

wIntegrate

Administration Guide

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Documentation Team: Alan Buckley, Tim Rasmussen, David Robertshaw

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Contents

Chapter 1 – Introduction	4
About wIntegrate	5
How this manual is organized	6
Chapter 2 – Choosing which version to install	7
Why three versions?	8
How do I choose which version to use?	10
Chapter 3 – Deploying the classic version on a local PC	14
Installing the local version	15
Starting a wIntegrate session	18
Chapter 4 – Deploying the wIntegrate Server	20
Installing the wIntegrate Server	21
File locations	25
Administrator	26
Monitor	29
User management	32
Chapter 5 – Deploying the Windows thin client	33
Installing the Windows thin client	34
Chapter 6 – Deploying the Java client	37
Deploying the Java client	38

Files for the Java client	40
Unsupported features in the Java client	42
Chapter 7 – Licensing and UserStat	
How licensing works	43
View active licenses with UserStat	47

Chapter 1 – Introduction

About wIntegrate

wIntegrate is a connectivity tool which integrates host-based applications with the Windows desktop. The graphical user interface lets you emulate a terminal and customize your workspace environment. wIntegrate lets you share data with other Windows applications including Microsoft Word and Excel.

A powerful scripting language lets developers control *any* capability of the product from the PC or from the host. So host-based programs can add any GUI capability, from OLE links to other desktop products, to complete GUI interfaces to host data driven field-by-field.

In addition to the traditional "local" installation, the product now support thin client deployment where the functionality is split into two parts. The desktop client as seen by the user can be either a Windows application or a Java applet running inside a browser.

the wIntegrate Administration Guide describes how these versions differ, when each one is appropriate, and how to install them.

How This Manual Is Organized

[Chapter 2 – Choosing which version to install](#) – describes how to decide which version is right for you

[Chapter 3 – Deploying the classic version on a local PC](#) – describes how to install the local version

[Chapter 4 – Deploying the wIntegrate Server](#) – describes how to install the wIntegrate Server

[Chapter 5 – Deploying the Windows thin client](#) – describes how to install the Windows thin client.

[Chapter 6 – Deploying the Java client](#) – describes how to use the Java thin client, and how to deploy the HTML Help for the Java client

[Chapter 7 – Licensing and UserStat](#) – describes how licensing works, and how to user the UserStat utility to view current users

Chapter 2 – Choosing which version to install

This chapter describes how wIntegrate has evolved, and why there is a choice of three client interfaces:

- Classic local install
- Windows thin client
- Java thin client

Each one has advantages and disadvantages. You can choose to deploy any or all of these depending on your needs.

Why three versions?

Faster communications and the pervasive internet have created a new impetus towards server-based thin client computing. As almost all new software is browser-based, vendors of existing applications face the challenge of migrating existing their applications to this new environment while retaining the benefits of their software.

wIntegrate was first released in 1991 as a 16-bit Windows application. The 32-bit wIntegrate 98 was a completely rewritten to better support 23-bit Windows platforms, and take advantage of component-based architecture.

Recently we have had to decide how to meet the needs of customers who want to run their long-standing applications inside a browser, and achieve the reduced cost of ownership associated with thin-client software. The most obvious option for us was a complete rewrite in Java. However we would have lost so many features that this would have been a new product, and impractical for most of our users. We came to an unconventional solution where the application is split into two pieces. A screen-and-keyboard interface on the client acts as a front-end to the main body of the program running on a different computer. This was the reason for the component-based architecture of wIntegrate 98 (version 4) and the Windows thin client of version 5.

Classic local install

The classic local version where everything is installed to the local PC. This "rich client" version is the most widely used today. It is used when embedding an ActiveX component inside other applications.

Windows thin client

The Windows thin client, which relies on the wIntegrate Server on a separate computer. This version is indistinguishable in use from the local installation.

Java thin client

The Java client which also relies on the wIntegrate Server running as a Windows application on a separate computer.

Note that licensing is not a consideration here as you can mix any combination of versions on your network using a single serial number, provided:

- the license supports the required number of users
- the license supports the version(s) you want to run

For more information on licensing see the Chapter 7.

How do I choose which version to use?

The choice between the local and the thin client versions is determined by the administration overhead. The thin client versions requires the Windows Server to be available on a separate Windows machine, so the local install version is usually more appropriate for smaller installations. However for a large number of users, server-based administration is more efficient.

Choosing between the Windows thin client and the Java thin client is a trade-off between backward-compatibility and ease of deployment. The Windows thin client is indistinguishable in use from the local Windows version, but it has to be installed on the client PC.

The Java thin client requires no installation but an HTML page containing the Java applet has to be set up on a web server. The same applies to the help, which is supplied in HTML format for the Java client. The disadvantage is that the Java thin client is not 100% backward compatible as it does not support Windows-specific functionality.

Classic local install

The local installation is the simplest to install. It is appropriate for smaller in-house installations.

