

**Version**

**3.6**

**COCKPIT™**

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# Installation Guide

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Initial publication date: August 2005

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Part No. 0805-D



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# Welcome

Welcome to the Jetro CockpIT™ Installation Guide. You have purchased a comprehensive solution to centralize application deployment and management using Windows® Terminal Services. This chapter provides general information about this guide.

## Chapter Contents

- ▶ **Welcome to CockpIT**
- ▶ **About this Manual**

# Welcome to CockpIT

Jetro CockpIT™ version 3.6 is a comprehensive easy-to-use solution that enables enterprises to centralize application deployment and management using Windows Terminal Services. CockpIT is an indispensable management tool that enables system administrators to deploy applications quickly and easily, while enabling users to work productively in a completely seamless environment.

For more information about Jetro CockpIT visit our online support: <http://www.jetroplatforms.com/support>.

## About this Manual

This document is intended for the network system administrator who is installing the CockpIT solution. It lists the installation requirements and explains how to install the components.

After the system is installed, see the *CockpIT Administrator's Guide* and the *Advanced Topics* section for information about how to customize the CockpIT system for your enterprise.

To download documentation and obtain information about the Jetro knowledge base and support requests, visit the support site at <http://www.jetroplatforms.com/support>.

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# The Jetro Solution

This section describes the architecture of a simple CockpIT system configuration and the components required to implement it.

## Chapter Contents

- ▶ **Architecture**
- ▶ **Multi-Server Implementations**
- ▶ **Load Balancing**
- ▶ **Client Types**

# Architecture

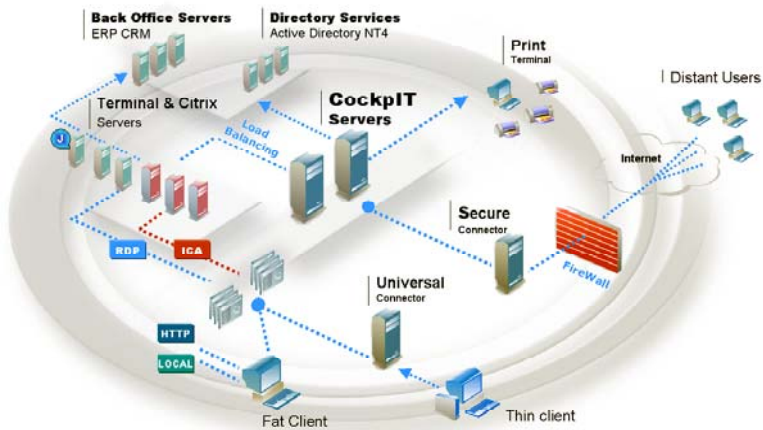
This section describes the architecture of a simple CockpitIT system configuration and the components required to implement it. These components can be installed on a single server or on separate dedicated servers in larger implementations.

The simplest CockpitIT installation requires:

1. One CockpitIT Server
2. One Windows Terminal Server or Citrix Server
3. One Client workstation

We recommend that you install these components in the order listed above.

The diagram below illustrates a CockpitIT implementation that includes Terminal and Citrix Servers, Back Office servers, directory services, CockpitIT Servers, Universal and Secure Connectors, Fat and Thin clients, Firewalls, and Distant Users.



# Multi-Server Implementations

In most implementations, we recommend that the CockpIT Server be installed on a dedicated server. Two or more Terminal Servers should be installed with CockpIT Agent.

## Load Balancing

CockpIT load balancing will be automatically implemented with the default load balancing policy. See the *CockpIT Administrator's Guide* for information about how to customize CockpIT load balancing.

## Client Types

The CockpIT solution provides a variety of Client computing options to meet the needs of any IT environment. CockpIT includes the following client types:

- **WebClient** – A full-featured client with ActiveX – plug-in installation. Installation upgrades are automatic. The user can enjoy the full suite of client services including: seamless, start menu shortcuts, single log on, etc.
- **WebBoard** – A light version for Web access. The WebBoard is installed automatically via Internet Explorer. See “Dashboard” in the *Advanced Topics* section for information about WebBoard.
- **Universal Connector** – Runs CockpIT applications with RDP clients only such as thin clients and other devices that do not allow native installations. “Thin Clients” in the *Advanced Topics* section for information about the Universal Connector.



