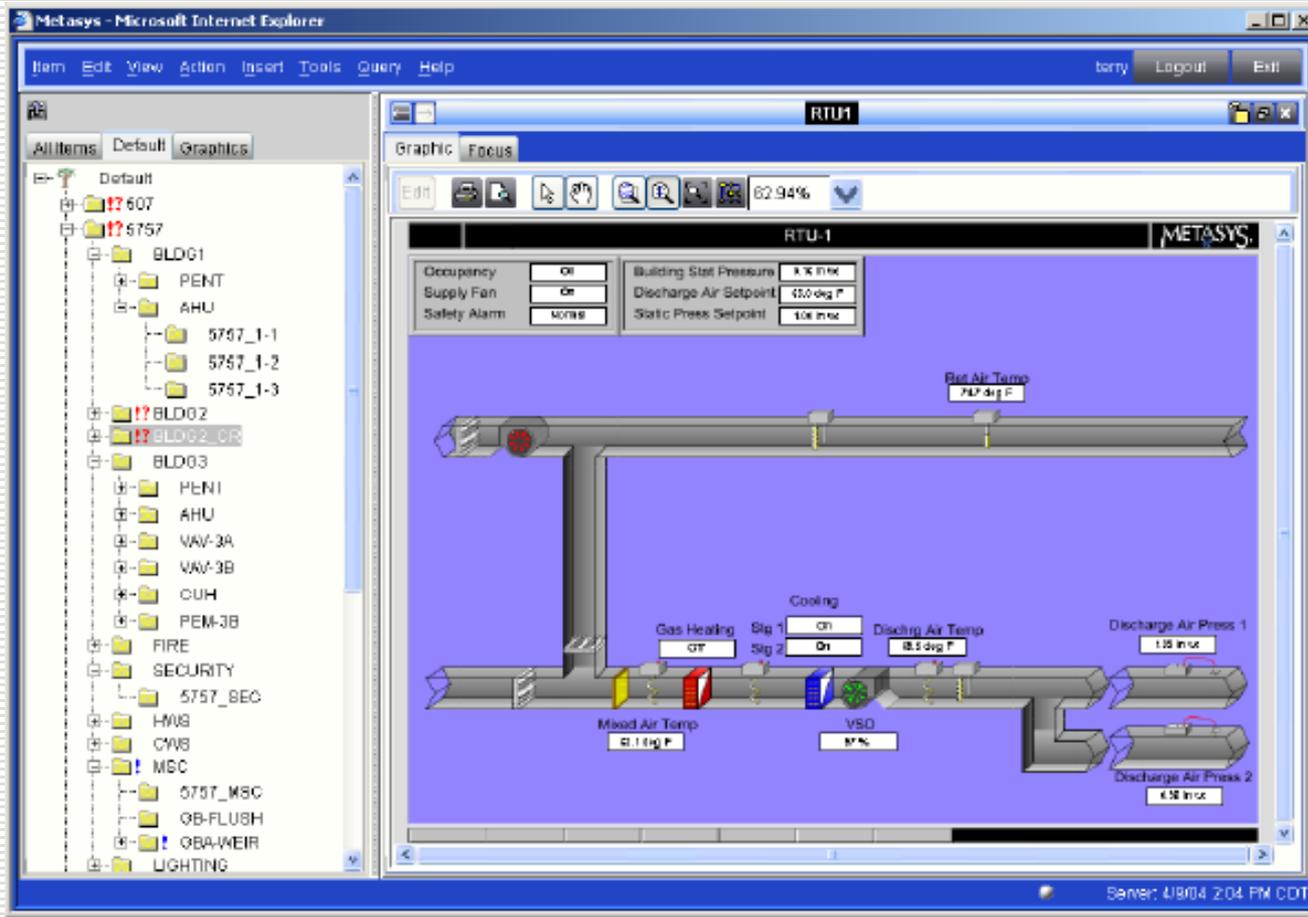
The screenshot displays the Metasys System Configuration Tool interface within a Microsoft Internet Explorer browser window. The title bar reads "Metasys System Configuration Tool - Microsoft Internet Explorer". The browser address bar shows "YinglanBuilding". The interface includes a menu bar with "Item", "Edit", "View", "Action", "Insert", "Tools", "Query", and "Help". A toolbar contains "Logout" and "Exit" buttons. The main content area is divided into two panes:

- Left Pane (All Items):** Shows a tree view of the project structure under "BeijingYingLanBuilding11". The selected item is "YinglanBuilding", which contains sub-items: "NAE-02", "NAE-01", "User Views", "YinglanBuilding", and "ADS-01".
- Right Pane (Tree View):** Shows a detailed tree view of the "YinglanBuilding" configuration. The selected item is "排风机" (Exhaust Fan). The tree structure is as follows:
 - YinglanBuilding
 - 冷冻机房 (Cold Storage Room)
 - 热交换系统 (Heat Exchange System)
 - 新风机 (New Air Machine)
 - 排风机 (Exhaust Fan) - Selected
 - Level9
 - Level18
 - Basement4
 - EAF-B4-10
 - EAF-B4-9
 - EAF-B4-8
 - EAF-B4-7
 - EAF-B4-6
 - EAF-B4-5
 - EAF-B4-4
 - EAF-B4-3
 - EAF-B4-2
 - EAF-B4-1
 - Basement3
 - Basement2
 - 电梯 (Elevator)
 - 照明控制 (Lighting Control)
 - 电气系统 (Electrical System)
 - 水处理系统 (Water Treatment System)
 - 系统环境参数 (System Environment Parameters)

On the right side of the right pane, there is a vertical toolbar with the following buttons: "Synchronize", "Add Reference", "New Folder", "Find and Replace", "Remove", "Move Up", and "Move Down".

At the bottom right of the interface, the text "Server: 06-5-11 上午 12:01 CST" is displayed.