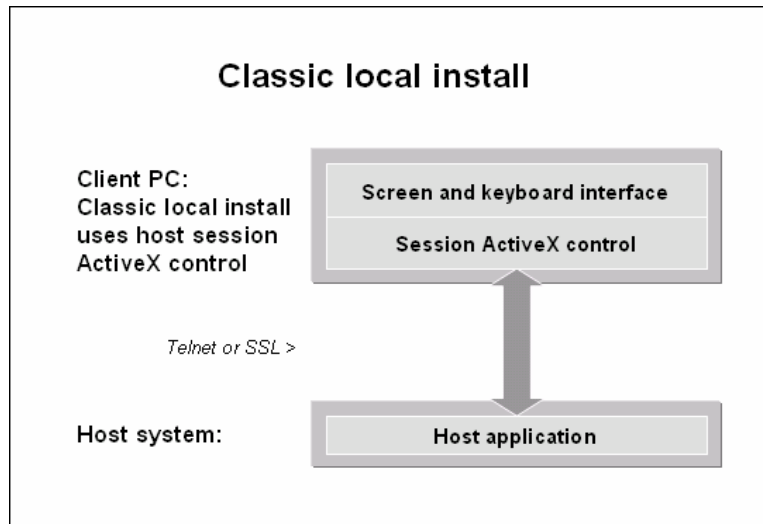
Advantages:

- slightly faster in use than the thin client versions as it communicates directly with host
- less administrative overhead
- no need for separate wIntegrate Server hardware and infrastructure

Disadvantages:

- has to be installed directly on every PC
- difficult to administer for distributed and/or many users
- all settings stored locally. Difficult to enforce standards

As a typical Windows application, the local install version is build from ActiveX components. Simply expressed, the screen-and-keyboard interface uses an ActiveX component which does most of the work. It looks like this:



Windows thin client

The Windows thin client is appropriate for larger installations requiring a standard Windows interface.

Advantages:

- looks and feels like the regular local install version so no backward compatibility or retraining issues
- less to go wrong on client desktops
- central control of user sessions
- can use Administrator/Monitor to view/support user sessions

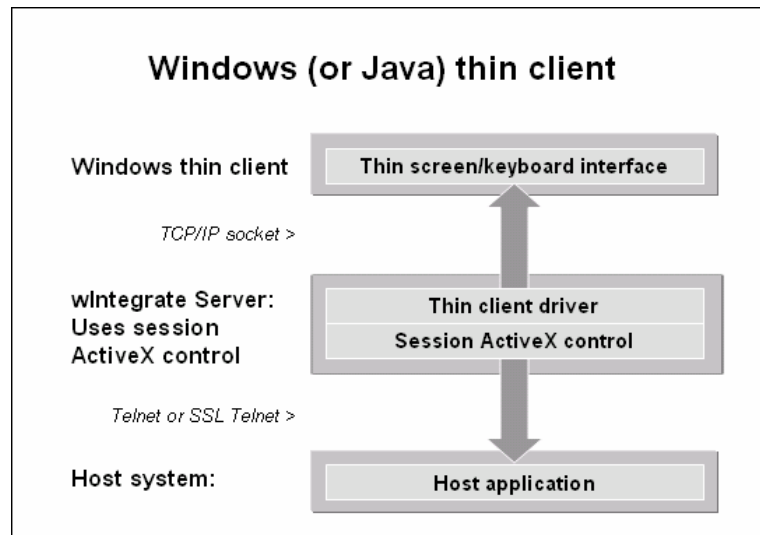
Disadvantages:

- the thin client application has to be installed on every client PC
- very slightly slower in execution than the local install version as all communications have to route through the wIntegrate server, and all menus, dialogs, etc. have to be transferred to the client at runtime

To create the thin client operation, the application is split into two separate parts - the screen-and-keyboard interface and the underlying functionality. These are respectively the Windows thin client and the wIntegrate Server. Both parts can run on the same PC.

Unlike the local install, the thin client normally stores user files on the wIntegrate Server. These session files are available from any connected PC and loaded when the user logs in to the wIntegrate Server.

Definitions for dialogs and menus, etc are stored with the wIntegrate server and transferred to the desktop immediately before being displayed.



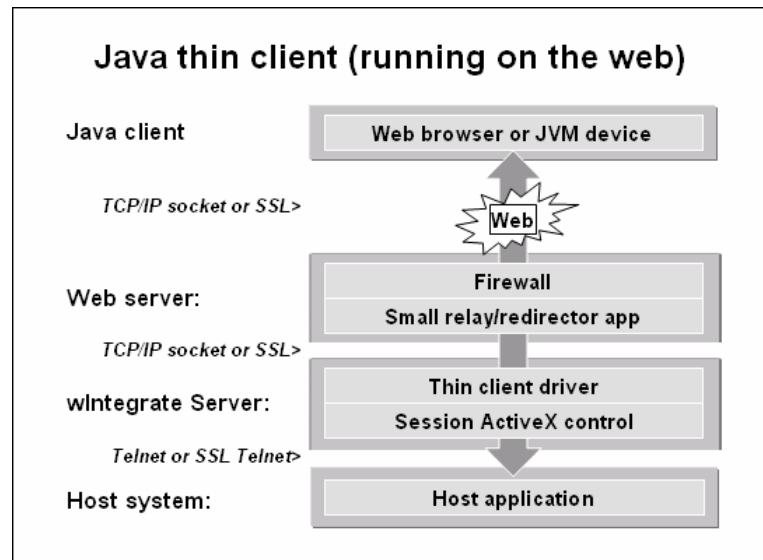
The wIntegrate Server supports multiple clients. The clients can be either the Windows thin client or the Java thin client.

Java thin client

The newer Java client is interchangeable with the Windows thin client. However it has the advantage of running inside a browser, as a Java applet. This means that, unlike the Windows thin client, there is no need for prior installation because the applet is downloaded at runtime.