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# System Requirements

## Chapter Contents

- ▶ **Jetro CockpIT Server**
- ▶ **Jetro CockpIT Agent and Satellites**
- ▶ **Jetro CockpIT Client**

This section describes the components required to install the CockpIT system.



For test sites and configurations of less than 30 users, a single server can host both the CockpIT Server and CockpIT Agent.

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# Jetro CockpIT Server

## Hardware

- 150 MB of disk space



The CockpIT installation requires less than 80 MB of disk space but additional space is required for log files.

---

- 256 MB of RAM
- The installation directory must be located on an NTFS partition

## Software

- Windows Server 2003 or Windows Server 2000
- Message Queuing
- Windows .NET Framework 1.1 or later.
- ASP.NET
- Internet Information Server (IIS) installed and enabled



CockpIT creates a virtual directory named cockpit under the default website.

---

## Networking

- **Active Directory Configuration**

Active Directory Service is required. The Installation default is to locate the name and the type of domain the Cockpit Server is connected to. It is best to logon to the domain and not to the local server. Make sure to configure the correct DNS server(s).



Test your settings by pinging the Domain name (flat name and DNS name). The results should be one of your domain controllers.

---

- **Jetro Cockpit services user account**

We recommend that you create a new user account for use during the installation and that the new username be a member of the **Domain Admins** built-in group. This will ensure that the account will be granted privileges in the directory services and on the installed server at the same time.

## Jetro Cockpit Agent and Satellites

### Hardware

- 50 MB of disk space
- 256 MB of RAM  
For Terminal Servers supporting 30 or more users, 1024 MB is recommended
- The installation directory for this server must be located on an NTFS partition

### Software

- Windows Server 2003 or Windows Server 2000 with service pack 4
- Windows .NET Framework 1.1 or later
- IE 5 or later (IE 6.0 is recommended)
- Terminal Services configured in application mode (Cockpit Agent only)

# Jetro CockpIT Client

## Hardware

- Pentium II
- 1 MB of disk space. (An additional 10 MB is required for PDF client printing.)
- 128 MB of RAM

## Software

- Windows 98, Windows Me, Windows NT, Windows 2000 or Windows XP



The Jetro CockpIT client does not support Windows 95.

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- IE 6.0 or later
- TCP/IP protocol

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# Jetro CockpIT Server Installation

This chapter provides instructions for installing the Jetro CockpIT Server.

## Chapter Contents

- ▶ **Server Installation Overview**
- ▶ **CockpIT Server Components**
- ▶ **Installing the CockpIT Server**
- ▶ **Uninstalling CockpIT Server**

# Server Installation Overview

The CockpIT Server is the primary component in the CockpIT system. It is used to manage application deployments, satellites, security, scheduling, print jobs, load balancing, reporting, etc. For information about CockpIT clustering, load balancing, and usage reporting, refer to the CockpIT Administrator's Guide and the Advanced Topics section.

A single CockpIT Server may be sufficient for small installations. CockpIT Server clustering is available for enterprises that need redundancy to avoid a failure and installations with large numbers of users and applications.

Install the CockpIT Server before installing other CockpIT components.

## CockpIT Server Components

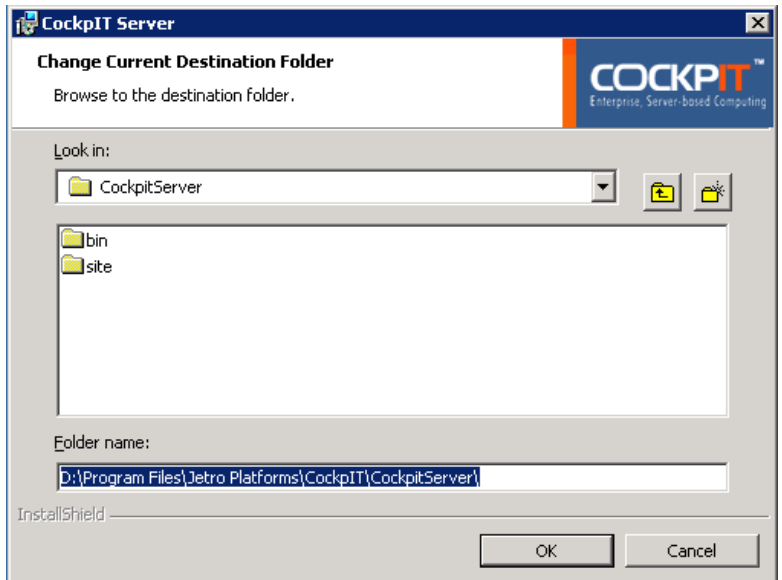
The installation package for CockpIT Server installs the following components:

- **JDsCockpIT** – core CockpIT service
- **JDsADExplorer** – Active Directory authenticator and network browser
- **JDsNetDispatcherService** – manages the Universal Connector, Secure Connector, and the DMZ Communicator
- **MSSQL\$JDSDATA** – Database engine

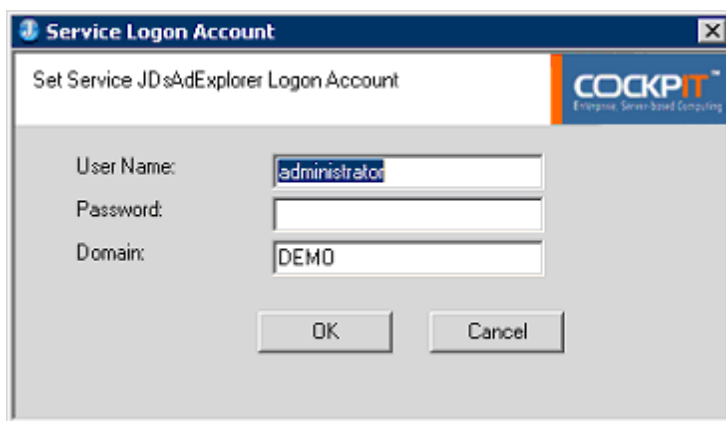
# Installing the Cockpit Server

► To install the Cockpit Server

1. Copy the Cockpit Setup program to a **local** directory of the Windows Server 2003 where Cockpit Server is to be installed.
2. Double-click the Server Setup program, **CockpitServer.exe**. The Setup Wizard for Cockpit opens. Click **Next**.
3. Read the Server Installation Prerequisites screen and click **Next**.
4. Read the License Agreement. Select the **I accept**. option. Click **Next**.
5. Fill in the Customer Information screen and click **Next**. The Destination Folder screen appears.
6. To accept the default installation destination folder, click **Next** and go to step 8. Otherwise, click **Change**. The following screen appears.



7. In the Change Current Destination Folder screen, specify an installation destination folder located on a drive configured with NTFS and click **OK**.  
The Destination Folder screen appears again.  
To accept the specified installation destination folder, click **Next**.
8. Click **Install** to begin the installation. The Setup Wizard will install all of the CockpIT components, including the MSDE SQL server.  
The Wizard can take several minutes to configure the server.
9. In the **Service Logon Account** dialog box, enter your User Name and Password for the **JDsAdExplorer** service and click **OK**.



The user name and password must satisfy the following requirements:

- The user account must have administrative privileges in the domain controller of the appropriate domain.
- The user account must have administrative privileges on the installed server.
- Passwords must not expire and cannot be changed. (To enhance security, the user can log on as a service and not locally.)

If you are creating a new user account for the setup where the Active Directory is your directory service, the user should be a member of the “Domain Admins” group so that the user will automatically become an administrator of the Active Directory and the installed server.

10. The Setup Wizard Completed screen appears, the Post-Installation Quick Guide screen opens in Internet Explorer, and the CockpIT 3.6 Welcome/Login screen opens in Internet Explorer.

Minimize the window containing the Quick Guide for later use.

(See Post-Installation Configuration Quick Guide on page 32.)

Minimize the window containing the Welcome/Login screen, if necessary, in order to click **Finish** in the Setup Wizard screen.

11. In the CockpIT 3.6 Welcome/Login screen, enter your **User Name** and **Password** and click the **LOGIN** button to check that you can access the newly-installed CockpIT Server. Do *not* configure the CockpIT Server from this computer at this time.