SCT-图形Graphic

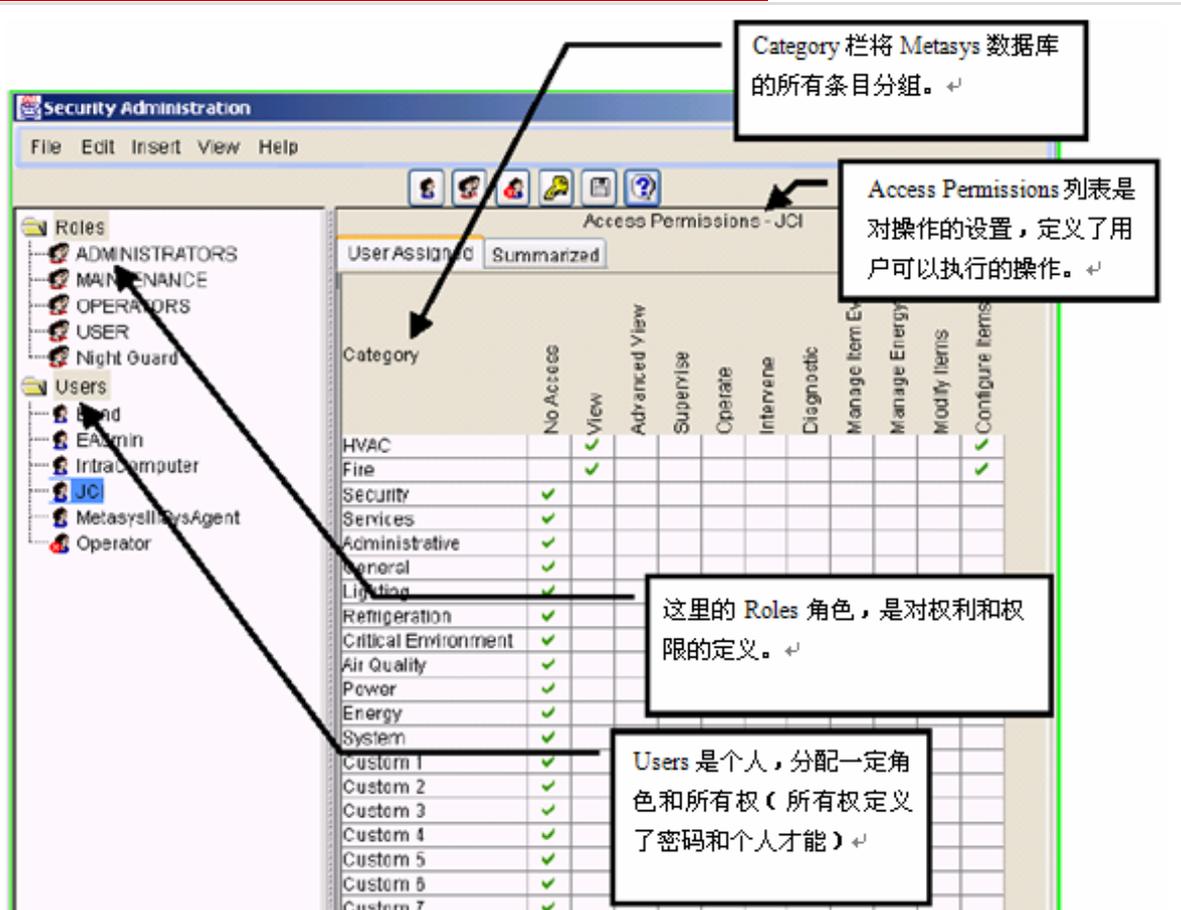


The screenshot displays the Metasys control interface within a Microsoft Internet Explorer browser window. The interface is divided into several sections:

- Browser Window:** The title bar reads "Metasys - Microsoft Internet Explorer". The menu bar includes "Item", "Edit", "View", "Action", "Insert", "Tools", "Query", and "Help". The address bar shows "RTU-1".
- Left Panel (Tree View):** A hierarchical tree structure showing the system layout. The selected path is: Default > 5757 > BLDG2_CR. Other visible items include BLDG1, PENT, AHU, 5757_1-1, 5757_1-2, 5757_1-3, BLDG02, BLDG03, PENT, AHU, VAV-3A, VAV-3B, CUH, PEM-3B, FIRE, SECURITY, 5757_SEC, HWS, CWS, MSC, 5757_MSC, QB-FLUSH, QBA-WEIR, and LIGHTING.
- Graphic Focus Panel:** The main display area shows a 3D perspective view of a ductwork system. The ductwork is rendered in grey and blue, with various components labeled:
 - RTU-1:** The central control unit.
 - First Air Temp:** 74.7 deg F
 - Mixed Air Temp:** 62.1 deg F
 - Gas Heating:** Off
 - Stg 1:** On
 - Stg 2:** On
 - Cooling:** On
 - Discharge Air Temp:** 85.5 deg F
 - Discharge Air Press 1:** 1.08 in w.c.
 - Discharge Air Press 2:** 4.58 in w.c.
 - VSD:** 87%
- Control Panel (Top Left of Graphic):** A table of system parameters and their current states:

Occupancy	On	Building Stat Pressure	1.18 in w.c.
Supply Fan	On	Discharge Air Setpoint	85.0 deg F
Safety Alarm	Normal	Static Press Setpoint	1.08 in w.c.
- Bottom Right:** A status bar indicating "Server: 4/8/04 2:04 PM CDT".

用户安全管理



The screenshot shows the 'Security Administration' interface. On the left, there is a tree view with 'Roles' and 'Users'. The 'Roles' list includes ADMINISTRATORS, MAINTENANCE, OPERATORS, USER, and Night Guard. The 'Users' list includes EAdmin, IntraComputer, JC, MetasysII SysAgent, and Operator. The 'JC' user is selected. The main area displays 'Access Permissions - JCI' for the selected user. It has tabs for 'User Assigned' and 'Summarized'. Below the tabs is a table with columns for 'Category', 'No Access', 'View', 'Advanced View', 'Supervise', 'Operate', 'Intervene', 'Diagnostic', 'Manage Item Ex', 'Manage Energy', 'Modify Items', and 'Configure Items'. The table lists various system categories like HVAC, Fire, Security, Services, Administrative, General, Lighting, Refrigeration, Critical Environment, Air Quality, Power, Energy, System, and Custom 1 through Custom 7. Green checkmarks indicate permissions for several categories. Annotations with arrows point to the Roles list, the Users list, the Access Permissions table, and the Category column.