Like the Windows thin client, by default files are stored on the wIntegrate server. So a user can connect from any supported web-based device and use the same settings.

Java 1.4 or later is required on the client.



The Java client can be deployed for in-house users or on the web. For the latter we recommend running through the firewall on the web server, using a small redirector applet as a bridge between the client and Server.

Chapter 3 – Deploying the classic version on a local PC

This chapter describes how to install wIntegrate onto a local PC.

Installing the local version

This section describes how to install wIntegrate to your local PC. The product is designed to be installed with a minimum of difficulty. In most cases, the default options will ensure a successful installation.

System Requirements

You must use a Windows-compatible system to run wIntegrate. The minimum requirements are:

- Windows 2000 or XP
- Processor compatible with the operating system
- No extra memory is required over the basic requirements of the operating system
- 30mb available hard disk space for complete installation of program and support files
- TCP/IP-compatible network card or serial port
- Mouse recommended

Preparing to install

Read the following list before you begin, then proceed with the installation steps:

- Before installing wIntegrate, check the previous section to verify that you have all the system requirements.
- If you have already been using wIntegrate, make a separate copy of any existing files you have modified for your own use.
- If you are upgrading from a previous version, close all wIntegrate sessions before you install.
- During installation, you are prompted for registration information that comes with your software. You will need the Serial Number and Key number for this step, so have these available before you start.
- When you start wIntegrate for the first time, the session Wizard will prompt you for your communications settings. You must know how your desktop computer communicates with the host (remote) computer. Verify with your system administrator which kind of connection you have. The available options are:
 - Windows Sockets
 - Serial

- SSL

Installation procedure

We strongly recommend that you close down all other applications before beginning the installation. This enables any necessary system DLLs to be installed to your PC without having to reboot the system.

When you insert the wIntegrate CD the autorun program will display the installation options menu.

1. Select wIntegrate – Local Install.

This will start the wIntegrate installation.

2. Welcome

Click **Next** to continue

3. License Agreement.

Read the license agreement. If you agree with the terms of the license, click the radio button, then **Next** to continue.

4. Destination

By default, wIntegrate is installed in the folder Program Files\wIntegrate. If you wish to change this destination, click **Browse**, and enter the name of the directory into which you wish to install wIntegrate. After selecting the directory, click **Next** to continue

5. Select Components

There are 6 options available. The first 4, wIntegrate Program, Host Programs, Examples, and Help, are enabled by default. If you develop host programs or wIntegrate scripts then you will probably want to enable Developer Additions.

The option Network Administrator Tools installs a utility called UserStat which reports the number of wIntegrate license on the network.. Click **Next**.

6. Select Program Folder

This defines the text to be used for wIntegrate when you select Start, Programs. By default it is **IBM wIntegrate**. Make any changes, as necessary. Click **Next**.

7. Start copying files

Review the installation details you have selected. Click **Next** to start the installation of the files.

9. Licensing wIntegrate

The **Licensing** dialog requires you to enter the **Serial Number** and **Key** number that comes with your software package.

Enter your **User Name** and **Organization** name in those text boxes. Each of these fields must be at least 3 characters long.

If you do not have a **Serial Number** and **Key**, and you wish to evaluate the product, click the **1 user evaluation** radio button. This will give you a 60 day evaluation period.

Click on **OK** when the information in the dialog is complete. If the **Serial Number** or **Key** is incorrect, an error message will appear. Simply re-enter the numbers and click on **OK**.

Note: The **Serial Number** and **Key** fields are not case-sensitive, and the dashes between in the **Key** number are for legibility only.

Warning: remember to keep the license sheet

9. Finish installation

After the files are installed the **Finish** dialog appears. Press **Finish** to continue.

10. Possible reboot to complete installation

If certain system DLLs were updated on your system while other applications were active and using older versions, the system will prompt you to reboot in order to reinitialize the system with the new DLLs.

Starting a wIntegrate Session

If you have completed the steps in “Installing the local version”, you are ready to start a wIntegrate session and connect to your host system through a network or a serial connection.

When you start wIntegrate for the first time, the Session Wizard guides you through the steps necessary to configure your session. Later, if you wish to use the Wizard to set up another session, simply click File, Session Wizard.

1. Start wIntegrate

From the **Start** menu, select Programs, IBM wIntegrate, then click the wIntegrate icon.

The Session Wizard will now prompt you for information about the session.

2. Configuration

Select the type of communications you will be using for this session. The choices are Windows Sockets, Serial, and SSL.

3. Host Name or Port

Enter the host name if using Windows Sockets or SSL (with DNS or hosts file lookup); or the IP address of the host if using Windows Sockets or SSL without DNS or hosts file lookup; or the port number if using Serial.

4. Emulation

Select the emulation you will be using. The default is vt100.

5. Keyboard functions

Select the keyboard functions you want. Be careful to avoid possible conflicts between Windows conventions and your host system. For example you might want to use <control>+c as a break key rather than copying text, and the arrow keys may be used by your host application.

6. Window Title

This is the name that will appear as the title of this session’s window.

7. Name of Settings File

If you want to save the new session settings to a file, check the Save Settings box and enter the name of the settings file. You'll probably want to save the settings so they will be used automatically the next time you start wIntegrate. The file will be given a .WIC extension.

8. Finish

Click the Finish button to apply the settings. A login to your host computer should appear.

File locations

By default the application is installed to the Program Files\wIntegrate folder. However settings for each user are stored in the users My Documents folder.