COCKPIT™ | Version 3.6

JETRO PLATFORMS

## Welcome

Please enter your name and password to sign in

Administrator

User Name:

Password:

Domain:

LOGIN

Note: The "Internet Explorer pop-up blocker" for this site must be disabled, in order to allow CockpIT Administrator site to work properly

If the CockpIT **Home** panel is displayed in Internet Explorer, you have logged in successfully. This verifies that the CockpIT Server was installed correctly and that the

**JDsADExplorer** service is communicating properly with the Active Directory.

12. Select the **Hosts** icon in the Navigation bar. The newly installed server should appear with a green icon in the **Host** panel.
13. If the Server icon is gray or has a small red circle containing an **x**, select the Host server name to display its Terminal Server Info page. Ensure that the **Host Disabled** option is not selected (unchecked). Click **Save** and **Close** to return to the **Host** panel.

If the icon for the newly installed Cockpit Server is green (without the small red circle), proceed with the Cockpit Agent installation described in Installing Cockpit Agent Components on page 22. Then, configure the Terminal Server as described in Configuring Terminal Server with Cockpit on page 26.

## Uninstalling Cockpit Server

To uninstall Cockpit Server, use the Add/Remove Programs utility in the Windows Control Panel or the Program Maintenance screen in the Setup Wizard for Cockpit.

# Jetro CockpIT Agents Installation

The CockpIT Agent is installed on Terminal Servers and enables them to deliver CockpIT applications. CockpIT Satellites provide additional services for advanced configurations such as thin client farms and secure remote access.

This section explains how to install the CockpIT Agent on Terminal Servers and to install other components for CockpIT Satellite servers.

See the System Requirements on page 11 for information about installation prerequisites.

## Chapter Contents

- ▶ **Installing CockpIT Agent Components**
- ▶ **Configuring Terminal Server with CockpIT**
- ▶ **Uninstalling CockpIT Agents**

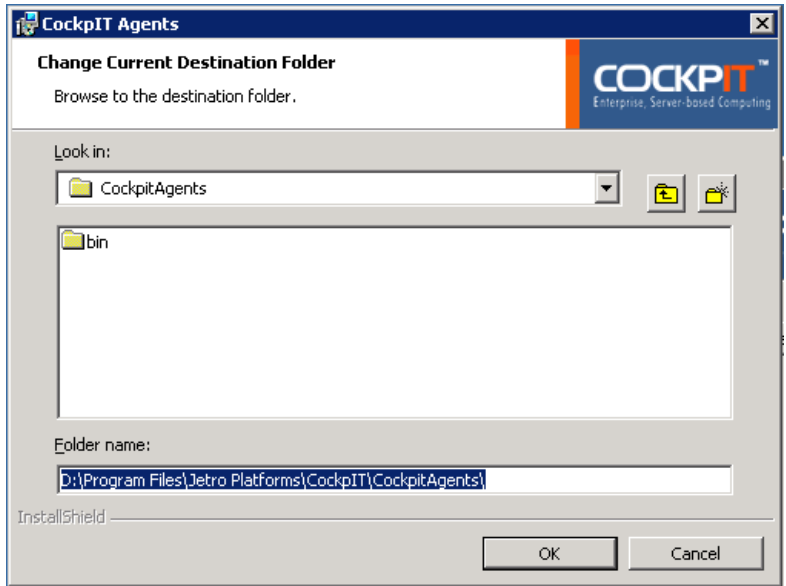
## CockpIT Agent Components

- **JDsAExplorer** connects CockpIT to remote domain controllers.
- **JDsCockpitAgent** sends performance data to the CockpIT Server.
- **JDsNetDispatcherService** includes the Universal Connector, Secure Connector, and DMZ Communicator.
- **JDsPrintTerminal** provides printing services for thin clients.

## Installing CockpIT Agent Components

► To install CockpIT Agent components

1. Login to the server where you want to install CockpIT Agent, the Directory Connector, Network Connectors, and/or the Print Terminal.
2. Copy the CockpIT Agents setup program, **CockpitAgents.exe**, to a **local** directory on the server.
3. Double-click the **CockpitAgents.exe** setup program. The Setup Wizard for CockpIT Agents appears. Click **Next**.
4. Read the Agents Installation Prerequisites screen and click **Next**.
5. Read the License Agreement. Select the **I accept** option. Click **Next**.
6. Fill in the Customer Information screen and click **Next**.
7. To accept the default installation destination folder, click **Next** and go to step 10. To specify another folder, click **Change**.
8. In the Change Current Destination Folder screen, specify an installation destination folder located on a drive configured with NTFS and click **OK**.