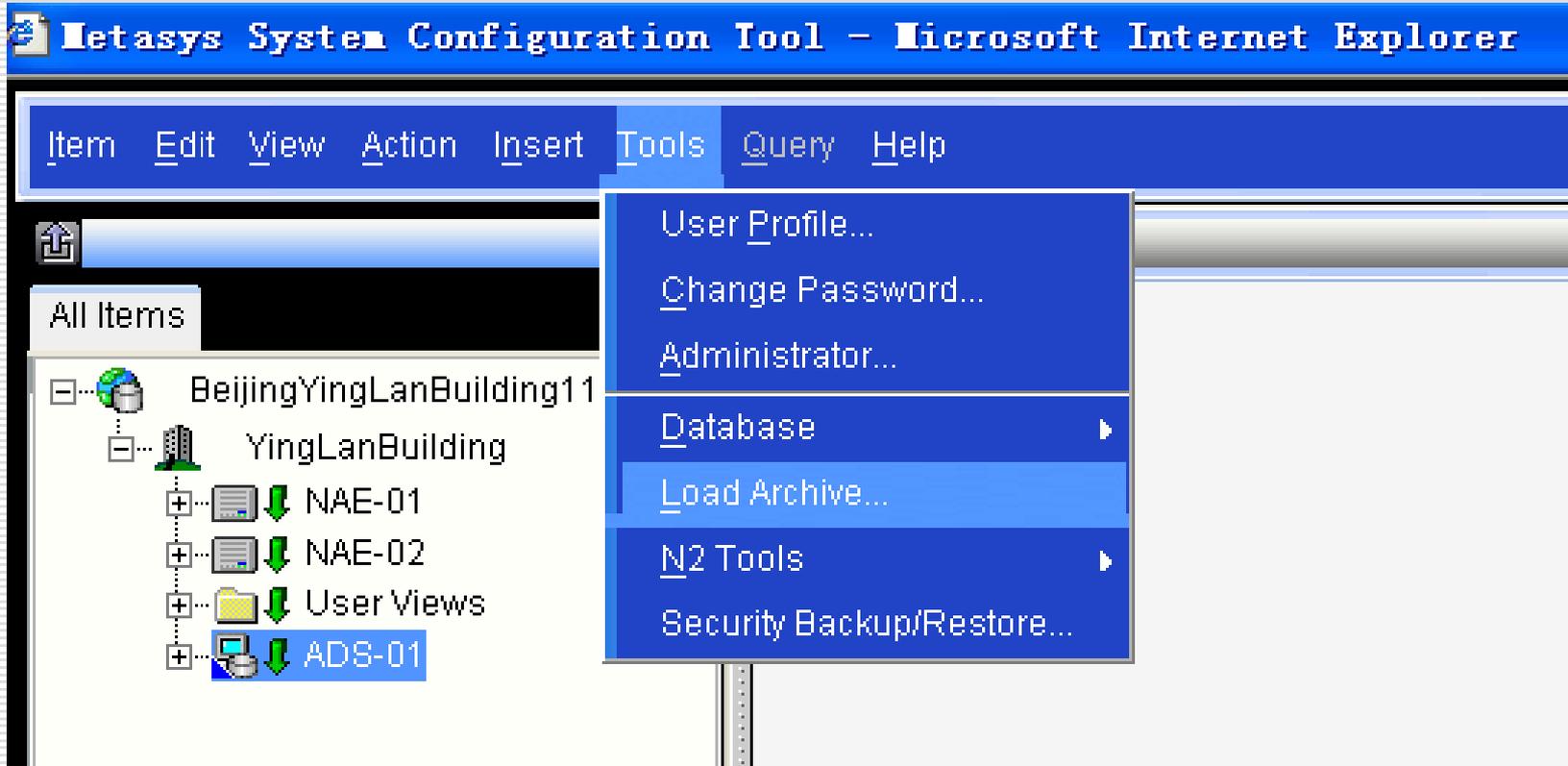
Category 栏将 Metasys 数据库的所有条目分组。↵

Access Permissions 列表是对操作的设置，定义了用户可以执行的操作。↵

这里的 Roles 角色，是对权利和权限的定义。↵

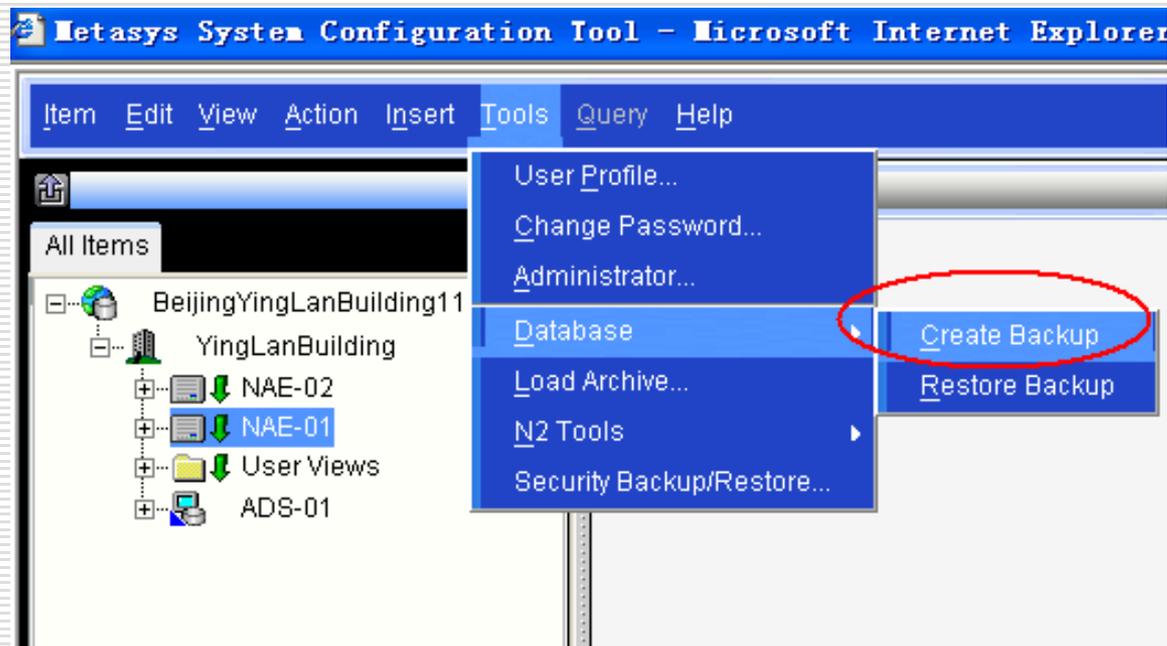
Users 是个人，分配一定角色和所有权（所有权定义了密码和个人才能）↵

NAE download/upload



NAE 数据库备份

- 备份文件保存在如下路径：
 - C:\Documents and Settings\All Users\Application Data\Johnson Controls\MetasysII\DatabaseFiles



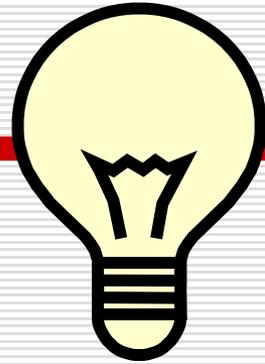
配置ADS

- 安装ADS
 - 登陆ADS修改Site的时区，时间及日期
 - 修改NAE的Site Director为ADS的名称
 - NAE自动Online
-

在线操作功能

- 事件浏览器Event Viewer（警报和事件信息）
 - 审查浏览器Audit Viewer（察看操作信息）
 - 报警信息报告
 - 其他信息报告
-

Question



Answer

Thank You!