When a user starts wIntegrate for the first time, the program checks to see if there is a wIntegrate folder in My Documents for that user. If not the wIntegrate folder is created, relevant registry settings are created and, briefly, the following files are copied:

- Session files
- Color settings, seen in the Setup Colors, Open dialog.
- Default settings, applied when the user clicks the Default buttons in the Setup dialogs
- File transfer parameters, saved and reused in Run ImportFile, Run ExportFile, Run BridgeCopy, and Run SpoolFile.
- Saved Queries, saved and reused in the Query Builder
- Templates saved and reused in the Report Wizard to parse host reports into Excel spreadsheets and HTML files, etc.
- Schedule parameters used in the Scheduler, which runs saved queries at pre-determined times

Administrators can customize the above process by editing the file winteg.wip in Program Files\wIntegrate.

The folder My Documents\wIntegrate is the default location for files saved by processes such as importing data, Edit Record, etc.

Chapter 4 – Deploying the wIntegrate Server

This chapter describes how to install and use the wIntegrate Server.

Installing the wIntegrate Server

This section describes how to install the wIntegrate Server. The product is designed to be installed with a minimum of difficulty. In most cases, the default options will ensure a successful installation.

The wIntegrate Server is normally installed to a central server for access by multiple clients. It can be installed in conjunction with any combination of the related components:

- the Windows thin client
- the Java client
- the Administrator
- the Monitor

The wIntegrate Server does not distinguish between the Windows and Java clients. Though it knows which one is connected on each session, it sends and receives data to each in exactly the same way.

System Requirements

You must use a Windows-compatible system to run wIntegrate. The minimum requirements are:

- Windows 2000 or XP (the server versions are not required)
- 1.5 GHz processor or better
- 512K memory per connected user, in addition to minimum/other system requirements
- 17mb available hard disk space for complete installation of program and support files, plus 1mb per user for session files.
- TCP/IP-compatible network card, preferably 100 Mbits
- Mouse recommended

Preparing to install

Read the following list before you begin, then proceed with the installation steps:

- Before installing wIntegrate Server, check the previous section to verify that you have all the system requirements.
- If you have already been using wIntegrate, make a separate copy of any existing files you have modified for your own use.

- If you are upgrading from a previous version, use the Administrator or Monitor to ensure that all user sessions are closed before you install.
- If you are upgrading from a previous version, stop the system service by running the Service Control Program from the Start, wIntegrate Server program group.
- During installation, you are prompted for registration information that comes with your software. You will need the Serial Number and Key number for this step, so have these numbers available before you start.

Installation procedure

We strongly recommend that you close down all other applications before beginning the installation. This enables any necessary system DLLs to be installed to your PC without having to reboot the system.

When you insert the wIntegrate CD the autorun program will display the installation options menu.

1. Select wIntegrate – thin client install menu

You will see options to install the thin client components.

2. Select Install wIntegrate Server

The setup program starts.

3. Preparing Setup

If a pop-up dialog appears saying "wIntegrate Server is running. Do you wish to continue?" you must first stop the system service by running the Service Control Program from the Start, wIntegrate Server program group.

Warning: before stopping the system service, run the Administrator or Monitor to check no users are connected. If you stop the system service while users are connected their sessions will hang, with possible data corruption on the host.

4. Welcome

Click **Next** to continue

5. License Agreement.

Read the license agreement. If you agree with the terms of the license, click the radio button, then **Next** to continue.

6. Destination

By default, wIntegrate Server is installed in the folder Program Files\wIntServ. If you wish to change this destination, click **Browse**, and enter the name of the directory into which you wish to install wIntegrate. After selecting the directory, click **Next** to continue.

7. Select Components

There are 4 options available, all are enabled by default. They are wIntegrate Server Application, Host Programs, Examples and Java Client Component.

8. Select Program Folder

This defines the text to be used for wIntegrate when you select Start, Programs. By default it is **IBM wIntegrate Server**. Make any changes, as necessary. Click **Next**.

9. Select Options

If you have Administrator rights, and the target system supports running applications as a system service, then the option "Install as System Service" is checked by default, this is the recommended option.

10. Start copying files

Review the installation details you have selected. Click **Next** to start the installation of the files.

11. Licensing wIntegrate

The **Licensing** dialog requires you to enter the **Serial Number** and **Key** number that comes with your software package.

Enter your **User Name** and **Organization** name in those text boxes. Each of these fields must be at least 3 characters long.

If you do not have a **Serial Number** and **Key**, and you wish to evaluate the product, click the **1 user evaluation** radio button. This will give you a 60 day evaluation period.

Click on **OK** when the information in the dialog is complete. If the **Serial Number** or **Key** is incorrect, an error message will appear. Simply re-enter the numbers and click on **OK**.

Note: The **Serial Number** and **Key** fields are not case-sensitive, and the dashes between in the **Key** number are for legibility only.

Warning: remember to keep the license sheet

12. Finish installation

After the files are installed the **Finish** dialog appears. Press **Finish** to continue.

13. Possible reboot to complete installation

If certain system DLLs were updated on your system while other applications were active and using older versions, the system will prompt you to reboot in order to reinitialize the system with the new DLLs.

File locations

By default the application is installed to the Program Files\wIntegrate folder. Settings for each user are stored in folder Documents and Settings\All Users\Application Data\IBM\wIntServ\Users. A folder is created for each user with the name used to log in to the wIntegrate Server.