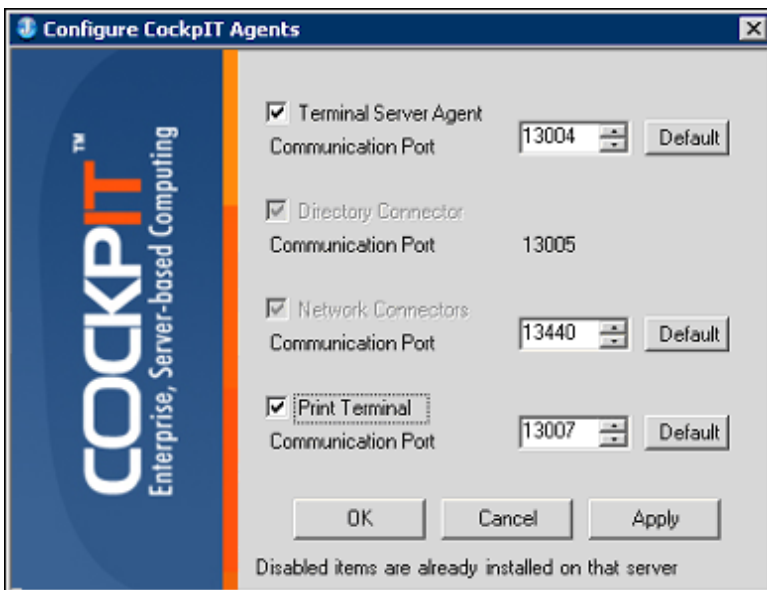
9. The Destination Folder screen appears again.  
To accept the specified installation destination folder, click **Next**.
10. Click **Install** to begin the installation. The Setup Wizard installs the following components if they are not already installed on this server:
  - **CockpitIT Agent** for Terminal Servers that will serve CockpitIT applications.
  - **CockpitIT Directory Connector** enables a remote CockpitIT Server to communicate with the Domain Controller over a WAN.



This component is disabled when installed over CockpitIT Server.

- **CockpIT Secure and Universal Connectors** include the Universal Connector, Secure Connector, and DMZ Communicator. Universal Connector provides load balancing services for thin clients. Secure connector and DMZ Communicator provide secure access for Internet users. For more information, see the *Secure Connector Administrator's Guide* and see “Thin Clients” in the *Advanced Topics* section.
- **CockpIT Print Terminal** enables computers to service print jobs for other workstations and Terminal Servers. For more information, see “Printing Solution” and “Thin Clients” in the *Advanced Topics* section.

The Configure CockpIT Agents screen appears.



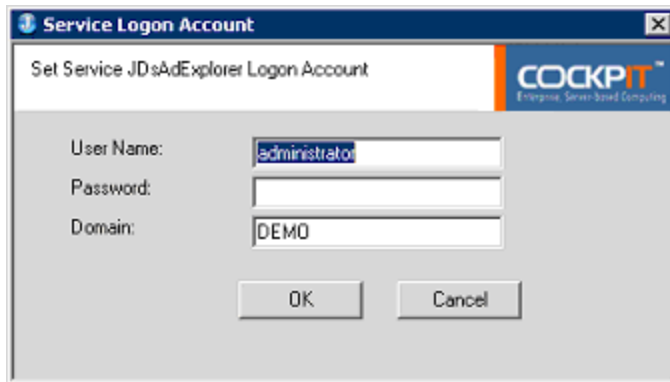


The Setup Wizard detects components that are already installed. For example, if Cockpit Server is installed, the Directory Connector and the Universal and Secure (Network) Connectors will also have been installed (but not activated, by default) on the same server. In this case, the options to install these components are disabled when you run Setup Wizard for Cockpit Agents.

The universal printer driver is configured during Cockpit Agent installation. Cockpit uses a generic PostScript file export engine instead of a printer driver.

Click **OK** or **Apply** to configure the selected components. If you click **Apply**, wait until the **Apply** button is disabled, then click **OK**.

11. If you install the Directory Connector, the Service Logon Account dialog box appears. See step 9 in the Cockpit Server installation instructions for user name and password requirements. After specifying the login user name and password for the configured service, click **OK**.



12. Click **Finish** to exit the Setup Wizard Completed screen.

# Configuring Terminal Server with Cockpit

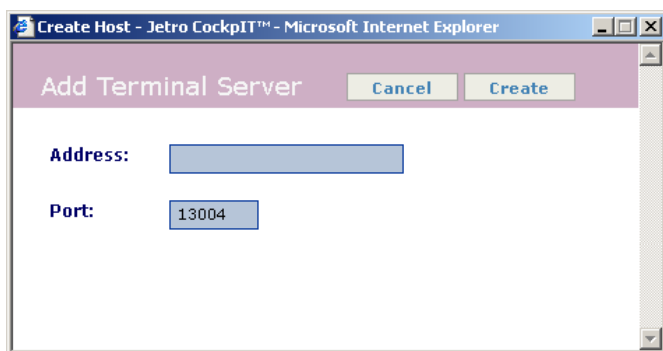
After installing the Cockpit Agent, you must add the Terminal Server to the Cockpit farm from the Administration console. Log on to the Administration console by entering the URL <http://servername/cockpit/admin/> into Internet Explorer. If you are working directly from the Cockpit Server, you can use the URL <http://localhost/cockpit/admin>

► To configure the Terminal Server with Cockpit

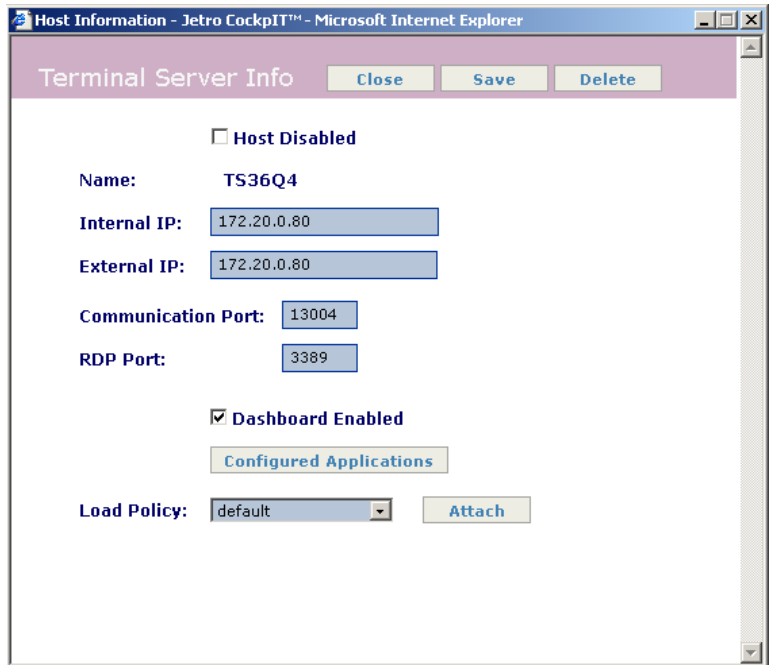
1. Enter your user name and password to log in. Then select the **Hosts** icon from the Navigation tool bar:



2. Click the **Add Server** button. The **Add Terminal Server** dialog box is displayed:



3. Enter the computer name or IP address of the Terminal Server. If you selected a different port for the Cockpit Agent during installation, specify the desired port number and click the **Create** button.
4. The Terminal Server name is displayed in the list of hosts. Select that Terminal Server name to access its Terminal Server Info window, as shown below.



5. Deselect (uncheck) the **Host Disabled** checkbox and click the **Save** button at the top of the window. The server should be displayed in the list of active hosts with a green icon:



6. The Terminal Server is now available to host CockpIT applications. The CockpIT Server is pre-configured with sample applications such as *Notepad* for testing.
7. Proceed with the CockpIT Client installation in Client Installation Procedure on page 30.

## Uninstalling CockpIT Agents

To uninstall CockpIT Agent, use the Add/Remove Programs utility in the Windows Control Panel or the Program Maintenance screen in the Setup Wizard for CockpIT Agents.



# CockpIT Client Installation

This chapter explains how to install the CockpIT Client.

There is no need to install CockpIT Client on CockpIT site servers and Terminal Servers. However, you may want to install the CockpIT Client on the CockpIT Server for test purposes.