When a user starts wIntegrate for the first time, the program checks to see if there is a folder for that user. If not the wIntegrate folder is created, relevant registry settings are created and, briefly, the following files are copied:

- Session files
- Color settings, seen in the Setup Colors, Open dialog.
- Default settings, applied when the user clicks the Default buttons in the Setup dialogs
- File transfer parameters, saved and reused in Run ImportFile, Run ExportFile, Run BridgeCopy, and Run SpoolFile.
- Saved Queries, saved and reused in the Query Builder
- Templates saved and reused in the Report Wizard to parse host reports into Excel spreadsheets and HTML files, etc.

Administrators can customize the above process by editing the file default.wip in Program Files\wIntServ.

The user's folder in Documents and Settings\All Users\Application Data\IBM\wIntServ\Users is the default location for files saved by processes such as importing data, Edit Record, etc. In dialogs such as File Open, the user sees an exclamation mark as a mnemonic for this path, as the user might not otherwise read/write access to the server on which the wIntegrate server is running.

Administrator

The wIntegrate Administrator is the front-end user dialog for the wIntegrate Server. The Administrator is a separate application which communicates with the wIntegrate Server, whether running either as a stand-alone application or as a service.

You can run the Administrator connected to the wIntegrate Server running on the same PC or a different PC. It makes no difference if the Server is running as a stand-alone application or as a service.

The Administrator is automatically installed with the Server which has no other interface. It has the following functions:

- lists current client connections with IP address and time/date connected
- lists last 100 server activities, such as client connections and disconnections to and from the server
- shows administrators connected to the same server
- allows remote administration to be enabled/disabled
- allows logging of user activity and optional purging after a specified period

The Administrator also has a straight-forward, separate installation program for authorized users who want to run the Administrator on their own PC, connected to a Server running on a different PC, provided:

- the user has authority to run the administrator connected to this wIntegrate Server
- the Enable remote administration option is active (see below)

Any number of simultaneous users can run the Administrator and connect to the same Server, again regardless of whether the Server is running as a stand-alone application or as a service.

A single PC can run multiple instances of the Administrator so if you are running the wIntegrate Server on several servers, you can administer them all from a single desktop. This is particularly useful for large installations.

Current connections

Shows users currently running the Thin Client application connected to this Server. You can see the User name, IP address and date/time connected to the Server.

Log (last 100 actions)

Shows the most recent connection events. These including client connects to the Server, client disconnects from the Server, and messages about the Administrator connecting to the Server

Current Connections

Shows the total number of Clients connected to the Server.

Admins...

Click this button to show a separate dialog showing all users currently running the Administrator, and connected to this Server.

Options

Administrator, Connect at Startup determines if the Administrator will start up connected to the most recent connection, or unconnected.

Administrator, Show Local Messages lets you see or suppress the messages generated by the Administrator as well as those generated by the wIntegrate Server.

Administrator, Display Exit Confirmation lets you see or suppress a dialog confirming exit from the program.

Server, Log to File lets you record the Log of last 100 actions to a file for future analysis.

Server, Delete Log File After n Days tells the program to purge the log file of all events after the specified period.

Server, Enable Remote Administration lets you prevent any user from using the Administrator except on the same PC as the Server, regardless of the user's authorities.

Take care not to inadvertently turn off this option when using the Administrator with a remote connection, as it will prevent all remote users

from starting the Administrator remotely, and can only be turned on again from the server.

Security, Use Windows Authentication causes users to be authenticated from Windows Active Directory Services as they start the wIntegrate Thin Client. If this checkbox is turned off, users will be authenticated from the list of users set up in User Management dialog, available on the Windows Start menu under wIntegrate Server.

Security, Client Group lets you specify which group of users in the Windows Active Directory are allowed to use the wIntegrate Thin Client.

Security, Administrator Group lets you specify which group of users in the Windows Active Directory are allowed to use the wIntegrate Administrator.

Security, Monitor Group lets you specify which group of users in the Windows Active Directory are allowed to use the wIntegrate Monitor.

Connect

User is the name of a user authorized to use the Monitor in the User Management program.

Password is the password set up for the user in the User Management program.

Server is the name or IP address of the wIntegrate Server.

TCP/IP Port must be 55639 which is the default value. Any other value will cause the connection to fail.

Close

Exits the Administrator. The Server continues to run.

Monitor

The wIntegrate Monitor is an extended version of the Administrator. It acts as a front-end to the wIntegrate Server. The Monitor is a separate application which communicates with the wIntegrate Server, whether running either as a stand-alone application or as a service.

The Monitor must be installed separately. It is not installed with the Server. It has the following functions:

- shows current client connections with IP address and time/date connected
- shows user screens with real-time activity. Note that this applies only to the character-based screens, not wIntegrate dialogs
- allows input to user screens for remote support and administration, for example to log off users who left sessions connected.

You can run the Monitor connected to the wIntegrate Server running on the same PC or a different PC. It makes no difference if the Server is running as a stand-alone application or as a service.

Start the Monitor by clicking the Monitor option on the Start Menu under wIntegrate Server. The Connect dialog appears. It remembers the most recent connection.

Command-line options are supported so you can have several Monitor icons on your desktop, each one connecting to a different wIntegrate Server. Any command line arguments over-ride the remembered most recent connection.

Syntax: `wIntMon.exe /Server <server_name> /Port <TCP/IP Port>`
Example: `wIntMon.exe /Server myserver /Port 55640`

Connect dialog

The Connect dialog verifies you are authorized to run the Monitor and lets you connect to a specific wIntegrate Server.