## Chapter Contents

- ▶ **Client Installation Procedure**
- ▶ **Uninstalling CockpIT Clients**
- ▶ **For More Information**
- ▶ **Post-Installation Configuration Quick Guide**

# Client Installation Procedure

If PDF printing is required, use the one of the MSI installation methods described in “CockpitIT WebClient” in the *Advanced Topics* section. If PDF printing is not required, use one of the easier Web Browser (ActiveX) installation methods described below.



Do not install CockpitIT Client on a production server.

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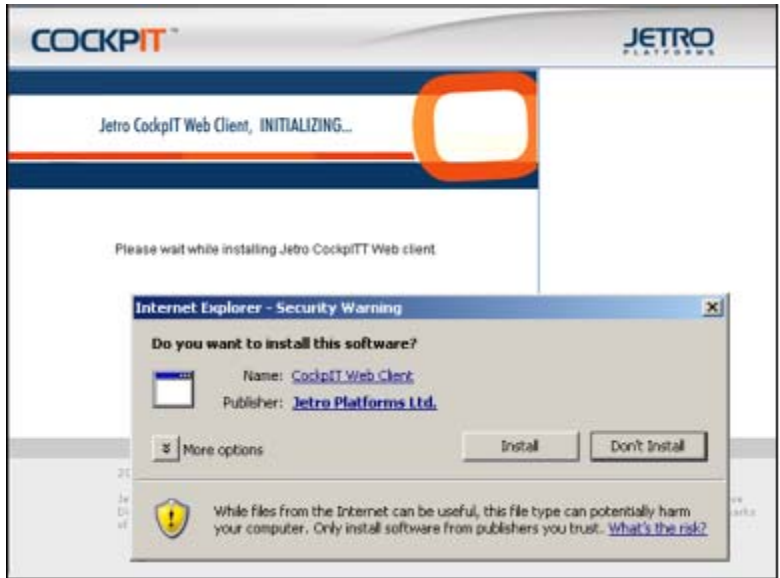
► To install the Jetro Cockpit Client (without PDF printing)

Install the WebClient, using method **A** or **B** described below:

- A. From the Administrator console, select the **COCKPIT CLIENT** icon at the bottom of the Navigation tool bar.



- B. Use Internet Explorer to access the following website:  
[http://\[servername\]/cockpit/webclient](http://[servername]/cockpit/webclient) where [servername] is your actual server name.  
When using method A or B, the WebClient initializing screen and the Internet Explorer Active-X Security Warning are displayed:



If the ActiveX Security Warning message is not displayed, test if ActiveX installation is allowed for this workstation and user by trying to install the client on the CockpitIT Server.

## Uninstalling CockpitIT Clients

To uninstall a CockpitIT WebClient that was installed with MSI, use the Add/Remove Programs utility in the Windows Control Panel.

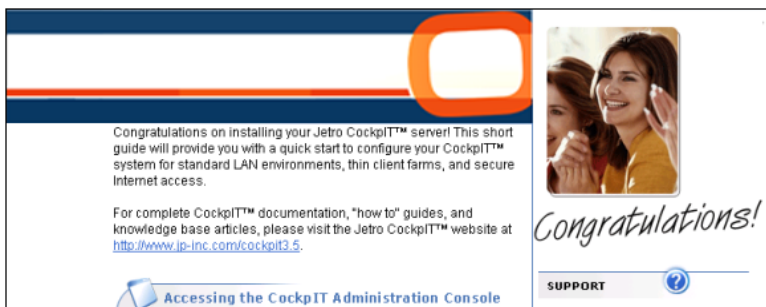
## For More Information

For information about CockpitIT Clients, see the *CockpitIT Administrator's Guide* and “CockpitIT Client” in the *Advanced Topics* section.

For information about the Jetro knowledge base and support requests, visit the Jetro support center at [www.jp-inc.com/support](http://www.jp-inc.com/support).

# Post-Installation Configuration Quick Guide


Read the instructions, recommendations, and other information in the Post-Installation Quick Guide screen (that appeared when the CockpIT server installation was finished).




Congratulations on installing your Jetro CockpIT™ server! This short guide will provide you with a quick start to configure your CockpIT™ system for standard LAN environments, thin client farms, and secure Internet access.

For complete CockpIT™ documentation, "how to" guides, and knowledge base articles, please visit the Jetro CockpIT™ website at <http://www.jp-inc.com/cockpit3.5>.

*Congratulations!*

 **SUPPORT**

 **Accessing the CockpIT Administration Console**

# Reference Information

This appendix contains reference information regarding Jetro CockpIT.

## Chapter Contents

- ▶ **Installing CockpIT Agent on Windows Server 2003**
- ▶ **Jetro CockpIT Server Installation**
- ▶ **Programs/Services**
- ▶ **Ports**
- ▶ **Services, Programs and Ports for Each Component**

# Installing Cockpit Agent on Windows Server 2003

## Relaxed vs. High Security

Windows Server 2003 includes security enhancements that can interfere with older applications. If you have an application that works on the Windows Server 2000 but does not work on the Windows Server 2003, select the **Administrative tools → Terminal services configuration → server settings → permission compatibility** menu options to switch the security mode to **relaxed**.

## Adding users to the RDP allowed group

The location for assigning permissions has changed. Log on to the Terminal Server, then right-click **My Computer** and select the **Manage → Local user and groups → Groups → Remote desktop users** options.

## Jetro Cockpit Server Installation

### Internet Explorer Enhanced Security

Windows Server 2003 includes a feature called Enhanced Security. This feature asks users to click **Allow** on each new web page. You can click **Allow** on each page and register the site as a trusted site on each workstation or, as an alternative that is recommended for evaluations, disable this feature by selecting the **Control Panel → Add/Remove Programs → Windows Components** options and deselect **Internet Explorer enhanced security configuration**.

## Configuring the Windows Server 2003 Firewall

When CockpIT Server or Agent components are installed on Windows Server 2003 with Service Pack 1 and the Windows firewall is enabled, you need to permit communications for the following programs/services:

- CockpIT AD Explorer
- CockpIT Server
- CockpIT Net Dispatcher
- CockpIT Agent
- Print Terminal

You also need to open the following ports:

- TCP 80 – HTTP port
- TCP 1494 – ICA (Citrix standard port)
- TCP 3389 – Remote Desktop port
- TCP 13002 – CockpIT port for services
- TCP 13003 – CockpIT port
- TCP 13004 – CockpIT TS Agent port
- TCP 13005 – CockpIT AD Explorer port
- TCP 13007 – CockpIT Printing port
- TCP 13440 – CockpIT Cluster port
- TCP 13441 – CockpIT Universal Connector port
- TCP 13442 – CockpIT Secure Connector port
- TCP 13443 – CockpIT Communicator port

## Programs/Services

For each program or service, you can use a script, similar to the one shown below, to assign a human-readable display name:

```
"%ProgramFiles%\Jetro Platforms\CockpIT\CockpitServer\bin\JDsCockpIT.exe"  
"CockpIT Server"
```

Sample script to permit communications to a program/service:

```
netsh firewall add allowedprogram  
"%ProgramFiles%\Jetro Platforms\CockpIT\CockpitServer\bin\JDsADExplorer.exe"  
CockpIT AD Explorer" ENABLE
```

## Ports

For each port, you can use a script, similar to the one shown below, to assign a human-readable display name:

```
TCP/13003 "CockpIT Port"
```

Sample script to open a port:

```
netsh firewall add portopening TCP 13003  
"CockpIT Port"
```

## Services, Programs and Ports for Each Component

Component	Services	Programs	Ports
Cockpit Server	JDsCockpit.exe JDsAExplorer.exe JDsNetDispatcherService.exe		80 13002 13003 13005 13440 13442
Cockpit Agent (TS)	JDsCockpitAgent.exe	JDsWtsSession.exe JDsPrintJobTransporter.exe JDsContentRedirector.exe	1494 3389 13004
Cockpit Agent (AD Explorer)	JDsAExplorer.exe		13005
Cockpit Agent (Secure Connector)	JDsNetDispatcherService.exe		13442 13440
Cockpit Agent (Communication)	JDsNetDispatcherService.exe		13443 13440
Cockpit Agent (Universal Connector)	JDsNetDispatcherService.exe		13441 13440
Cockpit Agent (Print Terminal)	JDsPrintTerminal.exe		13007