User is the name of a user authorized to use the Monitor in the User Management program.

Password is the password set up for the user in the User Management program.

Server is the name or IP address of the wIntegrate Server.

TCP/IP Port must be 55640 which is the default value. Any other value will cause the connection to fail.

Using the Monitor

The Monitor automatically shows all user screens updated in real time as the user sees them. It does not show any dialog boxes seen by the user.

File, Connect lets you connect to a different server

File, Exit closes the Monitor

View, Toolbar turns the toolbar display on/off

View, Status Bar turns the status bar display on/off

View, List view shows one line per connection in the left-hand panel with user name, date/time connected and a teeny screen for each user.

View, Thumbnails shows a medium-sized screen for each user. The display is rearranged if the middle panel divider is moved left/right.

View, Small Thumbnails shows a teeny screen for each user. The display is rearranged if the middle panel divider is moved left/right.

View, Large Thumbnails shows a large, legible screen for each user. The display is rearranged if the middle panel divider is moved left/right, provided you have a large-enough display.

In all views the right-hand panel shows the currently-selected user session with user name, start date/time, host name and whether the user is connected, (i.e. the Open checkbox in Setup Communications). These details are only updated when you click the Refresh button. You can drag the vertical divider left or right to adjust the space given to each panel.

Send Keystrokes to Host is a checkbox which lets you enter data into the user screen. This is useful for logging off remote sessions before backups, etc. The user sees everything entered here. With the checkbox enabled, you must also click on the user screen before characters can be entered. As a warning, a red border appears around the screen when entered characters will go to the user session.

User management

Remote users of the Windows thin client, Java client, Administrator and Monitor must be authenticated. In the wIntegrate Administrator, you can choose to authenticate users from Windows Active Directory Services. Otherwise you must set up user manually using the following procedure.

After installation you first need to set up users who are allowed to access the wIntegrate Server. Go into the Start program menu and run User Maintenance on the wIntegrate Server menu.

Click the Add User button and add a user name and password, for example create a User Name "peterw" and Password "p3te". Turn on the Create Enabled checkbox if the user is to be allowed to connect. You can turn off this checkbox to prevent the user from connecting.

If the user is an administrator you might want to enable use of the Administrator and/or Monitor applications also.

The Modify User button lets you change the password and change user privileges.

Chapter 5 – Deploying the Windows thin client

This chapter describes how to install and use the Windows thin client.

Installing the Windows thin client

This section describes how to install the wIntegrate Windows thin client. The product is designed to be installed with a minimum of difficulty. In most cases, the default options will ensure a successful installation.

The Windows thin client is indistinguishable in use from the local install, except for the following:

- The icon has a network connection instead of a keyboard
- The user must initially log in to the wIntegrate Server, before the main emulation screen appears.
- The Help about dialog does not show an image, It shows the name of the wIntegrate Server to which it is attached.
- The File Open and similar dialogs show a choice of location where files can be stored. The default location is on the server so nothing is stored locally.

It is feasible to install both the wIntegrate Server and Windows thin client on a local PC instead of the regular local version, but there is no advantage in doing this. You will have to set yourself up as a user, and when you start the client you'll have to "log in" to the wIntegrate Server. You might want to do this to check out the program, and see the Administrator and Monitor programs.

System Requirements

You must use a Windows-compatible system.. The minimum officially supported requirements are:

- Windows 2000 or XP
- 1.0 GHz processor or better
- 9mb available hard disk space for the program and Help files
- TCP/IP-compatible network card, preferably 100 Mbits
- Mouse recommended

Preparing to install

Read the following list before you begin, then proceed with the installation steps:

- Before installing wIntegrate Windows thin client, check the previous section to verify that you have all the system requirements.

-
- If you have already been using wIntegrate, make a separate copy of any existing files you have modified for your own use.
 - During installation, you are prompted for registration information that comes with your software. You will need the Serial Number and Key number for this step, so have these numbers available before you start.

Installation procedure

We strongly recommend that you close down all other applications before beginning the installation. This enables any necessary system DLLs to be installed to your PC without having to reboot the system.

When you insert the wIntegrate CD the autorun program will display the installation options menu.

1. Select wIntegrate – thin client install menu

You will see options to install the thin client components.

2. Select Install wIntegrate thin client (Windows)

The setup program starts.

3. Welcome

Click **Next** to continue

4. License Agreement.

Read the license agreement. If you agree with the terms of the license, click the radio button, then **Next** to continue.

5. Destination

By default, wIntegrate Server is installed in the folder Program Files\wIntCli. If you wish to change this destination, click **Browse**, and enter the name of the directory into which you wish to install wIntegrate. After selecting the directory, click **Next** to continue.

6. Select Components

There are 2 options available, both are enabled by default. They are wIntegrate Thin Client Application and Help.

7. Select Program Folder

This defines the text to be used for wIntegrate when you select Start, Programs. By default it is **IBM wIntegrate Client**. Make any changes, as necessary. Click **Next**.

8. Start copying files

Review the installation details you have selected. Click **Next** to start the installation of the files.

There is no licensing procedure as this is done when installing the wIntegrate Server.

9. Finish installation

After the files are installed the **Finish** dialog appears. Press **Finish** to continue.

10. Possible reboot to complete installation

If certain system DLLs were updated on your system while other applications were active and using older versions, the system will prompt you to reboot in order to reinitialize the system with the new DLLs.

File locations

For information on where user files are stored, see the discussion under wIntegrate Server.

Chapter 6 – Deploying the Java client

This chapter describes how to install and use the Java client.

Deploying the Java client

This section describes how to deploy the wIntegrate Java client. There is no installation procedure as it is installed on a web server where requirements vary.

When installing the wIntegrate Server there is an option to install the Java client. This installs the following files to the folder program Files\wIntServ\wIntJava:

The Java client is a screen-and-keyboard interface to the core wIntegrate functionality executing in the wIntegrate Server, normally running on a remote server.

System requirements

The Java client requires Java 1.4 or later. Please check your version of Java. If in doubt, the current version can be downloaded from www.java.com.

The wIntegrate Java client and the supplied wIntJavaPage.htm have been tested on the following platforms and browsers:

- Windows 2000 and XP: Internet Explorer 6 and Mozilla
- Red Hat Enterprise Linux 3 WS: Mozilla 1.4
- Red Hat 7.1: Konqueror
- Red Hat Fedora 2.4.22-1.2115.nptl: Mozilla 1.4.1
- SuSE 9.1 with Gnome 2.4: Mozilla 1.6 and Ephyra 1.0.7
- Mac 10.3 (Panther)

Note that you may need to install Service Pack 4 on Windows 2000 in order to install Java 1.4.

It is feasible to run both the wIntegrate Server and the Java client from a single PC instead of the regular local version, but there is no advantage in doing this. You will have to set yourself up as a user, and when you start the client you'll have to "log in" to the wIntegrate Server. You might want to do this to check out the program, and see the Administrator and Monitor programs.

Try the Windows thin client first

We recommend you install the Windows thin client before trying the Java client. Though this is not essential, it is a logical step to try this first to ensure the connections and users are in place.

See above for details of running the Windows thin client.

With the Windows thin client running, you can try the Administrator and Monitor.

Files for the Java client

The files for the Java client are installed with the wIntegrate Server, provided you turn on the Java Client option during installation. These files are installed in the program Files\wIntServ\wIntJava folder:

wIntJavaPage.htm

Open this HTML page in your browser to run the wIntegrate Java client.

Note that there are two ways to invoke the Java client from HTML. The recommended technique is to use the <APPLET> tag. This maximizes compatibility across all platforms and browsers.

An alternative technique is to use the <OBJECT> tag with the Java plugin ActiveX control. As this technique requires ActiveX support it works only on Windows platforms. Note that it is the classid field which specifies that Java 1.4 runtime is present, otherwise it is downloaded.

You may want to edit and/or rename the file wIntJavaPage.htm to change the PARAM fields **host** and **username** as appropriate for your wIntegrate Server. These are the same fields you would enter into the login for the Windows thin client, and not the login to your host U2 server.

wIntJavaApplet.jar

This file is the code for the Java client. It has to be downloaded to the client, at least for the first execution. Depending on the settings on the client computer, this control will usually be cached.

Instructions.htm

A simple HTML page describing how to use the Java client

wIntjc.css

The stylesheet used by the html pages. Stylesheets control the appearance of the dialogs. They are powerful and flexible. Different styles are applied to different types of control. Styles can be set globally for all dialogs, or for specific dialogs or even specific controls within a single dialog.

For an example of stylesheets, in the Java client bring up the Run Script menu, and run the script WebStyle.wis in folder Program Files\wIntServ\Example\Script.

wIntJava.gif

This is an image shown on the initial login to the wIntegrate Server. If you wish you can replace this file with your own image, which should also be called wIntJava.gif.

The standard image is 32x32 pixel in the format of an icon. Your image can be any size. You might want to show different images from different servers

wIntJavaHelp.zip

A zipped file containing help in HTML format. If you want to make help available to users of the Java client, these files should be copied to your web server.

These Help pages are generated from the same source as the Help seen in the Windows versions.

Applet security

If the wIntegrate Server is not on the same machine as the Web Server, the security must be set to allow the applet to connect to another server.

The Java client has an IBM SSL certificate embedded. When the applet runs, a dialog will appear telling you about the certificate and asking if you trust the publisher. There are three possible answers:

Yes

Trusts the publisher and for this execution only

No

Runs the applet in a sandbox without access to your PC's resources, such as the hard disk. It can connect to the fileserver and work as a simple emulator

Always

Trusts the applet allows access to the machine's resources indefinitely

Unsupported features in the Java client

Our objective with the Java client is to support run any device provided it is running Java 1.4. This means that some Windows-specific features of the local install version, and the wIntegrate thin client are not supported in the Java client.

Features which are not supported:

- Dynamic screen resizing by dragging the screen with the mouse. In any case this doesn't make much sense for an applet embedded inside an HTML page
- The CopyMenu (displayed when right-clicking on the emulation screen) does not have smart interaction with Windows applications, for example Copy Table to Excel/Word
- The Windows API not supported, so when Query Builder has imported a file in Excel format, the new file is not automatically loaded into Excel.
- The font is Courier as fonts cannot easily be downloaded

The same restrictions apply to developers. Script functions which rely on Windows functionality are not supported:

- SendMessage, RunProgram, WindowsDir, and imaging
- OLE/DDE for Windows require machine-specific code. This is not supported at present
- Email and FTP are not supported

Chapter 7 – Licensing and UserStat

This chapter describes how the licensing procedure works.

How licensing works

When a wIntegrate client first starts, it broadcasts its serial number over the network. Any other wIntegrate client on the network running version 3.x, 4.x, 5.x or 6.x will respond with its own serial number. The broadcasting client checks these responses and any of the following may happen..

- If it finds no other client with the same serial number, the program continues to load normally
- If it finds other clients using the same serial number as its own, it checks the key to determine if the user limit has been reached. If the key will allow another client to use the serial number, wIntegrate loads normally
- If it determines that all available licenses for its serial number are in use, it displays a warning message asking the user to inform the system administrator that insufficient licenses are deployed. The program then continues to run normally. No further broadcasts are made, and no further warning messages are displayed.

The license broadcast is made when wIntegrate starts on the client, and behaves the same for all versions of the program whether running from a stand-alone PC or from a server, or using a single-user or multi-user license. When running wIntegrate as a thin client or Java client it is the wIntegrate Server which handles broadcasts and licensing, not the client which simply acts as a screen-and-keyboard interface for the server.

A license is backward-compatible with earlier versions, but not for later versions than the one for which it was created. So if you have a license supplied with wIntegrate 5 it will also work with Version 3 and wIntegrate 98 (Version 4) but not for Version 6. You can run any combination of wIntegrate versions with the same serial number provided the key supports the releases you are running.

U2 device licensing

Many wIntegrate users connect to the IBM U2 databases UniVerse and UniData. Normally every client application on every desktop consumes a license in database.

Some versions of UniVerse and UniData support device licensing which allows multiple applications on a single desktop to consume a single database license. This is achieved by passing a unique identifier for the client device to UniVerse/UniData during the initial connection.

Device licensing is respected when desktop clients connect to UniVerse/UniData through the wIntegrate Server.

Updating the license information

wIntegrate's licensing scheme uses a combination of serial number and authorization key. During the initial licensing process you enter the serial number, user name, organization and authorization key. The resulting license.wil file is written to the main wIntegrate folder.

At a later date, you may need to install a new license, for example when you increase the number of users or upgrade to a new release. Select the Licensing option from the Start, Programs, wIntegrate menu. After entering the new key an updated license.wil file is written to the wIntegrate folder.

A new license need be entered only once on a single PC as it is automatically updated to other PCs during the start-up licensing check. As the program starts up, it receives a license with the same serial number and a later Time/Date than it's own, it will automatically update itself.

The time/date is stored inside the license file. It does not use the file attributes. Obviously for this system to work properly, it is critical that the system time/date is correct when any new license details are entered. This is the reason for the warning about the system time/date in the licensing dialog.

How to evaluate a new version

The dialog which accepts a new license will not allow an evaluation license to overwrite a full license. For example, if you are running version 5 with a full license, and want to run version 6 with a 60-day evaluation, you must temporarily rename the version 5 license as follows:

- exit wIntegrate if it is running
- start File Manager and go to the main wIntegrate folder, by default C:\Program Files\wIntegrate
- if you don't want to re-enter your existing license after the evaluation, right-click the file license.wil and rename it to, for example, license.v5

- install version 6, overwriting version 5, using the evaluation license option in the licensing dialog . Note that this will not affect your custom session files, etc which are stored in My Documents\wIntegrate.
- when you have completed the evaluation, uninstall version 6 as the older version 5 will not overwrite it
- in the main wIntegrate folder, delete the version 6 evaluation license.wil
- reinstall version 5
- if you renamed the license file earlier, go into the main wIntegrate folder and rename license.v5 as license.wil

This procedure recommends installing version 6 temporarily over version 5 for the evaluation. This is because, in common with many Windows applications, registry settings make it impossible for more than one installation to work properly. You could install the version 6 evaluation to a different folder but after removing it you'd need to rerun the version 5 installation to refresh the registry settings.

View active wIntegrate licenses with UserStat

A utility UserStat.exe is installed in the Program Files\wIntegrate folder when you check Network Administrator Tools during installation. It is not shown on the menus.

UserStat shows all wIntegrate users currently running on the network and their license attributes. It is invaluable for administrators wanting to see what serial numbers are in use.

You should not run UserStat at the same time as wIntegrate as only one application can use the broadcast port at any one time.

Menu options

File, Check makes the broadcast check and displays the results.

File, Exit exits the application

Edit, Select All selects all rows ready for copying to clipboard. Selected rows are highlighted

Edit, Copy copies selected rows to clipboard in tab-separated format for pasting into columnar applications such as Excel.

Edit Options dialog

Broadcast IP Address determines the subnet mask for the broadcast

Show Grid Lines displays or removes grid lines from the display

Suppress Own response prevents the PC running UserStat from being shown in the display

Automatic Check causes the display to be refreshed at a user-defined interval

View, Toolbar toggles the toolbar display on/off

View, Status Bar toggles the status bar display on/off

Main display area

Rows can be selected with the mouse and keyboard using standard Windows conventions, for example <shift>+<leftclick> and <control>+<leftclick>.

Serial number is the serial number of the license

User Limit is the number of users allowed by this license

IP Address is the IP address of the responding computer, either a local install version of the wIntegrate Server which responds on behalf of it's clients

IP users is the number of users running from the responding computer. The local version always returns 1. The wIntegrate Server returns the number of connected users.

User name is the user name entered during installation

Organization is the organization name entered during installation

Release is the release supported by this license. For example, 699 represents version 6.9.9.

Update date is the date this license was updated

Update time is the time this license was updated

Flags are for internal use only